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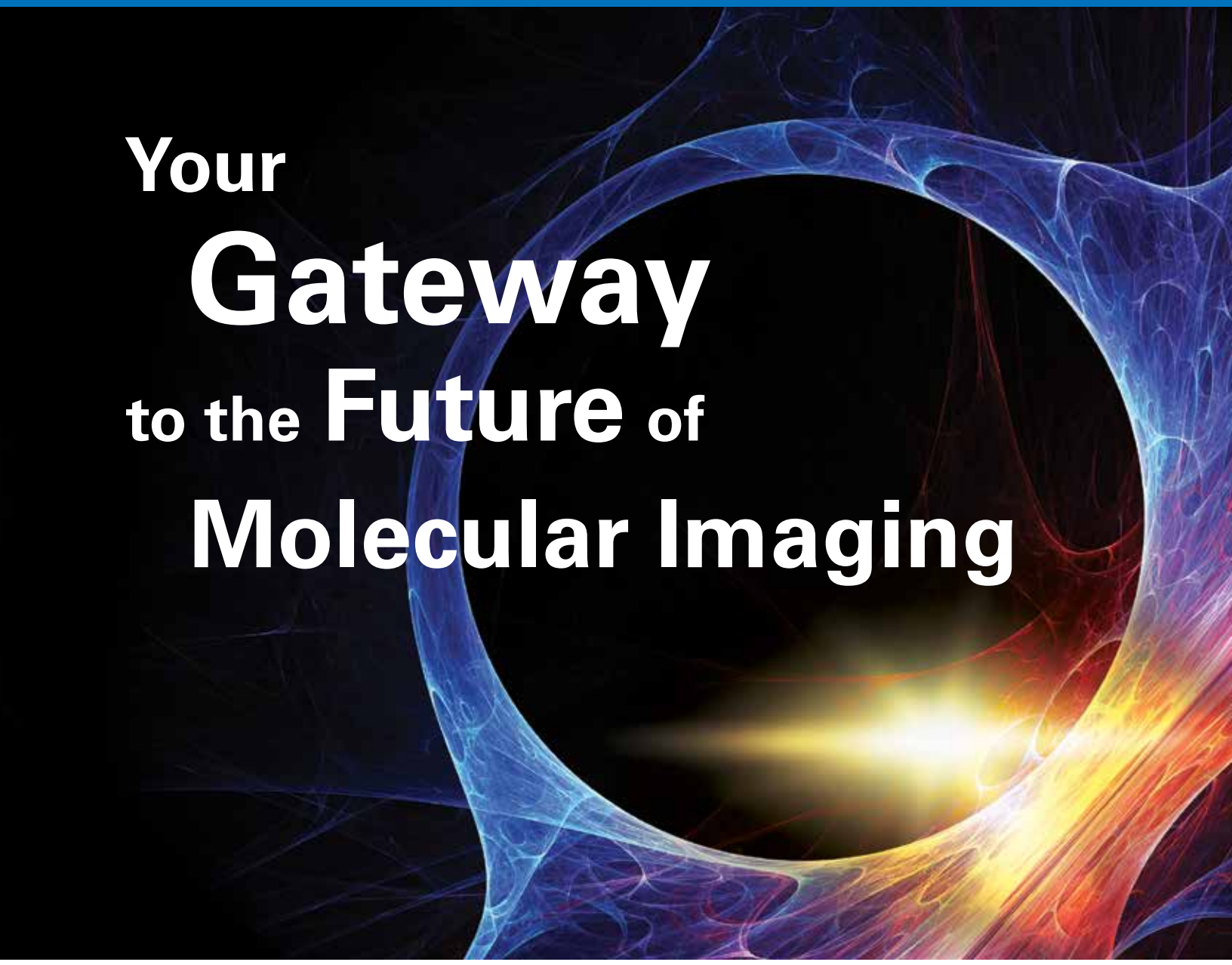

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FINAL PROGRAM

Dear Colleagues and Friends,

On behalf of the World Molecular Imaging Society (WMIS) and the 2015 Steering and Program Committees, it is my distinct privilege to welcome you to Honolulu, Hawaii for the 8th annual meeting of the World Molecular Imaging Congress (WMIC). Known historically as the "Crossroads of the Pacific", Honolulu is an exceptional venue for our congress, where an incredibly diverse repertoire of imaging scientists and clinicians will assemble in a relaxing, friendly atmosphere to share the latest and most exciting discoveries in molecular imaging. In addition to the sheer beauty of Hawaii, Honolulu is a major hub for international commerce and vibrant in Pacific history, culture and cuisine that is not to be missed.

The theme of the 2015 meeting is ***Precision Medicine... Visualized***, which embodies current and future roles of molecular imaging in basic science, translational medicine and healthcare. Our program this year is comprised of five major categorical emphases: Chemistry & Imaging Probes, First-in-Human & Clinical Studies, Preclinical Cell & Tissue Level Studies, Preclinical in vivo Studies and Technology & Software Developments. These emphases are further distilled into more focused categories that amplify a fully comprehensive program.

Building upon prior meeting successes and member feedback, we are pleased to illuminate a number of 'firsts' associated with the 2015 WMIC Program. These include a new, streamlined format for oral sessions, which will include a 'Highlights' award lecture selected from the highest-scoring scientific abstracts, followed by six focused talks in rapid succession. Several new Program elements specifically target future aspects of molecular imaging, including formal recognition of abstracts that exemplify the 'Hot Topics' defined by the Society and the first WMIC Fellow's Forum, where luminaries in the field will share their visions for future directions in molecular imaging in an informal and interactive setting. Several Program elements have been envisioned to connect attendees with newly commercialized molecular imaging technologies. New in 2015, scientific abstracts are being solicited for a special 'exhibitors-only' track; each submitted abstract will be reviewed, scored and included in meeting materials. The highest scoring exhibitor abstracts will be featured in a special oral session, following which WMIS members will select one finalist for a new exhibitor award, "Commercial Innovation of the Year".

We have gathered a group of internationally renowned Plenary Speakers including Zena Werb, Chien Ho, Philipp Scherer, Jon-Kar Zubieta, and Elizabeth Morris. These outstanding speakers from around the globe will speak on a diversity of broadly appealing topics that include metabolism, immunology, neuroscience, and cancer. In addition, John Gore will deliver the ever-popular Meeting Highlights Lecture, where the most exciting science presented throughout this year's Congress will be summarized in one lecture. In addition to outstanding Plenary lectures, this year's program features an incredible collection of Spotlight Sessions that lead off each day of the Scientific Program. Topics of this year's Spotlight Sessions include Infectious Disease, Men's and Women's Imaging, Ultrasound, Companion Diagnostics, Metabolism, Radiogenomics, and Early Career. Beyond these sessions, industry leaders from major pharmaceutical companies will hold a panel discussion on critical barriers affecting Translational Imaging and Drug Discovery.

In 2014, the WMIC completed a three-year Education Program cycle. Building upon this widely-popular aspect of the WMIC, in 2015, we are pleased to introduce an entirely new Education Program, featuring several new tracks while retaining some of most popular from previous years. The Education Co-Chairs for 2015 are Kimberly Kelly and Danielle Vughts; they have assembled an outstanding program certain to be valuable for all investigators, seasoned and new. This year's Education Program will launch with a special "Molecular Imaging-101" lecture delivered by John Frangioni, which immediately precedes four parallel tracks that explore molecular imaging Principles and Practices (CME), molecular imaging in Pharmaceutical Discovery, Development, and Toxicity, Hot Topics in molecular imaging, and Professional Development. In 2015, we are pleased to offer Continuing Medical Education tracks each day of the meeting.

Our Poster Program Chair Jan Grimm and Vice Chairs, Claudia Kuntner and Peter Brader have developed a stimulating and highly interactive Poster Recognition Program. As always, submissions will be reviewed by members of the Program Committee and awards will be given to the best posters based on scientific content and quality of presentation. New to 2015, award winning posters will also be featured at select times in a Power-Presentation Theater located in the Exhibit Hall- you won't want to miss this opportunity to meet the award winners and hear more about their innovative science. Furthermore, in 2015 exhibitors will have the opportunity to select one abstract from the Poster Program that illustrates the most innovative utilization of their technology; these award-winning abstracts will be highlighted in two special poster sessions during the week.

I would be remiss if I did not also acknowledge the essential roles played by Andrea Diaz and Lisa Baird in making this Congress happen. With the support of this team, and this year's Program Committee Vice-Chair, Fabian Keissling, we have built an incredible program. Dr. Keissling will become the Program Chair for next year's meeting and I am certain that you will be equally impressed with WMIC 2016. I ask that you make plans now to attend what is certain to be another phenomenal meeting.

In summary, we sincerely hope that you take advantage of these opportunities to Discover, Visualize, Learn, and Cure with molecular imaging. In addition, we hope you enjoy the generous traditional Pacific culture and friendship during your stay in Honolulu.

Mahalo,

H. Charles Manning, Ph.D.
Program Chair
World Molecular Imaging Congress 2015

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Vanderbilt University Institute of Imaging Science, USA

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Kooresh Shoghi
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Please wear your badge to all meetings and social functions. Registered accompanying persons and guests must also wear their badges to social functions. Children six and under are complimentary and do not need a name badge.

ACCOMPANYING PERSONS & GUESTS

You will find the name badges for your pre-registered guests in your Badge Envelope as well as their pre-purchased Gala Event tickets. You may also register guests onsite at the Onsite Registration Desk and purchase tickets for the Saturday night Gala Event, should space permit.

INTERNET ACCESS

WIFI Internet access is available throughout the Convention Center. Additionally, during exhibit hours an Internet Café will be available for your convenience in the Exhibit Hall as well as designated internet hotspots and charging stations.

- Wireless Network SSID: WMIS@WiFi
- WPA2 Password: wmic2015

ITINERARY PLANNER & MOBILE APP

Scan the QR Code below to connect to the WMIC:

- Browse the WMIC program
- View session and presentation details
- Add individual presentations or entire sessions to your personal itinerary and view schedule conflicts
- Search for sessions and presentations based on name, institution, Final ID and session and presentation titles.

ABSTRACT ACCESS

For your convenience, we offer two methods for viewing full abstracts: on our website - which has a fully searchable link to abstracts and if you are a member you will be given access to the abstracts in our online journal post-conference.

After the conference, there will be an "Online Virtual Portal" available to attendees to view all oral presentations.

MEETING ROOMS

Plenary Sessions will be in the Kalakaua Ballroom B&C. Scientific Sessions, Educational Sessions, Spotlight Sessions, and Industry Workshops will be held in breakout rooms 311 – 320 located on the second floor of the Hawaii Convention Center. Please see the program schedule for specific room assignments. The Technical Exhibits as well as the Posters are located in Exhibit Hall D.

CONTINUED MEDICAL EDUCATION

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the Society of Nuclear Medicine and Molecular Imaging Inc. and the World Molecular Imaging Society. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Please visit the registration desk to pick-up a CME application.

The following Sessions will be providing CME credits to attendees of the WMIC 2015:

Plenary Session 2: Breast Imaging

Plenary Session 5: Endogenous Opioid Systems and Resiliency in Humans

Education Session 1: Standards for Molecular Research

Education Session 6: Inflammation Neurology

Education Session 10: Inflammation Cancer

Education Session 11: Radiomics

Spotlight Session 2: Infectious Disease

Spotlight Session 3: Women's Imaging

Spotlight Session 6: Molecular Imaging Based Companion Diagnostics

Spotlight Session 7: Men's Health

Spotlight Session 8: Animal Model Systems for Co-clinical Trials

Spotlight Session 9: Metabolic Reprogramming: Implications for Cancer Imaging & Therapy

Spotlight Session 10: Oncogenetic Tumor Heterogenity Translated to Imaging, Radiomics and Radiogenomics

Scientific Session 1: First-in-Human & Clinical Studies: Oncology

Scientific Session 11: First-in-Human & Clinical Studies

Scientific Session 21: First-in-Human & Clinical Studies

Late Breaking Abstracts Session 1

SPEAKER READY ROOM

Presenters may bring their presentations on a USB drive to the Speaker Ready Room, located in the Room 318B on the second floor of the Hawaii Convention Center. Speakers should check in their presentation information at least four hours before their scheduled presentation. Speakers may also preview and time their presentations in the Speaker Ready Room. A presentation collection manager will be available in the room during meeting times and on Wednesday morning before the formal start of the conference.

Speaker Ready Room Hours

Tuesday, September 1	13:00 - 18:00
Wednesday, September 2	07:00 - 18:00
Thursday, September 3	06:30 - 18:00
Friday, September 4	06:30 - 18:00
Saturday, September 5	06:30 – 16:30

POSTER SESSIONS

There are four, 1 hour Poster Sessions - one per day. Odd number posters will be presented for the first 30 minutes of each session and even numbers for the second 30 minutes. Late Breaking Posters will be presented during Poster Session 2. In addition, informal poster presentations will be hosted by poster judges who will be awarding best poster to poster award nominees. A help desk has been set up near registration to answer any poster related questions.

POSTER SET UP AND DISMANTLE TIMES

Poster installation may begin at 08:00 on Wednesday, September 2 and must be completed by 17:00 the same day. Poster removal may begin no sooner than 14:45 on Saturday, September 5 and must be completed by 19:00 the same day. Posters left up after this time will be discarded.

EXHIBIT HALL AND HOURS

All participants are encouraged to visit the exhibitors and familiarize themselves with the molecular imaging technologies, products, and services that will be displayed. This year the Technical Exhibition will open on Wednesday, September 2 at 17:15. The Exhibit Hall will open at 09:30 and close at 18:00 on Thursday, September 3, 09:30 to 19:30 on Friday, September 4, 09:30 to 15:00 on Saturday, September 5.

EXHIBIT HALL REMINDERS

Canvassing or distributing advertising materials by an exhibitor will not be permitted outside the exhibitor's allotted space. Canvassing in any part of the exhibit hall or meeting rooms by anyone representing or connected with a non-exhibiting company is strictly forbidden.

WEDNESDAY NIGHT OPENING RECEPTION

This is a non-ticketed event for registered attendees. For non-attendees, passes may be purchased at the registration desk for a $20 fee.

SATURDAY NIGHT GALA: *ISLAND LUAU UNDER THE STARS*

Dinner, entertainment, and a unique cultural experience. JOIN US!!!

The WMIC 2015 Gala Luau Event will be held at the Hilton Hawaiian Village Great Lawn on Saturday, September 5 after the conclusion of the last Plenary Session of the Congress. This is a ticketed event. Tickets for attendees and guests can be purchased online when you register for the congress and at the registration desk throughout the conference. Tickets prices are $50 USD each, and $25 USD for students. Casual party attire is recommended. This event is expected to sell out.

RECORDING DEVICES

Due to copyright restrictions, all audio recording and/or videotaping of presentations is strictly prohibited. Exhibitors are allowed to photograph or videotape their company's booth during regular floor access hours for exhibitor personnel without the use of additional electrical lighting. This does not include setup and dismantle hours. Exhibitors may not photograph or videotape another exhibitor's display without permission from that exhibitor.

JOB OPPORTUNITIES

Those seeking positions and those seeking to fill positions may post information on a job board in the Registration area.

ATTENDEE REGISTRATION HOURS

Tuesday, September 1	12:00 - 18:00
Wednesday, September 2	07:00 - 18:00
Thursday, September 3	07:00 - 18:00
Friday, September 4	09:30 - 18:00
Saturday, September 5	09:30 - 14:45

EXHIBITOR REGISTRATION AND INFORMATION HOURS

Tuesday, September 1	08:00 - 18:00
Wednesday, September 2	07:00 - 18:00
Thursday, September 3	07:00 - 18:00
Friday, September 4	09:30 - 18:00
Saturday, September 5	09:30 - 14:45

WMIC 2016

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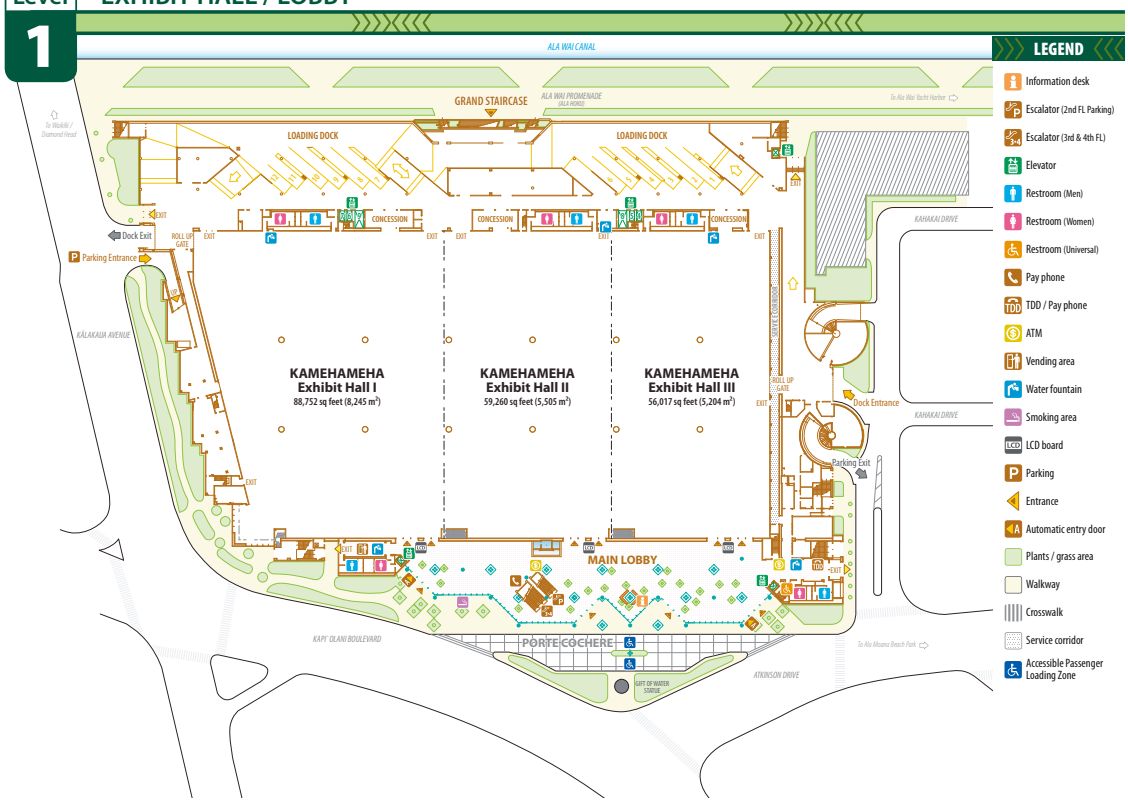

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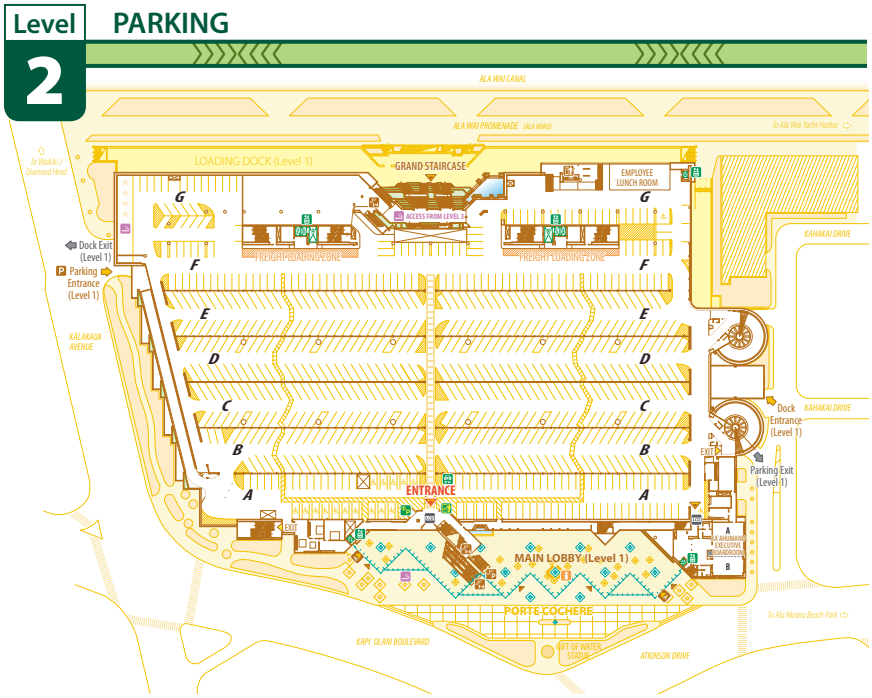
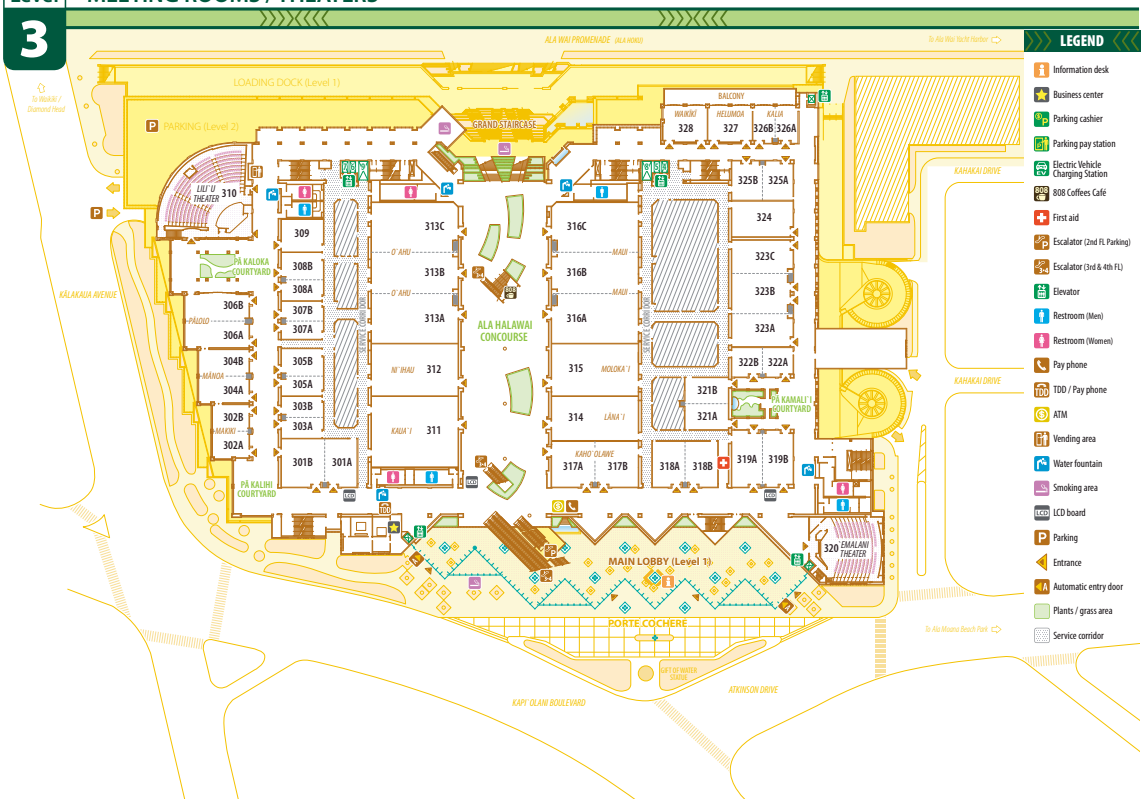
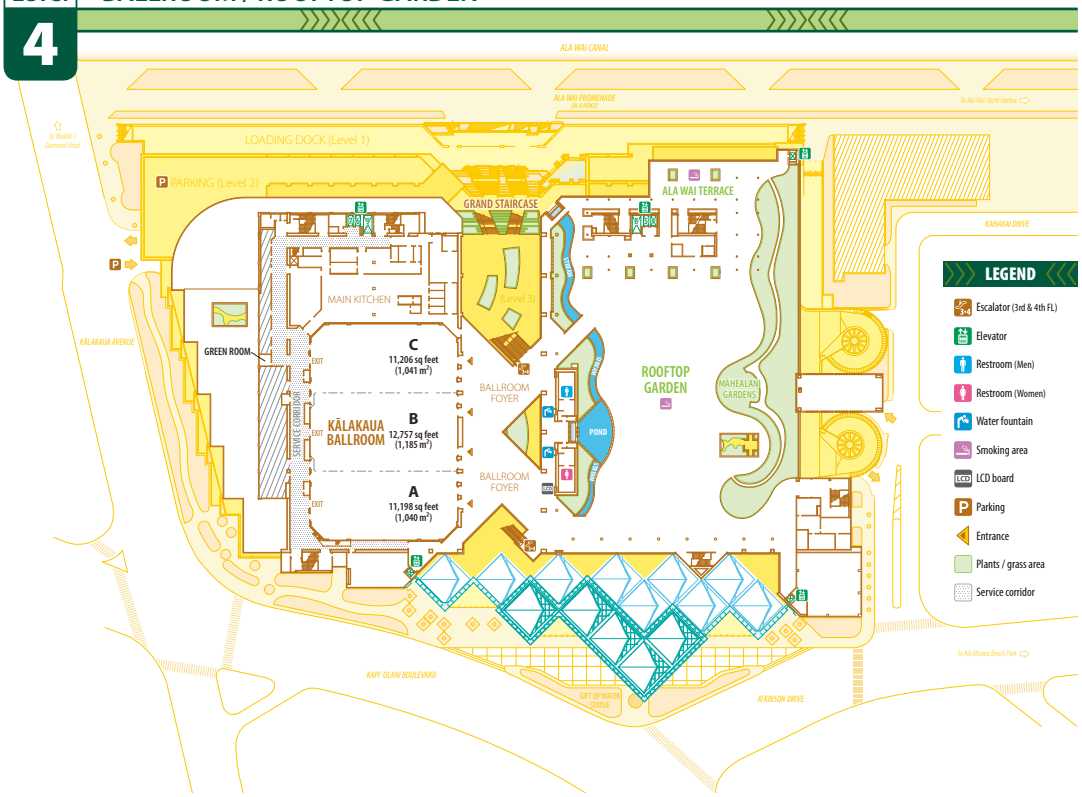


Level 3 MEETING ROOMS / THEATERS



Level 4 BALLROOM / ROOFTOP GARDEN



JOHN C. GORE, PH.D.

Closing Ceremony Highlight Lecture

Saturday, September 5 at 15:00

Talk title: ***Highlight Lecture***

John C. Gore, Ph.D., holds the Hertha Ramsey Cress Chair in Medicine and is a University Professor of Radiology and Radiological Sciences, Biomedical Engineering, Physics and Astronomy, and Molecular Physiology and Biophysics. Dr. Gore obtained his Ph.D. in Physics at the University of London in the UK and also holds a degree in Law. He is a member of the National Academy of Engineering and an elected Fellow of the American Association for the Advancement of Science, the American Institute of Medical and Biological Engineering, the International Society for Magnetic Resonance in Medicine (ISMRM), the American Physical Society and the Institute of Physics (UK). He is also a Distinguished Investigator of the Academy of Radiology Research. He has served twice as an elected trustee of the ISMRM, is editor-in-chief of the journal Magnetic Resonance Imaging and is a member of the National Advisory Council for the National Institute of Biomedical Imaging and Bioengineering. He has been honored with several awards including the Gold Medal of the ISMRM (2004) for his contributions to the field of magnetic resonance imaging, the Earl Sutherland Award for Achievement in Research from Vanderbilt, and is an Honorary Professor at Zhejiang University in China. Dr. Gore founded the pioneering MRI research program at Hammersmith Hospital in the UK in the late 1970's prior to establishing and directing the MRI research program at Yale University from 1982-2002. Since 1982 he has served as the founding director of the Vanderbilt University Institute of Imaging Science, a comprehensive, trans- institutional center that is engaged in multi-modal research for biomedical applications. He has published over 600 original papers and contributions within the medical imaging field. His research interests include the development and application of multimodal imaging methods for understanding tissue physiology and structure, molecular imaging and functional brain imaging.

CHIEN HO, PH.D.

Plenary Session 3

Thursday, September 3 at 16:00

Talk Title: ***How Improvements in In-vivo Cell Labeling by MRI Contrast Agents May Lead to Better Drug Deliver***

Chien Ho received his BA degree in Chemistry from Williams College, Williamstown, MA and his Ph.D. in Physical Chemistry from Yale University, New Haven, CT. He completed his postdoctoral training in the Departments of Chemistry and of Biology at Massachusetts Institute of Technology. He is currently an Alumni Professor of Biological Sciences at Carnegie Mellon University, Pittsburgh, PA.

Dr. Ho started his academic career as an Assistant Professor of Biophysics in the Department of Biophysics at the University of Pittsburgh in 1964. He was promoted to Associate Professor of Molecular Biology in 1967 and Professor of Molecular Biology in 1971. In 1979, he was recruited by Carnegie Mellon University to build a modern Department of Biological Sciences. In the mid-80s, he established the Pittsburgh NMR Center for Biomedical Research, a joint research and training facility for the University of Pittsburgh and Carnegie Mellon University.

Dr. Ho has coauthored more than 300 papers. He has received a number of awards and honors including the election to Academician of Academia Sinica, Fellow of the International Society of Magnetic Society (ISMAR), of the American Association for the Advancement of Science (AAAS), of the International Society of Magnetic Resonance in Medicine (ISMRM), and a recipient of a John Simon Guggenheim Fellowship, a MERIT Award of the National Heart, Lung, and Blood Institute, and a Gold Medal of the ISMRM for his contributions to the development of in-vivo cell-tracking methodology by MRI.

ELIZABETH MORRIS, PH.D.

Plenary Session 2

Thursday, September 2 at 09:30

Talk Title: ***Breast Imaging in the Era of Personalized Medicine***

Elizabeth Morris, MD is a radiologist who has dedicated her career to advance early breast cancer detection through improvements in breast imaging. She developed the Breast Magnetic Resonance Imaging (MRI) service at Memorial Sloan Kettering Cancer Center (MSKCC) where she is currently Chief of the Breast Imaging Service. Dr. Morris was educated at University of California San Francisco medical school and completed her radiology residency at Cornell Medical College and is a Fellow of the Society of Breast Imaging and Fellow of the American College of Radiology. Dr. Morris currently serves as Vice President of the Society of Breast Imaging. She is Chair of the 2nd Edition of the Breast MRI Breast and Imaging Reporting Data System (BI-RADS®). She has been Principle Investigator of several IRB protocols including: "Breast MRI Positioning, Localization and Biopsy Device," "Breast MRI using a Bilateral Sequence," "Breast MR Spectroscopy" and "Breast MRI High Risk Screening." A grant from the Susan B Komen Foundation was instrumental in allowing her to pioneer the work on Breast MRI screening and breast MRI biopsy. Along with others, Dr. Morris has found that breast MRI is exquisitely sensitive in the detection of breast cancer and allows better characterization of known cancers along with better detection of early cancer in high risk groups of women. Dr. Elizabeth Morris is considered one of the leaders in the field of breast imaging both nationally and internationally and has been an invited speaker at over 300

Continued

meetings throughout the world and has authored or co-authored over 100 papers. Her best- selling book on Breast MRI has become the standard in the field. Dr. Morris hopes that one day breast cancer can be detected early enough to be treated without radical therapies. Her future research will be in this direction.

VASILIIS NTZIACHRISTOS, M.SC., PH.D.

Plenary Session 4

2015 Gold Medal Plenary

Friday, September 4 at 09:30

Talk Title: ***The new era of Optical and Optoacoustic Imaging***

Vasilis Ntziachristos Ph.D. is a Professor and Chair for Biological Imaging at Technische Universität München and director of the Institute of Biological and Medical Imaging at Helmholtz Zentrum München, both located in Munich / Germany. Prior to this appointment he was faculty at Harvard University and the Massachusetts General Hospital. He received his masters and doctorate degrees from the Bioengineering Department of the University of Pennsylvania and the Diploma in Electrical Engineering from the Aristotle University of Thessaloniki, Greece. Professor Ntziachristos has served as chair in international meetings and councils and in the editorial boards of several scientific journals. He has received numerous awards and distinctions, including the Leibniz prize 2013 and the Erwin Schrödinger prize 2011. His main research interests involve the development of optical and opto-acoustic methodologies for probing physiological and molecular events in tissues using non-invasive methods.

PHILLIP E. SCHERER, PH.D.

Plenary Session 6

Saturday, September 5 at 09:30

Talk Title: ***Adipose Tissue: A Tale of Hypoxia, Angiogenesis, Fibrosis and ECM Remodeling***

Philipp Scherer is Professor and Director of the Touchstone Diabetes Center at the University of Texas Southwestern Medical Center in Dallas. Dr. Scherer received his Ph.D. degree from the University of Basel, Switzerland, followed by post-doctoral training the Whitehead Institute at MIT in Cambridge. In 1997, he joined the faculty of the Albert Einstein College of Medicine where he was a Professor for Cell Biology and Medicine. Throughout his career, he has maintained an interest in processes related to cellular and systemic energy homeostasis. During his Ph.D., he identified several components of the mitochondrial protein import machinery. While a post-doc, he identified adiponectin, one of the first secretory factors to be described that almost exclusively originate in adipose tissue and which is currently widely studied by many different research groups.

Current efforts in his laboratory are focused on the identification and physiological characterization of novel proteins that serve as potential links between the adipocyte, liver, the pancreatic beta cell and the processes of whole body energy homeostasis, inflammation, cancer and cardiovascular disease. His research team aims to identify novel targets for pharmacological intervention and to further define the role of adipose tissue as an endocrine organ.

Scherer has been on the faculty of UT Southwestern Medical Center since 2007 as a member of the Departments of Internal Medicine and Cell Biology. He holds the Gifford O. Touchstone Jr. and Randolph

G. Touchstone Distinguished Chair in Diabetes Research and is a member of the Simmons Comprehensive Cancer Center.

ZENA WERB, PH.D.,

Opening Plenary Session

Wednesday, September 2 at 15:15

Talk Title: ***Intravital imaging reveals properties of cancer progression, metastasis and response to therapy***

Dr. Zena Werb received her B.Sc. in Biochemistry from the University of Toronto, and her Ph.D. in Cell Biology from Rockefeller University, New York. After postdoctoral studies at the Strangeways Research Laboratory in Cambridge England, she was recruited to the faculty of the University of California, San Francisco, where she is currently Professor and Vice-Chair of Anatomy.

Her honors include the Charlotte Friend Award of the American Association for Cancer Research, the Alexander von Humboldt Research Award and the Colin Thomson Memorial Medal from the Association for International Cancer Research. Dr. Werb has been elected to the National Academy of Sciences, the Institute of Medicine, and the American Academy of Arts and Sciences. She has published more than 400 papers.

Dr. Werb is recognized internationally for her fundamental discoveries about the molecular and cellular bases of extracellular matrix proteolysis by matrix metalloproteinases and their roles in the normal functioning and pathogenesis of tissues. Her studies have led to new paradigms about the role of the cellular microenvironment and intercellular communication in breast development and breast cancer. Her current research uses mouse models of breast cancer and patient-derived breast cancer xenografts to study normal mammary development and its perturbation during tumor progression and metastasis.

Continued

JON-KAR ZUBIETA, M.D., PH.D.

Plenary Session 5

Friday, September 4 at 16:00

Talk Title: ***Endogenous Opioid Mechanisms in Major Depression: Association with Treatment Responses***

Dr. Zubieta is Phil F. Jenkins Endowed Professor, A. Alfred Taubman Senior Scholar and a Professor in the Departments of Psychiatry and Radiology, the Neurosciences Program, and Research Professor in the Molecular and Behavioral Neuroscience Institute. Faculty member at the University of Michigan since 1995, he has completed formal training in the Neurosciences, Psychiatry and Nuclear Medicine. His research focuses on the neurobiological mechanisms associated with motivational mechanisms and the regulation of stress responses utilizing functional and molecular imaging in humans. He has applied this work towards the understanding of conditions where physical and emotional stressors play a significant role, most notably the substance use disorders, pain, mood disorders and their interfaces. Dr. Zubieta has 20 years of experience in the use of in vivo functional imaging in humans with PET and fMRI for the quantification of metabolism, blood flow, anatomy, and neuroreceptor sites in human subjects. Dr. Zubieta is board certified in both Psychiatry and Nuclear Medicine. He currently serves as Associate Chair for Research in the Department of Psychiatry.

STUDENT TRAVEL STIPENDS

Lotfi Abou-Elkacem, Stanford University, School of Medicine
Mario Amend, Eberhard Karls University of Tuebingen
Diana Andina, Swiss Federal Institute of Technology Zurich (ETHZ)
Alejandro Arroyo, University of Pennsylvania
Sunitha Bachawal, Stanford University, School of Medicine
Scott Beeman, Washington University
Raymond Bourdeau, California Institute of Technology
Giuseppe Carlucci, Memorial Sloan Kettering Cancer Center
Salvador Castaneda, Eberhard Karls University of Tuebingen
Peter Chhour, University of Pennsylvania
Chongwei Chi, Institute of Automation, Chinese Academy of Sciences
Michael Chiorazzo, University of Pennsylvania
Hui-Yen Chuang, National Yang-Ming University
Allison Cohen, H. Lee Moffitt Cancer Center & Research Institute
James Cordova, Emory University
mehdi damaghi, Moffitt Cancer Center
Esther de Boer, University of Alabama at Birmingham, University Medical Center Groningen
Christoph Denk, Vienna University of Technology
Valentina Di Gialleonardo, Memorial Sloan Kettering Cancer Center
Alisha DSouza, Dartmouth College
Markus Durst, Technical University of Munich
Stephan Düwel, Technical University of Munich
Sabrina Eilenberger, Eberhard Karls University of Tuebingen
Tatiana Esipova, University of Pennsylvania
Enrico Fantoni, King's College London
Francois Fay, Icahn School of Medicine at Mount Sinai
Kerstin Fuchs, Werner Siemens Imaging Center
Caroline Guglielmetti, Bio-Imaging Lab
Niels Harlaar, University Medical Center Groningen
Stefan Harmsen, Memorial Sloan Kettering Cancer Center
Matthew Hight, Vanderbilt University
Xuechuan Hong, State Key Laboratory of Virology, Key Laboratory of Combinatorial Biosynthesis and Drug Discovery
Charlotte Hoogstins, Leiden University Medical Center
Jacob Houghton, Memroial Sloan Kettering Cancer Center
Anna Jablonska, Johns Hopkins University School of Medicine
Orit Jacobson Weiss, National Institute of Health
Ziyue Karen Jiang, University of Califnornia Los Angeles
Karina Juhl, Rigshospitalet and University of Copenhagen
Kyung Oh Jung, Seoul National University Hospital
Yong-il Kim, Seoul National University Hospital
Louise Kiru, University of Califnornia Los Angeles
Neha Koonjoo, University of Bordeaux
Susanne Kossatz, Memorial Sloan Kettering Cancer Center
Anna Kuhen, Eberhard Karls University of Tuebingen
Anupama Lakshmanan, California Institute of Technology
Jason Lamanna, Emory University, Georgia Institute of Technology
Brian Lee, Stanford University, School of Medicine
Yuancheng Li, Emory University
Zhao Li, University of Califnornia Los Angeles
Jun Li, Vanderbilt University
Heeseung Lim, Western University
Zhibo (Zippo) Liu, National Institute of Health
Geoffrey Luke, The University of Texas at Austin, MD Anderson Cancer Center
Steven Machtaler, Stanford University, School of Medicine
Florian Maier, Eberhard Karls University of Tuebingen
Irene Marco-Rius, University of California San Francisco
Sam Massa, Vrije Universiteit Brussel
Ciara McErlean, Institute of Cancer Research
Laura Mezzanotte, Leiden University Medical Center
Filippo Michelotti, Eberhard Karls University of Tuebingen
Kirsi Mikkola, University of Turku
Lindsay Moore, University of Alabama at Birmingham
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Carlos Perez Medina, Mount Sinai, Centro de Investigación en Red de Enfermedades Respiratorias
Marjan Rafat, Stanford University, School of Medicine
Larissa Rizzo, RWTH Aachen University
Stephan Rogalla, Stanford University, School of Medicine
Francesca Rosa, IRCCS IST- San Martino
Brenda Sachez-Gaytan, Icahn School of Medicine at Mount Sinai
Sujith Sajja, Johns Hopkins University School of Medicine
Beatriz Salinas Rodriguez, Memorial Sloan Kettering Cancer Center
Christin Sander, Massachusetts General Hospital, Harvard Medical School
Anindita Sarkar, Tata Institute of Fundamental Research
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Andreas Schmid, University of Tuebingen
Jennifer Schmitz, Eberhard Karls University of Tuebingen
Martin Schneider, University of Zurich
Barbara Schörg, Eberhard Karls University of Tuebingen
Johannes Schwenck, Eberhard Karls University of Tuebingen
Thillai Sekar, Stanford University, School of Medicine
Travis Shaffer, Memorial Sloan Kettering Cancer Center, Hunter College
Adam Shuhendler, Stanford University, School of Medicine
Sanhita Sinharay, University of Arizona
Adrian Slusarczyk, MIT
Elliott SoRelle, Stanford University, School of Medicine
Jun Tang, Memorial Sloan Kettering Cancer Center
Richard Tavaré, University of Califnornia Los Angeles
André Thielcke, Eberhard Karls University of Tuebingen
Tsang-Wei Tu, National Institute of Health
Elizabeth Tucker, Johns Hopkins University School of Medicine
Silvan Tuerkcan, Stanford University, School of Medicine
Quirijn Tummers, Leiden University Medical Center
Greetje Vande Velde, KU Leuven
Huaijun Wang, Stanford University, School of Medicine
Yu Wang, University of Washington
Timothy Witney, Stanford University, School of Medicine
Lei Xing, Stanford University, School of Medicine
Yanping Yang, Beijing Normal University
Shaobo Yao, Peking Union Medical College Hospital, Chinese Academy of Medical Science, Peking Union Medical College

Continued

Misun Yun, Chonnam National University Hwasun Hospital
Rongxiao Zhang, Dartmouth College
Jingjing Zhang, Peking Union Medical College Hospital (PUMCH), National Institutes of Health
Yiming Zhao, Icahn School of Medicine at Mount Sinai
Heling Zhou, UT Southwestern Medical Center

POSTER AWARD FINALISTS

Peter Barker, Johns Hopkins University School of Medicine
Rabee Cheheltani, University of Pennsylvania
Chongwei Chi, Institute of Automation, Chinese Academy of Sciences
Taemoon Chung, Seoul National University Hospital ; Cancer Research Institute
James Cordova, Emory University
Mehdi Damaghi, Moffitt Cancer Center
Binh Duong, Gunma University
Prateek Katiyar, Werner Siemens Imaging Center, Eberhard Karls University of Tuebingen
Yong-il Kim, Seoul National University Hospital
Hakjae Lee, Korea University
Orly Liba, Stanford University School of Medicine
Lindsay Moore, University of Alabama at Birmingham
Juri Na, Seoul National University; Cancer Research Center
Joanna Napp, MPI for Experimantal Medicine; University Medical Center Göttingen
Francesca Rosa, IRCCS IST- San Martino
Sujith Sajja, Johns Hopkins University School of Medicine; Institute for Cell Engineering
Kazuhide Sato, National Cancer Institute
Jennifer Schmitz, Eberhard Karls University Tuebingen
Thillai Sekar, Stanford University School of Medicine
Travis Shaffer, Memorial Sloan Kettering Cancer Center; Hunter College
Elliott SoRelle, Stanford University School of Medicine
André Thielcke, Eberhard Karls University of Tuebingen
Greetje Vande Velde, KU Leuven
Greetje Vande Velde, KU Leuven
Joon-Kee Yoon, Ajou University Medical School

WOMEN IN MOLECULAR IMAGING NETWORK (WIMIN) SCHOLAR AWARD

Hui-Yen Chuang, National Yang-Ming University
Yang Du, Institute of Automation
Tatiana Esipova, University of Pennsylvania
Lindsay Moore, University of Alabama at Birmingham
Joanna Napp, MPI for Experimantal Medicine; University Medical Center Göttingen
Marjan Rafat, Stanford University School of Medicine
Brenda Sachez-Gaytan, Icahn School of Medicine at Mount Sinai
Christin Sander, Massachusetts General Hospital; Harvard Medical School
Greetje Vande Velde, KU Leuven
Jingjing Zhang, Peking Union Medical College Hospital (PUMCH); National Institutes of Health

ACS - BIOCONJUGATE CHEMISTRY AWARD

Hanwen Zhang, Memorial Sloan Kettering Cancer Center
Karolina Jankowska, The University of Sydney

EDUCATIONAL OBJECTIVES

Upon completion of this program participants should be able to:

1. Evaluate the strength and weakness of each major imaging modality for Molecular Imaging, and identify novel hybrid imaging techniques in the field.

2. Recognize common principles behind Molecular Imaging probes for each individual imaging modality, as well as the potential of multi-modality probes.

3. Recognize the potential of Molecular Imaging for depicting and following specific molecular and cellular processes in vivo.

4. Evaluate the potential, strengths and weaknesses of Molecular Imaging for specific organs and major diseases.

5. Describe the principles of Molecular Imaging techniques for guiding and assessing therapeutic interventions, including drug development and therapy.

6. Recognize the potential, strengths and weaknesses of specific Molecular Imaging for preclinical, clinical, and translational research.

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Boulis, Nicholas M.: MRI Interventions[2]; Neuralstem, Inc.[2, 7]
Bradley, Mark: Edinburgh Molecualar Imaging[4, 2]
Brigman, Brian E.: Musculoskeletal Transplant Foundation[1]; Plexxicon[2]
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Collins, James W.: PerkinElmer[7]
Colombo Serra, Sonia: Bracco Imaging SpA[5]
Coolens, Catherine: Modus Medical Inc[2]; Shelley Medical Inc[2]
Correcher Salvador, Carlos: Oncovision[5]
Costa, Maria: Bracco Suisse SA[5]
Del Guerra, Alberto: Inviscan SAS[1]; raytest Isotopenmessgeraete GmbH[1]
Draney, Daniel: LI-COR Biosciences[5]
Feldwisch, Joachim: Affibody AB[5, 4]
Ferrer, Jorge: Lumicell, Inc.[5, 4]
FitzGerald, Paul: General Electric Company[5]
Fresneau, Thomas: Bracco Suisse S.A.[5]
Frinking, Peter J.: Bracco Suisse SA[5]
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Gambhir, Sanjiv S.: Bracco[2]; Cellsight[4]; Endra[4]; GammaMedica[2]; Google[2]; ImaginAb[4]; Sanofi-Aventis[1]; VisualSonics/Sonosite[2]
Gaud, Emmanuel: Bracco Suisse SA[5]
Giger, Maryellen: Hologic[4]; Quantitative Insights[4]; QView[4]
Glaus, Charles: Amgen, Inc.[5, 4]
Granlund, Kristin L.: GE Healthcare[1]
GUTOWSKI, Marian: SurgiMAb[4]
Henrioud, Sylvie: BRACCO Suise S.A.[5]
Holler, Eggehard: Arrogene Inc.[1]; NIH R01[1]
Hunter, William C.: PET/X LLC[5]
Hyvelin, Jean-Marc: Bracco Suisse SA, part of Bracco Group[5]
Jensen, Pernille R.: Albeda Research[4]
Junge, Sven: Bruker BioSpin MRI[5]
Karlsson, Magnus: Albeda Research[4]
Kiessling, Fabian: Bayer[1]; Bracco[1]; invivoContrast.com[2]; Molecular Targeting.inc[2]; Philips[1]; Visualsonics[1]
Kirsch, David: Lumicell[4, 1, 2]
Kneip, Christoph: Bayer Pharma AG[5]
Koglin, Norman: Piramal Imaging[5]
Korpisalo, Petra: Fujifilm Visual Sonics Inc[7]
Lankes, Konrad: Bruker BioSpin MRI GmbH[5]
Larson, Peder E.: GE Healthcare[1]
Lerche, Mathilde H.: Albeda Research[1]
Low, Philip S.: Endocyte Inc[4]; On Target Laboratories[4]
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PELEGRIN, André: SurgiMAb[2, 4]
Philip, Brian: Autolus[4]
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Politi, Katerina: AstraZeneca[1]; Kolltan[1]; MSKCC/Molecular MD[7]; NCCN[2]
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Quezada, Samuel: CellSight Technology, Inc.[5, 4]
Radu, Caius: Sofie Biosciences[4]; Triangle Therapeutics[4]
Rijcken, Cristianne: Cristal Therapeutics[5, 4]
Rindi, Guido: AAA[2]; Bracco Imaging[2]; IPSEN Pharma[3]; NOVARTIS Pharma[3]
Rosen, Bruce R.: Siemens[2]
Scholz, Wolfgang W.: MabVax Therapeutics[5]
Sevick-Muraca, Eva M.: NIRF Imaging, Inc.[4]; Tactile Medical Systems[1]
Stephens, Andrew W.: Piramal Imaging GmbH[5, 4]
Sunderland, John: Siemens Healthcare[1]
Tedoldi, Fabio: Bracco Imaging Spa[5]
Torres, Andrew: General Electric[5]
Tranquart, François: Bracco Suisse SA[5]
van't Hof, Wouter J.: Athersys[4]
van Dam, Gooitzen M.: SurgVision BV[1]
Van de Giessen, Martijn: Philips Healthcare[5]
Vidimos, Allison: Genentech[1]
Vigneron, Daniel: GE[1]
Waldeck, Jens: Bruker BioSpin MRI GmbH[5]
Weber, Wolfgang: Endocyte[2]
Weichert, Jamey: Cellectar Biosciences[4, 5]
Wennborg, Anders: Affibody AB[5, 4]
Willmann, Juergen K.: Bracco[2]; Philips[1]; Siemens[1]; Triple Ring Technologies[2]
Wu, Anna M.: Avidity NanoMedicines[2]; ImaginAb, Inc.[4, 2]; Organovo[2]
Yaghoubi, Shahriar: CellSight Technologies, Inc.[4, 5]
Yeh, Benjamin M.: General Electric Global Research Center[1]; General Electric Healthcare[1]; Nextrast, Inc[4]; Oxford University Press

The organizers and reviewers listed below have NO declared relevant relationships with commercial organizations/companies.

Aarntzen, Erik
Abdel-Atti, Dalya
AbuOun, Manal
Adamsen, Tom Christian H.
Aguilar Talens, Albert
Aguilera, Todd A.
Aidone, Sandro
Airaksinen, Anu J.
Albatany, Mohammed
Alt, Karen
Alvarez, Julio
Amador, Elman
Anderson, Carolyn J.
Andina, Diana
Andrzejewski, Piotr
Anthony, John
Ao, Edwin C.
Appin, Christina L.
Applegate, Brian E.
Arksey, Natasha
Arroyo, Alejandro D.
Arstad, Erik
Ashkenazi, Shai
Bae, Sang Mun
Baek, Yeonggyeong
Baghaei, Hossain
Bakthavatsalam, Subha
Ballet, Steven
Barbera Ballester, Julio
Barch, Mariya
Barrett, Taylor M.
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Baues, Maike
Beach, Stephanie
Becker, Amy E.
Bedics, Matthew A.
Beeman, Scott C.
Been, Lukas
Behesnilian, Andrew S.
Behfar, Atta
Bentolila, Laurent A.
Berthelsen, Anne Kiil
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Binderup, Tina
Blakey, Idriss
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buchwald, christian v.
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Calaminus, Carsten
Calcagno, Claudia
Carlsen, Harald
CARRERE, Sébastien
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Carrizales, Jorge
Casagni, Todd J.
Castaneda, Salvador G.
Castro, Cesar M.
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Chang, Chen-Ming
Chapin, Ashley
Chapman, Sarah
Charabi, Birgitte
Chatalic, Kristell L.
Chaumeil, Myriam M.
Cheal, Sarah M.
Cheheltani, Rabe'e
Chen, Hanbo
Chen, Hao
Chen, Howard H.
Chen, Xueqi
Chen, Zhihang
Cheng, Shuna
Cheng, Yi-Shing L.
Cheng, Yunfeng
Chenna, Naveen K.
Cheong, Dennis L.
Cheung, Nai-Kong V.
Chiavazza, Enrico
Chiorazzo, Michael
Cho, Hong-Jun
Cho, Yongku
Christian, Bradley T.
Chuang, Hui-Yen
Chung, Euiheon
Cirocco, Maria
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Clarke, Laurence P.
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Cohen, Allison S.
Colborn, Robert E.
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Conrad, Benjamin N.
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Cooke, Kenneth R.
Crespo-Diaz, Ruben J.
Cuenca, Rodrigo
Cui, Lina
Curaj, Adelina
Cybulska, Klaudia
Da, Xiaoyu
Daans, Jasmijn
Damm, Jana
Datta, Ankona
Day, Bryan W.
de Blois, Erik
DeGrange, Paula
de Jongh, Steven J.
De Langhe, Ellen
Delgado y Palacios, Rafael
Delikatny, Edward J.
DeMarco, Vincent P.
Demirhan, Yunus
DeNoble, Phillip J.
Desai, Mitul
De Simone, Mariarosaria
Dethrage, Lindsey M.
Detty, Michael R.
Dhaliwal, Kev
Dhanvantari, Savita
Dhingra, Kirti
Diederich, Chris J.
Di Mascio, Michele
Dimcevski, Georg
Diocou, Seckou
Do, Eun-Ju
Donahue, Robert
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Dula, Adrienne N.
Duong, Vandon T.
Duralde, Gorka
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Edic, Peter M.
Ehling, Josef
Eigner, Sebastian
Eigner Henke, Katerina
Eilenberger, Sabrina H.
El Kaffas, Ahmed
Elliott, Jonathan T.
Engelbach, John A.
Engelhard, Victor H.
Engle, Dannielle
Enkemann, Steven A.
Escuin-Ordinas, Helena
Esipova, Tatiana V.
Esipova, Tatiana V.
Eto, Hinako
Expert, Paul
Fantoni, Enrico R.
Fay, Francois
Federici, Thais
Feil, Robert
Fieremans, Els
Fleiss, Bobbi
Foiret, Josquin
Fokong, Stanley
Fonslet, Jesper
Franc, Benjamin L.
Fricke, Inga B.
Fruhwirth, Gilbert O.
Fuchs, Adrian
Fujita, Masahiro
Gai, Yongkang
Gano, Jacob
Garcia Allende, Pilar Beatriz
Gardberg, Maria
Gargesha, Madhusudhana
Gazit, Dan
Gazit, Zulma
Gee, Antony
Geevarghese, Sunil K.
Gendron, Thibault
Georg, Dietmar
Gerle, Mirko
Giaccia, Amato
Gianella, Anita
Gilmore, Kelly
Gjertsen, Bjørn Tore
Glaser, Adam K.
Goertz, Dave
Golla, Matthias
Gonzalez, Jesus
Gonzalez Martinez, Antonio J.
Gordon, Jeremy W.
Gore, John
Gorsen, Santina
Grant, Alexander M.
Graves, Edward E.
Green, Michael V.
Greve, Joan
Griewank, Klaus
Guglielmetti, Caroline
Guo, Hong-fen
Guo, Xiangxue
Gutierrez, Juanmarco
Haag, Simone M.
Hackel, Benjamin J.
Hadoke, Patrick W.
Häggkvist, Jenny
Hakovirta, Harri
Haller, Scott D.
Hammoud, Dima A.
Han, Zheng
Hansen, Ailin
Harlaar, Niels
Harmsen, Stefan
Harootunian, Alec
Hartmans, Elmire
Harvey, Barrett R.
Hassounah, Hany A.
Hatzoglou, Maria
Haubner, Roland
Hawkins, Randall
Headley, Mark B.
Heck, Joachim G.
Hectors, Stefanie J.
Helariutta, Kerttuli
Helfrich, Iris
Hellberg, Sanna
Hemmer, Patrick H.
Heo, Won Do
Higgins, Andrew T.
Hillmer, Ansel T.
Ho, Chien
Hoeben, Sander
Hoehne, Aileen
Hojgaard, Liselotte
Hong, Xuechuan
Hoogstins, Charlotte E.
Hooker, Jacob M.
Hornak, Joseph P.
Houghton, Jacob
Howard, Christopher
Hsu, Chao-Hsiung
Hu, Bao
Hu, Hao
Huo, Li
Hwang, Dae Yon
Hwang, Sekyu
Hyodo, Fuminori
Iakovlev, Vladimir

Continued

Igarashi, Yasuyuki
Im, Hyungsoon
Inadama, Naoko
Innis, Robert
Iozzo, Patricia
Iraji, Armin
Jabbour, Joey
Jacobs, Andreas H.
Jacobs, Paula M.
Jagoda, Elaine M.
Jauhiainen, Matti
Jauregui-Osoro, Maite
Jensen, Kristin C.
Ji, Bin
Jiang, Ziyue Karen
Jinhai, Zheng
Jivan, Salma
Jo, Javier A.
Jochelson, Maxine
Johnson, Joseph O.
Johnson, Sadie
Jonkers, Jos
Jorritsma, Annelies
Josephson, Lee
Jung, Kyung Oh
Jung, Yebin
Kachur, Alexander
Kadonosono, Tetsuya
Kadonosono, Tetsuya
Kairdolf, Brad A.
Kaittanis, Charalambos
Kalber, Tammy L.
Kalthoff, Holger
Kanakia, Shruti
Kaneko, Osamu F.
Kannan, Sujatha
Kapetas, Panagiotis
Karrenbeld, Arend
Kaspar, Roger L.
Katabi, Nora
Kats-Ugurlu, Gursah
Keereweer, Stijn
Keinänen, Outi M.
Keliher, Edmund J.
Kennedy, Matthew
Keshari, Kayvan R.
Khalil, Farah K.
Khan, Slah
Kheirolomoom, Azadeh
Kihara, Akio
Kim, Insook
Kim, Jaeil
Kim, Johoon
Kim, Ki Hean
Kim, Sang-Yeob
Kim, Sehoon
Kim, Sungjee
Kim, Wihan
Kiru, Louise
Kiss, Katalin
Kiugel, Max
Kizaka-Kondoh, Shinae
Klein, Robyn S.
Klunk, Mariah
Knigge, Ulrich
Kobayashi, Hisataka
Kodama, Kazuya
Koelsch, Bertram
Koh, Ai Leen
Koller, Marjory
Kong, Ying
Konijnenberg, Mark
Konstantopoulos, Konstantinos
Kontermann, Roland
Kotopoulis, Spiros
Kou, Zhifeng
Krokowski, Dawid
Krummel, Matthew
Kruziki, Max A.
Kuchimaru, Takahiro
Kuhen, Anna
Kumar, Abhishek
Kurhanewicz, John
Kuruvilla, Sharon A.
Lakshmanan, Anupama
Lam, Tina
Lamanna, Jason J.
Lambert, Jack W.
Lammers, Twan
Lane, Clifford
Lang, Lixin
Lanning, Ryan M.
Lao, Patrick J.
Lau, Kristen
Laudone, Vincent P.
Leach, Martin O.
Leal, Jeffrey
Lee, Brian J.
Lee, Hakho
Lee, Jason T.
Lee, Jessie
Lee, Nancy
Lee, Yoon-Sik
Lehtiniemi, Paula
Leong, Ka Weng
Lepage, Martin
Leung, Ben
Levin, Craig S.
Lewis, Jason S.
Leyh, Julia
Li, Fang
Li, Tiantian
Li, Xiang-Guo
Li, Yuancheng
Li, Zhao
Liao, Ronglih
Liehn, Elisa
Liljenbäck, Heidi
Lim, Dong-Kwon
Lim, Heeseung
Lim, Liang
Lin, Yung-Ya
Linssen, Matthijs
Liow, Jeih-San
Lipowska, Malgorzata
Liu, Hui
Liu, Junjie
Liu, Tianming
Liu, Yu
Livieratos, Lefteris
Ljubimova, Julia Y.
Lopez, Ramona
Lories, Rik
Luke, Geoffrey P.
Lumen, Dave
Lund, Kjetil B.
Luong, Richard
Lutz, Amelie
Lyashchenko, Serge
Mahakian, Lisa M.
Mai, Zhenhua
Maitland, Kristen C.
Malik, Bilal
Malloy, Craig
Mandeville, Joseph B.
Mann, Margaret
Manning, H. Charles
Marafioti, Teresa
Marcon, Norman
Marco-Rius, Irene
Marque, Sylvain R.
Martinez-Santiesteban, Francisco M.
Massot, Philippe
Matsuo, Yuto
Matsuura, Naomi
Matsuura, Taeko
McAndrew, Philomena
McCracken, Melissa N.
McDonald, Elizabeth
McErlean, Ciara M.
McGirr, Rebecca
Mellet, Philippe
Miampamba, Marcel
Michelotti, Filippo C.
Mieszawska, Aneta J.
Mikkola, Kirsi
Miragoli, Luigi
Mirsoian, Annie
Möller, Andreas
Moore, William
Morgounova, Ekaterina
Morris, Elizabeth
Mortensen, Jann
Mucha, Natalie
Mukherjee, Jogeshwar
Mulick Chowdhury, Sayan
Munoz-Sanjuan, Ignacio
Murphy, William J.
Muruganandan, Shanmugam
Muyldermans, Serge
Myung, Seung-Jae
Naeyaert, Maarten
Naha, Pratap C.
Najac, Chloe
Nakaji, Tomoko
Nakatani, Yuka
Namavari, Mohammad
Nance, Elizabeth
Napieczynska, Hanna
Neill, Stewart G.
Nesbitt, Jonathan J.
Nety, Suchita
Ng, Tony
Nguyen, Di-Son
Nicholson, Duane
Nickels, Michael L.
Nonnekens, Julie
Nooshabadi, Fatemeh
Normandin, Marc D.
Nozaki, Satoshi
Nuermberger, Eric L.
Nunes, Antonio
O'Regan, Ruth M.
Ohliger, Michael A.
Olsovsky, Cory
Oshinski, John N.
Oshita, Tomoko
Pan, Min-Liang
Panetta, Daniele
Park, Joonhyuck
Park, Sung-Jun
Park, Youngrong
Patek, Renata
Pathania, Divya
Patil, Rameshwar
Pawate, Siddharama
Pearce, Amanda
Pelled, Gadi
Pelosi, Gualtiero
Perez Medina, Carlos
Perez-Torres, Carlos J.
Pfannenberg, Christina
Pfizenmaier, Klaus
Phillips, Neil
Pike, Victor
Pillai, Prasanth C.
Piwnica-Worms, David
Poelmans, Jennifer
Poeppel, Thorsten D.
Pogue, Brian W.
Pokkali, Supriya
Pola, Robert
Poli, Sven
Pomper, Martin
Ponsaerts, Peter
Popov, Anatoly V.
Postema, Michiel
Pourghiasian, Maral
Praet, Jelle
Pumphrey, Ashley L.
Purcz, Nicolai
Puttick, Simon
Qiao, Zhen
QUENET, François
R, Holger M.
Rafat, Marjan
Rajander, Johan
Rakshit, Ananya
Ramamurthy, Gopolakrishnan
Ravi, Neeraja
Reba, Richard
Reeves, Robert E.
Reischl, Gerald
Rempp, Hansjoerg
Ren, Gang
Ren, Xiaoyi
Reyes, Rachel
Reyners, An
Riaz, Nadeem
Ribas, Antoni
Ribeiro de Souza, Ana Luiza
Ricciardelli, Ida
Richman, Joshua S.
Rinaldi, Pierluigi
Rinne, Petteri
Rizzo, Larissa
Roberts, Jeannette
Robinson, Dominic
Robinson, Simon P.
Roelant, Ella
Roesch, Alexander
Rohwedder, Arndt
Roivainen, Anne
Ronen, Sabrina M.
Rose, Stephen
Rosenberg, Adam J.
Ruiz, Epifanio
Russo, Francesca
Rygh, Cecilie Brekke

Ryu, Yeon-Mi
Sakai, Shota
Sala, Evis
Salgaonkar, Vasant A.
Salinas Rodriguez, Beatriz
Salvadori, Piero A.
Sander, Christin Y.
SANDER, Kerstin
Saraste, Antti
Sarja, Nina
Sarkar, Anindita
Sasano, Yumi
Sato, Kazuhide
Sawada, Ritsuko
Sceneay, Jaclyn E.
Scherer, Philipp E.
Schoeb, Trenton R.
Scholl, Timothy J.
Schwenck, Johannes
Sckisel, Gail D.
Seo, Minseok
Severin, Gregory W.
Shapiro, Mikhail G.
Sharma, Rakesh
Shea, Daniel J.
Shende, Vishvesh
Sheyn, Dmitriy
Shiomi, Susumu
Shroff, Hari
Shroyer, Kenneth R.
Shui, Ying-Bo
Siegemund, Martin
Sigrist, Rosa M.
Sijbers, Jan
Sinal, Christopher
Sinharay, Sanhita
Siow, Bernard
Slusarczyk, Adrian L.
Smith, Seth A.
Solin, Olof
Sorensen, Jens
Sosa, Ramon E.
Sosnovik, David E.
Srinivasan, Ananth
Srinivasula, Sharat
Sriram, Renuka
St. Claire, Alexis
St. Claire, Marisa
Stafford, Jason H.
Ståhle, Mia
Steyaert, Jan
Stoffels, Ingo
Stott, Holly R.
Streutker, Catherine J.
Stringer, Brett W.
Strong, Theresa
Sugimoto, Masayuki
Sukumar, Subramaniam
Sun, Conroy
Sun, Lingyi
Sutcliffe, Julie
Sweeny-Jones, Anne M.
Tailor, Yagnesh
Takao, Seishin
Tang, Jun
Tari, Lenke
Tarvainen, Santeri
Tashima, Hideaki
Tasneen, Rokeya
Tawackoli, Wafa
Taylor, Andrew G.
Terzic, Andre
Tews, Björn
Thiaudière, Eric
Thunemann, Martin
Thurber, Greg M.
Thurecht, Kristofer
Tjalma, Jolien
Tolmachev, Vladimir
Tóth, Miklós
Toussaint, Jimmy
Trawick, Mary Lynn
Tripodi, Maria
Tsubaki, Takuya
Tsui, Brian
Tu, Tsang-Wei
Tu, Zhude
Tucker, Elizabeth W.
Turkheimer, Federico E.
Turtzo, Lisa
Uchida, Naoya
Umegaki, Kikuo
Uppuluri, Lahari
Urquia, Lindsey N.
Utsumi, Hideo
van audekerke, johan
VanBrocklin, Henry
Vanderhaegen, Saskia
VAN DER LINDEN, Annemie
Vandsburger, Moriel
van ginkel, Robert
Vanhoutte, Greetje
van Leeuwen, Barbare
van Leeuwen, Fijs
Vanoirbeek, Jeroen
van Weerden, Wytske
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Vargas, Hebert Alberto
Varnäs, Katarina
Vavrek, Marissa
Veraart, Jelle
Verdin, Emily
Verhoye, Marleen
Veronese, Mattia
Vikani, Niravkumar
Vilalta, Marta
Virgolini, Irene J.
Virostko, John
Virta, Jenni
Voelkl, Jakob
Volotskova, Olga
von Morze, Cornelius
von Stillfried, Saskia
Vuorinen, Tapani
Wakabayashi, Masato
Wakizaka, Hidekatsu
Walker, Ethan
Walker, Ronald C.
Wang, Danni
Wang, Hanping
Wang, Huaijun
Wang, Jane
Wang, Shouju
Wang, Taejun
Wang, Xinning
Wang, Zhe
Wang, Zihua
Washington, Mary Kay
Watchmaker, Jennifer M.
Watson , Katherine D.
Weber, Christian
Weidman, Chelsea J.
Weissleder, Ralph
Welch, Robert D.
Werb, Zena
White, Alexander G.
Whitley, Melodi
Whittaker, Andrew
Wilks, Moses Q.
Will, Olga M.
Wilson, David M.
Wilson, Katheryne E.
Wilson, Michael J.
Wirthschaft, Peter
Wiseman, Natalie
Witney, Timothy H.
Witte, Owen N.
Wong, Andrew
Wong, Christina S.
Wong, Wai-Hoi
Wright, John
Wu, Chenxi
Wu, Peilin
Wu, Zhuojun
Wuthrick, Evan J.
Wuttisarnwattana, Patiwet
Xiang, Guangya
Xu, Hong
Xu, Kai-Feng
Xu, Rong
Yakubovich, Doron C.
Yamamoto, Kenichiro
Yamauchi, Toyohiko
Yamaya, Taiga
Yan, Xuefeng
Yang, Binxia
Yang, Hao
Yang, Hee-Jeong
Yang, Yanping
Yang, Zhengshi
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Yarusi, Brett
Ye, Shaojing
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Yoanna, Tsvetkova
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Zeng, Dexing
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Zhang, Le
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Zhang, Zhi
Zhong, Qian
Zhou, Hongyu
Zhou, Yun
Zhu, Banghe
Zhu, Siqi
Zhu, Wenjia
Zhu, Zhaohui
Ziegler, Melanie
Ziemann, Ulf
Zinnhardt, Bastian
Zoghbi, Sami S.
Zubieta, Jon-Kar

FDA DEVICE/DRUG USE DECLARATION

If a device or drug requiring FDA approval is identified as an important part of a presentation, speakers must identify the FDA status of those devices or drugs. The following speakers have declared that their presentation includes such devices or drugs.

Speaker Name	Drug/Device	Status
Raag Airan	[18F]-DCFPy YC27 Definity Magnevist CMV::Luciferase plasmid PBAE formulation 447 in vivo-jetPEI	Investigational Investigational Approved Approved Not Approved Investigational Investigational
Karen Ayres	18F-FES	Investigational
Luca Basso	Manganese Chloride	Investigational
Frederik Beekman	G-SPECT	Not Approved
Luke Benko	Aperio Versa	Investigational
Abigail Besemer	CLR1404	Investigational
Leonora Boogerd	indocyanine green FLARE imaging system	Approved Investigational
Kim Brewer	DepoVax	Investigational
Françoise Cailler	SGM-101	Investigational
Feng Cao	Xenogen In Vivo Imaging System	Approved
Sean Carlin	cediranib (Recentin) 18F-fluoromisonidazole	Investigational Investigational
Chongwei Chi	Indocyanine green Surgical Navigation System	Approved Not Approved
Patrick Chow	nivolumab 89Zr-nivolumab	Approved Investigational
Diego Cobice	UE2316	Investigational
Thomas Collier	T807 FPEB FMISO	Investigational Investigational Investigational
James Cordova	Gliolan	Investigational
Yunpeng Dai	Cy5.5-GX1 IVIS Lumia II	Investigational Approved
David Dick	F-18 Fluoro-L-DOPA	Investigational
Ahmed El Kaffas	Definity Agent (Off label use)	Investigational
Maria Elisa Serrano Navacerrada	[18F]FDOPA	Approved
Ralf Eschbach	BR55 (Bracco Suisse SA, Geneva, Switzerland)	Investigational
Joachim Feldwisch	ABY-025 ABY-029	Not Approved Not Approved
Marcus Ferrone	Hyperpolarized C-13 pyruvate SpinLab	Investigational Investigational

Speaker Name	Drug/Device	Status
Benedikt Feuerecker	13C Pyruvate Dichloroacetate	Investigational Not Approved
Peter Frinking	BR55 Image processing method (Vue-Box-MI) P-selectin microbubbles	Investigational Not Approved Not Approved
Charles Glaus	Talimogene laherparepvec	Investigational
Andrew Gordon	TheraSphere (HDE, yttrium-90 glass microspheres)	Approved
Kristin Granlund	Hyperpolarized pyruvate 1H/13C Endorectal RF coil 13C clamshell RF coil	Investigational Investigational Investigational
Hein Handgraaf	cRGD-ZW800-1 FLARE Intraoperative Near-Infrared Fluorescence Imaging System	Investigational Investigational
Niels Harlaar	bevacizumab-IRDye800CW	Not Approved
Paul Harris	18F-FP-DTBZ	Investigational
Sanna Hellberg	68Ga-DOTANOC	Investigational
Chien Ho	Intralipid Dichloro (1,2-diaminocyclohexane) platinum (II)-loaded and hyaluronic acid polymer-coated nanoparticle	Approved Not Approved
Charlotte Hoogstins	OTL38 Artemis Imaging System	Investigational Investigational
Andrei Iagaru	Ga68 RM2	Investigational
Michelle James	[64Cu]Rituximab (radiotracer has IND approval)	Investigational
Justin Jeffery	NM404 NM346 NM397	Investigational Investigational Investigational
Roger Kaspar	TD201 topical sirolimus formulation Dissolvable microneedle arrays TD101 siRNA	Investigational Investigational Investigational
Sai Kiran Sharma	MAb-B43.13	Investigational

Speaker Name	Drug/Device	Status
Shun Kishimoto	LED light IRDye 700DX NHS ester OX63, GE Healthcare EPR scanner Panitumumab	IRDye 700DX NHS ester Investigational Investigational Investigational Investigational
Alexander Klibanov	gas-filled microbubbles	Not Approved
Ronald Korn	89Zr-Df-IAB2M 111In capromab pendetide	Investigational Approved
Jeyan Kumar	Magnevist	Approved
John Kurhanewicz	Hyperpolarized [1-13C] pyruvate	Investigational
Sandi Kwee	fluorine-18 fluoromethylcholine	Investigational
Jason Lamanna	Ferumoxytol (Ferraheme) Spine-Mounted Injection Device Floating Cannula MRI-Compatible Injection Device MRI Inc. ClearPoint	Approved Investigational Investigational Not Approved Approved
David Lewis	AMD3100	Approved
Ai-ho Liao	MINOXIDIL	Approved
Chia-Ying Lien	doxorubicin	Approved
Qian Liu	17β-estradiol 18F-Fallypride	Approved Approved
Dennis Miller	BLZ-100 Fluobeam 800 SIRIS Odyssey	Investigational Investigational Investigational Investigational
Erik Mittra	18F-FSPG	Investigational
Sarah Mudd	ABT-806i ABT-414 NAMPTi1 NAMPTi2	Investigational Investigational Investigational Investigational
Jogeshwar Mukherjee	18F-Nifene	Investigational
Binh Nguyen	EC1169 EC0652	Investigational Investigational
Muhammad Nouman	cisplatin gamma camera 99mTc-DTPA	Approved Approved Approved
Erin O'Reilly	LUM015	Investigational
Nisha Padhye	RM-1929 AU011	Investigational Investigational
Rao Papineni	Alendronate	Approved
Kah-Whye Peng	Measles virus encoding NIS	Investigational
Sarah Poenick	peptide probe CG77 unspecific probe CG80 Pearl® Impulse Small Animal Imaging System	Investigational Investigational Investigational

Speaker Name	Drug/Device	Status
Thomas Poeschinger	erlotinib perifosine	Approved Approved
Katerina Politi	AZD9291 CO1686	Investigational Investigational
Eric Price	Rilotumumab	Investigational
Tarl Prow	Foroderm Sodium Fluorescein	Investigational Approved
Francesca Rosa	MANGANESE clinical 3T MR system (Signa EXCITE®HDxT, GE, Milwaukee, USA).	Investigational Approved
Nicolas Salem	Ubiquitin activating enzyme inhibitor (UAEi)	Investigational
Julia Schmitt	NHS-IL12	Investigational
Martin Schneider	iRFP DMOG	Investigational Investigational
Eva Sevick-Muraca	Indocyanine Green Flexitouch Near-infrared fluorescence lymphatic imaging device	Investigational Approved Investigational
Catherine Shachaf	MDS	Investigational
Adam Shuhendler	BMN673 (Talazoparib)	Investigational
Jaejung Song	DOXORUBICIN HYDROCHLORIDE	Approved
Mia Ståhle	PET tracer 68Ga-NODAGA-Exendin-4	Investigational
Kayo Takahashi	11C-raclopride	Approved
Jolien Tjalma	Bevacizumab-IRDye800CW	Not Approved
Rheal Towner	OKN-007	Investigational
Quirijn Tummers	EC17 Artemis Imaging System	Investigational Investigational
Greetje Vande Velde	amphotericin-B fluconazole anidulafungin micafungin caspofungin imatinib	Approved Approved Approved Approved Approved Approved
David Vera	Tilmanocept	Approved
Douglass Vines	18F-FAZA	Investigational
Ronald Walker	68Ga-DOTATATE	Investigational
Jason Warram	cetuximab-IRDye800 Luna	Investigational Approved
Wolfgang Weber	FDG iodide	Not Approved Not Approved
Hans-Juergen Wester	Pentixafor Pentixather	Not Approved Not Approved

Speaker Name	Drug/Device	Status
Juergen Willmann	BR55	Investigational
Sergio Wong	Feraheme Poly-L-Lysine	Approved Approved
Anna Wu	PSCA minibody IAB2M PSCA minibody	Investigational Investigational
Xiaobing Xiong	Magnevist MRI HIFU	Approved Approved Investigational
Shahriar Yaghoubi	[18F]F-AraG	Investigational
Miko Yamada	BLZ-100	Approved
Jaewon Yang	GE Signa PET/MR	Approved
Chen Yao	Huaier	Not Approved
Luke Yongkyu Kwon	Trastuzumab (Herceptin)	Approved
Saeid Zanganeh	Feraheme®, AMAG Pharmaceuticals Inc., Cambridge, MA, USA	Approved
Jianhua Zhou	Bevacizumab Philips EPIQ 7	Approved Approved
Filip Zmuda	Olaparib [18F]-FZ236 [123I]-FZ044	Approved Not Approved Not Approved

Wednesday September 2

Room	311	312	313 A/B/C	314	315	320 (Emalani Theatre)
	OSN Workshop	Early Career Track	Hot Topic Track 1	Hot Topic Track 2		Pharma Track
08:00 - 08:30	Basic Research 1: New Probes	Educational Overview: John Frangioni (Kalakaua Ballroom B&C)				
08:30 - 08:45		Break				
08:45 - 10:15	OSN Break	Educational Session 1: Standards for Molecular Research	Educational Session 2: Molecular Imaging in Precision Medicine	Educational Session 3: Optogenetics		Educational Session 4: Pharma 1
10:15 - 10:45	Basic Research 2: New Probes	Coffee Break				
10:45 - 12:15	OSN Working Lunch	Educational Session 5: Target Identification, Chemistry & Preclinical Studies Design	Educational Session 6: Inflammation (Neurology)	Educational Session 7: Point-of-Care Pathology		Educational Session 8: Pharma 2
12:15 - 13:15	IND Successes and Pitfalls	Lunch Break in Concourse				
13:15 - 14:45	Panel: Devices for Surgical Imaging - what is needed?	Educational Session 9: Career Development - Manuscript Writing	Educational Session 10: Inflammation (Cancer)	Educational Session 11: Radiomics		Educational Session 12: Pharma 3
14:45 - 15:15		Break				
15:15 - 16:15	Opening Ceremony, Presidential Address (Kalakaua Ballroom B&C)					
16:15 - 17:15	Plenary Session 1: Zena Werb - Sponsored by WIMIN-IG (Kalakaua Ballroom B&C)					
17:15 - 17:45	Opening Reception (Exhibit Hall 2 & 3)					
17:45 - 18:45	Poster Session 1 & Poster Wall Presentation (Exhibit Hall 2 & 3)					
18:45 - 20:00	Opening Reception cont'd (Exhibit Hall 2 & 3)					

Thursday September 3

Room	311	312	313 A/B/C	314	315	320 (Emalani Theatre)	319A
08:00 - 09:30	Industry Workshop: Mediso	Spotlight Session 1: Early Career - Young Professionals in Molecular Imaging	Spotlight Session 2: Infectious Disease	Spotlight Session 3: Women's Imaging	Spotlight Session 4: Co-Clinical Trials - Data Analysis	MOMIL Symposium: Role of Industry and Academics in Advancing Molecular Imaging Research	
09:30 - 10:30	Plenary Sesison 2: Elizabeth Morris (Kalakaua Ballroom B&C)						
10:30 -11:15	Coffee Break, Visit Exhibits & Industry Selected Posters						
11:15 - 12:45	Scientific Session 1: First-in-Human & Clinical Studies: Oncology	Scientific Session 2: Chemistry & Imaging Probes - Optical/Photo-Acoustic Imaging	Scientific Session 3: Preclinical in vivo Studies - Oncology: Multimodal	Scientific Session 4: Chemistry & Imaging Probes - MRI	Scientific Session 5: Chemistry & Imaging Probes - Nuclear Imaging	Late-breaking Abstract Session 1	
12:45 - 13:45	Lunch Break in Exhibit Hall (Sponsored by Aspect Imaging)						WIMIN Membership Meeting
13:45 - 15:15	Scientific Session 6: Technology & Software Developments - Optical/Photo-Acoustic Imaging	Scientific Session 7: Chemistry & Imaging Probes - Multimodal	Scientific Session 8: Preclinical in vivo Studies - Oncology: MRI/Ultrasound	Scientific Session 9: Preclinical in vivo Studies - Inflammation/ Immunology	Scientific Session 10: Preclinical in vivo Studies - Neurology	Late-breaking Abstract Session 2	
15:15 - 16:00	Coffee Break & Visit Exhibits						
16:00 - 17:00	Plenary Session 3: Chien Ho (Kalakaua Ballroom B&C)						
17:00 - 18:00	Poster Session 2: Late Breaking Abstract Posters, Poster Award Judging (Exhibit Hall 2 & 3)						

Friday September 4

Room	311	312	313 A/B/C	314	315
08:00 - 09:30	Industry Workshop: PerkinElmer	Spotlight Session 5: Translational Frontiers in Ultrasound Imaging & Therapy	Spotlight Session 6: Molecular Imaging Based Companion Diagnostics	Spotlight Session 7: Men's Health	Spotlight Session 8: Animal Model Systems for Co-Clinical Trials
09:30 - 10:30	Plenary Sesison 4: Gold Medalist-Vasilis Ntziachristos (Kalakaua Ballroom B&C)				
10:30 - 11:15	Coffee Break, Visit Exhibits & Innovation of the Year Presentation/Voting/Award				
11:15 - 12:45	Scientific Session 11: First-in-Human & Clinical Studies	Scientific Session 12: Chemistry & Imaging Probes - Optical Imaging	Scientific Session 13: Preclinical in vivo Studies - Oncology: Optical	Scientific Session 14: Preclinical in vivo Studies - Cardiology	Scientific Session 15: Chemistry & Imaging Probes - Nuclear Imaging
12:45 - 13:45	Lunch Break in Exhibit Hall (Sponsored by Aspect Imaging)				
13:45 - 15:15	Scientific Session 16: Technology & Software Developments - Hybrid Mulitmodal/Ultrasound/CT	Scientific Session 17: Chemistry & Imaging Probes - Ultrasound	Scientific Session 18: Preclinical in vivo Studies - Oncology: Nuclear	Scientific Session 19: Preclinical in vivo Studies - Infectious Disease/Reporter Genes, Signal Transduction & Epigenetics	Scientific Session 20: Preclinical in vivo Studies - Metabolic Diseases
15:15 - 16:00	Coffee Break & Visit Exhibits				
16:00 - 17:00	Plenary Session 5: Jon-Kar Zubieta (Kalakaua Ballroom B&C)				
17:00 - 18:30	Fellow's Forum Panel				
18:30 - 19:30	Poster Session 3 & Fellows Meet & Greet Reception (Exhibit Hall 2 & 3)				

Saturday September 5

Room	311	312	313 A/B/C	314	315	320 (Emalani Theatre)
08:00 - 09:30	Spotlight Session 9: Metabolic Reprogramming - Implications for Cancer Imaging and Therapy	Spotlight Session 10: Oncogenetic Tumor Heterogeneity Translated to Imaging: Radiomics and Radiogenomics	Spotlight Session 11: Translational Imaging & Drug Discovery			
09:30 - 10:30	Plenary Session 6: Philipp Scherer (Kalakaua Ballroom B&C)					
10:30 - 11:15	Coffee Break & Visit Exhibits					
11:15 - 12:45	Scientific Session 21: First-in-Human & Clinical Studies	Scientific Session 22: Technology & Software Developments - MRI/PET/SPECT	Scientific Session 23: Preclinical Cell & Tissue Level Studies - Oncology	Scientific Session 24: Chemistry & Imaging Probes - MRI/CT	Scientific Session 25: Chemistry & Imaging Probes - Nuclear Imaging	Scientific Session 26: Preclinical in vivo Studies - Oncology: Many Modalities
12:45 - 13:45	Lunch Break & Visit Exhibits					
13:45 - 14:45	Poster Session 4 & Poster Wall Presentation(Exhibit Hall 2 & 3)					
14:45 - 15:00	Break					
15:00 - 17:00	Closing Ceremony, YIA Award & Highlight Lecture by John Gore (Kalakaua Ballroom B&C)					
17:30 - 22:00	Gala Event 17:30 - 22:00 - Island Luau Under the Stars					

Wednesday September 2

Room	311	312	313 A/B/C	314	315	320 (Emalani Theatre)
	OSN Workshop	Early Career Track	Hot Topic Track 1	Hot Topic Track 2		Pharma Track
08:00 - 08:30	Basic Research 1: New Probes	Educational Overview: John Frangioni (Kalakaua Ballroom B&C)				
08:30 - 08:45		Break				
08:45 - 10:15	OSN Break	Educational Session 1: Standards for Molecular Research	Educational Session 2: Molecular Imaging in Precision Medicine	Educational Session 3: Optogenetics		Educational Session 4: Pharma 1
10:15 - 10:45	Basic Research 2: New Probes	Coffee Break				
10:45 - 12:15	OSN Working Lunch	Educational Session 5: Target Identification, Chemistry & Preclinical Studies Design	Educational Session 6: Inflammation (Neurology)	Educational Session 7: Point-of-Care Pathology		Educational Session 8: Pharma 2
12:15 - 13:15	IND Successes and Pitfalls	Lunch Break in Concourse				
13:15 - 14:45	Panel: Devices for Surgical Imaging - what is needed?	Educational Session 9: Career Development - Manuscript Writing	Educational Session 10: Inflammation (Cancer)	Educational Session 11: Radiomics		Educational Session 12: Pharma 3
14:45 - 15:15		Break				
15:15 - 16:15	Opening Ceremony, Presidential Address (Kalakaua Ballroom B&C)					
16:15 - 17:15	Plenary Session 1: Zena Werb - Sponsored by WIMIN-IG (Kalakaua Ballroom B&C)					
17:15 - 17:45	Opening Reception (Exhibit Hall 2 & 3)					
17:45 - 18:45	Poster Session 1 & Poster Wall Presentation (Exhibit Hall 2 & 3)					
18:45 - 20:00	Opening Reception cont'd (Exhibit Hall 2 & 3)					

FFOptical Surgical Navigation Workshop

08:00-09:30 OSN - Basic Research 1: New Probes (Room 311)
Moderator: James Basilion

08:00 OSN 1: Introduction
James Basilion Radiology and Biomedical Engineering, Case Western Reserve University, Cleveland, Ohio, USA (2350868)

08:05 OSN 2: Rationally designed activatable fluorescent probes appropriate for practically assisting surgical and interventional and procedures
Hisataka Kobayashi Molecular Imaging Program, NCI/NIH, Bethesda, Maryland, USA (2308717)

08:35 OSN 3: Clinically translatable cathepsin imaging agents that exploit a latent lysosomotropic effect
Matthew Bogyo Stanford University, Stanford, California, USA (2350865)

09:00 OSN 4: Analyzing targeted fluorescent tracers in vivo: Affibody-IRDye being developed for human neurosurgery
Brian W. Pogue[1], Keith Paulsen[1], Jonathan T. Elliott[1], Ana Luiza Ribeiro de Souza[1], David W. Roberts[2], Theresa Strong[5], Daniel Draney[4], Joachim Feldwisch[3] [1]Engineering, Dartmouth College, Hanover, New Hampshire, USA; [2]Geisel School of Medicine, Dartmouth College, Hanover, New Hampshire, USA; [3]Affibody AB, Stockholm, Sweden; [4]LI-COR Biosciences, Lincoln, Nebraska, USA; [5]University of Alabama Birmingham, Birmingham, Alabama, USA (2342964)

09:30 OSN Coffee Break (Room 311)

10:00-11:30 OSN - Basic Research 2: New Probes (Room 311)
Moderator: Michael Tweedle

10:00 OSN 5: Near-Infrared Phospholipid Ethers for Broad Spectrum Optically Guided Tumor Resection
Jamey Weichert Radiology, University of Wisconsin, Maddison, Wisconsin, USA (2350864)

10:30 OSN 6: Engineered antibodies for optical imaging
Anna M. Wu Molecular and Medical Pharmacology, David Geffen School of Medicine at UCLA, Los Angeles, California, USA (2311105)

11:00 OSN 7: Optical surgical navigation with fluorescence molecular imaging: the critical role of imaging device sensitivity and imaging agent specificity
Barrett R. Harvey[1], Banghe Zhu[1], Maritoni Litorja[2], Eva M. Sevick-Muraca[1] [1]Center for Molecular Imaging, University of Texas Health Science Center, Houston, Texas, USA; [2]NIST, Gathersburg, Maryland, USA (2325342)

11:30-12:00 OSN Working Lunch (Room 311)

12:00-13:30 OSN - IND Successes and Pitfalls (Room 311)
Moderator: Eben Rosenthal

12:00 OSN 8: Regulatory Strategy for LUM015, a Fluorescent Imaging Probe Intended for Single-Dose Administration: Path to a Phase I Human Study
Erin O'Reilly[1], Jorge Ferrer[2], Melodi Whitley[3], David Kirsch[3], Brian E. Brigman[4] [1]Duke Translational Medicine Institute, Regulatory Affairs, Duke University Medical Center, Durham, North Carolina, USA; [2]Lumicell, Inc, Wellesley, Massachusetts, USA; [3]Department of Pharmacology and Cancer Biology, Duke University Medical Center, Durham, North Carolina, USA; [4]Department of Orthopaedic Surgery, Duke University Medical Center, Durham, North Carolina, USA (2343170)

12:20 OSN 9: The twists and turns of developing a knottin peptide –dye conjugate for intra-operative tumor imaging: Initiating clinical development of BLZ-100
Dennis Miller Development, Blaze Bioscience Inc, Seattle, Washington, USA (2308466)

12:40 OSN 10: Discussion

Discussion
Paula Jacobs
Dennis Miller
Erin O'Reilly
Jamey Weichert
Kurt Zinn

13:30-15:00 OSN Panel: Devices for Surgical Imaging - what is needed? (Room 311)
Moderator: Eben Rosenthal
John Frangioni
Jonathan Liu
Jonathan Sorger
Vasilis Ntziachristos

Educational Sessions

08:00-08:30 Educational Overview by John Frangioni (Room Kalakaua Ballroom B&C)
Moderator: John Frangioni

08:30-08:45 Break (Kamehameha Exhibit Hall 2 & 3)

Educational Session 01

08:45-10:15 Standards for Molecular Research (Room 312)
Moderators: Ali Azhdarinia

08:45 **ES 1: Control probes and control experiments in molecular imaging**
Martin Lepage Université de Sherbrooke, Centre d'imagerie moléculaire de Sherbrooke, Sherbrooke, Quebec, Canada (2312223)

09:15 **ES 2: Standardized trial design for clinical molecular imaging**
Wolfgang Weber Radiology, MSKCC, New York, New York, USA (2343443)

09:45 **ES 3: NCI: New and Current Imaging Initiatives that Support Precision Medicine**
Laurence P. Clarke, Paula M. Jacobs National Institutes of Health - National Cancer Institute, Rockville, Maryland, USA (2343601)

Educational Session 02

08:45-10:15 **Molecular Imaging in Precision Medicine** (Room 313 A/B/C)
Moderators: Thomas Poeschinger

08:45 **ES 4: The Use of Imaging by Biotech/Pharma: From Mouse to Human**
Joan Greve Biomedical Engineering, University of Michigan, Ann Arbor, Michigan, USA (2339618)

09:15 **ES 5: Implementing Biomarkers from Preclinical to Pivotal Trials**
Patricia Carrigan[1], Christoph Kneip[2] [1]Translational Assay Technology, Bayer Pharma AG, Müllerstr. 178, D-13342 Berlin, Germany; [2]Translational Assay technologies, Bayer Pharma AG, Berlin, Germany (2343800)

09:45 **ES 6: Ligand-targeted imaging agents for cancer, autoimmune and infectious diseases**
Philip S. Low Chemistry, Purdue University, West Lafayette, Indiana, USA (2343281)

Educational Session 03

08:45-10:15 **Optogenetics** (Room 314)
Moderators: Christopher Contag and Julien Dimastromatteo

08:45 **ES 7: Michael Lin**

09:15 **ES 8: Optogenetic Control of Cell Signaling in Mammalian Cells**
Won Do Heo Department of Biological Sciences, Korea Advanced Institute for Science and Technology (KAIST), Yuseong-gu, Korea (the Republic of) (2343506)

09:45 **ES 9: How to control biology using multiple colors of light: Analogies to multi-color imaging**
Yongku Cho Chemical and Biomolecular Engineering, University of Connecticut, Storrs, Connecticut, USA (2320561)

Educational Session 04

08:45-10:15 **Pharma 1** (Room 320 (Emalani Theatre))
Moderators: Sarah Mudd and Daniel Bradley

08:45 **ES 10: Process workflows for the development and analysis of large molecule preclinical PET imaging probes: design, characterization, and application**
Charles Glaus Research Imaging Sciences, Amgen, Inc., Thousand Oaks, California, USA (2345998)

09:15 **ES 11: Preclinical Imaging Workflow and Case Studies in Drug Development**
Patrick L. Chow Imaging, Bristol-Myers Squibb Company, Princeton, New Jersey, USA (2314268)

09:45 **ES 12: Jacob Hesterman**

10:15-10:45 **Break** (Kamehameha Exhibit Hall 2 & 3)

Educational Session 05

10:45-12:15 **Target Identification, Chemistry & Preclinical Studies Design** (Room 312)
Moderators: Twan Lammers and Brian Zeglis

10:45 **ES 13:**
Lindsey Brinton
Siva Dasa

11:15 **ES 15: Radiometal-labeled biomolecules for PET imaging of disease: Making informed choices on radionuclides and chelators**
Carolyn J. Anderson Radiology, University of Pittsburgh, Pittsburgh, Pennsylvania, USA (2342969)

11:45 **ES 16: Preclinical Imaging To Evaluate Treatment Response and Toxicity**
Adam Shuhendler Chemistry and Biomolecular Sciences, University of Ottawa, Ottawa, Ontario, Canada (2343025)

Educational Session 06

10:45-12:15 **Inflammation** (Neurology) (Room 313 A/B/C)
Moderators: Inga Fricke

10:45 **ES 17: PET imaging of neuroinflammation: concepts and developments**
Bastian Zinnhardt[1], Inga B. Fricke[1], Andreas H. Jacobs[1] [1]European Institute for Molecular Imaging, WWU Münster, Münster, Germany; [2]Department of Geriatric Medicine, Evangelische Kliniken Bonn, Bonn, Germany (2343582)

11:15 **ES 18: Preclinical Imaging of Neuroinflammation**
Aisling Chaney Medicine, University of Manchester, Manchester, United Kingdom (2343171)

11:45 **ES 19: Current State of Clinical Imaging for Neuroinflammation**
Bin Ji Molecular Imaging Center, National Institute of Radiological Sciences, Chiba, Japan (2327256)

Educational Session 07

10:45-12:15 **Point-of-Care Pathology** (Room 314)
Moderators: Anna Moore and Lindsey Brinton

10:45 **ES 20: Kengyeh Chu**

11:15 **ES 21: Dynamic Contrast Enhanced Flow Imaging: From Quantification to Validation**
Catherine Coolens[1] [1]Radiation Medicine Program, Princess Margaret Cancer Centre, Toronto, Ontario, Canada; [2]Department of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada; [3]Joint Department of Medical Imaging, University of Toronto, Toronto, Ontario, Canada (2343640)

11:45 **ES 22: Use of non-invasive intravital confocal imaging, including fluorescence, as a modality for preclinical evaluation of functional skin delivery of potential therapeutics and clinical endpoints**
Roger L. Kaspar TransDerm, Santa Cruz, California, USA (2343630)

Educational Session 08

10:45-12:15 **Pharma 2** (Room 320 (Emalani Theatre))
Moderators: Scott Haller and Patrick McConville

10:45 **ES 23: Shil Patel**

11:15 **ES 24: Paul McCracken**

11:45 **ES 25: Daniel Bradley**

12:15-13:15 **Lunch Break** (Kamehameha Exhibit Hall 2 & 3)

Educational Session 09

13:15-14:45 **Career Development - Manuscript Writing** (Room 312)
Moderators: Jason Lewis and Thomas Reiner

13:15 **ES 26: How to write a paper**
Julie Sutcliffe University of California Davis, Sacramento, California, USA (2342978)

13:45 **ES 27: How to Review a Paper**
Jason S. Lewis Radiology, MSKCC, New York, New York, USA (2343491)

14:15 **ES 28:**
Dominique Delbeke
Henry van Brocklin
Raymond Gibson

Educational Session 10

13:15-14:45 **Inflammation** (Cancer) (Room 313 A/B/C)
Moderators: Susanne Kossatz

13:15 **ES 31: The biology and immunology of cancer immunotherapy**
Victor H. Engelhard Carter Immunology Center, University of Virginia School of Medicine, Charlottesville, Virginia, USA (2318634)

13:45 **ES 32: *In vivo* imaging of immune cells in immunotherapy**
Erik Aarntzen Radiology and Nuclear Medicine, Radboudumc, Nijmegen, Netherlands (2343588)

14:15 **ES 33: Harnessing Intravital Microscopy To Understand The Realtime Dynamics of Immune Cells in The Tumor Microenvironment.**
Mark B. Headley, Matthew Krummel Pathology, University of California, San Francisco, San Francisco, California, USA (2347187)

Educational Session 11

13:15-14:45 **Radiomics** (Room 314)
Moderators: Siva Sai Krishna Dasa and Maryellen Giger

13:15 **ES 34: Interrogating tumor heterogeneity: the role of radiomics/radiogenomics**
Evis Sala Radiology, Memorial Sloan Kettering Cancer Center, New York, New York, USA (2313794)

13:45 **ES 35: Integrating Radiomics and Genomic**
Maryellen Giger Department of Radiology and Committee on Medical Physics, The University of Chicago, Chicago, Illinois, USA (2324732)

14:15 **ES 36: Introduction to Radiomics**
Jason T. Lee[1] [1]Crump Institute for Molecular Imaging, Los Angeles, California, USA; [2]Molecular and Medical Pharmacology, David Geffen School of Medicine at UCLA, Los Angeles, California, USA (2343000)

Educational Session 12

13:15-14:45 **Pharma 3** (Room 320 (Emalani Theatre))
Moderators: Jack Hoppin and Charles Glaus

13:15 **ES 37: Safety Imaging in Drug Discovery and Development – the current status and trends**
Xiaoyou Ying DSAR US Bioimaging, Sanofi R&D, Framingham, Massachusetts, USA (2350419)

13:40 **ES 38: Beyond Autoradiography: Innovations in Preclinical Tissue Distribution Methods to Solve Problems in Drug Discovery and Development**
Marissa Vavrek Pharmacokinetics, Pharmacodynamics, and Drug Metabolism, Merck & Co., Inc., West Point, Pennsylvania, USA (2343207)

14:05 **ES 39: *Ex vivo* Imaging in Safety Assessment and General Toxicology**
Scott D. Haller Translational Imaging Center, MPI Research Inc., Mattawan, Michigan, USA (2344166)

14:25 **ES 40: *Molecular Imaging Approaches to Improving Drug Tolerability***
Sarah R. Mudd AbbVie, North Chicago, Illinois, USA (2344010)

14:45-15:15 Break (Kamehameha Exhibit Hall 2 & 3)

Opening Ceremony & Presidential Address

15:15-16:15 Opening Ceremony & Presidential Address (Room Kalakaua Ballroom B&C)

Plenary Session 1

16:15-17:15 Plenary Session: Zena Werb - Sponsored by WIMIN-IG (Kalakaua Ballroom B&C) (Room Kalakaua Ballroom B&C)
Moderators: Anna Moore and Julie Sutcliffe

16:15 **PLS 1: Intravital imaging reveals properties of cancer progression, metastasis and response to therapy**
Zena Werb University of California, San Francisco, San Francisco, California, USA (2247309)

Opening Reception

17:15-17:45 Opening Reception (Kamehameha Exhibit Hall 2 & 3)

Poster Session 1

17:45 -18:45 Poster Session (Kamehameha Exhibit Hall 2 & 3)

Odd Numbers will be presented during the first 30 minutes of the session and even numbers during the second 30 minutes. For a complete list of individual abstracts, refer to pages 73-100

Chemistry & Imaging Probes

- CT
- MRI
- Multimodal
- Nuclear Imaging
- Optical Imaging
- Photo-Acoustic Imaging
- Ultrasound

First-in-Human & Clinical Studies

- Cardiology
- Inflammation/Immunology
- Metabolic Disease
- Neurology

Opening Reception Cont'd

18:45-20:00 Opening Reception Cont'd (Kamehameha Exhibit Hall 2 & 3)

Thursday September 3

Room	311	312	313 A/B/C	314	315	320 (Emalani Theatre)	319A
08:00 - 09:30	Industry Workshop: Mediso	Spotlight Session 1: Early Career - Young Professionals in Molecular Imaging	Spotlight Session 2: Infectious Disease	Spotlight Session 3: Women's Imaging	Spotlight Session 4: Co-Clinical Trials - Data Analysis	MOMIL Symposium: Role of Industry and Academics in Advancing Molecular Imaging Research	
09:30 - 10:30	Plenary Sesison 2: Elizabeth Morris (Kalakaua Ballroom B&C)						
10:30 -11:15	Coffee Break, Visit Exhibits & Industry Selected Posters						
11:15 - 12:45	Scientific Session 1: First-in-Human & Clinical Studies: Oncology	Scientific Session 2: Chemistry & Imaging Probes - Optical/Photo-Acoustic Imaging	Scientific Session 3: Preclinical in vivo Studies - Oncology: Multimodal	Scientific Session 4: Chemistry & Imaging Probes - MRI	Scientific Session 5: Chemistry & Imaging Probes - Nuclear Imaging	Late-breaking Abstract Session 1	
12:45 - 13:45	Lunch Break in Exhibit Hall (Sponsored by Aspect Imaging)						WIMIN Membership Meeting
13:45 - 15:15	Scientific Session 6: Technology & Software Developments - Optical/Photo-Acoustic Imaging	Scientific Session 7: Chemistry & Imaging Probes - Multimodal	Scientific Session 8: Preclinical in vivo Studies - Oncology: MRI/Ultrasound	Scientific Session 9: Preclinical in vivo Studies - Inflammation/ Immunology	Scientific Session 10: Preclinical in vivo Studies - Neurology	Late-breaking Abstract Session 2	
15:15 - 16:00	Coffee Break & Visit Exhibits						
16:00 - 17:00	Plenary Session 3: Chien Ho (Kalakaua Ballroom B&C)						
17:00 - 18:00	Poster Session 2: Late Breaking Abstract Posters, Poster Award Judging (Exhibit Hall 2 & 3)						

Industry Workshop

08:00-09:30 Mediso (Room 311)

Spotlight Session 01

08:00-09:30 Early Career - Young Professionals in Molecular Imaging (Room 312)
Moderators: Danielle Vugts and Ali Azhdarinia

08:00 SPS 1: Young Investigator Panel Discussion: "This is how I started up my lab, and 10 things I would have liked to know before"

08:00 SPS 1
Willem J. Mulder Radiology, Icahn School of Medicine at Mount Sinai, New York, New York, USA (2344048)

SPS 2
Brian M. Zeglis Chemistry and Biochemistry, Hunter College, New York, New York, USA (2343404)

SPS 3
Jonathan T. Liu University of Washington, Seattle, Washington, USA (2342998)

SPS 4
Kimberly Kelly, Ph.D.
Kimberly A. Kelly Biomedical Engineering, University of Virginia, Charlottesville, Virginia, USA (2343614)

SPS 5
Greg M. Thurber Chemical Engineering and Biomedical Engineering, University of Michigan, Ann Arbor, Michigan, USA (2343378)

08:48 SPS 6: The Early Stage Professionals in Molecular Imaging Group - Goals, Mission and Projects.
Thomas Reiner MSKCC, New York, New York, USA (2324739)
Senior Investigator Panel Discussion: "Our field has changed quickly, and this is the advice I would like to give new postdocs and graduate students."

SPS 7
Anna M. Wu, Ph.D.
Anna M. Wu Molecular and Medical Pharmacology, UCLA School of Medicine, Los Angeles, California, USA (2343607)

SPS 8
Julie Sutcliffe Internal Medicine, UC Davis, Sacramento, California, USA (2343011)

SPS 9
Jason S. Lewis MSKCC, New York, New York, USA (2343605)

SPS 10
John V. Frangioni Curadel, LLC, Worcester, Massachusetts, USA (2342080)

SPS 11
Christopher H. Contag Pediatrics, Stanford University, Stanford, California, USA (2343628)

Spotlight Session 02

08:00-09:30 Infectious Disease (Room 313 A/B/C)
Moderators: Dima Hammoud and Chris Palestro

08:00 SPS 12: Novel Imaging Tracers for Rapid and Noninvasive Assessment of Bacterial Infections
Sanjay K. Jain Johns Hopkins University, Baltimore, Maryland, USA (2313966)

08:30 SPS 13: Molecular imaging of viral infections and their sequalae
Dima A. Hammoud NIH, Bethesda, Maryland, USA (2289518)

09:00 SPS 14: Multimodality imaging of *C. rodentium* infection during antibiotic chemotherapy
James W. Collins[1], Manal AbuOun[2], Gad Frankel[1]
[1]Center for molecular Bacteriology and Infection, Imperial College London, London, United Kingdom; [2]Department of Bacteriology, Animal and Plant Health Agency, Addlestone, Surrey, United Kingdom (2314265)

Spotlight Session 03

08:00-09:30 Women's Imaging (Room 314)
Moderators: Anna Moore and Maxine Jochelson

08:00 SPS 15: Precision Medicine in Breast Cancer - use of Cancer Genomics to Improve Outcomes and Personalize Treatment in Early and Advanced Disease
Philomena McAndrew Medicine/ Hematology Oncology, Cedars Sinai Medical Center, Beverly Hills, California, USA (2314654)

08:30 SPS 16: Imaging of Gynecologic Tumors: Combining Morphology and Function Abstract
Evis Sala Radiology, Memorial Sloan Kettering Cancer Center, New York, New York, USA (2342955)

09:00 SPS 17: Imaging for the Detection, Staging and Follow-up of Breast Cancer When Does Physiology Trump Anatomy
Maxine Jochelson Radiology, MSKCC, New York, New York, USA (2300259)

Spotlight Session 04

08:00-09:30 Co-Clinical Trials - Data Analysis (Room 315)
Moderators: John Hazle

08:00 SPS 18: Co-Clinical Trials Data Analysis
John Hazle MD Anderson Cancer Center, Houston, Texas, USA (2343355)

** Denotes highlight lecture*

08:05 **SPS 19: Quantitation and informatics needs for co-clinical trials**
John Sunderland Radiology, University of Iowa, Iowa City, Iowa, USA (2342138)

08:35 **SPS 20: Of Mice and Men: Mapping the Landscape of Murine Models in Molecule Imaging**
David Piwnica-Worms Cancer Systems Imaging, University of Texas MD Anderson Cancer Center, Houston, Texas, USA (2323561)

09:05 **SPS 21: NCI: New and Current Imaging Initiatives that Support Precision Medicine**
Paula M. Jacobs, Laurence P. Clarke Division of Cancer Treatment and Diagnosis\Cancer Imaging Program, National Cancer
Institute, Bethesda, Maryland, USA (2343613)

MOMIL Symposium

08:00-09:30 **Role of Industry and Academics in Advancing Molecular Imaging Research**(Room 320 - Emalani Theatre)

Plenary Sesison 2

09:30-10:30 **Plenary Sesison 2: Elizabeth Morris** (Kalakaua Ballroom B&C) (Room Kalakaua Ballroom B&C)
Moderators: Kimberly Kelly and Maxine Jochelson

09:30 **PLS 2: Breast Imaging in the Era of Personalized Medicine**
Elizabeth Morris Memorial Sloan Kettering Cancer Center, New York, New York, USA (2308792)

10:30-11:15 **Coffee Break, Industry Selected Posters & Visit Exhibits** (Kamehameha Exhibit Hall 2 & 3)

Scientific Session 01

11:15-12:45 **First-in-Human & Clinical Studies: Oncology** (Room 311)
Moderators: Cesar Castro and Brian Zeglis

11:15 **SS 1: Photo-Acoustic Imaging Enables Real-time, Non-invasive Detection of Microvascular Disease and Local Oxygenation Defects in Patients with Chronic Lower Limb Ischemia**
Petra Korpisalo[1], Santeri Tarvainen[1], Galina Wirth[1], Kimmo Mäkinen[2], Tomi Laitinen[2], Seppo Ylä-Herttuala[1] [1]Dept. Molecular Medicine and Biotechnology, Univeristy of Eastern Finland, Kuopio, Finland; [2]Kuopio University Hospital, Kuopio, Finland (2229429)

11:25 **SS 2: Dual Tracer PET/MRI of Breast Tumors: Insights Into Tumor Biology**
Katja Pinker-Domenig[1], Pascal A. Baltzer[1], Piotr Andrzejewski[3], Heinrich Magometschnigg[1], Dietmar Georg[3], Georgios Karanikas[4], Wolfgang Wadsak[4], Panagiotis Kapetas[1], Thomas H. Helbich[1] [1]Dept. of Biomedical Imaging and Image-guided Therapy, Division of Molecular and Gender Imaging, Medical University Vienna, Vienna, Austria; [2]Molecular Imaging and Therapy Services, Memorial Sloan-Kettering Cancer Center, New York, New York, USA; [3]Christian Doppler Laboratory for Medical Radiation Research for Radiation Oncology, Department of Radiation Oncology, Medical University Vienna, Vienna, Vienna, Austria; [4]Department of Biomedical Imaging and Image-guided Therapy, Division of Nuclearmedicine, Medical University Vienna, Vienna, Vienna, Austria (2224482)

11:35 **SS 3: ^{64}Cu-DOTATATE PET for Somatostatin Receptor Imaging of Neuroendocrine Tumor Patients: a Prospective Head-to-Head Comparison with ^{111}In-DTPA-octreotide in 112 patiens.**
Andreas Pfeifer[1], Ulrich Knigge[2], Tina Binderup[2], Jann Mortensen[2], Peter Oturai[2], Anne Kiil Berthelsen[2], Seppo Langer[2], Palle Rasmussen[3], Dennis Elema[3], Eric von Benzon[2], Liselotte Hojgaard[2], Andreas Kjaer[1] [1]Nuclear Medicine & PET, Rigshospitalet & University of Copenhagen, Copenhagen, Denmark; [2]Rigshospitalet, Copenhagen, Denmark; [3]DTU, Lygby, Denmark (2228410)

***11:45** **SS 4: Volumetric MR Spectroscopic Imaging Identifies Infiltrating Margin in Glioblastoma for 5-ALA Intraoperative Fluorescence-Guided Surgery**
James S. Cordova[2], Constantinos G. Hadjipanayis[3], Zhongxing Liang[2], Lee A. Cooper[5], Brad A. Kairdolf[6], Stewart G. Neill[4], Christina L. Appin[4], Jeffrey J. Olson[3], Chad A. Holder[2], Hyunsuk Shim[2] [1]Winship Cancer Institute, Atlanta, Georgia, USA; [2]Radiology, Emory University, Atlanta, Georgia, USA; [3]Neurosurgery, Emory University, Atlanta, Georgia, USA; [4]Pathology, Emory University, Atlanta, Georgia, USA; [5]Biomedical Informatics, Emory University, Atlanta, Georgia, USA; [6]Biomedical Engineering, Georgia Institute of Technology, Atlanta, Georgia, USA (2229010)

** Denotes highlight lecture*

12:05 **SS 5: Clinical application of noninvasive and nonradioactive determination of microscopic lymph node tumor status by multispectral optoacoustic imaging**
Ingo Stoffels[1], Stefan Morscher[2], Iris Helfrich[1], Julia Leyh[1], Neal C. Burton[2], Thomas Sardella[2], Jing Claussen[2], Thorsten D. Poeppel[3], Alexander Roesch[1], Klaus Griewank[1], Dirk Schadendorf[1], Matthias Gunzer[4], Joachim Klode[1] [1]Department of Dermatology, University Hospital Essen, Essen, Germany; [2]iThera Medical, Munich, Germany; [3]Department of Nuclear Medicine, University Hospital Essen, Essen, Germany; [4]Institute for Experimental Immunology and Imaging, Imaging Center Essen (IMCES), University Hospital Essen, Essen, Germany; [5]West German Cancer Center, University Duisburg-Essen, Essen, Germany (2232747)

12:15 **SS 6: A first in human study with the first tumor-specific agent with fluorescence in the NIR spectrum for image-guided surgery: a translational study.**
Charlotte E. Hoogstins[1], Quirijn R. Tummers[1], Adam F. Cohen[2], Cornelis J. van de Velde[1], Philip S. Low[3], Alexander L. Vahrmeijer[1], Jacobus Burggraaf[2] [1]Surgery, Leiden University Medical Center, Leiden, Netherlands; [2]Centre for Human Drug Research, Leiden, Netherlands; [3]Purdue University, West Lafayette, Indiana, USA (2233307)

12:25 **SS 7: Clinical Trial: Efficacy of ^{68}Ga-DOTATATE PET/CT in Patients with Neuroendocrine Tumors**
Stephen A. Deppen[2], Adam Bobbey[1], Jeff Clanton[1], Martin Sandler[1], Dominique Delbeke[1], Ronald C. Walker[1] [1]Radiology & Radiological Sciences, Vanderbilt University Medical Center, Nashville, Tennessee, USA; [2]Department of Surgery, Vanderbilt University Medical Center, Nashville, Tennessee, USA (2234335)

12:35 **SS 8: Molecular Imaging to assess and monitor tissue proliferation by 18F-FLT PET/CT during investigational Breast Cancer Therapy**
Michael V. Knopp[1], Katherine Binzel[1], Xiaoli Lan[1], Preethi Subramanian[1], Prayna Bhatia[1], Nathan Hall[1], Bhuvaneswari Ramaswamy[2], Jun Zhang[1] [1]Wright Center of Innovation, The Ohio State University Wexner Medical Center, Columbus, Ohio, USA; [2]Division of Medical Oncology, The Ohio State University Comprehensive Cancer Center, Columbus, Ohio, USA (2245144)

Scientific Session 02

11:15-12:45 **Chemistry & Imaging Probes - Optical/ Photo-Acoustic Imaging** (Room 312)
Moderators: Vasilis Ntziachristos and Mingfeng Bai

11:15 **SS 9: Matrix Metalloproteinase MMP-2 Detection by Photoacoustic Lifetime Contrast Imaging**
Ekaterina Morgounova[1], Sadie Johnson[2], Michael J. Wilson[3], Benjamin J. Hackel[2], Shai Ashkenazi[1] [1]Biomedical Engineering, University of Minnesota - Twin Cities, Minneapolis, Minnesota, USA; [2]Chemical Engineering and Materials Science, University of Minnesota - Twin Cities, Minneapolis, Minnesota, USA; [3]Laboratory Medicine and Pathology, University of Minnesota - Twin Cities, Minneapolis, Minnesota, USA; [4]Minneapolis VA Medical Center, Minneapolis, Minnesota, USA (2233742)

11:25 **SS 10: "Turn-on" Optical Probes for Imaging Mn^{2+} in Live Cells.**
Anindita Sarkar, Subha Bakthavatsalam, Ananya Rakshit, Ankona Datta Department of Chemical sciences, Tata Institute of Fundamental Research, Mumbai, Maharashtra, India (2243187)

11:35 **SS 11: Synthesis, characterization and application of monofluorinated resazurin, a selective Cerenkov absorbing viability and redox dye**
Alejandro D. Arroyo, Alexander Kachur, Elizabeth Browning, Eric Blankemeyer, Anatoly V. Popov, Edward J. Delikatny Radiology, University of Pennsylvania, Philadelphia, Pennsylvania, USA (2228986)

11:45 **SS 12: Small Molecule Dye based Probes for Near Infrared Window II Fluorescent Imaging of Tumor and Image-guided Surgery**
Hao Chen[2], Kai Cheng[3], Yao Sun[4], Xuechuan Hong[2], Zhen Cheng[5] [1]Molecular Imaging Program at Stanford and Bio-X Program, Stanford University, Stanford, California, USA; [2]School of Pharmaceutical Sciences, State Key Laboratory of Virology, Key Laboratory of Combinatorial Biosynthesis and Drug Discovery, Wuhan, Hubei, China; [3]Department of Radiology, Molecular Imaging Program at Stanford (MIPS), Bio-X Program, Stanford, California, USA (2232739)

11:55 **SS 13: AS1411 aptamer guided QD655 labeled DNA Origami working as a novel nanoprobe for fluorescence molecular imaging in breast tumor mouse model**
Yang Du, Qian Zhang, Jie Tian Chinese Academy of Sciences, Institute of Automation, Beijing, China (2227805)

***12:05** **SS 14: Multispectral optoacoustic tomography detects orthotopic pancreatic tumors in vivo using a Syndecan-1 conjugated mesoporous silica-coated gold nanorod as a nano-contrast agent**
Anil Khanal[2], Lacey R. McNally[1] [1]Medicine, University of Louisville, Louisville, Kentucky, USA; [2]Medicine, University of Louisvillie, Louisville, Kentucky, USA (2229698)

** Denotes highlight lecture*

12:25 **SS 15: A luciferin analog achieves highly sensitive deep-tissue tumor imaging using near-infrared bioluminescence**
Takahiro Kuchimaru[1], Satoshi Iwano[2], Masahiro Kiyama[2], Shun Mitsumata[1], Tetsuya Kadonosono[1], Haruki Niwa[2], Shojiro Maki[2], Shinae Kizaka-Kondoh[1] [1]Tokyo Institute of Technology, Yokohama, Japan; [2]The University of Electro-Communications, Tokyo, Japan (2232022)

12:35 **SS 16: Disease Screening Pill: *In Vivo* Demonstration of an Orally Available Near-Infrared Molecular Imaging Agent for Early Diagnosis of Cancer Using Mouse Xenografts**
Sumit Bhatnagar[2], Kirti Dhingra[2], Jianshan Liao[2], Greg M. Thurber[1] [1]Chemical Engineering and Biomedical Engineering, University of Michigan, Ann Arbor, Michigan, USA; [2]Chemical Engineering, University of Michigan, Ann Arbor, Michigan, USA (2244674)

Scientific Session 03

11:15-12:45 **Preclinical in vivo Studies - Oncology: Multimodal** (Room 313 A/B/C)
Moderators: Jung-Joon Min and Kim Brewer

11:15 **SS 17: Multiparametric longitudinal *in vivo* PET/MRI imaging of patient derived orthotope and subcutaneous colorectal cancer in rats**
Anna Kuhen, Kerstin Fuchs, Maren Harant, Sandro Aidone, Bernd J. Pichler Werner Siemens Imaging Center, Department of Preclinical Imaging and Radiopharmacy, Eberhard Karls University of Tuebingen, Tuebingen, Germany (2233003)

11:25 **SS 18: In vitro and in vivo evaluation of mTOR inhibitor treatment in gastrointestinal stromal tumor using PET/MRI/^{13}C NMR**
Valentina Di Gialleonardo[1], Hannah N. Aldeborgh[1], Alex J. Poot[1], Sui Seng Tee[1], Julio A. Alvarez[1], William D. Tap[1], Jason S. Lewis[1], Wolfgang Weber[1], Kayvan R. Keshari[1] [1]Memorial Sloan Kettering Cancer Center, New York, New York, USA; [2]Medicine, Memorial Sloan Kettering Cancer Center, New York, New York, USA (2233034)

11:35 **SS 19: Therapy response monitoring of a highly efficient T cell and checkpoint inhibitor-based immunotherapy in mice with progressed pancreatic cancer with ^{18}F-FDG-PET/MRI**
Barbara F. Schörg[1], Dominik B. Krüger[1], Christoph M. Griessinger[1], Sabrina H. Eilenberger[1], Gerald Reischl[2], Walter Ehrlichmann[2], Martin Röcken[3], Manfred Kneilling[3], Bernd J. Pichler[1] [1]Werner Siemens Imaging Center, Department of Preclinical Imaging and Radiopharmacy, Eberhard Karls University Tübingen, Tübingen, Germany; [2]Department of Preclinical Imaging and Radiopharmacy, Eberhard Karls University Tübingen, Tübingen, Baden-Württemberg, Germany; [3]Department of Dermatology, Eberhard Karls University Tübingen, Tübingen, Germany (2233744)

***11:45** **SS 20: *In vivo* bio-distribution of systemically injected exosomes derived from breast cancer cells using NIR and PET imaging**
Kyung Oh Jung[4], Hyewon Youn[1], Keon Wook Kang[3], June-Key Chung[5] [1]Cancer Imaging Center, Seoul National Univ, Seoul, Jongno-Gu, Korea (the Republic of); [2]Cancer Research Institute, Seoul National University, Seoul, Korea (the Republic of); [3]Nuclear Medicine, Seoul National University, Seoul, Korea (the Republic of); [4]Biomecical Sciences, Seoul National University, Seoul, Korea (the Republic of); [5]Tumor Microenvironment Global Core Research Center, Seoul National University, Seoul, Korea (the Republic of) (2232815)

12:05 **SS 21: Multimodal imaging of breast cancer metastasis targeting and antimetastatic nanotherapy**
Larissa Rizzo[1], Cristianne Rijcken[2], Robert Pola[3], Gert Storm[4], Josef Ehling[1], Saskia von Stillfried[1], Fabian Kiessling[1], Twan Lammers[1] [1]Experimental Molecular Imaging, RWTH Aachen University, Aachen, Germany; [2]Cristal Therapeutics, Maastricht, Netherlands; [3]Institute of Macromolecular Chemistry, Academy of Sciences, Prag, Czech Republic; [4]Department of Pharmaceutics, Utrecht University, Utrecht, Netherlands; [5]Department of Targeted Therapeutics, University of Twente, Enschede, Netherlands; [6]Department of Pathology, RWTH Aachen University Hospital, Aachen, Germany (2231311)

12:15 **SS 22: Visualization of colon and NSCL cancer using Novel Protein Scaffold, anti-EGFR Repebody**
Misun Yun[1], Dong-Yeon Kim[1], Hyeon Sik Kim[1], Zheng Jinhai[1], Ayoung Pyo[1], Yeongjin Hong[2], Jung-Joon Min[1] [1]Nuclear Medicine, Chonnam National University Hwasun Hospital, Hwasun, Korea (the Republic of); [2]Microbiology, Chonnam National University Medical School, Gwangju, Korea (the Republic of) (2232515)

12:25 **SS 23: Assessing Tumor Oxygenation and Perfusion in Response to a Novel Vascular Disrupting Agent OXi6197 Using Color-Doppler Ultrasound, Multi-parametric MRI and Bioluminescence Imaging**
Heling Zhou[1], Ramona Lopez[1], Zhang Zhang[2], Debabrata Saha[2], Rebecca Denney[1], Mary Lynn Trawick[3], Kevin Pinney[3], Ralph Mason[1] [1]Radiology, UT Southwestern Medical Center, Dallas, Texas, USA; [2]Radiation Oncology, UT Southwestern Medical Center, Dallas, Texas, USA; [3]Chemistry and Biochemistry, Baylor University, Dallas, Texas, USA (2232706)

12:35 **SS 24: Dynamic imaging of targeted versus passive diffusion of nanomedicines into tumours :A simultaneous PET-MR study**
Kristofer Thurecht, Idriss Blakey, Simon Puttick, Nathan Boase, Amanda Pearce, Adrian Fuchs, Andrew Whittaker Centre for Advanced Imaging and Australian Institute for Bioengineering and Nanotechnology, The University of Queensland, Brisbane, Queensland, Australia (2233793)

** Denotes highlight lecture*

Scientific Session 04

11:15-12:45 Chemistry & Imaging Probes - MRI (Room 314)
Moderators: Naranamangalam Jagannathan and Joseph Ackerman

11:15 SS 25: Molecular MRI With Engineered Physiology Enables High-Sensitivity Brain Imaging *In Vivo*
Adrian L. Slusarczyk[1], Mitul Desai[1], Ashley Chapin[1], Mariya Barch[1], Alan Jasanoff[1] [1]Biological Engineering, MIT, Cambridge, Massachusetts, USA; [2]Brain and Cognitive Sciences, MIT, Cambridge, Massachusetts, USA (2225523)

11:25 SS 26: A novel hyperpolarized biosensor for ^{13}C magnetic resonance spectroscopic imaging of pH
Stephan Düwel[2], Christian Hundshammer[1], Malte Gersch[2], Benedikt Feuerecker[1], Axel Haase[3], Steffen Glaser[2], Markus Schwaiger[1], Franz Schilling[2] [1]Department of Nuclear Medicine, Klinikum rechts der Isar, Technische Universität München, Munich, Germany; [2]Department of Chemistry, Technische Universität München, München, Germany; [3]Institute of Medical Engineering, Technische Universität München, Garching, Germany (2226490)

11:35 SS 27: IGF-1 Conjugated Theranostic Iron Oxide Nanoparticles for Targeting and Delivery of SN-38 to Pancreatic Cancer
Yuancheng Li[1], Hongyu Zhou[2], Liya Wang[1], Lily Yang[2], Hui Mao[1] [1]Radiology and Imaging Sciences, Emory University, Atlanta, Georgia, USA; [2]Surgery, Emory University, Atlanta, Georgia, USA (2233873)

11:45 SS 28: Novel contrast agents for detection of hypoxia with optical and magnetic resonance (MR) imaging
Karolina Jankowska[1], Edward S. O'Neill[1], Paul Bonnitcha[2], Elizabeth J. New[1] [1]School of Chemistry, The University of Sydney, Sydney, New South Wales, Australia; [2]The Kolling Insitute of Medical Research, The University of Sydney, Sydney, New South Wales, Australia (2230419)

***11:55 SS 29: High-resolution quantitative mapping of glucose metabolic disorders following mild traumatic brain injury using in vivo glucoCEST**
Tsang-Wei Tu, Rashida Williams, Neekita Jikaria, Lisa Turtzo, Joseph Frank Radiology and Imaging Sciences, National Institute of Health, Bethesda, Maryland, USA (2233013)

12:15 SS 30: Assessing Kidney Function with Magnetic Resonance Imaging of Hyperpolarised 15N-Glutamine
Markus Durst[1], Enrico Chiavazza[2], Axel Haase[1], Silvio Aime[2], Markus Schwaiger[4], Rolf F. Schulte[3] [1]IMETUM, Technical University of Munich, Garching, Bavaria, Germany; [2]University of Torino, Turin, Italy; [3]GE Global Research, Garching, Germany; [4]Technical University of Munich, München, Germany (2230507)

12:25 SS 31: Comparison of ^{1}H and ^{13}C Apparent Diffusion Coefficient Values of Mice Liver *in vivo* using Dynamic Nuclear Polarization and Magnetic Resonance Imaging at 14T
Irene Marco-Rius[1], Jeremy W. Gordon[1], Robert Bok[1], Peder E. Larson[1], Subramaniam Sukumar[1], Zihan Zhu[2], Cornelius von Morze[1], Daniel Vigneron[1], John Kurhanewicz[1], Michael A. Ohliger[1] [1]Radiology and Biomedical Imaging, University of California San Francisco, San Francisco, California, USA; [2]University of California, San Francisco, San Francisco, California, USA (2232322)

12:35 SS 32: Pre-screening candidates for Optical Surgical Navigation by detecting GGT enzyme activity with catalyCEST MRI
Sanhita Sinharay[4], Kyle Jones[3], Edward A. Randtke[3], Christine Howison[3], Hisataka Kobayashi[1], Mark Pagel[5], Setsuko K. Chambers[2] [1]Molecular Imaging Program, NCI/NIH, Bethesda, Maryland, USA; [3]Biomedical Engineering, University of Arizona, Tucson, Arizona, USA; [4]Chemistry and Biochemistry, University of Arizona, Tucson, Arizona, USA; [5]University of Arizona, Tucson, Arizona, USA (2234085)

Scientific Session 05

11:15-12:45 Chemistry & Imaging Probes - Nuclear Imaging (Room 315)
Moderators: Carolyn Anderson and Julie Sutcliffe

11:15 SS 33: Nanogels from Metal-Chelating Crosslinkers as Platforms for Bimodal MRI/PET Imaging: An Application to Copper-64 PET Imaging of Tumors and Metastases
Jacques Lux[1], Alexander G. White[2], Minnie Chan[1], Carolyn J. Anderson[2], Adah Almutairi[1] [1]School of Pharmacy, UCSD, San Diego, California, USA; [2]Departments of Radiology, Pharmacology & Chemical Biology and Bioengineering, University of Pittsburgh, Pittsburgh, Pennsylvania, USA; [3]KACST-UCSD Center for Excellence in Nanomedicine and Engineering, La Jolla, California, USA (2227450)

11:25 SS 34: Breast Cancer Immuno-PET Imaging in Mice Using a Natural Nano-tracer
Jun Tang[2], Carlos Perez Medina[2], Dalya Abdel-Atti[5], Edward A. Fisher[7], Miriam Merad[8], Zahi . Fayad[6], Jason S. Lewis[1], Willem J. Mulder[4], Thomas Reiner[3] [1]MSKCC, New York, New York, USA; [2]Radiology, Memorial Sloan Kettering Cancer Center, New York City, New York, USA; [5]Radiology, Memorial Sloan Kettering Cancer Center, New York, New York, USA; [6]Radiology, Icahn School of Medicine at Mount Sinai, New York, New York, USA; [7]Cardiology, NYU School of Medicine, New York, New York, USA; [8]Tisch Cancer Institute, Icahn School of Medicine at Mount Sinai, New York, New York, USA (2233463)

** Denotes highlight lecture*

11:35 **SS 35: Peptide heterodimer for the uPAR-$\alpha_v\beta_3$ dual-targeted cancer imaging**
Dexing Zeng[1], Yongkang Gai[1], Guangya Xiang[2], Xiang Ma[2], Lingyi Sun[1] [1]Radiology, University of Pittsburgh, Pittsburgh, Pennsylvania, USA; [2]School of Pharmacy, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, Hubei, China (2232692)

11:45 **SS 36: ^{90}Y PET imaging: Optimization for Preclinical Settings**
Katerina Eigner Henke[1], Ondrej Lebeda[1], Jens Waldeck[3], Sarah Chapman[4], W. M. Leevy[4], Sebastian Eigner[5] [1]Radiopharceuticals, NPI AS CR, Husinec-Rez, Czech Republic; [2]SKS Biotech, s.r.o., Litomerice, Czech Republic; [3]Bruker BioSpin MRI GmbH, Ettlingen, Germany; [4]Notre Dame Integrated Imaging Facility, Notre Dame, Indiana, USA; [5]Center for Advanced Preclinical Imaging, Institute of Pathological Physiology, First Faculty of Medicine, Charles University in Prague, Prague, Czech Republic (2233219)

***11:55** **SS 37: [^{18}F]FP-$R_0$1-MG-F2, A Radiofluorinated Cystine Knot PET Tracer for Pancreatic Cancer Detection**
Richard Kimura[1], Bin Shen[1], Timothy H. Witney[1], Rammohan Devulapally[1], Fabian Filipp[2], Ohad Ilovich[1], Arutselvan Natarajan[1], Zhen Cheng[1], Frederick T. Chin[1], Sanjiv S. Gambhir[1] [1]Department of Radiology, Stanford University, London, California, USA; [2]Biology, UC Merced, Merced, California, USA (2234280)

12:15 **SS 38: A Potent and Selective C-11 Labeled PET Tracer for Imaging Sphingosine-1-phosphate Receptor 2 (S1PR2)**
Xuyi Yue[1], Hongjun Jin[1], Hui Liu[1], Adam J. Rosenberg[1], Hao Yang[1], Robyn S. Klein[2], Zhude Tu[1] [1]Department of Radiology, Washington University School of Medicine, St. Louis, Missouri, USA; [2]Departments of Medicine, Anatomy & Neurobiology, Pathology & Immunology, Washington University School of Medicine, St. Louis, Missouri, USA (2234067)

12:25 **SS 39: A Novel Method for Dimerizing RGD peptides at Room Temperature Using ^{18}F-Hexafluorobenzene as a Prosthetic Group**
Orit Jacobson Weiss[1], Xuefeng Yan[1], Gang Niu[1], Dale O. Kiesewetter[1], Xiaoyuan Chen[2] [1]LOMIN, NIBIB/NIH, Bethesda, Maryland, USA; [2]National Institute of Biomedical Imaging and Bioengineering, National Institutes of Health, Bethesda, Maryland, USA (2243261)

12:35 **SS 40: SPECT/CT Imaging of a Novel HER2-targeted Peptide ^{99m}Tc-HYNIC-YLF8 in a Breast Cancer Mouse Model**
Chengyan Dong[1], Liqiang Li[2], Zihua Wang[3], Yue Wu[2], Zhiyuan Hu[3], Bing Jia[2], Fan Wang[4] [1]Interdisciplinary Laboratory, Institute of Biophysics, Chinese Academy of Sciences, Beijing, China; [2]Medical Isotopes Research Center, Peking University,, Beijing, China; [3] National Center for Nanoscience and Technology, Chinese Academy of Sciences,, Beijing, China; [4]Medical Isotopes Research Center, Peking University, Beijing, China (2232866)

Late-breaking Abstract Session 1

11:15-12:45 **Late-breaking Abstracts** (Room 320 (Emalani Theatre))
Moderators: Jason Lewis and H. Charles Manning

11:15 **LBA 1: Kinetic Modeling and Parametric Imaging in the First Human Dynamic Whole-body [^{18}F]FDS PET Study**
Yun Zhou[1], Li Huo[2], Xueqi Chen[1], Fang Li[2], Jeffrey Leal[1], Martin Pomper[1] [1]Johns Hopkins University School of Medicine, Baltimore, Maryland, USA; [2]Peking Union Medical College Hospital, Beijing, China (2319575)

11:25 **LBA 2: Intraoperative optical imaging of peritoneal carcinomatosis of colorectal origin using a VEGF targeted fluorescent tracer – Results of the Hi-Light study, a first in human imaging study**
Niels Harlaar[1], Marjory Koller[1], Steven J. de Jongh[1], Barbare van Leeuwen[1], Patrick H. Hemmer[1], Robert van ginkel[1], Lukas Been[1], Gursah Kats-Ugurlu[2], Marjolijn Lub-de Hooge[3], Matthijs Linssen[3], Annelies Jorritsma[3], Wouter Nagengast[4], An Reyners[5], Vasilis Ntziachristos[6], Gooitzen M. van Dam[1] [1]Surgery, University Medical Center Groningen (UMCG), Groningen, Netherlands; [2]Pathology, University Medical Center Groningen, Groningen, Netherlands; [3]Clinical Pharmacy and Pharmacology, University Medical Center Groningen (UMCG), Groningen, Netherlands; [4]Gastroenterology, University Medical Center Groningen (UMCG), Groningen, Netherlands; [5]Medical Oncology, University Medical Center Groningen (UMCG), Groningen, Netherlands; [6]Munich Institute for Biological and Medical Imaging (IBMI), Helmholtz Zentrum München, Neuherberg, Germany (2326152)

11:35 **LBA 3: First in human study of [^{18}F]F-AraG, a PET tracer for monitoring anti-tumor immune response during cancer immunotherapy**
Shahriar Yaghoubi[1], Henry VanBrocklin[2], Emily Verdin[2], Salma Jivan[2], Samuel Quezada[1], Gang Ren[1], Jennifer Bates[1], Tina Lam[1], Benjamin L. Franc[2], Randall Hawkins[2], Sanjiv S. Gambhir[3] [1]CellSight Technologies, Inc., San Francisco, California, USA; [2]UCSF, San Francisco, California, USA; [3]Stanford University, Stanford, California, USA (2323764)

** Denotes highlight lecture*

11:45 **LBA 4: First Clinical Trial on Safety and Feasibility of KDR-targeted Ultrasound Molecular Imaging in Patients with Breast and Ovarian Lesions**
Juergen K. Willmann[1], Lorenzo Bonomo[2], Pierluigi Rinaldi[2], Antonia Testa[3], Guido Rindi[4], Sanjiv S. Gambhir[1] [1]Radiology, Stanford University, Stanford, California, USA; [2]Radiology, Catholic University Sacro Cuore, Rome, Italy; [3]Obstetrics and Gynecology, Catholic University Sacro Cuore, Rome, Italy; [4]Pathology, Catholic University Sacro Cuore, Rome, Italy (2325947)

11:55 **LBA 5: First-in-humans: molecular-guided fluorescence endoscopy using near-infrared fluorescent bevacizumab allows colorectal polyp identification *in vivo***
Jolien Tjalma[1], Pilar Beatriz Garcia Allende[2], Elmire Hartmans[1], Marjory Koller[3], Matthijs Linssen[4], Jurgen Glatz[2], Maximilian Koch[2], Annelies Jorritsma[4], Arend Karrenbeld[5], Rina Bijlsma[1], Jan Kleibeuker[1], Dominic Robinson[6], Gooitzen M. van Dam[3], Vasilis Ntziachristos[2], Wouter Nagengast[1] [1]Gastroenterology and Hepatology, University of Groningen, University Medical Center Groningen, Groningen, Netherlands; [2]Chair for Biological Imaging & Institute for Biological and Medical Imaging, Technical University of Munich and Helmholtz Center Munich, Munich, Germany; [3]Surgery, University of Groningen, University Medical Center Groningen, Groningen, Netherlands; [4]Clinical Pharmacy and Pharmacology, University of Groningen, University Medical Center Groningen, Groningen, Netherlands; [5]Pathology, University of Groningen, University Medical Center Groningen, Groningen, Netherlands; [6]Otolaryngology and Head & Neck Surgery, Erasmus MC, University Medical Center Rotterdam, Rotterdam, Netherlands (2325569)

12:05 **LBA 6: *First-in-human* Phase I study of SGM-101, a fluorochrome-labeled anti-carcinoembryonic antigen (CEA) monoclonal antibody for the detection of neoplasic lesions in patients with peritoneal carcinomatosis from CEA overexpressing digestive cancer.**
Françoise Cailler[1], Marian Gutowski[2], André Pelegrin[3], Sébastien Carrere[2], François Quenet[1, 2] SurgiMab, Montpellier, France; [2]Surgery, Institut du Cancer à Montpellier (ICM), Montpellier, France; [3]U1194, Institut de Recherche en Cancérologie de Montpellier, Montpellier, France (2325706)

12:15 **LBA 7: Metabolic dynamics of hyperpolarized [1-^{13}C] pyruvate in human prostate cancer**
Kristin L. Granlund[1], Hebert Alberto Vargas[1], Serge Lyashchenko[2], Phillip J. DeNoble[2], Julio Alvarez[1], Vincent P. Laudone[4], James Eastham[4], Ramon E. Sosa[1], Matthew Kennedy[1], Duane Nicholson[1], Albert P. Chen[5], James Tropp[5], Hedvig Hricak[1], Kayvan R. Keshari[1] [1]Radiology, Memorial Sloan Kettering Cancer Center, New York, New York, USA; [2]Radiochemistry and Imaging Probes Cores (RMIP), Memorial Sloan Kettering Cancer Center, New York, New York, USA; [3]Molecular Pharmacology, Memorial Sloan Kettering Cancer Center, New York, New York, USA; [4]Urology, Memorial Sloan Kettering Cancer Center, New York, New York, USA; [5]General Electric, Toronto, Ontario, Canada (2325967)

12:25 **LBA 8: Development of First In Human 3D Parametric Maps for Texture Analysis of Volumetric DCE-US to Spatially Monitor Flow Patterns During Colorectal Cancer Liver Metastases Treatment**
Ahmed El Kaffas[1], George Fisher[2], Rosa M. Sigrist[1], Huaijun Wang[1], Rachel Reyes[1], Alexander Karanany[1], Dimitre Hristov[3], Juergen K. Willmann[1] [1]Radiology, Stanford University, Palo Alto, California, USA; [2]Oncology, Stanford University, Palo Alto, California, USA; [3]Radiation Oncology, Stanford University, Palo Alto, California, USA (2326728)

12:35 **LBA 9: Clinical Evaluation of 18F-FSPG PET as a Precision Imaging Diagnostic of Hepatocellular Carcinoma**
Jennifer M. Watchmaker[1], Jason R. Buck[2], Ronald C. Walker[2], Mary Kay Washington[1], Michael L. Nickels[2], Norman Koglin[3], Andrew W. Stephens[3], Sunil K. Geevarghese[1], H. Charles Manning[2] [1]Vanderbilt University School of Medicine, Nashville, Tennessee, USA; [2]Vanderbilt University Institute of Imaging Science, Nashville, Tennessee, USA; [3]Piramal Imaging GmbH, Berlin, Germany (2325427)

12:45-13:45 **Lunch Break in Exhibit Hall (Sponsored by Aspect Imaging)** (Kamehameha Exhibit Hall 2 & 3)

12:45-14:45 **Springer Editorial Luncheon** (Room 317A)

12:45-13:45 **Women in Molecular Imaging Network Membership Meeting** (Room 319A)

** Denotes highlight lecture*

Scientific Session 06

13:45-15:15 Technology & Software Developments - Optical/Photo-Acoustic Imaging (Room 311)
Moderators: Stanislav Emelianov

13:45 SS 41: Development of Hexacene Based Nanoparticles for Optoacoustic imaging
Robert K. Prud'homme[1], Antonio Nunes[2], Vikram J. Pansare[1], Nicolas Beziere[2], Josefine Reber[2], Matthew Bruzek[3], John Anthony[3], Vasilis Ntziachristos[2], Hoang D. Lu[1], Shahram Hejazi[4] [1]Chem. and Biol. Engr., Princeton University, Princeton, New Jersey, USA; [2]Institute for Biological and Medical Imaging, Neuherberg, Germany; [3]Chemistry, University of Kentucky, Lexington, Kentucky, USA; [4]Optimeos Life Sciences, Princeton, New Jersey, USA (2229924)

13:55 SS 42: Illuminating the shadows of cervical disease using a mobile digital diffraction platform
Cesar M. Castro[1], Hyungsoon Im[1], Divya Pathania[1], Ralph Weissleder[1], Hakho Lee[1] [1]Massachusetts General Hospital, Boston, Massachusetts, USA; [2]Harvard Medical School, Boston, Massachusetts, USA (2233272)

14:05 SS 43: Intravital visualization and quantification of thrombotic processes based on non-linear microscope
Satoshi Nishimura the Univ of Tokyo, Jichi Med Univ, Tokyo, Japan (2227817)

14:15 SS 44: A miniature handheld line-scanned dual-axis confocal (LS-DAC) microscope for early detection and surgical guidance
Michael J. Mandella[1], Prasanth C. Pillai[3], Chengbo Yin[3], Steven Y. Leigh[3], Sanjeewa Abeytunge[5], Gary Peterson[5], Milind Rajadhyaksha[5], Jonathan T. Liu[3] [1]Molecular Imaging Program at Stanford (MIPS), Stanford, California, USA; [2]Pediatrics, Stanford University School of Medicine, Stanford, California, USA; [3]Mechanical Engineering, University of Washington, Seattle, Washington, USA; [4]Biomedical Engineering, State University of New York (SUNY) at Stony Brook, Seattle, Washington, USA; [5]Dermatology Service, Memorial Sloan-Kettering Cancer Center, New York, New York, USA (2232386)

14:25 SS 45: In Vivo Molecular Contrast OCT imaging of Methylene Blue
Wihan Kim, Brian E. Applegate Biomedical Engineering, Texas A&M University, College Station, Texas, USA (2233885)

***14:35 SS 46: Arterial input graphical analysis for receptor concentration imaging with short acquisition times in glioma tumors**
Jonathan T. Elliott[1], Scott Davis[1], Kimberley S. Samkoe[1], Jason R. Gunn[1], Brian W. Pogue[1] [1]Thayer School of Engineering, Dartmouth College, Hanover, New Hampshire, USA; [2]Department of Surgery, Geisel School of Medicine at Dartmouth, Lebanon, New Hampshire, USA (2233909)

14:55 SS 47: Cherenkov-excited luminescence scanned imaging (CELSI) for high-resolution, deep-tissue, *in vivo* optical molecular imaging
Rongxiao Zhang[1], Alisha V. DSouza[4], Jason R. Gunn[3], Tatiana V. Esipova[2], Sergei A. Vinogradov[2], Adam K. Glaser[4], Lesley A. Jarvis[3], David J. Gladstone[3], Brian W. Pogue[4] [1]Physics and Astronomy, Dartmouth College, Hanover, New Hampshire, USA; [2]Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania, USA; [3]Dartmouth-Hitchcock Medical Center, Dartmouth College, Hanover, New Hampshire, USA; [4]Thayer School of Engineering, Dartmouth College, Hanover, New Hampshire, USA (2231326)

15:05 SS 48: Quantitative Whole Mouse Stem Cell Imaging with Single Cell Sensitivity using Cryo-imaging
Patiwet Wuttisarnwattana[1], Madhusudhana Gargesha[3], Wouter J. van't Hof[4], Kenneth R. Cooke[5], David M. Wilson[1] [1]Biomedical Engineering, Case Western Reserve University, Cleveland, Ohio, USA; [2]Radiology, University Hospitals of Cleveland, Cleveland, Ohio, USA; [3]BioInVision, Inc., Mayfield Village, Ohio, USA; [4]Cell Processing Facility, Cleveland Cord Blood Center, Cleveland, Ohio, USA; [5]Division of Pediatric Oncology, Johns Hopkins University, Baltimore, Maryland, USA (2234146)

** Denotes highlight lecture*

Scientific Session 07

13:45-15:15 Chemistry & Imaging Probes - Multimodal (Room 312)
Moderators: Barry Edwards and A. Sherry

***13:45 SS 49: Modulation of nanoparticle targeting by surface-switching technology**
Francois Fay[1], Line Hansen[2], Stefanie J. Hectors[3], Jun Tang[1], Anita Gianella[1], Brenda Sachez-Gaytan[1], Yiming Zhao[1], Aneta J. Mieszawska[1], Robert Langer[5], Claudia Calcagno[1], Gustav Strijkers[3], Zahi A. Fayad[1], Willem J. Mulder[1] [1]Translational and Molecular Imaging Institute, Icahn School of Medicine at Mount Sinai, New York, New York, USA; [2]Interdisciplinary Nanoscience Center, Aarhus University, Aarhus, Denmark; [3]Biomedical NMR, Department of Biomedical Engineering, Eindhoven University of Technology, Eindhoven, Netherlands; [4]Department of Vascular Medicine, Academic Medical Center, Amsterdam, Netherlands; [5]Department of Chemical Engineering, Massachusetts Institute of Technology, Cambridge, Massachusetts, USA (2231567)

14:05 SS 50: Site specific release of enzymatically sensitized liposomal-nanocarriers through remote activation by alternating magnetic field.
Tuula Peñate Medina[1], Nicolai Purcz[3], Jana Damm[1], Robert Tower[2], Olga M. Will[1], Mirko Gerle[3], Arndt Rohwedder[1], Holger Kalthoff[4], Claus C. Glüer[1], Oula Penate-Medina[1] [1]Radiology, Christian-Albrechts-Universität zu Kiel, Kiel, Germany; [2]University Hospital Schleswig-Holstein, Kiel, Germany; [3]University Hospital Schleswig-Holstein,, Campus Kiel, Germany, Kiel, Germany; [4]Division of Molecular Oncology, Institute for Experimental Cancer Research, University of Kiel, Kiel, Germany, Kiel, Germany (2232943)

14:15 SS 51: Sortase-mediated site-specific labeling of Nanobodies: a generic method for multiple imaging modalities
Sam Massa[1], Niravkumar Vikani[2], Santina Gorsen[1], Saskia Vanderhaegen[5], Jan Steyaert[5], Christian Bartz[4], Cecilia Betti[4], Steven Ballet[4], Anton Bunschoten[7], Fijs van Leeuwen[7], Benedicte Descamps[8], Christian Vanhove[8], Vicky Caveliers[1], Tony Lahoutte[1], Sophie Hernot[1], Serge Muyldermans[2], Catarina Xavier[1], Nick Devoogdt[1] [1]In vivo Cellular and Molecular Imaging laboratory, Vrije Universiteit Brussel, Brussels, Belgium; [2]Laboratory of Cellular and Molecular Immunology, Vrije Universiteit Brussel, Brussels, Belgium; [3]Structural Biology Research Center, VIB, Brussels, Belgium; [4]Laboratory of Organic Chemistry, Vrije Universiteit Brussel, Brussels, Belgium; [5]Structutral Biology Brussels, Vrije Universiteit Brussel, Brussels, Belgium; [6]Nuclear Medicine Department, Universitair Ziekenhuis Brussel, Brussels, Belgium; [7]Interventional Molecular Imaging Laboratory, Department of Radiology, Leiden University Medical Center, Leiden, Netherlands; [8]Infinity-MEDISIP-iMinds Medical IT, Department of Electronics and Information Systems, Ghent University, Ghent, Belgium (2228393)

14:25 SS 52: Near infrared quantum dot and ^{89}Zr dual-labeled nanoparticles for in vivo Cerenkov imaging
Yiming Zhao[1], Travis Shaffer[3], Carlos Perez Medina[4], Sudeep Das[2], Willem J. Mulder[1], Jan Grimm[3] [1]Translational and Molecular Imaging Institute, Icahn School of Medicine at Mount Sinai, New York, New York, USA; [2]Molecular Pharmacology and Chemistry Program/Radiology, MSKCC, New York, New York, USA; [3]Radiology, Memorial Sloan Kettering Cancer Center, New York, New York, USA; [4]Radiology, Mount Sinai, New York, New York, USA (2229231)

14:35 SS 53: Modular Synthesis of Peptide-based Single and Multi-modal Targeted Molecular Imaging Agents
Hans F. Schmitthenner[1], Taylor M. Barrett[1], Stephanie Beach[1], Lauren Heese[1], Chelsea J. Weidman[1], Anne M. Sweeny-Jones[1], Amy E. Becker[2], Joseph P. Hornak[1], Henry Ophardt[3], Irene Evans[3] [1]Chemistry and Materials Science, Rochester Institute of Technology, Rochester, New York, USA; [2]Center for Imaging Science, Rochester Institute of Technology, Rochester, New York, USA; [3]School of Life Sciences, Rochester Institute of Technology, Rochester, New York, USA (2232035)

** Denotes highlight lecture*

14:45 **SS 54: Phosphate-based inorganic-organic hybrid nanoparticles with high potential for simultaneous treatment and diagnostics of inflammatory disease.**
Joanna Napp[1], Joachim G. Heck[3], Holger M. R[4], Claus Feldmann[3], Frauke Alves[1] [1]Molecular Biology of Neuronal Signals, MPI for Experimantal Medicine, Goettingen, Germany; [2]Department of Hematology and Medical Oncology, University Medical Center Göttingen, Goettingen, Germany; [3] Institute for Inorganic Chemistry, KIT, Karlsruhe Institute of Technology, Karlsruhe, Germany; [4]Cellular and Molecular Immunology, University of Göttingen Medical School, Goettingen, Germany (2232843)

14:55 **SS 55: Radiofluorinated PARPi-FL as PET/Optical tool for Glioblastoma imaging Giuseppe Carlucci[1], Brandon Carney[1], Christian Brand[1], Edmund J. Keliher[3], Wolfgang A. Weber[1,2], Thomas Reiner[1,2] [1] Memorial Sloan Kettering Cancer Center, New York, New York 10065, United States, [2] Weill Cornell Medical College, New York, New York 10065, United States, [3] Center for Systems Biology, Massachusetts General Hospital, Boston, Massachusetts 02114, United States**
Giuseppe Carlucci[1], Brandon Carney[1], Christian Brand[2], Edmund J. Keliher[5], Wolfgang Weber[3], Thomas Reiner[4] [1]Memorial Sloan Kettering Cancer Center, New York, New York, USA; [5]Massachusetts General Hospital, Boston, Massachusetts, USA (2233910)

15:05 **SS 56: Melanin-coated magnetic nanoparticles for multi-modality imaging guided photothermal therapy**
Hao Hu[1], Peng Huang[2], Kaichun Wu[1], Xiaoyuan Chen[2] [1]Xijing Hospital of Digestive Disease, Fourth Military Medical University, Xi'an, Shaanxi, China; [2]National Institute of Biomedical Imaging and Bioengineering, National Institutes of Health, Bethesda, Maryland, USA (2243525)

Scientific Session 08

13:45-15:15 **Preclinical in vivo Studies - Oncology: MRI/Ultrasound** (Room 313 A/B/C)
Moderators: Chrit Moonen and Mark Pagel

13:45 **SS 57: Magnetic Resonance Imaging of the Intracellular/Extracellular pH Gradient in Glioma**
Heeseung Lim[1], Mohammed Albatany[1], Francisco M. Martinez-Santiesteban[1], Robert Bartha[1], Timothy J. Scholl[1] [1]Medical Biophysics, Western University, London, Ontario, Canada; [2]Robarts Research Institute, Western University, London, Ontario, Canada (2232414)

13:55 **SS 58: Early Glioblastoma Multiforme Detection through Imaging Deoxyhemoglobin Biomarkers by Active Feedback Magnetic Resonance Molecular Imaging**
Zhao Li, Chao-Hsiung Hsu, Yung-Ya Lin Chemistry and Biochemistry, UCLA, Los Angeles, California, USA (2233787)

14:05 **SS 59: B7-H3, a Novel Target for Breast Cancer Detection Using Ultrasound Molecular Imaging**
Sunitha Bachawal[1], Kristin C. Jensen[4], Katheryne E. Wilson[1], Lu Tian[2], Amelie Lutz[1], Juergen K. Willmann[3] [1]Radiology/MIPS, Stanford University, School of medicine, Stanford, California, USA; [2]Health Research and Policy, Stanford University, Stanford, California, USA; [4]Pathology, Stanford University, Stanford, California, USA; [5]Veterans Affairs Palo Alto Health Care System, Stanford University, Palo Alto, California, USA (2233450)

***14:15** **SS 60: Nanosponges as Activatable Magnetic Resonance Imaging Contrast Agents and Stimuli-responsive Chemotherapeutic Vehicles**
Charalambos Kaittanis Memorial Sloan Kettering Cancer Center, New York, New York, USA (2231388)

14:35 **SS 61: Image-guided focused ultrasound ablation enhances drug accumulation and modulates immune cell profiles in a murine breast cancer model**
Elizabeth S. Ingham[1], Andrew Wong[1], Annie Mirsoian[2], Gail D. Sckisel[2], Katherine D. Watson [1], Yu Liu[1], Brett Fite[1], Lisa M. Mahakian[1], Sarah M. Tam[1], Jai Woong Seo[1], Azadeh Kheirolomoom[1], William J. Murphy[2], Katherine Ferrara[1] [1]Biomedical Engineering, University of California, Davis, Sacramento, California, USA; [2]Dermatology, University of California, Davis, Sacramento, California, USA (2230916)

14:45 **SS 62: An EDB Fibronectin Targeting MRI Contrast Agent for Molecular MRI of Breast Cancer Micrometastases**
Zheng Han, Zhuxian Zhou, Zhengrong Lu Biomedical Engineering, Case Western Reserve University, Cleveland, Ohio, USA (2232280)

14:55 **SS 63: Early time point *in vivo* PET/MR is a promising biomarker for determining efficacy of a novel Db(αEGFR)-scTRAIL fusion protein therapy in a colon cancer model**
Mathew R. Divine[1], Maren Harant[1], Prateek Katiyar[1], Jonathan A. Disselhorst[1], Daniel Bukala[1], Sandro Aidone[1], Martin Siegemund[2], Klaus Pfizenmaier[2], Roland Kontermann[2], Bernd J. Pichler[1] [1]Department of Preclinical Imaging and Radiopharmacy, Werner Siemens Imaging Center, Eberhard Karls University Tübingen, Tübingen, Baden Württemberg, Germany; [2]University of Stuttgart, Stuttgart, Germany (2233813)

15:05 **SS 64: Towards Distinguishing Brain Tumor vs. Radiation Necrosis via O_2-Sensitive MRI**
Scott C. Beeman[1], Ying-Bo Shui[4], Carlos J. Perez-Torres[1], John A. Engelbach[1], Joseph J. Ackerman[1], Joel R. Garbow[1] [1]Department of Radiology, Washington University, Saint Louis, Missouri, USA; [2]Department of Chemistry, Washington University, Saint Louis, Missouri, USA; [3]Alvin J. Siteman Cancer Center, Washington University, Saint Louis, Missouri, USA; [4]Department of Ophthalmology, Washington University, Saint Louis, Missouri, USA (2233393)

** Denotes highlight lecture*

Scientific Session 09

13:45-15:15 Preclinical in vivo Studies - Inflammation/ Immunology (Room 314)
Moderators: Catherine Foss and Mary Rusckowski

13:45 SS 65: Graft-versus-host Disease Suppression by Mesenchymal Stem Cells as Determined by Cryo-imaging
David M. Wilson[1], Patiwet Wuttisarnwattana[1], Kenneth R. Cooke[2] [1]Biomedical Engineering, Case Western Reserve University, Cleveland, Ohio, USA; [2]Division of Pediatric Oncology, Johns Hopkins University, Baltimore, Maryland, USA; [3]Radiology, University Hospitals of Cleveland, Cleveland, Ohio, USA (2234199)

***13:55 SS 66: Imaging B cells in a mouse model of multiple sclerosis using [^{64}Cu]Rituximab-PET**
Michelle L. James[1], Aileen Hoehne[1], Arutselvan Natarajan[1], Gayatri Gowrishankar[1], Di-Son Nguyen[1], Sudeep Chandra[2], Sanjiv S. Gambhir[1] [1]Radiology, Stanford University, Stanford, California, USA; [2]Clinical and Translational Imaging, Novartis Institute of Biomedical Research, Cambridge, Massachusetts, USA (2234356)

14:05 SS 67: Ultrasound Molecular Imaging using P- and E-selectin targeted microbubbles in a murine model of chronic inflammatory bowel disease with inducible acute inflammation.
Steven Machtaler[2], Ferdinand Knieling[2], Richard Luong[3], Thierry Bettinger[1], Lu Tian[3], Juergen K. Willmann[4] [1]Research, Bracco Suisse SA, Geneva, Switzerland; [2]Radiology, Stanford, Stanford, California, USA; [3]Stanford, Stanford, California, USA (2231589)

14:15 SS 68: *In vivo* optical imaging of the regulatory dynamics of reactive oxygen species-stress and NF-kB-activation during delayed type hypersensitivity reactions
Johannes Schwenck[2], Wolfgang M. Thaiss[2], Barbara F. Schörg[2], Kerstin Fuchs[4], Christoph Griessinger[2], Natalie Mucha[2], Daniel Bukala[2], Jürgen Brück[5], Harald Carlsen[6], Martin Röcken[5], Bernd J. Pichler[2], Manfred Kneilling[4] [1]Department of Nuclear Medicine, Eberhard Karls University Tübingen, Tübingen, Germany; [2]Werner Siemens Imaging Center, Department of Preclinical Imaging and Radiopharmacy, Eberhard Karls University Tübingen, Tübingen, Germany; [3]Department of Diagnostic and Interventional Radiology, Eberhard Karls University Tübingen, Tübingen, Germany; [5]Department of Dermatology, Eberhard Karls University Tübingen, Tübingen, Germany; [6]Department of Chemistry, Biotechnology and Food Science, Norwegian University of Life Sciences, Ås, Norway (2231698)

14:25 SS 69: Detection of anti-PD-L1 responders using anti-CD8 immunoPET in a mouse model of colon carcinoma.
Richard Tavaré[1], Helena Escuin-Ordinas[3], Melissa N. McCracken[2], Kirstin A. Zettlitz[1], Felix B. Salazar[1], Owen N. Witte[4], Antoni Ribas[3], Anna M. Wu[1] [1]Crump Institute for Molecular Imaging, UCLA, Los Angeles, California, USA; [2]Molecular & Medical Pharmacology, UCLA, Los Angeles, California, USA; [3]Department of Medicine, Division of Hematology-Oncology, UCLA, Los Angeles, California, USA; [4]Howard Hughes Medical Institute, UCLA, Los Angeles, California, USA (2231993)

14:35 SS 70: Ultrasound Molecular Imaging of Inflammation in a Porcine Acute Terminal Ileitis Model
Huaijun Wang[1], Stephen Felt[2], Steven Machtaler[1], Ismayil Guracar[3], Thierry Bettinger[4], Lu Tian[5], Juergen K. Willmann[1] [1]Department of Radiology, Molecular Imaging Program at Stanford, Stanford University, School of Medicine, Stanford, California, USA; [2]Department of Comparative Medicine, Stanford University, Stanford, California, USA; [3]Siemens Healthcare, Ultrasound Business Unit, Mountain View, California, USA; [4]Bracco Suisse SA, Geneva, Switzerland; [5]Department of Health, Research & Policy, Stanford University, Stanford, California, USA (2230721)

***14:45 SS 71: Evaluation of CD4+ Cell Recovery *In Vivo* Using Single-Photon Emission Computed Tomography in Real Time Following CD34^{+} Cell Transplantation in Rhesus Macaques.**
Robert Donahue[1], Sharat Srinivasula[3], Naoya Uchida[2], Insook Kim[4], Alexis St. Claire[5], Gorka Duralde[5], Paula DeGrange[6], Marisa St. Claire[6], Richard Reba[7], Aylin Bonifacino[1], Allen Krouse[1], Mark Metzger[1], Chang Paik[8], Clifford Lane[9], John Tisdale[2], Michele Di Mascio[5] [1]Hematology Branch, NHLBI, NIH, Bethesda, Maryland, USA; [2]Molecular and Clinical Hematology Branch, NHLBI, NIH, Bethesda, Maryland, USA; [3]Biostatistics Research Branch, Leidos Biomedical Research, Inc., FNLCR, Frederick, Maryland, USA; [4]Applied/Developmental Research Directorate, Frederick National Laboratory, Frederick, Maryland, USA; [5]Division of Clinical Research, NIAID, NIH, Bethesda, Maryland, USA; [6]Integrated Research Facility, NIAID, NIH, Frederick, Maryland, USA; [7]Center for Infectious Disease Imaging, Radiology and Imaging Sciences, CC, NIH, Bethesda, Maryland, USA; [8]Radiopharmaceutical Laboratory, Nuclear Medicine, Radiology and Imaging Sciences, Clinical Center, NIH, Bethesda, Maryland, USA; [9]Laboratory of Immunoregulation,, NIAID, NIH, Bethesda, Maryland, USA (2224746)

** Denotes highlight lecture*

14:55 **SS 72: In vivo vasculogenesis and fibrosis imaging defines the effect of PTH on calvarial bone allografts**
Wafa Tawackoli[1], Doron C. Yakubovich[1], Dmitriy Sheyn[1], Xiaoyu Da[2], Gadi Pelled[1], Dan Gazit[1], Zulma Gazit[1] [1]Surgery, Cedars-Sinai Medical Center, Los Angeles, California, USA; [2]Biomedical Imaging Research Institute, Cedars-Sinai Medical Center, Los Angeles, California, USA; [3]Board of Governors Regenerative Medicine Institute, Cedars-Sinai Medical Center, Los Angeles, California, USA (2233384)

15:05 **SS 73: In vitro evaluation of a novel ^{18}F-labelled P2X$_7$ receptor antagonist for an improved PET detection of neuroinflammation**
Enrico R. Fantoni[1], Bobbi Fleiss[4], Simon Lovestone[2], Antony Gee[1] [1]Division of Imaging Sciences and Biomedical Engineering, King's College London, London, United Kingdom; [2]Department of Psychiatry, University of Oxford, Oxford, United Kingdom; [3]Institut national de la santé et de la recherche médicale (INSERM), Paris, France; [4]Department of Perinatal Imaging and Health, Division of Imaigng Sciences and Biomedical Engineering, King's College London, London, United Kingdom (2232185)

Scientific Session 10

13:45-15:15 **Preclinical in vivo Studies - Neurology** (Room 315)
Moderators: Mikhail Shapiro and Adrienne Dula

13:45 **SS 74: Basal dopamine occupancy estimation with simultaneous PET/fMRI**
Christin Y. Sander[1], Jacob M. Hooker[1], Ciprian Catana[1], Bruce R. Rosen[1], Joseph B. Mandeville[1] [1]A. A. Martinos Center for Biomedical Imaging, Department of Radiology, Massachusetts General Hospital, Charlestown, Massachusetts, USA; [2]Harvard Medical School, Boston, Massachusetts, USA (2231606)

13:55 **SS 75: Long-term MR tracking and stereological quantification of ferumoxytol labeled human neural progenitor cells transplanted into the porcine spinal cord**
Jason J. Lamanna[1], Juanmarco Gutierrez[1], Lindsey N. Urquia[1], Elman Amador[1], Thais Federici[1], John N. Oshinski[3], Nicholas M. Boulis[1] [1]Neurosurgery, Emory University, Atlanta, Georgia, USA; [2]Biomedical Engineering, Georgia Institute of Technology, Atlanta, Georgia, USA; [3]Radiology and Imaging Sciences, Emory University, Atlanta, Georgia, USA (2223815)

***14:05** **SS 76: The complementary nature of functional and metabolic connectivity assessed by simultaneous PET/MR in rats**
André Thielcke[1], Mario Amend[1], Bharat Biswal[2], Bernd J. Pichler[1], Hans F. Wehrl[1] [1]Department of Preclinical Imaging and Radiopharmacy, University of Tuebingen, Tuebingen, Germany; [2]Department of Biomedical Engineering, New Jersey Institute of Technology, Newark, New Jersey, USA (2234403)

14:25 **SS 77: Assessment of brain tissue damage in the Sub-Acute Stroke Region by Multiparametric Imaging using [89-Zr]-Desferal-EPO-PET/MRI.**
Salvador G. Castaneda[1], Prateek Katiyar[1], Francesca Russo[2], Jonathan A. Disselhorst[1], Carsten Calaminus[1], Sven Poli[2], Andreas Maurer[1], Ulf Ziemann[2], Bernd J. Pichler[1] [1]Werner Siemens Imaging Center, Department of Preclinical Imaging and Radiopharmacy, Eberhard Karls University Tuebingen, Tuebingen, Baden-Wurttemberg, Germany; [2]Department for Neurology, Hertie Institute for Clinical Brain Research, University Clinic Tuebingen, Tuebingen, Germany (2231554)

14:35 **SS 78: Diffusion kurtosis imaging and white matter modeling improves the characterization of white and grey matter pathology following demyelination and remyelination**
Caroline Guglielmetti[2], Jelle Veraart[1], Ella Roelant[3], Zhenhua Mai[2], Jasmijn Daans[4], johan van audekerke[2], Maarten Naeyaert[2], Greetje Vanhoutte[2], Rafael Delgado y Palacios[2], Jelle Praet[2], Els Fieremans[5], Peter Ponsaerts[4], Jan Sijbers[1], Annemie Van Der Linden[2], Marleen Verhoye[2] [1]Department of Physics, University of Antwerp, iMinds Vision Lab, Antwerpen, Belgium; [2]Department Pharmaceutical, Veterinary and Biomedical Sciences - University of Antwerp, Bio-Imaging Lab, Antwerpen, Belgium; [3]University of Antwerp, StatUa Center for Statistics, Antwerpen, Belgium; [4]University of Antwerp, Experimental Cell Transplantation Group, Laboratory of Experimental Hematology, Vaccine and Infectious Disease Institure (Vaxinfectio), Antwerpen, Belgium; [5]NYU School of Medicine, New York, New York, USA (2232626)

14:45 **SS 79: Small Animal PET Imaging of Striatal and Cortical Targets in the zQ175 Mouse Model of Huntingtons Disease**
Jenny Häggkvist[1], Miklós Tóth[1], Lenke Tari[1], Katarina Varnäs[1], Celia Dominguez[2], Ignacio Munoz-Sanjuan[2], Andrea Varrone[1], Christer Halldin[1], Ladislav Mrzljak[3] [1]Clinical Neuroscience, Karolinska Institutet, Stockholm, Sweden; [2]CHDI Management/CHDI Foundation Inc., Los Angeles, California, USA; [3]CHDI Management/ CHDI Foundation Inc., Princeton, New Jersey, USA (2232949)

14:55 **SS 80: Pharmacologically-induced epileptic seizures involve focal, but not global rCBF-changes – relationship of activated brain clusters and GABA$_A$-R density assessed with combined [^{15}O]H$_2$O-PET- and [^{11}C]flumazenil-PET/MRI**
Florian C. Maier, Maren Harant, Walter Ehrlichmann, Bernd J. Pichler Department of Preclinical Imaging and Radiopharmacy, Eberhard Karls University Tuebingen, Tuebingen, Germany (2231611)

** Denotes highlight lecture*

15:05 **SS 81: Surgical Navigation in Real-Time Using Multimodality Optical Tools for Improved Resection and In Vivo Pathology of Medulloblastoma**
Stephan Rogalla[1], Simone M. Haag[1], Cristina L. Zavaleta[4], Nathan O. Loewke[1], Michael J. Mandella[1], Kristina Oresic Bender[5], Matthew Bogyo[5], Christopher H. Contag[2] [1]Pediatrics and Neonatology, Stanford University, Stanford, California, USA; [2]Pediatrics, Stanford Universtiy, Stanford, California, USA; [3]Molecular Imaging Program at Stanford (MIPS), Stanford University, Stanford, California, USA; [4]Radiology, Stanford University, Stanford, California, USA; [5]Pathology, Stanford University, Stanford, California, USA (2234392)

Late-breaking Abstract Session 2

13:45-15:15 **Late-breaking Abstracts** (Room 320 (Emalani Theatre))
Moderators: Christopher Contag and Fabian Kiessling

13:45 **LBA 10: Measurement of lactate production and efflux using hyperpolarized ^{13}C MR**
Renuka Sriram[1], Mark VanCriekinge[1], Ailin Hansen[2], Bertram Koelsch[1], Jeremy W. Gordon[1], Celine Baligand[1], Robert Bok[1], Daniel Vigneron[1], David M. Wilson[1], Peder E. Larson[1], Kayvan R. Keshari[3], Jane Wang[1], John Kurhanewicz[1] [1]UCSF, San Francisco, California, USA; [2]NTNU, Trondheim, Norway; [3]MSKCC, New York, New York, USA (2321434)

13:55 **LBA 11: ^{52g}Mn – a new PET tracer for preclinical *in vivo* neuroimaging**
Hanna Napieczynska[3], Gregory W. Severin[2], Jesper Fonslet[2], Bernd J. Pichler[3], Carsten Calaminus[3] [1]International Max Planck Research School for Cognitive and Systems Neuroscience, Tuebingen, Germany; [2]Center for Nuclear Technologies, Technical University of Denmark, Roskilde, Denmark; [3]Department of Preclinical Imaging and Radiopharmacy, University of Tübingen, Tübingen, Germany (2320209)

14:05 **LBA 12: Imaging the effect of molecular size on tumour perfusion of biomolecules by dynamic PET in a mouse model of glioblastoma**
Simon Puttick[1], Brett W. Stringer[2], Bryan W. Day[2], Andrew W. Boyd[2], Andrew Whittaker[1], Christopher Howard[1], Stephen Mahler[1], Michael Fay[5], Nicholas Dowson[6], Stephen Rose[6] [1]Australian Institute for Bioengineering and Nanotechnology, The University of Queensland, St Lucia, Queensland, Australia; [2]Clive Berghofer Queensland Institute for Medical Research, Herston, Queensland, Australia; [3]Queensland Node, ARC Centre of Excellence in Convergent Bio-Nano Science and Technology, St Lucia, Queensland, Australia; [4]School of Medicine, The University of Queensland, Herston, Queensland, Australia; [5]Lake Macquarie Private Hospital, Genesis Cancer Care, Gateshead, New South Wales, Australia; [6]The Australian e-Health Research Centre, CSIRO, Herston, Queensland, Australia (2326130)

14:15 **LBA 13: MRI Virtual Biopsy and Treatment of Brain Metastatic Tumors with Targeted Nanobioconjugates**
Julia Y. Ljubimova, Rameshwar Patil, Keith L. Black, Eggehard Holler Cedars-Sinai Medical Center, Los Angeles, California, USA (2319534)

14:25 **LBA 14: ImmunoPET Imaging of Pancreatic Cancer in a Murine Organoid Model**
Dalya Abdel-Atti[1], Ryan M. Lanning[2], Jacob Houghton[1], Dannielle Engle[3], Ritsuko Sawada[4], Jeanne Quinn[1], Wolfgang W. Scholz[4], David Tuveson[3], Jason S. Lewis[1] [1]Radiology, Memorial Sloan Kettering Cancer Center, New York, New York, USA; [2]Radiation Oncology, Memorial Sloan Kettering Cancer Center, New York, New York, USA; [3]Cold Spring Harbor Laboratories, Cold Spring Harbor, New York, USA; [4]MabVax Therapeutics, San Diego, California, USA (2328138)

14:35 **LBA 15: Riboflavin amphiphiles for tumor-targeted theranostic nanomedecines**
Nataliia Beztsinna[1], Tsvetkova Yoanna[2], Boutayna Frih[3], Twan Lammers[2], Fabian Kiessling[2], Isabelle Bestel[1] [1]CBMN - Institute of Chemistry&Biology of Membranes&Nanoobjects, University of Bordeaux, Pessac, France; [2]Experimental Molecular Imaging, University of Aachen (RWTH), Aachen, Germany; [3]Centre de Génomique Fonctionnelle de Bordeaux (CGFB), University of Bordeaux, Bordeaux, France (2319940)

14:45 **LBA 16: A novel genetic method to measure the receptor-specific component of PET radioligand binding in human brain without pharmacological blockade**
Paolo Zanotti Fregonara[2], Mattia Veronese[1], Rong Xu[2], Sami S. Zoghbi[2], Jeih-San Liow[2], Masahiro Fujita[2], Victor Pike[2], Robert Innis[2] [1]King's College, London, United Kingdom; [2]MIB/NIMH, Bethesda, Maryland, USA (2325145)

** Denotes highlight lecture*

14:55 LBA 17: MULTIMODAL OPTICAL IMAGING OF THE EFFECT OF SONOPORATION ON THE TUMOR ACCUMULATION AND PENETRATION OF LIPOSOMES
Twan Lammers[1], Benjamin Theek[1], Maike Baues[1], Gert Storm[2], Fabian Kiessling[1] [1]RWTH Aachen, Aachen, Germany; [2]Utrecht University, Utrecht, Netherlands (2324774)

15:05 LBA 18: Hyperpolarized ^{13}C MR metabolic imaging can detect neuroinflammation *in vivo* in a preclinical model of Multiple Sclerosis
Caroline Guglielmetti[1], Chloe Najac[1], Annemie Van Der Linden[2], Sabrina M. Ronen[1], Myriam M. Chaumeil[1] [1]Department of Radiology and Biomedical Imaging,University of California, San Francisco, Surbeck Laboratory of Advanced Imaging, San Francisco, California, USA; [2]Department Pharmaceutical, Veterinary and Biomedical Sciences - University of Antwerp, Bio-Imaging Lab, Antwerpen, Belgium; [3]University of California, San Francisco, Brain Tumor Research Center, San Francisco, California, USA (2328152)

15:15-16:00 Coffee Break & Visit Exhibits
(Kamehameha Exhibit Hall 2 & 3)

Plenary Session 3

16:00-17:00 Plenary Session 3: Chien Ho (Kalakaua Ballroom B&C) (Room Kalakaua Ballroom B&C)
Moderators: Paula Foster and Brian Ross

16:00 PLS 3: How Improvements in *In-vivo* Cell Labeling by MRI Contrast Agents May Lead to Better Drug Delivery
Chien Ho Biological Sciences, Carnegie Mellon University, Pittsburgh, Pennsylvania, USA (2288979)

Poster Session 2

17:00 -18:00 Poster Session 2 and Late Breaking Abstract Posters
General Abstract Submissions
(Kamehameha Exhibit Hall 2 & 3)

Odd Numbers will be presented during the first 30 minutes of the session and even numbers during the second 30 minutes. For a complete list of individual abstracts, refer to pages 73-100

General Abstract Submissions

Preclinical Cell & Tissue Level Studies:

- Cardiology, Cells (Stem/Immune)
- Infectious Disease, Inflammation/Immunology
- Neurology
- Oncology
- Reporter Genes, Signal Transduction & Epigenetics

Late Breaking Abstract Submissions

Chemistry & Imaging Probes

- MRI
- Multimodal, Nuclear Imaging
- Optical Imaging

First-in-Human & Clinical Studies

- Cardiology
- Neurology
- Oncology

Preclinical Cell & Tissue Level Studies:

- Cells (Stems/Immune)
- Infectious Disease
- Inflammation/Immunology
- Neurology
- Oncology

Preclinical in vivo Studies:

- Infectious Disease
- Inflammation/Immunology
- Metabolic Disease
- Neurology
- Oncology

Technology & Software Developments:

- Clinical PET/SPECT
- CT
- Hybrid Multimodality
- MRI
- Optical Imaging
- Photo-Acoustic Imaging
- Preclinical PET/SPECT
- Systems Biology

** Denotes highlight lecture*

Friday September 4

Room	311	312	313 A/B/C	314	315
08:00 - 09:30	Industry Workshop: PerkinElmer	Spotlight Session 5: Translational Frontiers in Ultrasound Imaging & Therapy	Spotlight Session 6: Molecular Imaging Based Companion Diagnostics	Spotlight Session 7: Men's Health	Spotlight Session 8: Animal Model Systems for Co-Clinical Trials
09:30 - 10:30	Plenary Sesison 4: Gold Medalist - Vasilis Ntziachristos (Kalakaua Ballroom B&C)				
10:30 - 11:15	Coffee Break, Visit Exhibits & Innovation of the Year Presentation/Voting/Award				
11:15 - 12:45	Scientific Session 11: First-in-Human & Clinical Studies	Scientific Session 12: Chemistry & Imaging Probes - Optical Imaging	Scientific Session 13: Preclinical in vivo Studies - Oncology: Optical	Scientific Session 14: Preclinical in vivo Studies - Cardiology	Scientific Session 15: Chemistry & Imaging Probes - Nuclear Imaging
12:45 - 13:45	Lunch Break in Exhibit Hall (Sponsored by Aspect Imaging)				
13:45 - 15:15	Scientific Session 16: Technology & Software Developments - Hybrid Mulitmodal/Ultrasound/CT	Scientific Session 17: Chemistry & Imaging Probes - Ultrasound	Scientific Session 18: Preclinical in vivo Studies - Oncology: Nuclear	Scientific Session 19: Preclinical in vivo Studies - Infectious Disease/Reporter Genes, Signal Transduction & Epigenetics	Scientific Session 20: Preclinical in vivo Studies - Metabolic Diseases
15:15 - 16:00	Coffee Break & Visit Exhibits				
16:00 - 17:00	Plenary Session 5: Jon-Kar Zubieta (Kalakaua Ballroom B&C)				
17:00 - 18:30	Fellow's Forum Panel				
18:30 - 19:30	Poster Session 3 & Fellows Meet & Greet Reception (Exhibit Hall 2 & 3)				

Industry Workshop

08:00-09:30 PerkinElmer (Room 311)

Spotlight Session 05

08:00-09:30 Translational Frontiers in Ultrasound Imaging & Therapy (Room 312)
Moderators: Charles Caskey and Chrit Moonen

08:00 SPS 22: Molecular Imaging with Ultrasound: Pathway towards Clinical Translation
Juergen K. Willmann Radiology, Stanford, Stanford, California, USA (2288051)

08:30 SPS 23: Sonoporation: Unfounded Concept or True Clinical Potenital?
Spiros Kotopoulis[1], Michiel Postema[4], Odd H. Gilja[1], Bjørn Tore Gjertsen[2], Georg Dimcevski[1], Emmet Mc Cormack[2] [1]National Centre for Ultrasound in Gastroenterology, Haukeland University Hospital, Bergen, Norway; [2]Department of Clinical Science, University of Bergen, Bergen, Norway; [3]Department of Clinical Medicine, University of Bergen, Bergen, Norway; [4]Department of Physics and Technology, University of Bergen, Bergen, Norway (2343652)

09:00 SPS 24: Focused ultrasound as a new mode of non-invasive brain stimulation
Seung-Schik Yoo Radiology, Harvard Medical School, Brookline, Massachusetts, USA (2287279)

Spotlight Session 06

08:00-09:30 Molecular Imaging Based Companion Diagnostics (Room 313 A/B/C)
Moderators: Susanta Sarkar and Hyunsuk Shim

08:00 SPS 25: Imaging based Companion Diagnostic: An Introduction
Susanta K. Sarkar CadenzaMed LLC, Cambridge, Massachusetts, USA (2307801)

08:15 SPS 26: Development of small molecule companion diagostics targeting CXCR4 chemokine receptor
Hyunsuk Shim Emory University, Atlanta, Georgia, USA (2289086)

08:40 SPS 27: Affibody Molecules for Molecular Imaging Based Companion Diagnostics
Joachim Feldwisch[1] [1]Affibody AB, Solna, Sweden; [2]Biomedical Radiation Sciences, Rudbeck Laboratory, Department of Radiology, Oncology, and Radiation Sciences, Uppsala University, Uppsala, Sweden (2307477)

09:05 SPS 28: *Companion Diagnostics/Tracer development: Clinical studies*
Wolfgang Weber Radiology, MSKCC, New York, New York, USA (2290678)

Spotlight Session 07

08:00-09:30 Men's Health (Room 314)
Moderators: Anthony Shields and James Basilion

08:00 SPS 29: Cardiovascular Disease in Men - The Role of Molecular Imaging
David E. Sosnovik Medicine, Massachusetts General Hospital, Harvard Medical School, Charlestown, Massachusetts, USA (2324242)

08:30 SPS 30: New Molecular Imaging Agents for the Detection and Characterization of Prostate Cancer.
Steven Rowe Radiology, Johns Hopkins, Parkville, Maryland, USA (2308208)

09:00 SPS 31: State-of-the-Art Clinical Imaging of Prostate Cancer
Hebert Alberto Vargas Radiology, Memorial Sloan Kettering Cancer Center, New York, New York, USA (2309596)

Spotlight Session 08

08:00-09:30 Animal Model Systems for Co-Clinical Trials (Room 315)
Moderators: Alexei Bogdanov and Cheryl Marks

08:00 SPS 32: Co-clinical trials in mouse models of BRCA-associated breast cancer
Jos Jonkers Division of Molecular Pathology, Netherlands Cancer institute, Amsterdam, Netherlands (2343018)

08:45 SPS 33: Therapeutic Studies in Genetically Engineered Mouse Models of Lung Cancer
Katerina Politi Yale University, New Haven, Connecticut, USA (2309574)

Plenary Sesison 4

09:30-10:30 Plenary Sesison 4: Gold Medalist Vasilis Ntziachristos (Kalakaua Ballroom B&C) (Room Kalakaua Ballroom B&C)
Moderators: Anna Wu and Nerissa Villegas

09:30 PLS 4: The new era of Optical and Optoacoustic Imaging
Vasilis Ntziachristos[1] [1]Chair for Biological Imaging, Technische Universitat Munchen, Munich, Germany; [2]Institute of Biological and Medical Imaging, Helmholtz Zentrum Munchen, Munich-Neuherberg, Germany (2351097)

10:30-11:15 Coffee Break, Visit Exhibits, Innovation of the Year Presentation/Voting/ Award (Kamehameha Exhibit Hall 2 & 3)

10:30-11:15 Women in Molecular Imaging Network Leadership Meeting (Room 317A)

** Denotes highlight lecture*

Scientific Session 11

11:15-12:45 First-in-Human & Clinical Studies (Room 311)
Moderators: Katja Pinker-Domenig and Monica Shokeen

11:15 SS 82: First-in-human study of a cysteine cathepsins activity-based PET probe
Shaobo Yao[1], Hanping Wang[2], Wenjia Zhu[1], Peilin Wu[1], Jingjing Zhang[1], Chenxi Wu[1], Kai-Feng Xu[2], Nimali P. Withana[3], Matthew Bogyo[3], Zhen Cheng[4], Zhaohui Zhu[1] [1]Department of Nuclear Medicine, Peking Union Medical College Hospital, Chinese Academy of Medical Science & Peking Union Medical College, Beijing, China; [2]Department of Respiratory Disease, Peking Union Medical College Hospital, Chinese Academy of Medical Science & Peking Union Medical College, Beijing, China; [3]Department of Pathology, Radiology, Microbiology and Immunology, Stanford University School of Medicine, Stanford, California, USA; [4]Department of Radiology, Stanford University School of Medicine, Stanford, California, USA (2231779)

***11:25 SS 83: Comparison of specific ^{68}Ga-labelled PSMA-ligand and ^{11}C-Choline in the detection of metastasis from primary and recurrent prostate cancer by PET/CT**
Johannes Schwenck[4], Hansjoerg Rempp[2], Gerald Reischl[3], Konstantin Nikolaou[2], Christina Pfannenberg[2], Christian la Fougere[4] [1]Werner Siemens Imaging Center, Department of Preclinical Imaging and Radiopharmacy, Eberhard Karls University Tübingen, Tübingen, Germany; [2]Department of Diagnostic and Interventional Radiology, Eberhard Karls University Tübingen, Tübingen, Germany; [3]Department of Preclinical Imaging and Radiopharmacy, Eberhard Karls University Tübingen, Tübingen, Germany; [4]Department of Nuclear Medicine, Eberhard Karls University Tübingen, Tübingen, Germany (2231721)

11:45 SS 84: Detection of human brown adipose tissue activity during cold exposure by magnetic resonance with hyperpolarized 129Xe gas.
Rosa Tamara Branca[1], Le Zhang[3], Alex B. Burant[1], Andrew McCallister[1] [1]Physics and Astronomy, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, USA; [2]Biomedical Research Imaging Center, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, USA; [3]Applied Physical Sciences, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, USA (2233656)

11:55 SS 85: Correlation of ^{68}Ga-DOTATATE accumulation in adrenal gland with hormone levels in the patients with Cushing's syndrome
Zhen Qiao, Fang Li Department of Nuclear Medicine, Peking Union Medical College Hospital, Beijing, China (2243892)

12:05 SS 86: Clinical Study of *ex vivo* Photoacoustic Imaging in Endoscopic Mucosal Resection Tissues
Liang Lim[1], F. Stuart Foster[2], Catherine J. Streutker[3], Norman Marcon[4], Maria Cirocco[4], Vladimir Iakovlev[3], Ralph DaCosta[1], Brian C. Wilson[1] [1]Princess Margaret Cancer Centre, University Health Network, Toronto, Ontario, Canada; [2]Sunnybrook Research Institute, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada; [3]Surgical Pathology, St. Michael's Hospital, Toronto, Ontario, Canada; [4]Gastroenterology, St. Michael's Hospital, Toronto, Ontario, Canada (2231377)

12:15 SS 87: Prospective Study of ^{68}Ga-NOTA-NFB: Radiation Dosimetry in Healthy Volunteers and First Application in Glioma Patients
Zhe Wang[1], Mingru Zhang[3], Liang Wang[4], Jing Wang[2] [1]Nuclear Medicine Department, Xijing Hospital, Fourth Military Medical University, Xi'an, Shaanxi, China; [2]Department of nuclear medicine, Xijing hospital, Xi'an, Shaanxi, China; [3]the Forth Military Medical University, Xi'an, China; [4]Department of Neurosurgery,, Tangdu Hospital, Fourth Military Medical University, Xi'an, China (2232810)

12:25 SS 88: Fluorescence-guided Surgical Navigation in Patients with Head and Neck Cancer
Jason M. Warram[2], Esther de Boer[2], Lindsay S. Moore[2], Cecelia E. Schmalbach[2], Anthony Morlandt[3], William R. Carroll[2], Joshua S. Richman[2], Lisa K. Clemons[2], Kurt R. Zinn[4], Eben L. Rosenthal[1] [1]Otolaryngology, Stanford University, Stanford, Alabama, USA; [2]Surgery, University of Alabama at Birmingham, Birmingham, Alabama, USA; [3]Oral & Maxillofacial Surgery, University of Alabama at Birmingham, Birmingham, Alabama, USA; [4]Radiology, University of Alabama at Birmingham, Birmingham, Alabama, USA (2234103)

12:35 SS 89: Theranostic imaging of Yttrium-90 using new solid-state digital photon counting PET detectors
Chadwick L. Wright[1], Jun Zhang[1], Katherine Binzel[1], Evan J. Wuthrick[2], Piotr Maniawski[3], Michael V. Knopp[1] [1]Wright Center of Innovation, The Ohio State University, Columbus, Ohio, USA; [2]Radiation Oncology, Wexner Medical Center at The Ohio State University, Columbus, Ohio, USA; [3]Clinical Science - Nuclear Medicine, Philips Healthcare, Cleveland, Ohio, USA (2234190)

Scientific Session 12

11:15-12:45 Chemistry & Imaging Probes - Optical Imaging (Room 312)
Moderators: Mingfeng Bai and Hisataka Kobayashi

11:15 SS 90: Imaging reporter labeled degradable dextran nano-polymer as a COX-2 siRNA carrier for cancer therapy
Zhihang Chen, Balaji Krishnamachary, Zaver Bhujwalla Johns Hopkins University, Baltimore, Maryland, USA (2230681)

FRIDAY

** Denotes highlight lecture*

11:25 **SS 91: Spraying Quantum Dot Conjugates for Rapid and Multiplex Cancer Diagnosis Using Endoscopy**
Sungjee Kim[1], Youngrong Park[1], Yeon-Mi Ryu[2], Yebin Jung[1], Taejun Wang[4], Yeonggyeong Baek[3], Yeoreum Yoon[5], Sang Mun Bae[2], Joonhyuck Park[1], Sekyu Hwang[1], Jaeil Kim[6], Eun-Ju Do[2], Sang-Yeob Kim[2], Euiheon Chung[7], Ki Hean Kim[4], Seung-Jae Myung[2] [1]Chemistry, Postech, Pohang, Korea (the Republic of); [2]Asan Institute for Life Sciences, Asan Medical Center, Seoul, Korea (the Republic of); [3]School of Interdisciplinary Bioscience and Bioengineering, Postech, Pohang, Korea (the Republic of); [4]Division of Integrative Biosciences and Biotechnology, Postech, Pohang, Korea (the Republic of); [5]Postech, Pohang, Korea (the Republic of); [6]Health Screening and Promotion Center, Asan Medical Center, Seoul, Korea (the Republic of); [7]Gwangju Institute of Science and Technology, Gwangju, Korea (the Republic of) (2232535)

11:35 **SS 92: Engineering of Cephalosporin for Rapid Point-of-Care Detection of Mycobacterium Tuberculosis and Carbapenemase-Expressing Pathogen**
Yunfeng Cheng Radiology, Stanford, Stanford, California, USA (2233531)

11:45 **SS 93: Phosphorescent probes for *in vivo* two-photon microscopy of oxygen**
Tatiana V. Esipova, Sergei A. Vinogradov Biochemistry and Biophysics, University of Pennsylvania, Philadelphia, Pennsylvania, USA (2244826)

11:55 **SS 94: Design of a Ratiometric Fluorescent Probe Library for Specific Detection of Reactive Oxygen Species in Inflamed Intestine**
Diana Andina, Davide Brambilla, Jean-Christophe Leroux, Paola Luciani Department of Chemistry and Applied Biosciences, Swiss Federal Institute of Technology Zurich (ETHZ), Zurich, Zurich, Switzerland (2225833)

12:05 **SS 95: Specific tumor imaging and therapy by activatable fluorescent and therapeutic agents based on internalizing RGD (iRGD) peptide**
Hong-Jun Cho[1], Sung-Jun Park[2], Sang-Myung Lee[3], Yoon-Sik Lee[2], Sehoon Kim[1] [1]Center for Theragnosis, Korea Institute of Science and Technology, Seoul, Korea (the Republic of); [2]School of Chemical and Biological Engineering, Seoul National University, Seoul, Korea (the Republic of); [3]Department of Chemical Engineering, Kangwon National University, Chuncheon, Korea (the Republic of) (2227999)

***12:15** **SS 96: Rational Design of Surface-Enhanced Resonance Raman Scattering Nanoprobes with Attomolar Sensitivity**
Stefan Harmsen[1], Matthew A. Bedics[2], Matthew Wall[1], Ruimin Huang[1], Michael R. Detty[4], Moritz F. Kircher[5] [1]Radiology, Memorial Sloan Kettering Cancer Center, New York, New York, USA; [2]Chemistry, University at Buffalo, Buffalo, New York, USA; [3]Chemistry, Hunter College of the City University of New York, New York, New York, USA (2233106)

12:35 **SS 97: Dual Functional Probes for Targeted-Near Infrared Imaging and Targeted-Photodynamic Therapy of Prostate Cancer**
Xinning Wang, Brian Tsui, Gopolakrishnan Ramamurthy, Xiaoyi Ren, James Basilion Case Western Reserve University, Cleveland, Ohio, USA (2230057)

Scientific Session 13

11:15-12:45 **Preclinical in vivo Studies - Oncology: Optical** (Room 313 A/B/C)
Moderators: James Basilion and Edward Delikatny

11:15 **SS 98: Surface-Enhanced Resonance Raman Scattering Nanoprobes for Early Detection of Upper Gastrointestinal Lesions**
Stefan Harmsen[1], Ruimin Huang[3], Massimiliano Spaliviero[2], Yoku Hayakwawa[4], Yoomi Lee[4], Yagnesh Tailor[4], Matthew Wall[5], Julie R. White[7], Timothy C. Wang[4], Moritz F. Kircher[8] [1]Memorial Sloan Kettering Cancer Center, New York, New York, USA; [2]Urology, Memorial Sloan Kettering Cancer Center, New York, New York, USA; [3]Radiology, Memorial Sloan Kettering Cancer Center, New York, New York, USA; [4]Medicine, Columbia University, New York, New York, USA; [6]Chemistry, Hunter College of the City University of New York, New York, New York, USA; [7]Tri-Institutional Laboratory of Comparative Pathology, Memorial Sloan Kettering Cancer Center, New York, New York, USA (2233152)

11:25 **SS 99: Biochemical and in vivo Diagnostic Characterization of Ratiometric Protease-activatable Fluorescent Imaging Agents in Preclinical Cancer Models: Supporting Clinical Translation**
Marcel Miampamba, Junjie Liu, Alec Harootunian, Andrew J. Gale, Jesus Gonzalez Avelas Biosciences, La Jolla, California, USA (2233878)

11:35 **SS 100: In Vivo Early Detection of Oral Epithelial Cancer by Endogenous Fluorescence Lifetime Imaging (FLIM) Endoscopy**
Javier A. Jo[1], Shuna Cheng[1], Rodrigo Cuenca[1], Cory Olsovsky[1], Dae Yon Hwang[1], Joey Jabbour[1], Bilal Malik[1], Yi-Shing L. Cheng[2], John Wright[2], Kristen C. Maitland[1] [1]Biomedical Engineering, Texas A&M Univ, College Station, Texas, USA; [2]Baylor College of Dentistry, Texas A&M University, Dallas, Texas, USA (2233978)

** Denotes highlight lecture*

11:45 **SS 101: Fluorescent imaging of prostate stem cell antigen in translational mouse models of cancer**
Ziyue Karen Jiang[1], Andrew S. Behesnilian[1], Laurent A. Bentolila[2], Anna M. Wu[3], Robert Reiter[1] [1]Urology, University of California, Los Angeles, Los Angeles, California, USA; [2]Chemistry and Biochemistry, UCLA, Los Angeles, California, USA; [3]Molecular & Medical Pharmacology, UCLA, Los Angeles, California, USA (2226817)

***11:55** **SS 102: Normal Tissue Irradiation Promotes Tumor and Immune Cell Infiltration**
Marjan Rafat, Marta Vilalta, Todd A. Aguilera, Amato Giaccia, Edward E. Graves Radiation Oncology, Stanford University, Stanford, California, USA (2233599)

12:15 **SS 103: Optical Imaging and Expression of PARP1 in mouse models and human tissue specimens**
Susanne Kossatz[1], Nadeem Riaz[3], Nora Katabi[3], Brett Yarusi[3], Steven Y. Leigh[4], Danni Wang[2], Jonathan T. Liu[4], Nancy Lee[3], Wolfgang Weber[1], Thomas Reiner[1] [1]Radiology, Memorial Sloan Kettering Cancer Center, New York City, New York, USA; [2]Biomedical Engineering, Stony Brook University, New York, New York, USA; [3]Radiation Oncology, Memorial Sloan Kettering Cancer Center, New York, New York, USA; [4]Mechanical Engineering, University of Washington, Seattle, Washington, USA (2240583)

12:25 **SS 104: Cell penetrating peptides improve tumor delivery of imaging probes through Neuropilin-1-dependent extravasation**
Tetsuya Kadonosono, Takuya Tsubaki, Takahiro Kuchimaru, Shinae Kizaka-Kondoh Tokyo Institute of Technology, Yokohama, Japan (2243146)

12:35 **SS 105: A Fluorescent Delta-Opioid Receptor (DOR) Targeted Agent for Molecular Imaging and Intraoperative Guidance of Lung Cancer**
Allison S. Cohen[1], Yolaine Jeune-Smith[1], Farah K. Khalil[2], Steven A. Enkemann[3], Noel Clark[4], Joseph O. Johnson[5], Tingan Chen[5], Aimee Bode[6], Todd J. Casagni[6], Margaret Baldwin[6], Mikalai Budzevich[7], Epifanio Ruiz[7], Renata Patek[8], Eric B. Haura[9], Josef Vagner[8], David L. Morse[1] [1]Department of Cancer Imaging and Metabolism, H. Lee Moffitt Cancer Center & Research Institute, Tampa, Florida, USA; [2]Department of Anatomic Pathology, H. Lee Moffitt Cancer Center & Research Institute, Tampa, Florida, USA; [3]Molecular Genomics Shared Resource, H. Lee Moffitt Cancer Center & Research Institute, Tampa, Florida, USA; [4]Tissue Core Shared Resource, H. Lee Moffitt Cancer Center & Research Institute, Tampa, Florida, USA; [5]Analytic Microscopy Core Shared Resource, H. Lee Moffitt Cancer Center & Research Institute, Tampa, Florida, USA; [6]Department of Comparative Medicine, H. Lee Moffitt Cancer Center & Research Institute, Tampa, Florida, USA; [7]Small Animal Imaging Laboratory Shared Resource, H. Lee Moffitt Cancer Center & Research Institute, Tampa, Florida, USA; [8]Bio5 Institute, University of Arizona, Tucson, Arizona, USA; [9]Department of Thoracic Oncology, H. Lee Moffitt Cancer Center & Research Institute, Tampa, Florida, USA (2221607)

Scientific Session 14

11:15-12:45 **Preclinical in vivo Studies - Cardiology** (Room 314)
Moderators: Yong Jeong and Rao Papineni

11:15 **SS 106: Optical Imaging of Angiogenesis and MMP Activity in a Murine Model of Vascular Remodelling**
Holly R. Stott[1], Kev Dhaliwal[2], Mark Bradley[3], Patrick W. Hadoke[1] [1]Centre for Cardiovascular Science, The University of Edinburgh, Edinburgh, lothian, United Kingdom; [2]MRC Centre for Inflammation Research, The University of Edinburgh, Edinbrugh, United Kingdom; [3]School of Chemistry, The University of Edinburgh, Edinburgh, United Kingdom (2228734)

** Denotes highlight lecture*

11:25 **SS 107: Differential Kinetics of DNA Release in Myocardial Infarction and Ischemia-Reperfusion Injury**
Howard H. Chen[1], Hushan Yuan[2], Hoonsung Cho[3], Soeun Ngoy[4], Ronglih Liao[4], Lee Josephson[2], David E. Sosnovik[1] [1]Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Harvard Medical School, Boston, Massachusetts, USA; [2]Center for Advanced Medical Imaging Sciences, Massachusetts General Hospital, Harvard Medical School, Charlestown, Massachusetts, USA; [3]School of Material Science and Engineering, Chonnam National University, Gwangju, Korea (the Republic of); [4]Cardiovascular Division, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, Massachusetts, USA; [5]Cardiovascular Research Center, Cardiology Division, Massachusetts General Hospital, Harvard Medical School, Boston, Massachusetts, USA (2222914)

11:35 **SS 108: Non-invasive, ultrasensitive, and early detection of myocardial ischemia using activated platelet-targeted PET/CT imaging**
Karen Alt, Melanie Ziegler, Christoph E. Hagemeyer, Karlheinz Peter Baker IDI Heart and Diabetes Institute, Melbourne, Victoria, Australia (2232465)

11:45 **SS 109: Preclinical Safety and Efficacy of Graphene Based High Performance Magnetic Resonance Imaging Contrast Agent for Diagnosis and Monitoring of Renal Abnormalities**
Shruti Kanakia[1], Jimmy Toussaint[3], Praveen Kulkarni[2], Stephen Lee[1], Slah Khan[1], Sayan Mulick Chowdhury[1], Kenneth R. Shroyer[1], William Moore[4], Balaji Sitharaman[1] [1]Biomedical Engineering, Stony Brook University, Port Jefferson, New York, USA; [2]Northeastern University, Boston, Massachusetts, USA; [3]Stony Brook University, Stony Broook, New York, USA; [4]Stony Brook University, Stony Brook, New York, USA (2232536)

11:55 **SS 110: Imaging of arterial injury and healing in mice using VCAM-1 targeted ultrasound imaging**
Adelina Curaj[3], Zhuojun Wu[3], Stanley Fokong[2], Elisa Liehn[2], Christian Weber[1], Alexandrina Burlacu[5], Twan Lammers[4], Fabian Kiessling[4], Marc van Zandvoort[2] [1]LMU, Minic, Germany; [2]RWTH, Aachen, Germany; [3]ExMI, RWTH, Aachen, Germany; [4]Experimental Molecular Imaging, RWTH Aachen University, Aachen, NRW, Germany; [5]Laboratory of Stem Cell Biology, Institute of Cellular Biology and Pathology "Nicolae Simionescu", Bucharest, Romania (2227172)

12:05 **SS 111: Imaging of atherosclerotic plaques in mice with somatostatin receptor 2-targeting PET tracer ^{68}Ga-DOTANOC**
Sanna Hellberg[1], Petteri Rinne[1], Max Kiugel[1], Jenni Virta[1], Pauliina Luoto[1], Heidi Liljenbäck[1], Harri Hakovirta[3], Maria Gardberg[4], Juhani Knuuti[1], Antti Saraste[1], Anne Roivainen[1] [1]Turku PET Centre, University of Turku, Turku, Finland; [2]Turku Center for Disease Modeling, University of Turku, Turku, Finland; [3]Department of Surgery, University of Turku, Turku, Finland; [4]Department of Pathology, Turku University Hospital and University of Turku, Turku, Finland; [5]Heart Center, Turku University Hospital and University of Turku, Turku, Finland (2232754)

***12:15** **SS 112: Advanced Cardiac Chemical Exchange Saturation Transfer (cardioCEST) – MRI for *In Vivo* Multi-color Cell Tracking and Myocardial Creatine Imaging.**
Ashley L. Pumphrey[1], Zhengshi Yang[1], Shaojing Ye[3], Moriel Vandsburger[1] [1]Saha Cardiovascular Research Center, University of Kentucky, Lexington, Kentucky, USA; [2]Biomedical Engineering, University of Kentucky, Lexington, Kentucky, USA (2229771)

12:35 **SS 113: Assessment and precise quantification of post-infarction scar remodeling using a collagen-targeted magnetic resonance contrast agent and T1 mapping techniques**
Fabian Lohoefer[1], Laura Hoffmann[1], Almut Glinzer[1], Katja Kosanke[1], Franz Schilling[2], Ernst J. Rummeny[1], Moritz Wildgruber[1] [1]Department of Radiology, TU München, München, Germany; [2]Department of Nuclear Medicine, TU München, Munich, Germany (2228540)

Scientific Session 15

11:15-12:45 **Chemistry & Imaging Probes - Nuclear Imaging** (Room 315)
Moderators: Anna Wu and Frederick Chin

***11:15** **SS 114: Ring-closing synthesis of dibenzothiophene sulfonium salts and their use as precursors for aromatic [18F]fluorination – Application to direct labeling of the mGluR5 PET tracer [18F]FPEB**
Thibault Gendron[1], Kerstin Sander[1], Klaudia Cybulska[2], Vincent Gray[1], Erik Arstad[1] [1]Institute of Nuclear Medicine, University College London, London, United Kingdom; [2]Department of Chemistry, University College London, London, United Kingdom (2232415)

11:35 **SS 115: A Novel 5 kDa Protein Scaffold for Robust Evolution of Ligands for PET**
Max A. Kruziki, Vandon T. Duong, Benjamin J. Hackel Chemical Engineering and Materials Science, University of Minnesota - Twin Cities, Minneapolis, Minnesota, USA (2232667)

** Denotes highlight lecture*

11:45 **SS 116: PET Imaging of [^{11}C]ascorbic acid in a murine rheumatoid arthritis model**
Bin Shen[1], Mikael Palner[1], Valerie N. Carroll[2], xia shao[3], Peter J. Scott[3], John D. MacKenzie[2], David M. Wilson[2], Frederick T. Chin[1] [1]Radiology, Stanford University, Stanford, California, USA; [2]Radiology, University of California San Francisco, San Francisco, California, USA; [3]Radiology, University of Michigan, Ann Arbor, Michigan, USA (2230717)

11:55 **SS 117: ^{99m}Tc-Labeled CWXY9 peptide for integrin α6 targeted tumor imaging**
Chengyan Dong[1], Yue Wu[2], Guokai Feng[3], Liqiang Li[2], Qian Zhong[3], Musheng Zeng[3], Fan Wang[1] [1]Interdisciplinary Laboratory, Institute of Biophysics, Chinese Academy of Sciences, Beijing, China; [2]Medical Isotopes Research Center, Peking University, Beijing, China; [3]Sun Yat-sen University Cancer Center, State Key Laboratory of Oncology in South China, Collaborative Innovation Center for Cancer Medicine, Guangzhou, Guangdong, China (2232824)

12:05 **SS 118: Preliminary evaluation of ^{18}F-labeled flexible benzyloxybenzenes for PET imaging of β-amyloid plaques**
Yanping Yang, Mengchao Cui, Boli Liu College of Chemistry, Beijing Normal University, Beijing, China (2230653)

12:15 **SS 119: Preclinical PET/CT imaging of nitroreductase reporter gene with ^{18}F-FMISO**
Kjetil B. Lund[1], Endre Stigen[1], Mihaela Popa[2], Cecilie Brekke Rygh[4], Tom Christian H. Adamsen[5], Ole Heine Kvernenes[6], Bengt Erik Haug[7], Emmet Mc Cormack[1] [1]Clinical science, University of Bergen, Bergen, Norway; [2]KiNN Therapeutics AS, Bergen, Norway; [3]Virologisk Seksjon, Haukeland Universitetssykehus, Bergen, Norway; [4]Depatrment of Biomedicine, University of Bergen, Bergen, Norway; [5]Depatrment of Chemistry, University of Bergen, Bergen, Norway; [6]Department of radiology, Haukeland univeristy Hospital, Bergen, Norway (2233401)

12:25 **SS 120: Meeting the Challenge of a one-step, late-stage, aqueous, HPLC-free method for labeling peptides with wet NCA 18F-fluoride**
David M. Perrin[4], Zhibo (Zippo) Liu[4], Maral Pourghiasian[1], Jinhe Pan[3], Zhengxing Zhang[1], Silvia Jenni[1], Navjit Hundal-Jabal[1], Donald Yapp[2], Kuo-Shyan Lin[1], François Bénard[2] [1]Molecular Oncology, BC Cancer Agency, Vancouver, British Columbia, Canada; [2]BC Cancer Agency and Research Centre, Vancouver, British Columbia, Canada; [3]Molecular Oncology, BC Cancer Research Centre, Vancouver, British Columbia, Canada; [4]Chemistry, UBC, Vancouver, British Columbia, Canada (2234195)

12:35 **SS 121: A novel synthesis of 6-[^{18}F]fluoromaltotriose as a PET tracer for imaging bacterial infection**
Mohammad Namavari, Gayatri Gowrishankar, Ananth Srinivasan, Sanjiv S. Gambhir Radiology, Stanford University, Stanford, California, USA (2227940)

12:45-13:45 **Lunch Break in Exhibit Hall (Sponsored by Aspect Imaging)** (Kamehameha Exhibit Hall 2 & 3)

12:45-13:45 **Program Committee Meeting** (Room 317A)

Scientific Session 16

13:45-15:15 **Technology & Software Developments - Hybrid Mulitmodal/Ultrasound/CT** (Room 311)
Moderators: Jonathan Liu and Craig Levin

13:45 **SS 122: Experimental validation of proton-induced x-ray fluorescence imaging for visualization of gold nanoparticles**
Magdalena Bazalova-Carter[1], Moiz Ahmad[1], Taeko Matsuura[4], Seishin Takao[4], Yuto Matsuo[4], Rebecca Fahrig[2], Hiroki Shirato[4], Kikuo Umegaki[4], Lei Xing[1] [1]Radiation Oncology, Stanford University, Stanford, California, USA; [2]Radiology, Stanford University, Stanford, California, USA; [3]Global Institution for Collaborative Research and Education (GI-CoRE), Hokkaido University, Sapporo, Japan; [4]Medical Physics, Hokkaido University Hospital, Sapporo, Japan (2233441)

13:55 **SS 123: Comprehensive Approach to Localization of Sentinel Lymph Node and Detection of Micrometastases using Sound, Light and Molecular Contrast nanoAgents**
Geoffrey P. Luke, Alexander Hannah, Stanislav Emelianov Biomedical Engineering, The University of Texas at Austin, Austin, Texas, USA (2234384)

14:05 **SS 124: A new method for the visualization and quantification of targeted microbubbles in ultrasound molecular imaging**
Peter J. Frinking, Jean-Marc Hyvelin, Emmanuel Gaud, Maria Costa, Sylvie Henrioud, Thomas Fresneau, Thierry Bettinger, François Tranquart Global Research and Development, Bracco Suisse SA, Plan-les-Ouates / GE, Switzerland (2229995)

** Denotes highlight lecture*

14:15 **SS 125: Temporal weighting and angular rebinning for artifact-free single-rotation restrospectively gated 4D cardiac micro-CT**
Daniele Panetta[1], Nicola Belcari[2], Silvia Burchielli[3], Gualtiero Pelosi[1], Maria Tripodi[1], Mariarosaria De Simone[1], Patricia Iozzo[1], Alberto Del Guerra[2], Piero A. Salvadori[1] [1]CNR Institute of Clinical Physiology, Pisa, Italy; [2]Department of Physics "E.Fermi" - University of Pisa, Pisa, Italy; [3]Fondazione CNR/Toscana "G. Monasterio", Pisa, Italy (2228908)

14:25 **SS 126: MRI measurements in the presence of a RF-penetrable PET insert for simultaneous PET/MRI**
Brian J. Lee[2], Alexander M. Grant[3], Chen-Ming Chang[4], Craig S. Levin[1] [1]Radiology, Stanford University, Stanford, California, USA; [2]Mechanical Engineering, Stanford University, Stanford, California, USA; [3]Bioengineering, Stanford University, Stanford, California, USA; [4]Applied Physics, Stanford University, Stanford, California, USA (2236333)

***14:45** **SS 127: Dual Tracer Imaging implemented on a Hybrid Ultrasound-guided multi-spectral fluorescence tomography system to estimate lymph node tumor burden in-vivo**
Alisha V. DSouza[1], Jason R. Gunn[1], Kenneth M. Tichauer[2], Brian W. Pogue[1] [1]Thayer School of Engineering, Dartmouth College, Hanover, New Hampshire, USA; [2]Illinois Institute of Technology, Chicago, Illinois, USA (2233618)

14:55 **SS 128: MENGA: a comprehensive tool for the integration of brain imaging modalities and Allen brain genomic atlas**
Gaia Rizzo[1], Mattia Veronese[2], Paul Expert[2], Federico E. Turkheimer[2], Alessandra Bertoldo[1] [1]Department of Information Engineering, University of Padova, Padova, Italy; [2]Department of Neuroimaging, Institute of Psychiatry, Psychology & Neuroscience, King's College, London, United Kingdom (2230774)

15:05 **SS 129: A physiological based model for tracer concentration time curves in blood vessels measured by dynamic imaging**
Dennis L. Cheong Clinical Imaging Research Centre, Singapore, Singapore (2232860)

Scientific Session 17

13:45-15:15 **Chemistry & Imaging Probes - Ultrasound** (Room 312)
Moderators: Katherine Ferrara and Alexander Klibanov

***13:45** **SS 130: Ultrasound-guided and mediated drug delivery combined with a TLR9 agonist accelerates the therapeutic response in a murine breast cancer model**
Azadeh Kheirolomoom[1], Elizabeth S. Ingham[1], Lisa M. Mahakian[1], Sarah M. Tam[1], Josquin Foiret[2], Katherine Ferrara[1] [1]Biomedical Engineering, University of California, Davis, Sacramento, California, USA; [2]Department of Biomedical Engineering, University of California, Davis, Davis, California, USA (2233721)

14:05 **SS 131: Genetic engineering of recombinantly expressed gas vesicle contrast agents for ultrasound**
Raymond W. Bourdeau[2], Anupama Lakshmanan[1], Xiaowei Zhang[2], Mikhail G. Shapiro[2] [1]Bioengineeering, California Institute of Technology, Pasadena, California, USA; [2]Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, California, USA (2234180)

14:15 **SS 132: Microfluidic-based production of narrow size distribution freeze-dried microbubbles for ultrasound imaging and cancer therapy: Synthesis and *in vivo* characterization**
Minseok Seo[2], Siqi Zhu[2], Ben Leung[2], Dave Goertz[2], Naomi Matsuura[1] [1]University of Toronto, Toronto, Ontario, Canada; [2]Sunnybrook Research Institute, Toronto, Ontario, Canada (2231411)

14:25 **SS 133: Ultrasound Molecular Imaging of Angiogenesis using Engineered Scaffold Ligands**
Lotfi Abou-Elkacem[1], Katheryne E. Wilson[1], Sunitha Bachawal[2], Sadie Johnson[3], Benjamin J. Hackel[3], Juergen K. Willmann[4] [1]Radiology, Stanford University, Palo Alto, California, USA; [2]Radiology, Stanford University, Stanford, California, USA; [3]Department of Chemical Engineering and Materials Science, University of Minnesota, Minneapolis, Minnesota, USA (2231639)

14:35 **SS 134: Molecular Control of Harmonic Signals in Gas Vesicle Contrast Agents for Ultrasound**
Anupama Lakshmanan[1], Jordan Dykes[3], Suchita Nety[3], Raymond W. Bourdeau[3], Xiaowei Zhang[2], Mikhail G. Shapiro[3] [1]Bioengineeering, California Institute of Technology, Pasadena, California, USA; [2]Caltech, Pasadena, California, USA; [3]Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, California, USA (2234183)

14:45 **SS 135: Ultrasound Microbubble Capture Using Bioorthogonal Coupling: An *In Vivo* Validation**
Melissa Yin[2], Aimen Zlitni[1], Judy Yan[2], John Valliant[1], F. Stuart Foster[2] [1]Chemistry and Chemical Biology, McMaster University, Hamilton, Ontario, Canada; [2]Physical Sciences, Sunnybrook Research Institute, Toronto, Ontario, Canada; [3]Medical Biophysics, University of Toronto, Toronto, Ontario, Canada (2233597)

** Denotes highlight lecture*

14:55 **SS 136: Ultrasound Molecular Imaging with anti-VCAM-1 Antibody-Targeted Microbubbles: Sequential Use of Thiol-Maleimide Coupling and Amalgamation for a One-Pot Microbubble Contrast Formulation.**
Alexander L. Klibanov[1], Zhongmin Du[2], Galina Diakova[2] [1]Department of Medicine, Cardiovascular Division, University of Virginia, Charlottesville, Virginia, USA; [2]Robert M. Berne Cardiovascular Research Center, University of Virginia, Charlottesville, Virginia, USA (2232065)

15:05 **SS 137: Super-resolution molecular ultrasound imaging with laser-activated nanodroplets**
Geoffrey P. Luke[1], Alexander Hannah[1], Stanislav Emelianov[1] [1]Biomedical Engineering, The University of Texas at Austin, Austin, Texas, USA; [2]Department of Imaging Physics, MD Anderson Cancer Center, Houston, Texas, USA (2226685)

Scientific Session 18

13:45-15:15 **Preclinical in vivo Studies - Oncology: Nuclear** (Room 313 A/B/C)
Moderators: Michael Phelps and Carolyn Anderson

13:45 **SS 138: An Improved Strategy for the Pretargeted PET Imaging of Colorectal Cancer**
Brian M. Zeglis[1], Christian Brand[2], Dalya Abdel-Atti[2], Kathryn E. Carnazza[2], Brendon Cook[1], Sean Carlin[2], Thomas Reiner[2], Jason S. Lewis[2] [1]Department of Chemistry and Biochemistry, Hunter College, New York, New York, USA; [2]Department of Radiology, Memorial Sloan Kettering Cancer Center, New York, New York, USA (2233336)

13:55 **SS 139: Theranostic pretargeting of HER2-expressing human carcinoma xenografts in immunocompromised mice with an anti-DOTA(metal) hapten IgG-scFv bispecific antibody**
Sarah M. Cheal, Hong Xu, Hong-fen Guo, Blesida J. Punzalan, Manisha Singh, Sang-gyu Lee, Edward K. Fung, Teja Muralidhar Kalidindi, Pat Zanzonico, Nai-Kong V. Cheung, Steven M. Larson Memorial Sloan Kettering Cancer Center, New York, New York, USA (2233962)

14:05 **SS 140: *In vivo* tracking of ^{64}Cu-NOTA-CD11b-labeled granulocytic myeloid-derived suppressor cells in PyMT breast cancer by PET**
Sabrina H. Eilenberger[1], Jaclyn E. Sceneay[2], Christina S. Wong[3], Manfred Kneilling[4], Andreas Möller[3], Bernd J. Pichler[1], Christoph M. Griessinger[1] [1]Werner Siemens Imaging Center, Department of Preclinical Imaging and Radiopharmacy, Eberhard Karls University Tübingen, Tübingen, Germany; [2]Department of Hematology, Brigham and Women's Hospital, Boston, Massachusetts, USA; [3]Tumour Microenvironment Laboratory, QIMR Berghofer Medical Research Institute, Herston, Queensland, Australia; [4]Department of Dermatology, Eberhard Karls University Tübingen, Tübingen, Germany (2232131)

14:15 **SS 141: PET imaging of tumor glycolysis downstream of hexokinase through noninvasive measurement of pyruvate kinase M2**
Timothy H. Witney, Michelle L. James, Bin Shen, Edwin Chang, Christoph Pohling, Natasha Arksey, Aileen Hoehne, Adam Shuhendler, Gayatri Gowrishankar, Jianghong Rao, Frederick T. Chin, Sanjiv S. Gambhir Department of Radiology, Stanford University, Stanford, California, USA (2222162)

***14:25** **SS 142: Sodium iodide symporter (NIS)-based reporter gene imaging with [^{18}F]-tetrafluoroborate allows *in vivo* metastasis tracking by PET**
Seckou Diocou[1], Gilbert O. Fruhwirth[1], Krisanat Chuamsaamarkkee[1], Maite Jauregui-Osoro[1], Lefteris Livieratos[1], Tony Ng[2], Philip J. Blower[1], Greg E. Mullen[1] [1]Deptartment for Imaging Chemistry and Biology, King's College London, London, United Kingdom; [2]Division of Cancer Studies and Randall Division, King's College London, London, United Kingdom; [3]UCL Cancer Institute, University College London, London, United Kingdom (2232288)

14:45 **SS 143: Imaging of immune checkpoints of PD-1 receptor expressing T cells using novel immunoPET tracer in an transgenic mouse model bearing melanoma**
Arutselvan Natarajan[1], Jacob Gano[1], Robert E. Reeves[1], Sanjiv S. Gambhir[1] [1]Radiology, Stanford University, Stanford, California, USA; [2]Bioengineering, Materials Science and Engineering, Stanford University, Stanford, California, USA (2226205)

14:55 **SS 144: Pretargeted immunoPET imaging of CA19.9, a shed antigen, in murine models of pancreatic cancer**
Jacob Houghton[2], Brian M. Zeglis[3], Dalya Abdel-Atti[2], Ritsuko Sawada[1], Wolfgang W. Scholz[1], Jason S. Lewis[2] [1]Mabvax Therapeutics, San Diego, California, USA; [2]Department of Radiology, Memorial Sloan Kettering Cancer Center, New York, New York, USA; [3]Department of Chemistry, Hunter College and the Graduate Center of the City University of New York, New York, New York, USA (2227204)

** Denotes highlight lecture*

15:05 **SS 145: Combination Effects of Sorafenib with Ionizing Radiation on Orthotopic Human Oral-Bearing Mice Model**
Hui-Yen Chuang, Jeng-Jong Hwang National Yang-Ming University, Taipei, Taiwan (2232827)

Scientific Session 19

13:45-15:15 **Preclinical in vivo Studies - Infectious Disease/Reporter Genes, Signal Transduction & Epigentecs** (Room 314)
Moderators: Vladimir Ponomarev and Dima Hammoud

13:45 **SS 146: Simultaneous *In Vitro* and *In Vivo* Diagnosis of Bacterial Infections in Living Mice**
Gayatri Gowrishankar[1], Mohammad Namavari[1], Ananth Srinivasan[2], Neeraja Ravi[3], Robert E. Reeves[4], Sanjiv S. Gambhir[5] [1]Radiology, Stanford University, Stanford, California, USA; [3]Bioengineering, University of California San Diego, San Diego, California, USA; [6]Bioengineering, Stanford University, Stanford, California, USA (2230791)

13:55 **SS 147: Improving the efficiency of preclinical pulmonary disease and therapy studies: MicroCT-derived biomarkers reveal marked changes throughout lung infection, inflammation, fibrosis and treatment**
Greetje Vande Velde[1], Jennifer Poelmans[1], Ellen De Langhe[2], Amy Hillen[1], Jeroen Vanoirbeek[4], Rik Lories[2], Uwe Himmelreich[1] [1]Imaging and Pathology, KU Leuven, Leuven, Flanders, Belgium; [2]Development and Regeneration, KU Leuven, Leuven, Belgium; [3]Rheumatology, University Hospitals Leuven, Leuven, Belgium; [4]Public Health and Primary Care, KU Leuven, Leuven, Belgium; [5]Pneumology, KU Leuven, Leuven, Belgium (2231230)

14:05 **SS 148: Characterizing Cavitary Lesions in a Murine Model of Tuberculosis using High Resolution Computer Tomography**
Alvaro A. Ordoñez[1], Rokeya Tasneen[3], Paul J. Converse[3], Mariah Klunk[1], Supriya Pokkali[1], Eric L. Nuermberger[3], Sanjay K. Jain[1] [1]Center for Infection and Inflammation Imaging Research, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA; [2]Department of Pediatrics, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA; [3]Center for Tuberculosis Research, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA; [4]Department of Medicine, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA (2233021)

14:15 **SS 149: Development of Imaging Technologies to Track Tuberculosis in Live Animals**
Hee-Jeong Yang[1], Ying Kong[2], Yunfeng Cheng[3], Fatemeh Nooshabadi[4], Harish Janagama[1], Hany A. Hassounah[1], Hexin Xie[3], Jianghong Rao[3], Kristen C. Maitland[4], Jeffrey Cirillo[1] [1]Microbial Pathogenesis and Immunology, Texas A&M Health Science Center, Bryan, Texas, USA; [2]University of Tennessee Health Science Center, Memphis, Tennessee, USA; [3]Stanford University, Stanford, California, USA; [4]Texas A&M University, College Station, Texas, USA (2227267)

14:25 **SS 150: Preclinical *in vivo* evaluation of a novel PET/SPECT genetic reporter system for imaging T-cells in the brain**
Louise Kiru[1], Adam Badar[1], Brian Philip[2], Tammy L. Kalber[1], Rajiv d. Ramasawmy[1], Ida Ricciardelli[3], Bernard Siow[1], Vishvesh Shende[4], Teresa Marafioti[4], Martin Pule[2], Mark F. Lythgoe[1] [1]Medicine, UCL Centre for Advanced Biomedical Imaging, London, United Kingdom; [2]Haematology, UCL Cancer Institute, London, United Kingdom; [3]Molecular & Cellular Immunology, UCL Institute of Child Health, London, United Kingdom; [4]Celluar Pathology and Histopathology, University College London, London, United Kingdom (2230504)

***14:35** **SS 151: Noninvasive Imaging of Tuberculosis-Associated Neuroinflammation with Radioiodinated DPA-713 in an In Vivo Pediatric Rabbit Model**
Elizabeth W. Tucker[1], Supriya Pokkali[2], Vincent P. DeMarco[2], Mariah Klunk[2], Zhi Zhang[1], Elizabeth Nance[1], Catherine A. Foss[3], Sujatha Kannan[1], Sanjay K. Jain[6] [1]ACCM, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA; [2]Center for Tuberculosis Research, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA; [3]Center for Infection and Inflammation Imaging Research, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA; [4]Russell H. Morgan Department of Radiology and Radiological Science, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA; [5]Center for Nanomedicine, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA (2232400)

14:55 **SS 152: Bone formation is induced in mouse calvarial defects after transplanting mesenchymal stem cells with CMKLR1 knockdown**
Shanmugam Muruganandan[2], Christa B. Davis[1], Chris Bowen[1], Kim Brewer[1], Christopher Sinal[2] [1]Biomedical Translational Imaging Centre, Halifax, Nova Scotia, Canada; [2]Pharmacology, Dalhousie University, Halifax, Nova Scotia, Canada; [3]IWK Health Centre, Halifax, Nova Scotia, Canada (2233505)

** Denotes highlight lecture*

15:05 **SS 153: PET-based cell tracking with a Cre-switchable sr39tk PET reporter mouse line**
Martin Thunemann[1], Barbara F. Schörg[2], Jakob Voelkl[3], Yun Lin[2], Matthias Golla[1], Susanne Feil[1], Christoph M. Griessinger[2], Manfred Kneilling[2], Florian Lang[3], Bernd J. Pichler[2], Robert Feil[1] [1]Interfakultäres Institut für Biochemie, Eberhard Karls Universität Tübingen, Tübingen, Germany; [2]Department of Preclinical Imaging and Radiopharmacy, Werner Siemens Imaging Center, Tübingen, Germany; [3]Physiologisches Institut I, Eberhard Karls Universität Tübingen, Tübingen, Germany; [4]Department of Dermatology, Eberhard Karls Universität Tübingen, Tübingen, Germany (2244195)

Scientific Session 20

13:45-15:15 **Preclinical in vivo Studies - Metabolic Diseases** (Room 315)
Moderators: Ren-Shyan Liu and Melissa Moore

13:45 **SS 154: Low kidney uptake of [^{18}F]exendin-4 and high beta cell binding in rat and human pancreatic islet**
Kirsi Mikkola[1], Cheng-Bin Yim[1], Paula Lehtiniemi[1], Johan Rajander[2], Olof Solin[2], Pirjo Nuutila[1] [1]Turku PET Centre, University of Turku, Turku, Finland; [2]Accelerator Laboratory, Åbo Akademi University, Turku, Finland; [3]Department of Endocrinology, Turku University Hospital, Turku, Finland (2232772)

13:55 **SS 155: PET Imaging of β Cell Endoplasmic Reticulum Stress using 5-(2-^{18}F-Fluoroethoxy)-L-Tryptophan.**
Savita Dhanvantari[1], Ahmed Abbas[2], Rebecca McGirr[1], Neil Cockburn[1], Dawid Krokowski[3], Michael Kovacs[1], Ting-Yim Lee[1], Maria Hatzoglou[3] [1]Imaging, Lawson Health Research Institute, London, Ontario, Canada; [2]Medical Biophysics, Western University, London, Ontario, Canada; [3]Pharmacology, Case Western Reserve University, Cleveland, Ohio, USA (2237795)

14:05 **SS 156: In Vivo Targeted Molecular Magnetic Resonance Imaging of Free Radicals in Diabetic Cardiomyopathy in Mice**
Rheal Towner[1], Nataliya Smith[1], Debra Saunders[1], Jorge Carrizales[1], Florea Lupu[2], Robert Silasi-Mansat[2], Marilyn Ehrenshaft[3], Ronald Mason[4] [1]Advanced Magnetic Resonance Center, Oklahoma Medical Research Foundation, Oklahoma City, Oklahoma, USA; [2]Cardiovascular Biology, Oklahoma Medical Research Foundation, Oklahoma City, Oklahoma, USA; [3]NIEHS, Research Triangle Park, North Carolina, USA (2231665)

14:15 **SS 157: Intestinal fatty acid uptake is not enhanced in diabetic and hypercholesterolemic animals; validation study with positron emission tomography**
Henri Honka[1], Mia Ståhle[1], Heidi Liljenbäck[1], Matti Jauhiainen[2], Nina Sarja[1], Seppo Ylä-Herttuala[3], Pirjo Nuutila[1], Anne Roivainen[1] [1]Turku PET Centre, University of Turku, Turku, Finland; [2]Public Health Genomics Unit, National Institute for Health and Welfare, Helsinki, Finland; [3]A.I. Virtanen Institute for Molecular Sciences, University of Eastern Finland, Kuopio, Finland; [4]Department of Endocrinology, Turku University Hospital, Turku, Finland; [5]Turku Center for Disease Modeling, University of Turku, Turku, Finland (2230236)

***14:25** **SS 158: Combined PET–ME-MR imaging to quantify β-cell mass and function in a Rip1-Tag2 mouse model**
Filippo C. Michelotti[2], Gregory Bowden[2], Andreas M. Schmid[1], Bernd J. Pichler[3] [1]Department of Preclinical Imaging and Radiopharmacy, University Hospital Tübingen, Tübingen, Germany; [2]Department of Preclinical Imaging and Radiopharmacy, Werner Siemens Imaging Center, University of Tuebingen, Tuebingen, Saint Barthélemy; [3]Department of Preclinical Imaging and Radiopharmacy, Werner Siemens Imaging Center, University of Tuebingen, Tübingen, Germany (2232426)

14:45 **SS 159: Development of a Nanosponge Drug Delivery System Targeting the Pancreatic Beta Cell for Site-Directed Diabetes Therapeutics and Imaging**
John Virostko[1], Neil Phillips[2], Kelly Gilmore[3], Dain Beezer[3], Eva Harth[3], Alvin C. Powers[2] [1]Institute of Imaging Science, Vanderbilt University, Nashville, Tennessee, USA; [2]Department of Medicine, Vanderbilt University, Nashville, Tennessee, USA; [3]Department of Chemistry, Vanderbilt University, Nashville, Tennessee, USA (2224772)

14:55 **SS 160: Asialoglycoprotein receptor imaging for functional liver reserve using [^{68}Ga]GSA PET**
Andreas M. Schmid[1], Andreas Maurer[1], Bernd J. Pichler[1], Irene J. Virgolini[2], Roland Haubner[2] [1]Department of Preclinical Imaging and Radiopharmacy, University Hospital Tübingen, Tübingen, Germany; [2]Department of Nuclear Medicine, Medical University of Innsbruck, Innsbruck, Austria (2233776)

** Denotes highlight lecture*

Friday September 4 (continued)

15:05 SS 161: A novel ultrahigh resolution imaging mass spectrometry visualizes distribution of sphingomyelin molecular species in the mouse tissue section
Masayuki Sugimoto[2], Yoichi Shimizu[1], Masato Wakabayashi[3], Takeshi Yoshioka[3], Yukari Tanaka[4], Kenichi Higashino[3], Yoshito Numata[3], Shota Sakai[5], Akio Kihara[6], Yasuyuki Igarashi[5], Yuji Kuge[1] [1]Central Institute of Isotope Science, Hokkaido University, Sapporo, Hokkaido, Japan; [2]Graduated School of Medicine, Hokkaido University, Sapporo, Japan; [3]Discovery Research Laboratory for Innovative Frontier Medicines, Shionogi & Co., Ltd., Sapporo, Japan; [4]Research Laboratory for Development, Shionogi & Co., Ltd., Toyonaka, Japan; [5]Faculty of Advanced Life Science, Hokkaido University, Sapporo, Japan; [6]Faculty of Pharmaceutical Science, Hokkaido University, Sapporo, Japan (2229232)

15:15-16:00 Coffee Break & Visit Exhibits
(Kamehameha Exhibit Hall 2 & 3)

Plenary Session 5

16:00-17:00 Plenary Session 5: Jon-Kar Zubieta (Kalakaua Ballroom B&C) (Room Kalakaua Ballroom B&C)
Moderators: Val Low and Mei Tian

16:00 PLS 5: Endogenous Opioid Mechanisms in Major Depression: Association with Treatment Responses
Jon-Kar Zubieta University of Michigan, Ann Arbor, Michigan, USA (2262106)

Fellows Forum Panel

17:00-18:30 Fellows Forum Panel (Room Kalakaua Ballroom B&C)

Poster Session 3 and the Fellows Meet & Greet Reception - Join us for beer, wine and appetizers.

18:30 -19:30 Poster Session 3 (Kamehameha Exhibit Hall 2 & 3)

Odd Numbers will be presented during the first 30 minutes of the session and even numbers during the second 30 minutes. For a complete list of individual abstracts, refer to pages 73-100

Preclinical in vivo Studies

- Cardiology
- Infectious Disease
- Inflammation/Immunology
- Metabolic Disease
- Neurology
- Oncology

** Denotes highlight lecture*

Saturday September 5

Room	311	312	313 A/B/C	314	315	320 (Emalani Theatre)
08:00 - 09:30	Spotlight Session 9: Metabolic Reprogramming - Implications for Cancer Imaging and Therapy	Spotlight Session 10: Oncogenetic Tumor Heterogeneity Translated to Imaging: Radiomics and Radiogenomics	Spotlight Session 11: Translational Imaging & Drug Discovery			
09:30 - 10:30	Plenary Session 6: Philipp Scherer (Kalakaua Ballroom B&C)					
10:30 - 11:15	Coffee Break & Visit Exhibits					
11:15 - 12:45	Scientific Session 21: First-in-Human & Clinical Studies	Scientific Session 22: Technology & Software Developments - MRI/PET/SPECT	Scientific Session 23: Preclinical Cell & Tissue Level Studies - Oncology	Scientific Session 24: Chemistry & Imaging Probes - MRI/CT	Scientific Session 25: Chemistry & Imaging Probes - Nuclear Imaging	Scientific Session 26: Preclinical in vivo Studies - Oncology: Many Modalities
12:45 - 13:45	Lunch Break & Visit Exhibits					
13:45 - 14:45	Poster Session 4 & Poster Wall Presentation(Exhibit Hall 2 & 3)					
14:45 - 15:00	Break					
15:00 - 17:00	Closing Ceremony, YIA Award & Highlight Lecture by John Gore (Kalakaua Ballroom B&C)					
17:30 - 22:00	Gala Event 17:30 - 22:00 - Island Luau Under the Stars					

Exhibitor Breakfast

08:00-09:00 Exhibitor Breakfast (Room 317A)

Spotlight Session 09

08:00-09:30 Metabolic Reprogramming - Implications for Cancer Imaging and Therapy (Room 311)
Moderators: Kayvan Keshari and Ralph DeBerardinis

08:00 SPS 34: Cancer Metabolism: What Can ^{13}C NMR Teach Us?
Craig Malloy[1] [1]Advanced Imaging Research Center, University of Texas Southwestern Medical Center, Dallas, Texas, USA; [2]VA North Texas Healthcare System, Dallas, Texas, USA (2343356)

08:30 SPS 35: PET imaging of nucleotide metabolism
Caius Radu Molecular and Medical Pharmacology, UCLA, Los Angeles, California, USA (2307528)

09:00 SPS 36: Hyperpolarized ^{13}C MR – Applications to Cancer Metabolism
John Kurhanewicz[1], Renuka Sriram[1], Kayvan R. Keshari[2], Daniel Vigneron[1] [1]Radiology and Biomedical Imaging, UCSF, San Francisco, California, USA; [2]MSKCC, New York, New York, USA (2343610)

Spotlight Session 10

08:00-09:30 Oncogenetic Tumor Heterogeneity Translated to Imaging: Radiomics and Radiogenomics (Room 312)
Moderators: Robert Gillies and Evis Sala

08:00 SPS 37: Introduction: Radiogenomics, the new generation imaging
Evis Sala Radiology, Memorial Sloan Kettering Cancer Center, New York, New York, USA (2287369)

08:30 SPS 38: Decoding tumor phenotype using radiomics
Sandy Napel Radiology, Stanford University, Stanford, California, USA (2318831)

09:00 SPS 39: Deciphering Breast Cancer with Quantitative Radiomics & Imaging Genomics: Imaging Phenotypes in Breast Cancer Risk Assessment, Diagnosis, Prognosis, and Risk of Recurrence
Maryellen Giger Radiology, University of Chicago, Chicago, Illinois, USA (2324483)

Spotlight Session 11

08:00-09:30 Translational Imaging & Drug Discovery (Room 313 A/B/C)
Moderators: Jack Hoppin and Charles Glaus

08:00 SPS 40: Multi-Modal Imaging Applications for Brain Drug Delivery
Ajay Verma Experimental Medicine, Biogen Idec, Cambridge, Massachusetts, USA (2325230)

08:45 SPS 41: Translational Imaging – Challenges and Opportunities
Timothy J. McCarthy Clinical & Transaltional Imaging, Pfizer, Inc, Cambridge, Massachusetts, USA (2287264)

Plenary Session 6

09:30-10:30 Plenary Session 6: Philipp Scherer (Kalakaua Ballroom B&C (Room Kalakaua Ballroom B&C)
Moderators: Moritz Kircher

09:30 PLS 6: Adipose Tissue: A Tale of Hypoxia, Angiogenesis, Fibrosis and ECM Remodeling
Philipp E. Scherer The University of Texas Southwestern Medical Center, Dallas, Texas, USA (2247639)

10:30-11:15 Coffee Break & Visit Exhibits
(Kamehameha Exhibit Hall 2 & 3)

Scientific Session 21

11:15-12:45 First-in-Human & Clinical Studies (Room 311)
Moderators: Yasuhisa Fujibayashi and Wolfgang Weber

11:15 SS 162: ^{18}F-Nifene: First-in-human PET studies for imaging nicotinic $\alpha 4\beta 2$ receptors
Jogeshwar Mukherjee[1], Patrick J. Lao[2], Tobey J. Betthauser[2], Ansel T. Hillmer[2], Min-Liang Pan[1], Ishani H. Patel[1], Sharon A. Kuruvilla[1], Andrew T. Higgins[2], Todd E. Barnhart[2], Charles K. Stone[2], Bradley T. Christian[2] [1]Radiological Sciences, University of California, Irvine, Irvine, California, USA; [2]Medical Physics & Waisman Center, University of Wisconsin, Madison, Wisconsin, USA (2231396)

11:25 SS 163: An Omics Approach to Traumatic Brain Injury in Human Patients
Zhifeng Kou[1], Armin Iraji[1], Natalie Wiseman[1], Hanbo Chen[2], Robert D. Welch[3], Brian O'Neil[3], Tianming Liu[2], E M. Haacke[1] [1]Biomedical Engineering and Radiology, Wayne State University, Detroit, Michigan, USA; [2]Computer Science, University of Georgia, Athens, Georgia, USA; [3]Emergency Department, Wayne State University, Detroit, Michigan, USA (2233101)

** Denotes highlight lecture*

11:35 **SS 164: Chemical Exchange Saturation Transfer (CEST) MRI of Cortical Gray Matter in Multiple Sclerosis**
Adrienne N. Dula[1], Siddharama Pawate[2], Lindsey M. Dethrage[3], Benjamin N. Conrad[3], Seth A. Smith[1] [1]Radiology and Radiological Sciences, Vanderbilt University Medical Center, Nashville, Tennessee, USA; [2]Neurology, Vanderbilt University Medical Center, Nashville, Tennessee, USA; [3]Vanderbilt University Institute of Imaging Science, Vanderbilt University Medical Center, Nashville, Tennessee, USA (2224805)

***11:45** **SS 165: First-in-Human study of [^{18}F]AA-7: A novel PET tracer for imaging L-type amino acid transporter 1 (LAT1)-positive tumors**
Satoshi Nozaki[1], Tomoko Oshita[1], Yuka Nakatani[2], Yumi Sasano[1], Kenichiro Yamamoto[1], W. Ewan Hume[1], Yasuhiro Wada[2], Akira Ishii[3], Masaaki Tanaka[3], Susumu Shiomi[6], Naohiro Tsuyuguchi[7], Kazuya Kodama[1], Yasuyoshi Watanabe[2] [1]Novel PET Diagnostics Laboratory, RIKEN, Kobe, Hyogo, Japan; [2]Center for Life Science Technologies (CLST), RIKEN, Kobe, Hyogo, Japan; [3]Department of Physiology, Osaka City University Graduate School of Medicine, Osaka, Osaka, Japan; [4]Research & Development Department, Nagase ChemteX Corporation, Tatsuno, Hyogo, Japan; [5]Life & Healthcare Products Department, NAGASE & CO., LTD., Kobe, Hyogo, Japan; [6]Department of Nuclear Medicine, Osaka City University Graduate School of Medicine, Osaka, Osaka, Japan; [7]Department of Neurosurgery, Osaka City University Graduate School of Medicine, Osaka, Osaka, Japan (2220071)

12:05 **SS 166: Intraoperative fluorescence imaging of folate receptor alpha positive ovarian and breast cancer using the tumor specific agent EC17.**
Quirijn R. Tummers[1], Charlotte E. Hoogstins[1], Adam F. Cohen[2], Cornelis J. van de Velde[1], Philip S. Low[3], Gerrit-Jan Liefers[1], Katja N. Gaarenstroom[4], Jacobus Burggraaf[2], Alexander L. Vahrmeijer[1] [1]Surgery, Leiden University Medical Center, Leiden, Netherlands; [2]Centre for Human Drug Research, Leiden, Netherlands; [3]Purdue University, West Lafayette, Indiana, USA; [4]Gynecology, Leiden University Medical Center, Leiden, Netherlands (2233311)

12:15 **SS 167: Measuring HER2-receptor expression in metastatic breast cancer using [^{68}Ga]ABY-025 PET/CT**
Jens Sorensen[2], Joachim Feldwisch[1], Anders Wennborg[1], Helena Olofsson[3], Vladimir Tolmachev[3], Mark Lubberink[2], Dan Sandberg[2], Jörgen Carlsson[3], Henrik Lindman[3] [1]Affibody AB, Solna, Sweden; [2]Nuclear medicine and PET, Uppsala University, Uppsala, Sweden; [3]Uppsala University, Uppsala, Sweden (2245206)

12:25 **SS 168: Imaging of tumor-associated system x_c^- activity with 18F-fluoropropylglutamate (FSPG) PET/CT for intracranial malignancies.**
Erik Mittra[1], Ryogo Minamimoto[1], Amir Barkhodari[1], Mehran Jamali[1], Andrei Iagaru[1], Bernadette Schneider[1], Aileen Hoehne[1], Mathias Berndt[2], Norman Koglin[2], Andrew W. Stephens[2], Frederick T. Chin[1], Sanjiv S. Gambhir[1] [1]Radiology, Stanford University, Stanford, California, USA; [2]Piramal Imaging GmbH, Berlin, Germany (2233416)

12:35 **SS 169: Clinical translation of a novel dual integrin $\alpha_v\beta_3$ and GRPR targeting PET radiotracer ^{68}Ga-NOTA-BBN-RGD**
Jingjing Zhang[1], Gang J. Niu[2], Lixin Lang[2], Xuefeng Yan[2], Shaobo Yao[1], Zhaohui Zhu[1], Fang Li[1], Xiaoyuan Chen[2] [1]Department of Nuclear Medicine, Peking Union Medical College Hospital (PUMCH), Beijing, China; [2]National Institute of Biomedical Imaging and Bioengineering, National Institutes of Health, Bethesda, Maryland, USA (2243934)

Scientific Session 22

11:15-12:45 **Technology & Software Developments - MRI/PET/SPECT** (Room 312)
Moderators: Jinzi Zheng

11:15 **SS 170: 13C MR Molecular Imaging and Chemical Imaging by Indirect Detection and Spin Amplification**
Yung-Ya Lin, Zhao Li, Chao-Hsiung Hsu Chemistry and Biochemistry, UCLA, Los Angeles, California, USA (2234131)

11:25 **SS 171: Simultaneous and spectroscopic molecular imaging of multiple free radical intermediates using in vivo dynamic nuclear polarization-MRI**
Fuminori Hyodo, Shinji Ito, Hinako Eto, Tomoko Nakaji, Keiji Yasukawa, Ryoma Kobayashi, Hideo Utsumi Kyushu Univ., Fukuoka, Japan (2225063)

11:35 **SS 172: New Albira PET generation based on SiPM, a comparison study using the NEMA standard**
Laura Moliner Martinez[1], Antonio J. Gonzalez Martinez[1], Carlos Correcher Salvador[2], Albert Aguilar Talens[1], Julio Barbera Ballester[2], Liczanddro Hernádez Hernández[1], Cesar Molinos Solsona[2], Sven Junge[3], Konrad Lankes[3], Thomas Bruckbauer[3], Jose Benlloch Baviera[1] [1]Detectors, Institute for Instrumentation in Molecular Imaging, I3M, Valencia, Valencia, Spain; [2]Oncovision, Valencia, Valencia, Spain; [3]Bruker Isospin Corporation, Ettlingen, Germany (2232847)

SATURDAY

** Denotes highlight lecture*

11:45 **SS 173: Functional Mapping of Regional Hematocrit by Simultaneous Imaging of F-18 Albumin and Tc-99m Labeled Red Blood Cells: A Demonstration Study in the Mouse**
Michael V. Green[2], Jurgen Seidel[2], Mark Williams[1], Elaine M. Jagoda[1], Falguni Basuli[3], Peter L. Choyke[1] [1]Molecular Imaging Program, NIH/NCI, Bethesda, Maryland, USA; [2]Contractor to Leidos Biomedical Research, Inc. (formerly SAIC-Frederick), NCI-Frederick, Frederick, Maryland, USA; [3]Imaging Probe Development Center, NIH/NHLBI, Bethesda, Maryland, USA; [4]Leidos Biomedical Research Inc. (formerly SAIC-Frederick), Frederick, Maryland, USA (2231678)

***11:55** **SS 174: Development of a compact helmet-chin PET for high-sensitivity brain imaging**
Taiga Yamaya[1], Eiji Yoshida[1], Hideaki Tashima[1], Naoko Inadama[1], Tetsuya Shinaji[1], Hidekatsu Wakizaka[1], Munetaka Nitta[1], Shusaku Tazawa[2], Tetsuya Suhara[1], Yasuhisa Fujibayashi[1] [1]Molecular Imaging Center, National Institute of Radiological Sciences, Chiba, Japan; [2]ATOX Co. Ltd, Tokyo, Japan (2244081)

12:15 **SS 175: A Practical Depth-of-Interaction Detector for PET/CT and PET/MR Using Dichotomous-Orthogonal-Symmetry Readout Decoding**
Yuxuan Zhang, Han Yan, Hossain Baghaei, Wai-Hoi Wong Cancer Systems Imaging, University of Texas MD Anderson Cancer Center, Houston, Texas, USA (2229105)

12:25 **SS 176: Low cost, high spatial resolution, depth of interaction PET detector designs using position sensitive sparse sensor (PS3) arrays and dual sided (DS) readout.**
Robert Miyaoka, William C. Hunter Radiology, University of Washington, Seattle, Washington, USA (2232487)

12:35 **SS 177: Global and Local Non-rigid Registration in Sequential Quantitative SPECT/CT for Targeted Radionuclide Therapy**
Greta Mok[2], Ka Weng Leong[2], Tiantian Li[2], Edwin C. Ao[2], Ren-Shyan Liu[1] [1]Dept of Nuclear Medicine, Faculty of Medicine, National Yang-Ming University, Taipei, Taiwan; [2]Electrical and Computer Engineering, University of Macau, Taipa, Macao (2224518)

Scientific Session 23

11:15-12:45 **Preclinical Cell & Tissue Level Studies - Oncology** (Room 313 A/B/C)
Moderators: Orit Jacobson and Richard Tavaré

11:15 **SS 178: 3-D characterisation of murine spleen and its response to the vascular disrupting agent ZD6126 using optical computed tomography.**
Ciara M. McErlean[1], Jessica K. Boult[1], David J. Collins[1], Martin O. Leach[1], Simon P. Robinson[1], Simon J. Doran[1] [1]CRUK Cancer Imaging Centre, Institute of Cancer Research, Sutton, United Kingdom; [2]Department of Physics, University of Surrey, Guildford, United Kingdom (2224227)

11:25 **SS 179: Intravital multi photon microscopy of intraarterial targeting of genetically engineered Glial Restricted Progenitors (GRPs) to stroke lesion.**
Anna Jablonska[1], Daniel J. Shea[3], Jeff W. Bulte[1], Miroslaw Janowski[1], Konstantinos Konstantopoulos[3], Piotr Walczak[1] [1]Radiology and Radiological Science, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA; [2]Cellular Imaging Section, Institute for Cell Engineering, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA; [3]Department of Chemical and Biomolecular Engineering, Johns Hopkins University, Baltimore, Maryland, USA; [4]NeuroRepair, Mossakowski Medical Research Centre, Polish Academy of Sciences, Warsaw, Poland; [5]Pathophysiology, Faculty of Medical Sciences, University of Warmia and Mazury, Olsztyn, Poland (2233567)

11:35 **SS 180: Precision Visualization of Human Non-Melanoma Skin Cancer Ex Vivo: Implication for Rapid Detection of Surgical Margin and Surgery**
Ethan Walker[1], Margaret Mann[3], Kord Honda[3], Allison Vidimos[4], Mark Schluchter[6], Galia Blum[5], Matthew Bogyo[2], James Basilion[1] [1]Biomedical Engineering, CWRU, Cleveland, Ohio, USA; [2]Pathology, Microbiology and Immunology, Stanford University, Stanford, California, USA; [3]Dermatology, University Hospital, Cleveland, Ohio, USA; [4]Dermatology, Cleveland Clinic Foundation, Cleveland, Ohio, USA; [5]The Hebrew University, Jerusalem, Israel; [6]Epidemiology & Biostatistics, CWRU, Cleveland, Ohio, USA; [7]Radiology and NFCR Center for Molecular Imaging, CWRU, Cleveland, Ohio, USA (2226747)

11:45 **SS 181: Detection and differentiation of breast cancer sub-types using a cytosolic phospholipase A_2 Near-Infra Red (NIR) activatable fluorophore.**
Michael Chiorazzo[1], Anatoly V. Popov[2], Edward J. Delikatny[2] [1]Pharmacology, University of Pennsylvania, Philadelphia, Pennsylvania, USA; [2]Radiology, University of Pennsylvania, Philadelphia, Pennsylvania, USA (2231288)

** Denotes highlight lecture*

11:55 **SS 182: Identification of a novel phage display-derived peptide targeted to PirB as a promising moiety for molecular imaging of ischemic stroke tissue**
Jie Wang[1], Yuqing Shen[2], Jing Xia[1], Ying Zhang[2], Bo Fu[1], Wei Long[1], Dan Lv[1], Jianqiong Zhang[2] [1]Medical School, Key Laboratory of Developmental Genes and Human Diseases, Nanjing, Jiangsu, China; [2]Department of Microbiology and Immunology, Southeast University, Nanjing, China (2232892)

12:05 **SS 183: Cetuximab-IRDye700DX Tissue Levels and IRDye700DX Histologic Locations in Cynomolgus Macaques Following i.v. Cetuximab-IRDye700DX**
Esther de Boer[1], Eben L. Rosenthal[5], Sharon Samuel[3], Jason M. Warram[1], David N. French[3], Trenton R. Schoeb[4], Kurt R. Zinn[3] [1]Surgery, University of Alabama at Birmingham, Birmingham, Alabama, USA; [2]Surgery, University Medical Center Groningen, Groningen, Netherlands; [3]Radiology, University of Birmingham Alabama, Birmingham, Alabama, USA; [4]Genetics, University of Alabama at Birmingham, Birmingham, Alabama, USA; [5]Otolaryngology, Stanford University, Stanford, California, USA (2232418)

12:15 **SS 184: Single Plane Illumination Microscopy (SPIM): a new tool for tumor cell detection in mouse brains**
Julia Bode[1], Peter Wirthschaft[1], Michael Breckwoldt[2], Rakesh Sharma[1], Björn Tews[1] [1]Molecular Mechanisms of Tumor Invasion, German Cancer Research Center, Heidelberg, Germany; [2]Neuroradiology, University Hospital Heidelberg, Heidelberg, Germany (2229329)

***12:25** **SS 185: Dynamic 3D (4D) microscopic imaging of cancer cell death during near infrared photoimmunotherapy.**
Hisataka Kobayashi[1], Mikako Ogawa[2], Toyohiko Yamauchi[3], Yuko Nakamura[1], Tadanobu Nagaya[1], Kazuhide Sato[1], Abhishek Kumar[4], Hari Shroff[4], Peter L. Choyke[1] [1]Molecular Imaging Program, NCI/NIH, Bethesda, Maryland, USA; [2]Medical Photonics Research Center, Hamamatsu Medical University, Hamamatsu, Japan; [3]Central Research Laboratory, Hamamatsu Photonics K. K., Hamamatsu, Japan; [4]NIBIB/NIH, Bethesda, Maryland, USA (2230292)

Scientific Session 24

11:15-12:45 **Chemistry & Imaging Probes - MRI/CT** (Room 314)
Moderators: Chia-Hao Su and Craig Malloy

11:15 **SS 186: Resonance frequency-shifting nitroxide for probing proteolytic activity *in vivo* using the Overhauser-enhanced MRI technique**
Neha Koonjoo[1], Gérard Audran[2], Lionel Bosco[2], Paul Brémond[2], Jean-Michel Franconi[1], Sylvain R. Marque[2], Philippe Massot[1], Philippe Mellet[1], Elodie Parzy[1], Eric Thiaudière[1] [1]University of Bordeaux - CNRS - UMR5536, Bordeaux, France; [2]ICR - UMR CNRS 7273, Marseille, France (2226463)

11:25 **SS 187: Dynamic Contrast Enhanced (DCE) MRI detects changes in vascular permeability following treatment with thermally-sensitive liposomal doxorubicin**
Brett Fite, Josquin Foiret, Lisa M. Mahakian, Sarah M. Tam, Katherine Ferrara, Azadeh Kheirolomoom Biomedical Engineering, University of California Davis, Davis, California, USA (2233705)

11:35 **SS 188: Evaluation of high-intensity focused ultrasound ablation of prostate tumor with hyperpolarized C^{13} imaging biomarkers**
Jessie Lee, Chris J. Diederich, Vasant A. Salgaonkar, Robert Bok, Andrew G. Taylor, John Kurhanewicz UCSF, San Francisco, California, USA (2233633)

11:45 **SS 189: A highly efficient hyperpolarized *^{13}C* xenobiotic for *in vitro* and *in vivo* evaluation of carboxylesterase activity.**
Federico Maisano[2], Claudia Cabella[2], Luigi Miragoli[2], Sonia Colombo Serra[2], Fabio Tedoldi[2], Pernille R. Jensen[1], Magnus Karlsson[1], Mathilde H. Lerche[1] [1]Albeda Research Aps, Copenhagen, Denmark; [2]Bracco Imaging SpA, Colleretto Giacosa, Torino, Italy (2230053)

***11:55** **SS 190: Labeling monocytes with gold nanoparticles to track their recruitment in atherosclerosis**
Peter Chhour[1], Pratap C. Naha[2], Johoon Kim[1], Sean O'Neill[1], Muredach P. Reilly[1], Victor A. Ferrari[1], David P. Cormode[2] [1]University of Pennsylvania, Philadelphia, Pennsylvania, USA; [2]Radiology, University of Pennsylvania, Philadelphia, Pennsylvania, USA (2227396)

12:15 **SS 191: Physiochemical, biological, and imaging performance of zwitterionic-coated TaO nanoparticles as CT contrast agents**
Jeannette Roberts[1], Peter J. Bonitatibus Jr[1], Matthew Butts[1], Robert E. Colborn[1], Peter M. Edic[1], Paul FitzGerald[1], Jack W. Lambert[2], Michael Marino[1], Andrew Torres[1], Benjamin M. Yeh[2] [1]GE Global Research, Niskayuna, New York, USA; [2]University of California, San Francisco, California, USA (2221310)

12:25 **SS 192: Gold silver alloy nanoparticles (GSAN): a contrast agent for both dual energy x-ray mammography and computed tomography**
Pratap C. Naha[1], Lahari Uppuluri[1], Kristen Lau[1], Shaameen Mian[2], Rabe'e Cheheltani[1], Peter Chhour[2], Elizabeth McDonald[1], Andrew D. Maidment[1], David P. Cormode[1] [1]Radiology, University of Pennsylvania, Philadelphia, Pennsylvania, USA; [2]Bioengineering, University of Pennsylvania, Philadelphia, Pennsylvania, USA (2233084)

12:35 **SS 193: Amine-terminated Polyethylene Glycol Functionalized Gold Nanostars for X-ray/CT Imaging and Photothermal Therapy In Vivo Animal**
Shouju Wang, Ying Tian, Guangming Lu Jinling Hospital, Nanjing, China (2229234)

SATURDAY

** Denotes highlight lecture*

Scientific Session 25

11:15-12:45 Chemistry & Imaging Probes - Nuclear Imaging (Room 315)
Moderators: Peter Conti and Keon Wook Kang

11:15 SS 194: Six PET Tracers Target a Single Epitope of Integrin avb6 in Pancreatic Cancer
Richard Kimura, Chao Zhang, Sanjiv S. Gambhir
Radiology, Stanford University, Stanford, California, USA (2226851)

***11:25 SS 195: Synthesis and biological evaluation of a novel ^{18}F-labelled tetrazine for bioorthogonal chemistry**
Outi M. Keinänen[1], Xiang-Guo Li[2], Naveen K. Chenna[3], Dave Lumen[1], Mirkka Sarparanta[1], Kerttuli Helariutta[1], Tapani Vuorinen[3], Anu J. Airaksinen[1] [1]Laboratory of Radiochemistry, University of Helsinki, Helsinki, Finland; [2]Turku PET Centre, Turku University Hospital, Turku, Finland; [3]Department of Forest Products Technology, Aalto University School of Chemical Technology, Espoo, Finland; [4]Department of Radiology and Program in Molecular Pharmacology and Chemistry, Memorial Sloan Kettering Cancer Center, New York, New York, USA (2225739)

11:45 SS 196: Novel ^{89}Zr based cell-labeling method for PET imaging of cell trafficking
Aditya Bansal[1], Mukesh K. Pandey[3], Yunus Demirhan[1], Jonathan J. Nesbitt[2], Binxia Yang[4], Ruben J. Crespo-Diaz[2], Andre Terzic[2], Sanjay Misra[4], Atta Behfar[2], Timothy R. DeGrado[1] [1]Radiology, Mayo Clinic, Rochester, Minnesota, USA; [2]Cardiovascular Diseases, Mayo Clinic, Rochester, Minnesota, USA; [4]Vascular & Interventional Rad, Mayo Clinic, Rochester, Minnesota, USA (2233842)

11:55 SS 197: Convenient One-Step Nucleophilic [^{124}I]-Iodinations of Diaryliodonium Salts
Stephen G. DiMagno[3], Bao Hu[3], Scott M. Apana[1], Khaled Dostzada[4], Joseph E. Blecha[2], Destiny L. Lusinger[1], Henry VanBrocklin[4], Marc S. Berridge[1] [1]3D Imaging, Little Rock, Arkansas, USA; [2]Radiology and Biomedical Imaging, University of California San Francisco, San Francisco, California, USA; [3]Chemistry, University of Nebraska-Lincoln, Lincoln, Nebraska, USA; [4]Radiology, UCSF School of Medicine, San Francisco, California, USA (2244419)

12:05 SS 198: ^{18}F-Boramino Acid: the Traceable Amino Acid Mimicks for Cancer Imaging
Zhibo (Zippo) Liu[2], Dale O. Kiesewetter[1], Gang Niu[3], Xiaoyuan Chen[4] [1]NIBIB/LOMIN, NIH, Bethesda, Maryland, USA; [2]NIBIB, National Institute of Health, Bethesda, Maryland, USA; [3]National Institutes of Health, Bethesda, Maryland, USA; [4]National Institute of Biomedical Imaging and Bioengineering, National Institutes of Health, Bethesda, Maryland, USA (2244848)

12:15 SS 199: Development of Iodinated PARP Inhibitors for Glioblastoma Imaging
Beatriz Salinas Rodriguez[1], Christopher Irwin[1], Susanne Kossatz[1], Wolfgang Weber[1], Thomas Reiner[1] [1]Radiology, Memorial Sloan Kettering Cancer Center, New York, New York, USA; [2]Molecular Pharmacology and Chemistry Program, Memorial Sloan Kettering Cancer Center, New York, New York, USA; [3]Center for Molecular Imaging and Nanotechnology, Memorial Sloan Kettering Cancer Center, New York, New York, USA (2234016)

12:25 SS 200: Click Chemistry For Targeting Group Attachments to Heat Induced Radiolabeled (HIR) Feraheme Nanoparticles
Moses Q. Wilks[1], Hushan Yuan[1], Marc D. Normandin[1], Lee Josephson[1] [1]Massachusetts General Hospital, Charlestown, Massachusetts, USA; [2]Harvard Medical School/MGH, Boston, Massachusetts, USA (2232225)

12:35 SS 201: Radionuclide embedded Gold Nanoparticles as a high sensitive and stable nuclear medicine imaging platform for *in vivo* DCs tracking
Sang Bong Lee[1], Su Bi Ahn[1], Ho Won Lee[1], Seul-Gi Oh[1], Thoudam Debraj Singh[1], Shin Young Jeong[1], Sang-Woo Lee[1], Byeong-Cheol Ahn[1], Dong-Kwon Lim[4], Yong Hyun Jeon[1], Jaetae Lee[1] [1]Nuclear Medicine, School of Medicine, Kyungpook National University, Daegu, Korea (the Republic of); [2]Leading-edge Research Center for Drug Discovery and Development for Diabetes and Metabolic Disease, Kyungpook National University Hospital, Daegu, Korea (the Republic of); [3]Daegu-Gyeongbuk Medical Innovation Foundation (DGMIF), Daegu, Korea (the Republic of); [4]KU-KIST Graduate School of Converging Science and Technology, Korea university, Seoul, Korea (the Republic of) (2232603)

Scientific Session 26

11:15-12:45 Preclinical in vivo Studies - Oncology: Many Modalities (Room 320 (Emalani Theatre))
Moderators: Robert Gillies and Vani Vijayakumar

11:15 SS 202: Feasibility and Reproducibility of Three-dimensional Ultrasound Molecular Imaging of Tumor Angiogenesis using a Clinical Matrix Array Ultrasound Transducer
Huaijun Wang[1], Osamu F. Kaneko[1], Lu Tian[2], Dimitre Hristov[3], Juergen K. Willmann[1] [1]Department of Radiology, Molecular Imaging Program at Stanford, Stanford University, School of Medicine, Stanford, California, USA; [2]Department of Health, Research & Policy, Stanford University, Stanford, California, USA; [3]Department of Radiation Oncology, Stanford University, Stanford, California, USA (2230751)

** Denotes highlight lecture*

11:25 **SS 203: *In Vivo* Verification of Efficient Radioisotope Energy Transfer (RET) by Gold Nanoclusters for Molecular Imaging and Therapy.**
Olga Volotskova[1], Jason H. Stafford[1], Conroy Sun[3], Ai Leen Koh[4], Guillem Pratx[5], Lei Xing[2] [1]Radiation Oncology, Stanford, Palo Alto, California, USA; [2]Radiation Oncology, Stanford University, Stanford, California, USA; [3]Department of Pharmaceutical Sciences, Oregon State University, Corvallis, Oregon, USA; [4]Stanford Nano Shared Facilities, Stanford, Stanford, California, USA (2234042)

11:35 **SS 204: Receptor Targeted Theranostic Nanoparticles for Targeted and Image-guided Therapy of Stromal-rich and Drug Resistant Human Cancer**
Hongyu Zhou[1], Weiping Qian[1], Xiangxue Guo[1], Liya Wang[2], Hongyu Chen[3], Andrew Wang[3], David Kooby[1], Malgorzata Lipowska[2], Charles A. Staley[1], Ruth M. O'Regan[4], Toncred A. Styblo[1], Hui Mao[2], Lily Yang[1] [1]Surgery, Emory University School of Medicine, Atlanta, Georgia, USA; [2]Radiology and Imaging Sciences, Emory University, Atlanta, Georgia, USA; [3]Ocean nanotech LLC, San Diego, California, USA; [4]Hematology and Oncology, Emory University, Atlanta, Georgia, USA (2235221)

***11:45** **SS 205: A novel PET tracer enabling *in vivo* imaging of poly(ADP ribose) polymerase-1 activity for precision cancer medicine.**
Adam Shuhendler[1], Lina Cui[1], Jianguo Lin[2], Bin Shen[1], Michelle L. James[3], Timothy H. Witney[1], Magdalena Bazalova-Carter[1], Niladri Chattopadhyay[1], Sanjiv S. Gambhir[4], Frederick T. Chin[5], Edward Graves[1], Brian Rutt[6], Jianghong Rao[7] [1]Radiology, Stanford University, Stanford, California, USA; [2]Jiangsu Institute of Nuclear Medicine, Key Laboratory of Nuclear Medicine, Wuxi, China (2231763)

12:05 **SS 206: Nanoreporter technology allows imaging-facilitated prognoses of anti-cancer nanotherapy efficacy**
Carlos Perez Medina[1], Dalya Abdel-Atti[3], Zahi . Fayad[1], Jason S. Lewis[4], Willem J. Mulder[1], Thomas Reiner[5] [1]Translational and Molecular Imaging Institute, Mount Sinai, New York, New York, USA; [2]Centro de Investigación en Red de Enfermedades Respiratorias, Madrid, Spain; [3]Radiology, Memorial Sloan Kettering Cancer Center, New York, New York, USA; [6]Weill Cornell Medical College, New York, New York, USA (2229740)

12:15 **SS 207: EpCAM as multi-tumour target for fluorescence guided surgery in animal models**
Pieter Van Driel[3], Martin Boonstra[2], H.A.J.M. Prevoo[2], Martijn Van de Giessen[2], T.J.A. Snoeks[3], Quirijn R. Tummers[2], Stijn Keereweer[1], Cornelis J. van de Velde[2], P.J.K. Kuppen[2], Alexander L. Vahrmeijer[2], Clemens W. lowik[3], Cornelis F. Sier[2] [1]Otorhinolaryngology Head and Neck Surgery, Erasmus Medical Center, Rotterdam, Netherlands; [2]Surgery, Leiden University Medical Center, Leiden, Netherlands; [3]Radiology & Molecular Imaging, Leiden University Medical Center, Leiden, Netherlands (2233315)

12:25 **SS 208: In Vivo Stabilized Theranostic Agent for PET Imaging and Radionuclide Therapy of Prostate Cancer**
Kristell L. Chatalic[1], Mark Konijnenberg[3], Julie Nonnekens[6], Erik de Blois[3], Sander Hoeben[5], Corrina de Ridder[5], Berthold Nock[2], Theodosia Maina[2], Wytske van Weerden[5], Marion de Jong[3] [1]Nuclear Medicine, Erasmus MC, Rotterdam, Netherlands; [2]Molecular Radiopharmacy, INRASTES, NCSR "Demokritos", Athens, Greece; [3]Department of Nuclear Medicine, Erasmus MC, Rotterdam, Netherlands; [4]Department of Radiology, Erasmus MC, Rotterdam, Netherlands; [5]Department of Urology, Erasmus MC, Rotterdam, Netherlands; [6]Department of Human Genetics, Erasmus MC, Rotterdam, Netherlands (2233632)

12:35 **SS 209: Novel uPAR-targeted near-infrared fluorescent tracer for image-guided real-time en vivo detection of squamous cell carcinoma and cervical lymph node metastases in oral cancer in mice**
Anders Christensen[1], Karina Juhl[2], Morten Persson[2], Birgitte Charabi[1], Jann Mortensen[2], Katalin Kiss[3], christian v. buchwald[1], Andreas Kjaer[2] [1]Department of ORL-Head & Neck Surgery, Rigshospitalet, Copenhagen, Denmark; [2]Department of Clinical Physiology, Nuclear Medicine & PET and Cluster for Molecular Imaging, Rigshospitalet & University of Copenhagen, Copenhagen, Denmark; [3]Department of Pathology, Rigshospitalet, Copenhagen, Denmark (2240374)

12:45-13:45 **Lunch Break & Visit Exhibits**
(Kamehameha Exhibit Hall 2 & 3)

SATURDAY

** Denotes highlight lecture*

Saturday September 5 (continued)

Poster Session 4

13:45 – 14:45 Poster Session (Kamehameha Exhibit Hall)

Odd Numbers will be presented during the first 30 minutes of the session and even numbers during the second 30 minutes. For a complete list of individual abstracts, refer to pages 73-100

First-in-Human & Clinical Studies

- Oncology

Preclinical in vivo Studies

- Oncology
- Reporter Genes, Signal Transduction & Epigenetics

Technology & Software Developments

- Clinical PET/SPECT
- CT
- Hybrid Multimodality
- MRI
- Optical Imaging
- Photo-Acoustic Imaging
- Preclinical PET/SPECT
- Systems Biology
- Ultrasound

14:45-15:00 Break (Kamehameha Exhibit Hall 2 & 3)

Closing Ceremony

15:00-17:00 Closing Ceremony, YIA Award & Highlight Lecture by John Gore (Kalakaua Ballroom B&C)
Moderators: H. Charles Manning and Fabian Kiessling

15:00 PLS 7: Highlight Lecture
John Gore Vanderbilt University, New York, New York, USA (2287784)

Gala Event

17:30-22:00 Island Luau Under the Stars (Hilton Hawaiian Village - Kalakaua Ballroom B&C)

** Denotes highlight lecture*

Poster Session 1

Chemistry & Imaging Probes

CT

P001: Gold encapsulated polyphosphazene nanospheres as biodegradable contrast agents for computed tomography and photoacoustic imaging
Rabee Cheheltani, University of Pennsylvania

P002: Radioluminescence Characterization of Europium-doped Yttrium Oxide Nanoparticles for X-ray Dosimetry
Jeffrey Souris, The University of Chicago

P003: RGD peptide-modified PEGylated dendrimer-entrapped gold nanoparticles for targeted CT imaging of breast carcinoma
Kangan Li, Shanghai First People's Hospital,Shanghai Jiaotong University School of Medicine

MRI

P004: In vivo Overhauser-enhanced MRI of Proteolytic Activity
Neha Koonjoo, University of Bordeaux - CNRS - UMR5536

P006: Immune-modulating effects of the FDA approved iron oxide nanoparticle ferumoxytol inhibit tumor growth
saeid zanganeh, Stanford Medical School

P007: QUESPOWR MRI of the human brain
Edward Randtke, University of Arizona

P008: Spatiotemporal opening of brain blood barrier by MRI-guided HIFU activation of transgene expression of stem cells
Xiaobing Xiong, Wake Forest University Baptist Health

P009: Imaging L-lactate by CEST using paramagnetic shift reagents
Lei Zhang, University of Texas at Dallas, The University of Texas Southwestern Medical Center

P010: A Temperature Sensitive, Cobalt-based PARACEST Agent for MR Thermometry
Joseph Spernyak, Roswell Park Cancer Institute

P011: Spiropyran Sensors of Glutathione and Cysteine: Substituent Effects on Thiol Selectivity.
Brandon Tautges, University of California, Davis

P012: High Contrast T2 MRI Nanoprobes with Minimal Complement Activation and Immune Recognition in Mice
Dmitri Simberg, University of Colorado

P013: Dual Modal Mr/Fluorescent Zinc Sensing Probes for Diabetes Imaging
Graeme Stasiuk, University of Hull, Imperial College London

P014: A Bio-Mimic Method for Labeling Stem Cells and Immune Cells with Ferumoxytol for Cell Tracking by Magnetic Resonance Imaging
Li Liu, Carnegie Mellon University

P015: Efficient Magnetic Resonance Imaging of lymph node using Hyaluronic Acid-conjugated Iron Oxide nanoparticles
Ming-Chun Lin, Industry Technology Research Institute

P017: Multiparametric tumor characterization and therapy response evaluation by hyperpolarized 13C magnetic resonance spectroscopic imaging
Rickmer Braren, Technische Universität München

P018: Synthesis, deuterium enrichment, and characterization of a novel biosensor for pH-imaging
Christian Hundshammer, Klinikum rechts der Isar/ Technical University Munich, Technische Universität München

P019: Hyperpolarized 15N-labeled Imidazoles: New pH MR Imaging Agents with Long Relaxation Times
Chalermchai Khemtong, UT Southwestern medical center

P021: Efficient preparation and pilot in vivo studies of hyperpolarized 1-13C-phospholactate metabolic contrast agent
Roman Shchepin, Vanderbilt Medical Center

P022: New class of high-relaxivity MnIII-based contrast agents as platforms for targeted intracellular magnetic resonance molecular imaging
Ali Barandov, Massachusetts Institute of Technology

P023: Developing a Copper responsive MRI Contrast Agent
Namini Paranawithana, UT Dallas

P024: In-vivo hyperpolarized 13C flow-suppressed MRSI in mouse liver
Hansol Lee, Yonsei University

P025: Paramagnetic small size mesoporous silica nanoparticles for targeted fluorescence and magnetic resonance imaging of tumor
He Hu, University of Torino, Shanghai Normal University

P026: Zinc responsive MRI Contrast Agents for in vivo Imaging
Andre Martins, UT Dallas

P028: Styrylbenzoxazole and curcumin derivatives that have preferred features of a fluorine-19 MRI probe for amyloid imaging
Ikuo Tooyama, Shiga University of Medical Science

P029: Using Mortality Force to Illustrate Probable Onset Age of Spinocerebellar Ataxia Type 3 Based on Magnetic Resonance Spectroscopy Measurements
Po-Shan Wang, The Neurological Institute, Taipei Municipal Gan-Dau Hospital, Taipei, Taiwan, ROC, National Yang-Ming University

P030: Spatially Resolved Quantification of Gd (III)-based Magnetic Resonance Agents in Tissue by MALDI Imaging Mass Spectrometry after in vivo MRI
Moritz Wildgruber, TU München

P031: Longer-Lived Hyperpolarized Propane Gas for Biomedical Imaging Application
Eduard Chekmenev, Vanderbilt University

P032: Hyaluronic Acid Conjugated Superparamagnetic Iron Oxide Nanoparticle for Cancer Diagnosis and Hyperthermia Therapy
REJU THOMAS, Chonnam National University Medical School

P033: Transcranial Manganese Delivery for Neuronal Tract Tracing using MEMRI
Tatjana Atanasijevic, NIH, NINDS

P034: Core-shell Fe3O4/Gd2O3 nanocube as T1- T2 Dual-Modal Contrast Agent
Fenfen Li, University of Science and Technology of China

P035: Design of Protein-based MRI Contrast Agents (ProCAs) for Molecular Imaging of Cancer Metastasis
Jenny Yang, Georgia State University

P036: Blood-Brain Barrier-Permeated Nanocomposites for Theranostic Molecular Imaging in Brain Tumor
Chia-Hao Su, Kaohsiung Chang Gung Memorial Hospital, National Yang Ming University

P037: Thioredoxin Sensing MRI T1 Contrast Agent
Jongeun Kang, Korea Basic Science Institute, Chungnam National University

P038: Co-polarization of HP001 and pyruvic acid for hyperpolarized 13C studies
Albert Chen, GE Healthcare

P039: Cognitive, Emotional and Motor-related Cortical Regions Involved in Spinocerebellar Ataxia Type 3 using Copula modularity
Yu-Te Wu, Institute of Biophotonics

P040: Development about 19F chemical shift imaging of DNA conformation change
Shigetaka Nakamura, Japan advanced institute of science and technology

Poster Session 1 (continued)

Multimodal

P042: Combined PET-MRI: Correlating FET and Gd-DTPA perfusion for advanced pharmacokinetic modelling
Marie Anne Richard, Université de Sherbrooke

P043: Facilitating Probe Delivery and Retention in Tumors with 3 nm Ultrasmall Iron Oxide Nanoparticle as Observed via Magnetic Resonance and Multiphoton Imaging
Hui Mao, Emory University

P044: MR-Optical dual-modality neuronal MHCI targeting peptide for early diagnosis of ischemic stroke in vitro and in vivo
Jing Xia, Key Laboratory of Developmental Genes and Human Diseases

P045: Pretargeting Cancer with TCO-derivatized pH (Low) Insertion Peptide (pHLIP): Syntheses, Biophysical Studies, and In Vitro Analysis.
Dustin Demoin, Memorial Sloan Kettering Cancer Center

P046: Targeted imaging of GRP receptor-expressing prostate cancer with 68Ga/IRDye-650 conjugated bombesin antagonist
Hanwen Zhang, Memorial Sloan Kettering Cancer Center

P047: Construction of a Novel uPAR targeted Multimodal Imaging Probe Using Strained Cyclooctyne Scaffold and Thiol-Yne Chemistry
Yao Sun, wuhan university, Stanford University

P048: Molecular imaging of atherosclerotic plaque via osteopontin targeted Cy5.5 labeled Fe3O4 magnetic nanoparticle probe
HongYu Qiao, Xijing Hospital, Xi'an, Shaanxi, China

P049: Reveal of accumulation mechanism of hypoxia imaging probe "FMISO" in tumors by imaging mass spectrometry: A possible involvement of low-molecular metabolite
Yoichi Shimizu, Hokkaido University, Hokkaido University

P050: A radiolabeled fluorescent nanoprobe electrostatically assembled with hyaluronic acid for tumor-targeted nuclear and optical imaging
Masayori Hagimori, Kobe Pharmaceutical University

P051: 64Cu labeled superparamagnetic iron oxide nanoparticles (SPIONs) as a PET/MR imaging agent.
Renata Madru, Lund University

P052: Establishment of an Optical/Magnetic Dual-modality Probe for Targeted Gastric Cancer In Vivo Imaging
Changhao Liu, Xijing Hospital, Fourth Military Medical University

P053: Use of Folate-Conjugated Multifunctional MR Imaging Agents to Target Activated Macrophages in ApoE-/- Mice
Yuyu Yao, southeast university, southeast university

P054: Multimodal Nano Probe for in vivo Cell Tracking.
Manuela Ventura, TECHNA Institute for the Advancement of Technology for Health, University Health Network

P055: Characterization of site-selective single and dual-conjugated antibodies for in vivo imaging and therapeutic applications
Brian Agnew, Thermo Fisher Scientific

P056: Development of a Multimodality Imaging Dextran Microsphere-based Embolic Platform
Bryan Hoang, University Health Network

P057: A glycogen-based multimodal imaging nanoprobe is effectively internalised into human melanoma metastatic cells
Frits Thorsen, University of Bergen, University of Bergen

P058: PET/MR multimodal theranostics: Direct gallium-68 radiolabelling of silica coated iron oxide nanorods for use in multimodal liver imaging and hyperthermia therapy
Benjamin Burke, University of Hull, University of Hull

P059: A modular dual labeling approach for multimodal agent development
Sukhen Ghosh, UT Health Science Center-Houston

P060: Detection of Amyloid-β Plaques in the Brain Using Dual-modality PET/NIR Fluorescent Probes
Hualong Fu, Beijing Normal University

P061: Dual-mode Prussian blue magnetic nanocubes for photoacoustic imaging and MRI
Diego Dumani, The University of Texas at Austin

P062: Near-Infrared Dye-Conjugated Hyaluronic Acid Nanoparticles for In Vivo Multimodal Imaging Guided Photothermal Therapy
Xiaolong Liang, Institute of Biophysics, Chinese Academy of Science

P063: Hepatobiliary excretion study using in vivo optical and PET imaging of 64Cu-labeled lanthanide-doped upconverting nanoparticles
Sang Hwan Nam, Korea Research Institute of Chemical Technology

P064: Using Multimodal Imaging to Study Mode of Action of Therapeutic Antibodies
Daniel Gutierrez, ETH Zurich, Roche

P065: Tunable Composite Nanocarriers for Magnetic Resonance Imaging, Multi-Modal Imaging and Theranostic Applications
Robert Prud'homme, Princeton University

P066: Development of Multifunctional Nanoparticles for Multimodal Imaging
Chang Kyu Sung, SNU-SMG Boramae Medical Center

P067: Synthesis and characterization of Ga-68 labeled water dispersible Fe3O4 NPs for dual applications as diagnostic imaging agent in PET/ MRI
Bo-Bae Cho, Dongguk university

P068: Construction and in vitro Characterization of Dual-modality SPECT/MR Nanoprobes Targeting HAb18G/CD147 in Breast Tumors
Mingru Zhang, First Affiliated Hospital of the Fourth Military Medical University

P069: A new prototype pegylated gold nanoparticles: more uniform in size for fast, efficient bioconjugation
Biying Xu, NIH

P070: Intrinsically Radioactive [64Cu] Self-Illuminating 64Cu-Doped CaS:Eu@CaS Nanocrystals for in Vivo PET and Optical Tumor Imaging
Tianye Cao, Fudan University,Fudan University Shanghai Cancer Center

P071: Contrast agent for hybrid in-vivo fluorescence/micro-CT imaging system
Ashwinkumar N, Indian Institute of Technology

P072: Study on Target Efficiency of FITC-NGR-GD to HEPG2 Cells In Vitro
xiaoguang you, The Affiliated Hospital of Hainan Medical University

P073: Nanoscaled Metal-Organic Frameworks Working as a Novel Multimodality Imaging Probe
Wenting Shang, Institute of Automation, Chinese Academy of Sciences

Nuclear Imaging

P074: Development of novel tracers for positron emission tomography and single photon computed tomography of poly(ADP-ribose) polymerase-1.
Filip Zmuda, University of Glasgow, University of Glasgow

P075: First in Human Study of PSMA-targeting small drug conjugates (SMDC) for SPECT Imaging (99mTc-EC0652) and Treatment (EC1169) of Men with Recurrent Metastatic Castrate-Resistant Prostate Cancer (MCRPC)
Binh Nguyen, Endocyte, Inc.

P076: In vivo μSPECT imaging of 99mTc-mebrofenin to assess impaired hepatobiliary transport: a pharmacokinetic modeling study.
Sara Neyt, Ghent University

P077: Accumulation of 20 nm 64Cu-micelles is enhanced in rat glioblastoma model as compared with 64Cu-liposomes
Jai Woong Seo, University of California, Davis

P078: Efficient and Site-specific Labeling of Iodine Radioisotope using Copper-Free Click Reaction
Jongho Jeon, Korea Atomic Energy Research Institute

P079: Towards Chemical Probes of ASCT2 (SLC1A5) As Precision Cancer Imaging Diagnostics
Michael Schulte, Vanderbilt University

P080: A pretargeted strategy employing Technetium-99m and Rhenium -188 based on bioorthogonal Diels-Alder Click Chemistry for SPECT imaging and radioimmunotherapy
Lynn Francesconi, Hunter College and the Graduate Center of the City University of New York

P081: 68Ga labeled iNGR with tumor penetrating motif has better PET imaging performance than NGR in CD13 positive tumor
Fei Kang, Xijing Hospital

P082: 64Cu-lactosaminated human serum albumin as a promising probe for asialoglycoprotein receptor-positive tumor PET imaging
Myung Geun Song, Cancer Research Institute, Institute of Radiation Medicine, Medical Research Center

P083: Preparation and Biological Evaluation of 188Re-labeled Lactam Cyclized α-MSH Analog for Melanoma Targeting
Young-Don HONG, Korea Atomic Energy Research Institute

P084: Development of Benzyl [18F]Fluoroacetate Radiosynthesis for PET Imaging of Ischemic Brain Injury
Shinya Kagawa, Shiga Medical Center Research Instutute, Kanazawa University

P085: Novel Sirt1-selective radiotracer substrate [18F] 2FPhAHA for PET imaging of epigenetic regulation
Robin Bonomi, Wayne State University

P086: [11C]MeDAS-PET Imaging of Myelination for Efficacy Evaluation of Novel Myelin Repair Therapies
Chunying Wu, Case Western Reserve University

P087: Evaluation and comparison of Cu-64 and Ga-68 labeled DOTA-, NOTA- and NODAGA-AMBA in vitro and in vivo in a GRPR expressing prostate cancer model
Ralf Bergmann, Helmholtz - Zentrum Dresden - Rossendorf

P088: NanoScan SPECT/CT Imaging of Tumor Acidic Microenvironment with 99mTc-labeled A Novel pH Low Insertion Peptide
Jiyun Shi, Chinese Academy of Sciences, Peking University

P089: Discovery and Evaluation of SPARC-targeted Peptides for Detection of Prostate Cancer
Julien Dimastromatteo, University of Virginia / CVRC

P090: Optimized 52Mn Production for Long-lived PET Applications
Stephen Graves, University of Wisconsin - Madison

P091: Development and Evaluation of a Small [11C]-Tetrazine as Bioorthogonal PET Probe
Christoph Denk, Vienna University of Technology

P092: Targeted PET Imaging of COX-1 in Ovarian Cancer
Jashim Uddin, Vanderbilt University School of Medicine

P093: Targeting phospholipids with 68Ga-DOTA-duramycin and 68Ga-DOTA-DPA for imaging apoptosis in cancer
Junling Li, University of Louisville

P094: Folic acid-functionalized ultra-small nanographene oxide for molecular imaging of triple negative breast cancer by 125I-radiolabeling and small animal SPECT/CT
Ming-Wei Wang, Fudan University Shanghai Cancer Center, Center for Biomedical Imaging, Fudan University

P095: CXCR4 Targeted PAMAM Dendrimer Nanoparticles
Wojciech Lesniak, Johns Hopkins School of Medicine

P096: Novel 89Zr based virus-labeling method for PET imaging of viral trafficking
Aditya Bansal, Mayo Clinic

P097: Commonly used 64Cu chelating systems in direct comparison: Determination of complex stabilities using a combination of in vitro and in vivo methods
Carmen Waengler, Medical Faculty Mannheim of Heidelberg University

P098: Evans Blue Conjugates: A General Platform Leverages the Blood Circulation of Peptide Probes
Zhibo (Zippo) Liu, National Institute of Health

P099: L-Tyrosine Confers Greater Residualising Properties to a d-Amino Acid Rich Residualising Peptide for Radioiodination of Internalising Antibodies
Fook Lee, Oliver Newton John Cancer Research Institute

P100: [11C]Methyl-JQ1; a novel PET probe for in vivo epigenetic imaging
Kyoko Kakumoto, RIKEN, Center for Life Science Techonologies (CLST)

P101: Synthesis and initial PET imaging evaluation of 18F-FDGamines for imaging the acidic tumor microenvironment in PC3 xenograft mice
Robert Flavell, University of California, San Francisco

P102: Radiolabeled-Nanoparticles Facilitating In Vivo Tracking of Neural Stem Cells Migrating Towards Glioblastoma
Shih-Hsun Cheng, University of Chicago

P103: Targeted Gold-Gallium Nanoparticles for Molecular Imaging of EGFR-overexpressing Tumors
Raghuraman Kannan, University of Missouri

P104: Evaluation of a DOTA-conjugated RGD/Bombesin-antagonist as a potential theranostic agent for prostate cancer using 86Y and 90Y
Nilantha Bandara, Washington University School of Medicine

P105: MetalloProbes: Structure–Activity Relationship Studies and Associated Geometrical Preferences for Identifying Second Generation Myocardial Perfusion PET/SPECT Imaging Agents
Jothilingam Sivapackiam, Washington University School of Medicine

P106: Radiolabeling of functionalized pyrazoles on the heteroaromatic moiety: potential PET agents for imaging of COX-2 expression.
Artem Lebedev, UCLA

P107: A screening assay in the search of an alpha-synuclein PET radioligand
Mathieu Verdurand, University of Lyon, Lyon Neuroscience Research Center (CNRS UMR5292; INSERM U1028, Univ. Lyon 1)

P108: 18F-Labeled thymidine analogues as potent and selective PET probes for imaging of human mitochondrial thymidine kinase.
Kai Chen, University of Southern California

P109: Clinical-grade [18F]FP-R01-MG-F2: Radiosynthesis of αVβ6 Integrin ligand for human PET studies
Bin Shen, Stanford University

P110: Fluselenamyl: A Novel F-18 PET tracer for detection of Alzheimer's disease
SUNDARAM GURUSWAMI, washington university school of medicine

P111: Synthesis and evaluation of 18F-AmBF3-phosphonium cation for imaging enhanced negative mitochondrial membrane potential in cancers
Zhengxing Zhang, BC Cancer Agency

Poster Session 1 (continued)

P112: Comparisons in vitro and in vivo of biological behaviors of carbon-based nanomaterials for theranostic molecular imaging: potential relations with size and shape
Ming-Wei Wang, Fudan University Shanghai Cancer Center, Center for Biomedical Imaging, Fudan University

P113: Preparation and initial evaluation of a rhodamine-angiotensin conjugate as a breast cancer targeting agent
Subhi Okarvi, King Faisal Specialist Hospital

P114: Synthesis and evaluation of a 18F-labled 1,3,5-triazine-substituted benzenesulfonamide for imaging carbonic anhydrase IX expression in tumors with positron emission tomography
Jinhe Pan, BC Cancer Agency

P115: 5-hydroxytryptamine receptor 2A (5-HT2A) expression and [18F]altanserin accumulation in rodent brain under long-term light/dark environments
Mei-Hui Wang, Institute of Nuclear Energy Research

P116: An automatic synthesizer for Gallium-68-DOTATATE PET radiopharmaceuticals
Ming-Hsin Li, Institute of Nuclear Energy Research

P117: The Novel Radiofluorination Strategy of [18F]FBEM as a Thiol Active Prosthetic Group
Mei-Hui Wang, Institute of Nuclear Energy Research

P118: Radioiodinated 1,2,4,5-Tetrazine (Radio)Synthesis and in vivo Evaluation for Therapeutic Pretargeting
Mitchell Duffy, Westfälische Wilhelms Universität, Westfälische Wilhelms Universität

P119: In vivo biodistribution of 64Cu labeled human serum albumin tagging different number of azide (N3)- or DBCO-functional groups for click chemistry approach
Myung Geun Song, Cancer Research Institute

P120: Design and Development of a Novel Bombesin Peptide analog for the targeting of bombesin-receptor-positive tumors.
Subhi Okarvi, King Faisal Specialist Hospital

P121: Labeling and stability studies for a tetrameric cyclic RGD peptide based radiopharmaceutical 64/67Cu-cyclam-RAFT-c(-RGDfK-)4
Zhao-Hui Jin, National Institute of Radiological Sciences

P122: Radiosensitization of HER2-overexpressing cancer cells upon treatment with targeted functionalized silica nanoparticles
Haruka Yamaguchi, Nippon Dental University Graduate School of Life Dentistry at Niigata, Nippon Dental University

P123: Preparation of 11C-Labeled scFv Antibody by Cell Free Protein Synthesis System
Kae Higuchi, RIKEN Systems and Structural Biology Center

P124: CXCR4 chemokine receptor targeted probes: Radiopharmaeuticals, azamacrocycles and optimised chelators
Benjamin Burke, University of Hull

P125: Optimization and characterization of low frequency ultrasound sensitive liposomes with in vitro stability and drug release study and scintigraphic imaging study in xenograft brain tumor mouse
Yi-Hsiu Chung, Chang Gung Memorial Hospital

P126: Evaluation of 68Ga-labeled small molecules for targeted imaging of PSMA in prostate cancer xenografts
Hanwen Zhang, Memorial Sloan Kettering Cancer Center

P127: New Insights into the Radiosynthesis of the DAT Imaging PET Tracer [18F] FE-PE2I
Yiu-Yin Cheung, Vanderbilt University Medical Center

P128: Radiofluorinated PET Imaging based on the PARP1 inhibitor Olaparib
Brandon Carney1,2, Giuseppe Carlucci2, Christian Brand2, Christopher P. Irwin2, Wolfgang A. Weber2, Thomas Reiner2,3 1 Ph.D. Program in Chemistry, The Graduate Center of the City Universit
Brandon Carney, Memorial Sloan Kettering Cancer Center

P129: A Precursor for Electrochemical radiosynthesis of [18F]-L-DOPA
Fan Yang, UCLA

P130: Radiosynthesis of [11C]Ibrutinib as a PET tracer
xia shao, University of Michigan

P132: Non-invasive PET-based diagnostic for precision HSP90 therapy in glioblastomas
Alexander Bolaender, Memorial Sloan Kettering Cancer Center

P133: Frequency of cisplatin induced severe renal injury in patients with solid tumors as determined by radionuclide renal scintigraphy
Muhammad nouman, Armed forces institute of pathology

P134: Macrophage Cell Tracking PET imaging using mesoporous silica nanoparticles based on Bioorthogonal Strain-Promoted Cycloaddition.
HyeonJin Jeong, INHA univ.

P135: Development of 18F-labeled arginine for in vivo PET imaging of asthma treatment
Tang Tang, University of California, Davis

P136: Development of a FASTIab Cassette for the Synthesis of [18F]-6-fluoro-L-DOPA Using Diaryliodonium Salts
David Dick, University of Iowa

P137: Modified method for labeling of 5-fluorouracil with 99mTc and study of its in-vivo behavior in animal.
Naseer Ahmed, Nuclear Medicine, Oncology and Radiotherapy Institute NORI, Quaid -I-Azam University

P138: Development of Selective Released Chitosan Nanohydrogels for Ischemic Therapy and Radioactive Tracer.
Jeongil Kwon, Chonbuk National University Hospital

P139: Atherosclerosis Ischemia Markers in Coronary Artery Disease [CAD]: Regulatory Approval Pathway Implications for Routine Clinical Applications versus Development [Surrogate] Marker Applications
Norman LaFrance, Jubilant DraxImage

P140: Automated Production and Quality Testing of 18F-Labelled Radiotracers Using the BG75 System
Atilio Anzellotti, ABT Molecular Imaging

Optical Imaging

P142: Enhancing Cerenkov luminescence via radionuclide attachment to High Refractive Index Nanoparticles
Travis Shaffer, Memorial Sloan Kettering Cancer Center, Hunter College and the Graduate Center, City University of New York

P143: Inhaled near infrared Itrybe nanoparticles for non-invasive tracking of macrophages in a mouse model of allergic airway inflammation.
Joanna Napp, MPI for Experimantal Medicine, University Medical Center Göttingen

P144: A New Bottom-up Approach for the Synthesis of Self-assembled Nanostructures for Molecular Imaging
Brenda Sachez-Gaytan, Icahn School of Medicine at Mount Sinai

P145: Quantitative Optimization of the Targeting Ligand Density on Fluorescence Enhancing Gold Nanomatryushkas for maximal Target to Background and Tumor Accumulation.
Amit Joshi, Medical College of Wisconsin

P146: Smart DCM-Based Fluorescence Probes for Cerebral β-Amyloid Plaques
Yan Cheng, Sichuan University

P147: Bioluminescent Sensor to Image Drug Modulated Protein Sumoylation in Living Animals
Thillai Sekar, Stanford University

P148: Novel large gold nanorods for ultrahigh contrast and molecular sensitivity in biomedical applications
Elliott SoRelle, Stanford University, Stanford University

P149: Highly specific inflammation detection using activatable fluorescent nanoprobes
Adah Almutairi, UC San Diego

P150: Novel TSPO Ligands for Optical Imaging and High-throughput Screening
Jun Li, Vanderbilt University Institute of Imaging Science, Vanderbilt University Interdisciplinary Materials Science Program

P151: Anti-EGFR affibody molecules labeled with IRDye 800CW developed for Neurosurgical Fluorescence Image Guidance in a Phase 0 Human Study
Brian Pogue, Dartmouth College

P152: Selective Imaging of Soluble Amyloid Beta Species Using Near Infrared Fluorescent Curcumin Analogues
Chongzhao Ran, Massachusetts General Hospital/Harvard Medical School

P153: Fluorescent Activatable Ferritin Nanocomplex for Real-Time Monitoring of Apoptosis during Photodynamic Therapy (PDT)
LEI ZHU, Center for Molecular Imaging and Translational Medicine

P154: Noninvasive detection of lymph node metastasis in rats using targeted fluorescence molecular imaging with indocyanine green as a paired control agent
Chengyue Li, Illinois Institute of Technology

P155: Double-targeted Gold Nanoparticles for PDT Drug Delivery in Brain Tumors
Suraj Dixit, Medical University of South Carolina

P156: Scaleable Production of Long Wavelength Fluorescent Nanoparticles to Enable Targeting and Multiplexed Imaging
Robert Prud'homme, Princeton University

P157: Clinically translatable cathepsin imaging agents that exploit a latent lysosomotropic effect
Matthew Bogyo, Stanford University

P158: Synthesis and evaluation of Förster Resonance Energy Transfer (FRET) probes detecting changes in cellular redox state
Karolina Jankowska, The University of Sydney

P159: Pilot study of a novel peptide targeting GPC3 for HCC
Xiaohua Zhu, Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology

P160: Multifunctional Nanocomplex for Controlled Manipulation and Dynamic Imaging of Sequential mRNA Expression in the Neural Stem Cells Differentiation
Zhongliang Wang, Xidian University

P161: Development of Small-molecule Fluorescence Probes to Detect Hypoxia in vivo
Kenjiro Hanaoka, The University of Tokyo

P162: Near-Infrared Optical Imaging Agents with Dual Function: Probe for Necrotic Cells and Cell Fixation Agents for Assays in vitro
Ivana Martinic, CNRS

P163: A platform-technology for systemic delivery of siRNA to tumors using rolling circle transcription and its applications for optical imaging probes
Hyung Jun Ahn, Korean Institute of Science and Technology

P164: New approach to hybrid light imaging technique using Cerenkov luminescence and liquid scintillation for beta- and gamma-ray emitted radionuclides
Masako Shimamoto, Kumamoto University

P165: Targeted delivery of temozolomide to brain tumors using micelle-based theranostics
Kayla Miller, Medical University of South Carolina

P166: In Vivo Imaging of Transplanted Stem Cells by Near Infrared Region-II (NIR-II) Fluorescence
Hiroshi Yukawa, Nagoya University

P167: ICG conjugated Trastuzumab as an Agent for Fluorescence Guided Cancer Surgery and Photoimmunotherapy
Insoo Park, National Cancer Center

P168: In vivo quantifying molecular specificity of Cy5.5-GX1 with dynamic fluorescence imaging
Yunpeng Dai, Xidian University

P169: ROS-responsive Activatable Prodrug for the Treatment of Metastatic Tumors
Eun-Joong Kim, KBSI

P170: Upconversion nanoprobes for efficient in vivo sentinel lymph node mapping and quantitative analysis
Hye Sun Park, Korea Basic Science Institute

P171: A mixture of ICG, Macroaggregated Albumin and Hyaluronic Acid, as a Tracing Agent for Fluorescence Guided Cancer Surgery
Insoo Park, National Cancer Center

P172: Design and Syntheses of Novel Fluorescent and Biotinylated Tocopherol Probes
Zhen-Dan Shi, National Heart, Lung, and Blood Institute, National Institutes of Health

P173: A fluorescence resonance energy transfer labeling method to study dissociation kinetics of lipid-based nanoparticles
Sjoerd Hak, Norwegian University of Science and Technology

P174: Synthetic studies towards nitroreductase-activated fluorescent probes
Elvira García de Jalón, University of Bergen, University of Bergen

P175: Imaging of Nitric Oxide-Producing Macrophages with a Polymer Micelle-Based Fluorescent Probe
Jun-ichiro Jo, Institute for Frontier Medical Sciences, Kyoto University

P176: Wavelength shifting Zn2+ probe based on pyridine–pyridone core structure
Masayori Hagimori, Kobe Pharmaceutical University

P177: IRDye 700DX: Characterization of a 3rd generation photosensitizer for photodynamic therapy
Joy Kovar, LI-COR Biosciences

P178: Targeted, osteolytic-responsive theranostics for cancer induced bone-metastasis
Xuli Wang, University of Utah

P180: Fluorescent Turn-on chemodosimeter Probe for KCN and Bioimaging
Sankarprasad Bhuniya, Amrita Vishwa Vidyapeetham

P181: Immunofluorescent labeling of cancer marker Her-2 with Iodoemodin
Jeong Hoon Park, Korea Atomic Energy Research Institute

P182: Nanotechnologies for Molecular Probes and Quantitative Sensors
Daniel Heller, Memorial Sloan-Kettering Cancer Center, Weill Cornell Medical Colege

P183: Engineering of a multi-functional nucleolin-targeted nucleic acid delivery system
Surong Zhang, UMASS Medical School

P184: Development of a fluorescent probe targeting folate receptors for fluorescence lifetime imaging (FLIM)
Koji NUMASAWA, The University of Tokyo, JST CREST

P185: Advanced fluorescence nano particles for live cells, in vivo imaging, and fluorescence analysis.
Dong hwi Shim, DKC coporation (BIOACTS)

P186: Innovation of New Luciferin Analog for in vivo Imaging
Ryohei Saito, The University of Electro - Communications

Photo-Acoustic Imaging

P187: Temporally unmixed multispectral optoacoustic tomography (tuMSOT) enables high contrast reporter imaging in vertebrate model systems.
Gil Westmeyer, Technical University Munich, Helmholtz Center Munich

P188: Multispectral Optoacoustic Tomography (MSOT) Sensitivity in Detecting Melanoma-derived Cells in Phantoms
David Bates, iThera Medical

P189: In vivo Targeting of Silica-Coated Gold Nanorods for Photoacoustic Imaging
Carolyn Bayer, The University of Texas at Austin

P190: Modular Synthesis of Near Infrared Agents for Targeted Photoacoustic Imaging of Cancer
Lauren Heese, Rochester Institute of Technology, Rochester Institute of Technology

P191: Cyclic RGD micelles facilitate detection of ovarian cancer using multispectral optoacoustic tomography
Lacey McNally, University of Louisville

P192: Optimising Gold Nanorods for Multispectral Optoacoustic (MSOT) Tracking of Stem Cells
Joan Comenge, University of Liverpool

P193: Hybrid Poly Acrylate Nanoparticles as Novel Photoacoustic Imaging Probes
Yihong Li, Wenzhou Institute of Biomaterials and Engineering, Chinese Academy of Sciences

P194: Indocyanine green-embedded Nanoparticles as Novel Photoacoustic and Fluorescent Contrast Agents
Yuanhui Song, Wenzhou Institute of Biomaterials and Engineering, Chinese Academy of Sciences

P195: Multimodal ultrasound-photoacoustic imaging for longitudinal monitoring of tissue engineering scaffolds
Yahfi Talukdar, Stony Brook University

P196: Theranostic silver coated gold nanorods for in vivo molecular photoacousic angiography of tumor
Shouhui Chen, Shanghai Jiaotong University

Ultrasound

P197: Ultrasound Treatment of Doxorubicin-Liposome-Microbubble Complexes in the Tumor Vasculature Enhances Drug Delivery in the Tumor Tissue and Suppresses Tumor Growth
Alexander Klibanov, University of Virginia, University of Virginia

P198: The Development and Evaluation of PSMA-targeted Microbubbles using Bioorthogonal Chemistry for Prostate Cancer Ultrasound Imaging
Aimen Zlitni, McMaster University

P199: Influence of Disturbed Hemodynamics on Microbubble Targeting
Sunil Unnikrishnan, University of Virginia, University of Virginia

P200: Feasibility study of the hair growth enhancements with ultrasound mediated minoxidil loaded microbubbles cavitation
Ai-ho Liao, National Taiwan University of Science and Technology

P201: DNase1 Decrease the Formation of the Size of Vegetation in Experimental Endocarditis Rat Model
Jean-San Chia, College of Medicine, Nartional Taiwan University

First-in-Human & Clinical Studies

Cardiology

P202: Micro-embolic risk at elective revascularization and its relationship with 3D multi-contrast MRI
Venkatesh Mani, Icahn School of Medicine at Mount Sinai, Icahn School of Medicine at Mount Sinai

P203: To evaluate the feasibility of F-18 FDG PET-CT in diagnosis of Infective Endocarditis
Chetan Patel, All India Institute of Medical Sciences, New Delhi

P204: Inhomogeneity in myocardial perfusion gated SPECT of heart transplant recipientsis is associated with the development of systolic allograft dysfunction
Christian Wenning, University Hospital Münster

P205: Clinical prognosis of patients with discordance result of sestamibi myocardial perfusion SPECT and NH3 PET
Eun-jung Kong, Yeungnam Univ Hospital

P206: 18F-sodium fluoride uptake is a marker of active calcification and disease progression in patients with aortic calcification: Compared with 18F-fluorodeoxyglucose.
Seigo Fujita, Miyazaki Prefectural Nichinan Hospital

Inflammation/Immunology

P207: Quantitative molecular imaging of ACL grafts by FDG PET/MRI
Katherine Binzel, The Ohio State University Wexner Medical Center

P208: 18F Sodium Fluoride Uptake in PET/MR is Associated with Pain and Cartilage Degeneration in Knee Osteoarthritis
Dragana Savic, University of California, San Francisco

P209: A PET/MR study of cartilage-bone interactions in osteoarthritis using T1ρ dispersion
Dragana Savic, University of California, San Francisco

P210: FDG PET: A prognostic biomarker in Non IPF interstitial lung disease patients
thida Win, East and North Herts NHS Trust

P211: Translation fMRI in rheumatoid arthritis: Investigating the interlock of the imune system and brain function.
Andreas Hess, FAU Erlangen Nürnberg

P212: Discrepant findings unrelated to the primary tumor on 68Ga-DOTATATE PET/CT versus 18F-FDG PET/CT and their potential significance.
Corina Millo, National Institutes of Health, Clinical Center

Metabolic Disease

P213: Intestinal fatty acid utilization after bariatric surgery – cure for peripheral insulin resistance?
Jukka Koffert, Turku University Hospital, University of Turku

P214: PET quantification of specific and nonspecific VMAT2 binding with 18F-FP-(+)-DTBZ and 18F-FP-(-)-DTBZ in baboons, and healthy volunteers and T1DM patients
Gary Cline, Yale University School of Medicine

P215: Crossectional and Test-Retest Characterization of PET with 18F-FP-(+)-DTBZ for β-Cell Mass Estimates in Diabetes
Paul Harris, Columbia University

P216: Feasibility of ultra-low dose FDG PET imaging for nutrition and metabolism studies and beyond
Michelle Knopp, The Ohio State University Wexner Medical Center, The Ohio State University

P217: Fixed dose of radioiodine (5 mCi) for the treatment of Graves' disease: is it possible to predict outcome before therapy?
Haifeng Hou, the Second Affiliated Hospital of Zhejiang University School of Medicine

P218: Hepatic Metabolomic Analysis in Patients with Non-alcoholic Steatohepatitis using 1H MR spectroscopy with Long echo time
Kwon-Ha Yoon, Wonkwang University

P219: Adefovir dipivoxil-induced Fanconi syndrome and hypophosphatemic osteomalacia in patients with chronic hepatitis B
Ying Zhang, Zhejiang University

Neurology

P220: Clinical significance of tau accumulation assessed by [11C]PBB3 PET in diverse tauopathies
Hitoshi Shimada, National Institute of Radiological Sciences

P221: [18F]FDG PET/MRI Of Patients With Chronic Pain Alters Management: Early Experience.
Deepak Behera, Stanford University School of Medicine

P222: Next Generation Digital PET/CT – First in Human Assessment of New Capabilities and Potential for Neuroimaging
Jun Zhang, The Ohio State University Wexner Medical Center

P223: First experiences in triple modality characterization of brain connectivity in humans using simultaneous PET/MR/EEG
André Thielcke, University of Tuebingen

P224: Changes in cerebral glucose metabolism after non-invasive electrical stimulation of mild cognitive impairment patient
Yong-An Chung, Incheon St. Mary's Hospital, The Catholic University of Korea

P225: The effect of Apolipoprotein E ε4 allele on the morphological and functional neuroimaging in late onset Alzheimer's disease.
Seiju Kobayashi, Sapporo Medical University

P226: Correlation between crossed cerebellar diaschisis on brain perfusion SPECT and prognosis of functional ambulation in patients with stroke.
Soonah Park, Wonkwang University Medical School

P227: PET Imaging of Dopamine Dynamics in Romantic Love
Kayo Takahashi, RIKEN, Osaka City University

Preclinical Cell & Tissue Level Studies

Cardiology

P228: Imaging Cellular Pharmacokinetics of 18F-FDG in Inflammatory Cells
Raiyan Zaman, Stanford University School of Medicine

Cells (Stem/Immune)

P229: Selective cell elimination with near infrared photoimmunotherapy in 2D and 3D mixed cultures and in a mixed tumor model
Kazuhide Sato, National Cancer Institute

P230: Perfluorocarbon nanodroplets for oxygen delivery and ultrasound image-guided release
Daniela Santiesteban, The University of Texas at Austin

P231: Validation of capsapse-3 biosensor to assess the dynamic function of natural killer cells
Ho Won Lee, School of Medicine, Kyungpook National University

P232: Molecular Imaging of Cancer Immunotherapy using Activated Antigen Presenting by Multivalent Polymer Nanocomplex
Sun-Young Kim, Sungkyunkwan University

P233: In vivo optical imaging of stem cells delivered with injectable, thermosensitive extracellular matrix-methylcellulose hydrogels
Jun Sung Kim, Hanyang University

P234: Pre-clinical In Vivo Stem Cell Tracking using Magnetic Particle Imaging
Bo Zheng, University of California, Berkeley

P235: Fluorescence Optical Imaging-based Evaluation of the Activation of Dendritic Cells by Protein Nanoparticles
Chanyoung Song, Sungkyunkwan University

P236: FOXF1 Mediates Lung Cancer Cell Reprogramming to a Stem-like State Following Spontaneous Fusion with Mesenchymal Stem Cells
Win-Ping Deng, Taipei Medical University

P237: Nanoparticles optimized for efficient stem cell labeling and possessing optimal contrast properties for MRI and MPI
Alexander Kraupner, nanoPET Pharma GmbH

Infectious Disease

P238: Human sodium iodide symporter as an imaging reporter gene for developing an animal MERS-CoV model
Svetlana Chefer, NIAID, NIH

P239: Using Mce4 Molecular Beacons for the Detection and Attenuation of Mycobacterial Infection in Macrophages
REMO GEORGE, University of Alabama at Birmingham

P240: Identifying bacteria-specific positron emission tomography tracers using a three criteria in silico selection screen
Allison Murawski, Johns Hopkins University

Inflammation/Immunology

P241: Different 18F-FDG accumulation according to glucose-6-phosphatase expression in cancer cells and activated macrophages
Youngeun Lee, Seoul National University, Seoul National University

P242: SDF-1/CXCR7/β-catenin signaling promotes mesenchymal stem cell therapy for rheumatoid arthritis via tissue immunomodulation
chia-ching lin, Basic Medical Science

Neurology

P243: Reporter gene imaging for exosome-mediated transfer of neurogenic miRNA during neuronal differentiation in neural precursor cells
Hyun Jeong Oh, Seoul National University, Seoul National University

P244: Stripe artifact removal method for selective plane illumination microscopy
Di Dong, Chinese Academy of Sciences

Oncology

P245: An Optical Imaging Threshold to Detect Head and Neck Cancer during Fluorescence-Guided Surgery
Lindsay Moore, University of Alabama at Birmingham

P246: Discrepancy between tumor antigen distribution and antibody binding in nude mouse xenograft model of human melanoma
Yong-il Kim, Seoul National University Hospital

P247: Biomarker Discovery for Acid-adapted Cancer Cells and Their Acidic Microenvironment.
mehdi damaghi, Moffitt Cancer Center

P248: Radioluminescence Microscopy of FDG: Microenvironmental factors modulating FDG uptake
Silvan Tuerkcan, Stanford University

P249: Copper-Free 'Click' Chemistry Mediated Directional Bioconjugation of Nanoparticle Contrast Agents
Jason Cook, The University of Texas at Austin

P250: Targeting glucose regulated protein 78 using a cell penetrating peptide, Pep42, for glioblastoma imaging and therapy.
Taemoon Chung, Cancer Research Institute, Seould National Universitiy college of medicine

P251: A novel photoacoustic agent for imaging prostate-specific membrane antigen (PSMA) in prostate tissue
Jelena Levi, Canary Center at Stanford

P252: Preliminary Search for Primo Vascular System Using 3D Digital Histopathology and micro-CT imaging
Joo Ho Tai, Advanced Institutes of Convergence Technology, Seoul National University

P253: Molecular biomarkers in human pathologies from Fast Field-Cycling MRI
Lionel Broche, Univeristy of Aberdeen

P254: Delivery of Syndecan-1 tagged liposomes into tumor cells via Insulin Growth Factor 1-Receptor-mediated endocytosis
Wenyuan Yin, University of Louisville

P255: Bidirectional 6 thin light-sheet fluorescence microscopy: Three-dimensional insight into tumor biology and whole mouse organ morphology
Michael Dobosz, Roche Diagnostics GmbH

P256: The Warburg Effect in Cancer Stem Cells and Targeting of Mitochondrial Glucose Metabolism for Cancer Stem Cell Therapy
Jin Won Park, Samsung Medical Center, Samsung Advanced Institute for Health Science and Technology at SungKyunKwan University

P257: Synthesis of gemcitabine and anti-miR-21 coloaded polymer nanoparticles and its cytotoxicity evaluation in hepatocellular carcinoma cells
Rammohan Devulapally, Stanford University

P258: Hyperpolarized 13C diffusion MRS of copolarized pyruvate and fumarate in the light of monitoring lactate export in different cancer cells
Benedikt Feuerecker, Technische Universität München

P259: 3D motion tracking, clinical fluorescence imaging and confocal microscopy aid drug delivery device development
Tarl Prow, The University of Queenslad

P260: Screening thymidine analogues as potent and selective PET probes of human thymidine kinases.
Kai Chen, University of Southern California

P261: X-ray Activated Nanoscintillators for Potential Radioluminescence-Guided Cancer Photodynamic Therapy
Shih-Hsun Cheng, The University of Chicago

P262: Identification and improvement of a linear peptide specific for the Notch-ligand delta-like ligand (Dll) 4
Annette Altmann, University Hospital Heidelberg

P263: Imaging electroporation induced nanopores in Pancreatic cancer in vitro using Atomic Force Microscopy
Derek West, University of Texas HealthSciences Center at Houston

P264: Individual chemosensitive and chemoresistant cancer cells distinguished by cell-cycle fate-monitoring in drug-treated heterogeneous populations demonstrated by real-time FUCCI imaging
Robert Hoffman, AntiCancer, Inc., University of California San Diego

P265: Effect of Cx-mimetic peptide administration on breast cancer brain metastasis development: a preclinical serial MRI study
Valerie De Meulenaere, Ghent University

P266: Antiproliferative effect of microRNA and 4-hydroxytamoxifen coloaded urokinase plasminogen activator receptor (uPAR) targeted polymer nanoparticles in ER+ breast cancer cells
Rammohan Devulapally, Stanford University

P267: Real-time fluorescence imaging of the DNA damage repair response during mitosis imaged in real-time by 53BP1-GFP focus formation
Robert Hoffman, AntiCancer, Inc., University of California San Diego

P268: 2-(2-[18F]fluoroethyl)-L-phenylalanine (2-[18F]FELP) versus [18F]FET for peripheral tumor imaging: comparative uptake in various tumor cell lines
Ken Kersemans, Ghent University

P269: Detection of metabolism in alginate biopsy mimics at 1T using hyperpolarized [1-13C] pyruvate.
Sui Seng Tee, Memorial Sloan Kettering Cancer Center

P270: BNCT as alternative radiation therapy---an application on radioresistance GBM
Hui-Hsien Lin, Taipei Veterans General Hospital

P271: Electroporation mediated enhancement of Oregon green-488 Taxol uptake in Pancreatic cancer in vitro
Derek West, University of Texas HealthSciences Center at Houston

P272: Molecular Imaging of Microcalcifications
Inneke Willekens, UZ Brussel

P273: Targeting SLC1A5-mediated glutamine dependence in non-small cell lung cancer
Pierre Massion, Vanderbilt University

P274: Relationship between extracellular glucose concentration and FDG uptake in sarcoma cell lines
Katja Pinker-Domenig, Memorial Sloan Kettering Cancer Center

P275: Evaluating Targeted Molecular Imaging Agents Using Two- and Three-Dimensional Cell Culture Cancer Models
Irene Evans, Rochester Institute of Technology

P276: Identification and evaluation of a Dll4-binding peptide based on the cystine-knot miniprotein Min23 scaffold
Annette Altmann, University Hospital Heidelberg

P277: Imaging the interaction between cellular adhesome and degradome molecules in breast cancer metastasis
Asif Rizwan, Johns Hopkins Medicine

P278: The Role of Calprotectin (S100A8/A9) in Breast Cancer Malignancy Yun Zhu and Ann-Marie Broome Center of Biomedical Imaging, Department of Radiology, Medical University of South Carolina
Yun Zhu, MUSC

P279: Effect of Curcumin on Breast Cancer Cell Glucose Metabolism and Formulation of EGF-Conjugated Curcumin-Lipid Nanoparticles and Anti-Cancer Therapy
Kyung-Ho Jung, Samsung Medical Center, Samsung Advanced Institute for Health and Sciences and Technology at Sungkyunkwan University

P280: Therapeutic microRNA 145/osmotically active sorbitol modified PEI nanoparticle suppresses cell proliferation in breast cancer cell line
IN KYU PARK, Chonnam National University

P281: Radiation Effects of Non-uniform Dose Distribution to In-vitro Medulloblastoma on Bioluminescent Imaging
Ji-Yeon Park, Stanford University, The Catholic University of Korea

P282: Histological characterisation of tumour-inhabiting bacteria and host cells
Kevin Francis, PerkinElmer

P283: Glycated chitosan retard the metastatic breast cancer cells properties through inhibition Twist that results in reversion of epithelial-to-mesenchymal transition.
Wang Bo-Sheng, Biomedical Imaging and Radiological science

P284: Preparation method of radiation sensitive copolymer carrier for coating radiated nanoparticles and chemotherapy drugs.
Ming-Hsin Li, Institute of Nuclear Energy Research

Reporter Genes, Signal Transduction & Epigenetics

P285: Phototoxic effects of nanosecond laser exposure in optoacoustic microscopy on cells expressing genetic fluorescence reporters
Sven Gottschalk, Helmholtz Zentrum München

P286: Mitophagy: What happens in vivo?
Nuo Sun, NIH/NHLBI

Late Breaking Posters

LBAP 001: Hyperpolarized 31P Phosphonates: initial in vivo Experience
Robert Gillies, H. Lee Moffitt Cancer Center & Res Institute

LBAP 002: Development of a clickable bimodal fluorescent/PET probe for in vivo imaging
Christian Brand, Memorial Sloan Kettering Cancer Center

LBAP 003: Al18F-NOTA-T140 Peptide for Noninvasive Visualization of CXCR4 Expression
Xuefeng Yan, Department of Radiology, the Fourth Hospital of Harbin Medical University

LBAP 004: [11C]Vitamin C exhibits ROS specific-cell uptake
Valerie Carroll, University of California San Francisco

LBAP 005: Near-infrared fluorescence lymphatic imaging of dysfunction in patients with venous stasis ulcers and improvements with pneumatic compression
Eva Sevick-Muraca, University of Texas Health Science Center

LBAP 006: In-human validation of the use of pre-treatment molecular imaging for the prediction of patient-specific dosimetry in targeted radionuclide therapy (TRT)
Abigail Besemer, University of Wisconsin

LBAP 007: Pilot Prospective Evaluation of 68Ga-DOTA-Bombesin (68Ga-RM2) with TOF PET/MRI in Patients with Biochemical Recurrence of Prostate Cancer
Andrei Iagaru, Stanford University

Poster Session 2 (continued)

LBAP 008: Developing a safe and effective compounding method for hyperpolarized [1-13C] pyruvate to be used in the clinical evaluation of MR molecular imaging in cancer patients
Marcus Ferrone, University of California, San Francisco

LBAP 009: Head-to-Head Comparison of 89Zr-Df-IAB2M PET/CT to 111 In Capromab Pendetide SPECT/CT Scans in the Detection of Occult Prostate Cancer in Patients Undergoing Radical Prostatectomy (RP) with Negative Conventional Imaging (CI) Studies.
Bernard Gburek, Arizona Urology Specialists

LBAP 010: 68Ga-PSMA-HBED-CC: developmental aspects of the single kit vial solution for radiolabeling and bio-evaluation in prostate cancer patients
Thomas Ebenhan, University of Pretoria & Steve Biko Academic Hospital, University of KwaZulu Natal

LBAP 011: Pilot Study on Quantifying Inflammation in Acute Ileitis with Ultrasound Molecular Imaging Following Automated Imaging Fusion with CT/MRI Data Sets: Steps towards Improving Clinical Work Flow
Huaijun Wang, Stanford University

LBAP 012: In vivo quantification of dopaminergic terminals loss in Parkinson's Disease rat model: comparison between [18F]FMT and [18F]FDOPA.
Guillaume Becker, Centre de recherches du Cyclotron

LBAP 013: Development of molecularly targeted imaging agents for novel fibroblast markers for early detection and enhanced drug delivery in pancreatic ductal adenocarcinoma.
Lindsey Brinton, University of Virginia

LBAP 014: Cerium Oxide Nanoparticles for Normal Tissue Protection During Radiation Therapy: Combining Molecular Imaging and Nanotechnology Approaches
Philip McDonagh, Virginia Commonwealth University

LBAP 015: In Vivo 90Y PET/CT & 7T MRI After Transcatheter Radiation Lobectomy in the Rodent Model: Potential for Partitioned Lobar Dosimetry
Andrew Gordon, Northwestern University, Northwestern University

LBAP 016: Evaluation of the TSPO radiotracer 18F-PBR316 in prostate tumour models
Filomena Mattner, Royal Prince Alfred Hospital

LBAP 017: Evaluation of GD2 specific radioimmunoconjugates for in vivo PET Imaging of Neuroblastoma
Julia Schmitt, Eberhard Karls University

LBAP 018: ImmunoPET imaging of tumors expressing human PDL1 with high-affinity PD1 variants
Aaron Mayer, Stanford University

LBAP 019: Preclinical PET imaging of prostate cancer with 68Ga-tris(hydroxypyridinone)-PSMA (68Ga-THP-PSMA): Rapid labelling combined with specific targeting.
Jennifer Young, King's College London

LBAP 020: Evaluation of PSMA-Targeted IgG and Minibody Radiotracers using Multi-Modality Imaging (PET, CLI) in Tumor-Bearing Mice
Harvey Hensley, Fox Chase Cancer Center

LBAP 021: Ex vivo radiolabeling of HSV1tk-expressing T-cells with [124I]FIAU for clinical PET imaging.
Maxim Moroz, MSKCC

LBAP 022: Low-dose Positron Emission Mammography (PEM) device for screening of high-risk population.
Alla Reznik, Lakehead University, Thunder Bay Regional Research Institute

LBAP 023: Quantitative pharmacokinetic analysis of dynamic contrast-enhanced multispectral optoacoustic tomography (DCE-MSOT)
Clinton Hupple, iThera Medical

LBAP 024: Lipidomics analysis to identify sex-differenecs in cardiac lipid metabolism
Kooresh Shoghi, Washington University School of Medicine

LBAP 025: Detection of Alkaline Phosphatase Enzyme Activity with Chemical Exchange Saturation Transfer (CEST) MRI
Iman Daryaei, University of Arizona

LBAP 026: Measuring pH using Tm(III) and Dy(III) MRI contrast agents in a concentration independent manner
Iman Daryaei, University of Arizona

LBAP 027: Inflammation-activated MRI contrast agents
Adah Almutairi, UC San Diego

LBAP 028: Tumor micro-environment responsive surface charge variable nanoparticles for cancer MR imaging and drug delivery
Jinho Park, Eli Lilly and Company, Purdue University

LBAP 029: Towards Monitoring Antibody Directed Enzyme Prodrug Therapy with catalyCEST MRI
Gabriela Fernandez-Cuervo, The University of Arizona

LBAP 030: Dual-enzyme detection with catalyCEST MRI
Gabriela Fernandez-Cuervo, The University of Arizona

LBAP 031: HydrochalaroneTM MRI probes for enhanced molecular imaging
Zhiguo Zhou, Luna Inc.

LBAP 032: Targeted imaging of MUC-1 Tumor Antigen on Human colon cancer
Bita Mehravi, Iran University of medical science

LBAP 033: In vitro characterization of AMB1 magnetosomes as biogenic functionalized contrast agents dedicated to molecular MRI
Françoise Geffroy, CEA

LBAP 034: Xenon Biosensor Molecular MR Imaging with Reduced Surface Absorption Rate Using Cucurbit[6]uril based Biosensor
Francis Hane, Lakehead University

LBAP 035: Towards the detection of PSMA enzyme activity using catalyCEST MRI
Luis Arias, University of Arizona

LBAP 036: Hybrid Graphene/Au Activatable Theranostic Agent for Multimodalities Imaging Guided Enhanced Photothermal Therapy
Guohao Wang, Center for Molecular Imaging and Translational Medicine

LBAP 037: Cerenkov Activated Contrast Probes for Imaging
Sudeep Das, Memorial Sloan Kettering Cancer Center

LBAP 038: Graphene oxide-BaGdF5 nanocomposites for multi-modal imaging and photothermal therapy
Huixia Wu, Shanghai Normal University

LBAP 039: Mesoporous silica based tumor molecular imaging probes and theranostic agents
Zhaogang Teng, Nanjing University

LBAP 040: Multimodal Fluorescence and Radiolabeling Strategy for the Investigation of Cellulose Nanocrystal Biodistribution in Mice Bearing Orthotopic 4T1 Mammary Fat Pad Xenografts
Mirkka Sarparanta, Memorial Sloan Kettering Cancer Center

LBAP 041: Situation and Progress of Tumor Angiogenesis Targeted Imaging and Therapy via Positron Radionuclide Tracing Techniques
Rong Fu Wang, Peking University First Hospital

LBAP 042: Technetium labeled chenodeoxycholic acid analogue: Synthesis, in vitro and in vivo evaluation to study (altered) hepatic transporter function..
Sara Neyt, Gent University

LBAP 043: Preclinical Evaluation of Radiolabeled MUC16 Antibodies for PET Imaging of Epithelial Ovarian Carcinoma
Brandon Nemieboka, Memorial Sloan Kettering Cancer Center

LBAP 044: Methodology Development for the Quantification of 4-[18F]-(2S,4R)-Fluoroglutamine
Michael Nickels, Vanderbilt Medical Center, Vanderbilt Medical Center

LBAP 045: Radiosynthesis of [11C]tideglusib via [11C]CO2 fixation
xia shao, University of Michigan

LBAP 046: Radiosynthesis and evaluation of 4-nitrobenzyl N-2-[18F]fluoroethyl carbamate for imaging tumor hypoxia with positron emission tomography
Zhengxing Zhang, BC Cancer Agency

LBAP 047: Synthesis and characterization of 18F-interleukin-8 using a cell-free translation system and 18F-fluoro-L-proline
Kazuhiko Yanai, Tohoku University School of Medicine, Tohoku University

LBAP 048: Pretargeting CA19.9 in BxPC3 tumor xenografts for 18F-based PET Imaging using bioorthogonal Diels-Alder click chemistry
Jan-Philip Meyer, Memorial Sloan Kettering Cancer Center

LBAP 049: p-SCN-Bn-HOPO: A novel bifunctional chelator for 89Zr immunoPET
Melissa Deri, Hunter College and the Graduate Center of the City University of New York, Memorial Sloan Kettering Cancer Center

LBAP 050: Radiosynthesis and Preclinical PET Evaluation of 89Zr-Nivolumab (BMS-936558) in Healthy Non-Human Primates
Patrick Chow, Bristol-Myers Squibb Company

LBAP 051: Investigation of novel Oncrasin-1 analogues for use in imaging kRAS mutant cancer
Alexander McDonald, The University of Melbourne

LBAP 052: One-step synthesis and evaluation of 18F-MPG: a novel PET tracer targeting active mutant EGFR in NSCLC
zunyu xiao, Molecular imaging center

LBAP 053: Development of radiolabeled gene delivery nanoparticles as theranostic agents for melanoma
Istvan Hajdu, University of Saskatchewan

LBAP 054: Synthesis and biodistribution of novel positively charged 99mTc-labeled fatty acid derivatives for myocardial imaging
Qianqian Xue, Beijing Normal University

LBAP 055: Synthesis and biodistribution of novel positively charged 99mTc-labeled fatty acid derivative for myocardial imaging
Qianqian Xue, Beijing Normal University

LBAP 056: The Synthesis and Biological Evaluation of 18F-labeled BFPMPPD as a Focal Adhesion Kinase-Targeted Pyrimidine-type Tumor Specific Invasion Imaging Agent
Yu Fang, Beijing Normal University

LBAP 057: Is kinetics analysis of O-(2-18F-fluoroethyl)-L-tyrosine (FET) uptake acquired during short imaging protocol of simultaneous PET MRI useful in differentiating glioma recurrence from radiation necrosis?
Amarnath Jena, Indraprastha Apollo Hospital

LBAP 058: Preparation of a Novel 99mTc-labeled Pteroic acid conjugate for Noninvasive Imaging of Folate Receptor Positive Tumor
Young-Don HONG, Korea Atomic Energy Research Institute

LBAP 059: IRDye 700DX-small molecule Photodynamic Therapy Induces Apoptotic Signals
Joy Kovar, LI-COR Biosciences

LBAP 060: A fluorescent agent cocktail for detecting both cholestasis and hepatocellular forms of acute drug-induced liver injury
Jeffrey Peterson, PerkinElmer, Inc

LBAP 061: Imaging active amyloid plaques of Alzheimer's disease with near-infrared fluorescent probes capable of cascade signal amplification
Chongzhao Ran, MGH/Harvard Medical School

LBAP 062: Conjugated Polymer Nanodots as Ultrastable Long-term Trackers to Understand Mesenchymal Stem Cell Therapy in Skin Regeneration
Guorui JIN, Institute of Materials Research and Engineering

LBAP 063: In vivo dual-targeted imaging of angiogenesis progression with fluorescently labeled peptide-based probes in a murine model of hindlimb ischemia
Ju Hee Ryu, Korea institute of science & technology

LBAP 064: Improving optical imaging in living subjects by an order of magnitude with a novel bioluminescent reporter protein
Michael Lin, Stanford University

LBAP 065: Imaging of aldehyde dehydrogenases with oligothiophene based probes
Niren Murthy, U.C. Berkeley

LBAP 066: Inhibitor-Based Fluorescent Probe Revealed DDR1 kinase involves in autophagy
Jing Liu, High Magnetic Field Laboratory, Chinese Academy of Sciences

LBAP 067: Synthesis and characterization of novel fluorescent sigma-2 receptor ligands
Jiajun Ye, Beijing Normal University

LBAP 068: Life-time bioimaging of caspase activity in the live cells based on red fluorescent proteins
Alexander Savitsky, A.N.Bach Institute of Biochemistry

LBAP 069: Near Infrared In Vivo Imaging of Retinal Apoptosis in Rats using CAS-MAP P 780, a Tracer Detecting Active Caspase Enzymes.
Gary Johnson, The SEED Partners

LBAP 070: Using longitudinal FDG PET to identify genetic risk factors for monitoring Alzehemier's disease progression
Yun Zhou, Johns Hopkins University School of Medicine

LBAP 071: A PET/CT and fMRI randomized controlled study to identify brain network associated with acupuncture effects in reducing depression
Zhang-Jin Zhang, The University of Hong Kong

LBAP 072: Quantitative analysis of relationship among biomarkers in Alzheimer's Disease Neuroimaging Initiative study
Xueqi Chen, Johns Hopkins Medical Institutions, Peking University First Hospital

LBAP 073: DCE-MRI-based imaging biomarker for the earlier evaluation of response to neoadjuvant chemoradiation therapy in sarcoma
Wei Xia, Suzhou Institute of Biomedical Engineering and Technology, Chinese Academy of Sciences

LBAP 074: Utilizing 18F-FLT to Monitor the Effect of Dexamethasone on NSCLC
Christopher McHugh, Wayne State University

LBAP 075: Non-invasive Determination of PIK3CA-Mutations with 18FDG PET/CT in Estrogen Receptor-Positive / Human Epidermal Growth Factor Receptor 2-Negative Breast Cancer Patients Prior to Therapy: a feasibility study
Heinrich Magometschnigg, Medical University of Vienna

LBAP 076: A comparative study of fused FDG PET/MRI and PET/CT for the detection of residual hepatocellular carcinoma after chemoembolization: preliminary report.
Lamiaa Zidan, faculty of medicine, cairo university

LBAP 077: Prognostic clinical and imaging markers for sstr2-targeted radiopeptide therapy in neuroendocrine tumors: Long-term follow-up of a phase 2 clinical trial
Rebecca Dumont, University Hospital Basel

LBAP 078: Optimal Injection Time of Indocyanine Green for Intraoperative Fluorescence Image-guided Pulmonary Nodules Detection
Hyun Koo Kim, Korea University Guro Hospital

Poster Session 2 (continued)

LBAP 079: Analysis of False Positive Diagnosis by 18F-FDG PET/CT in Solid Pulmonary Nodules with Initial SUVmax>2.5
WENCHAN LI, BEIJING HOSPITAL

LBAP 080: Expression of the MRI Reporter Gene MagA Overrides Iron Export Activity in P19 Cells
Donna Goldhawk, Lawson Health Research Institute, Western University, Western University

LBAP 081: Translating Streptococcus pyogenes Bioluminescence to Physiological Conditions during Preclinical Studies
Peter Panizzi, Auburn University

LBAP 082: Myeloperoxidase Activity Assessment in Human Brain Vascular Pathology using Fluorescent and micro-MR Imaging.
Alexei Bogdanov, UMASS Medical School

LBAP 083: Cryofluorescence Tomography (CFT) is an Ex Vivo Tool to Study Anatomy, Physiology, and Drug or Tracer Distribution in Brain and Other Organs
Marc Seaman, inviCRO, LLC

LBAP 084: Longitudinal consequences of hippocampal amyloid-beta fibrils injections on 5-HT1A receptors: an in vitro autoradiography study
Mathieu Verdurand, University of Lyon, Lyon Neuroscience Research Center (CRNL), CNRS UMR5292, INSERM U1028, BioRaN Team

LBAP 085: Assessment of faulty brain repair in animal models of acquired epilepsy: evaluation of a novel extracellular matrix radiotracer
Stephan Missault, UAntwerp

LBAP 086: Synthesis and biological evaluation of a novel 18F-labeled sulfonamide for imaging carbonic anhydrase IX expression with PET
Joseph Lau, BC Cancer Agency

LBAP 087: Monitoring of microenvironmental regulation of cancer metastasis and prognosis
Yu Kyung Tak, Korea Basic Science Institute

LBAP 088: Cellular imaging analysis for protein-protein interactions in living cells and its application
Eun Hee Han, Korea Basic Science Institute

LBAP 089: Functional analysis of protein disulfide isomerase P5 in cancer cells by simultaneous observation method of both bioluminescence and fluorescence imaging at single cell level
Tomohisa Horibe, Kyoto University

LBAP 090: Discovery of novel glioma-specific peptides for molecular imaging of brain tumor cells
Choi-Fong Cho, Harvard Medical School, Brigham and Women's Hospital, Massachusetts Institute of Technology

LBAP 091: Experimental study on the molecular imaging of CAIX in hypoxic tumor cells with 3T MRI
Juan Wang, shandong cancer hospital and institute

LBAP 092: 89Zr-CR011 Antibody for PET Imaging of the GPNMB Receptor in Triple Negative Breast Cancer
Bernadette Marquez, Washington University in St. Louis

LBAP 094: Pancreatic tumour cells are the major contributor to the signal on FDG PET: implications for monitoring cancer immunotherapy.
David Lewis, University of Cambridge

LBAP 095: Tumor lactate dehydrogenase A (LDH-A) knockdown enhances T cell tumor infiltration and prolongs survival in an immune competent host
Inna Serganova, Memorial Sloan Kettering Cancer Center (MSKCC)

LBAP 096: Analysis of gene expression profiling of primary cell from DEN-induced liver cancer lesion detected by 18F-FDG PET
Kwang Il Kim, Korea Institute of Radiological and Medical Sciences

LBAP 097: In vivo PET imaging with 18F-Fallypride of pituitary dopamine receptor-D2 in Fisher 344 rat prolactinoma models
Qian Liu, Beijing Neurosurgical Institute

LBAP 098: PET-based assessment of tumor IGF1- and insulin receptor expression and anti-receptor treatment response
Mikkel Vendelbo, Aarhus University Hospital

LBAP 099: Magnetic resonance metabolic profiling of estrogen receptor positive breast cancer reveals potential prognostic biomarkers
Ji Soo Choi, Samsung Medical Center

LBAP 100: GLP-1R imaging of MEN1 pancreas with [(68)Ga]Exendin-4/PET
Azita Monazzam, Uppsala University, Medical science

LBAP 101: Characterization of radiation induced nuclear translocation of EGF/EGFR complex
Naga Vara Kishore Pillarsetty, MSKCC

LBAP 102: Abrogation of Leptin signaling can reduce Transactivation of VEGFR-2 Notch Crosstalk and angiogenic features in Endothelial Cells
Viola Lanier, Morehouse School of Medicine

LBAP 103: Neuroimaging of Ebola Virus pathogenesis in a Non-Human Primate
Margaret Lentz, NIH

LBAP 104: Preclinical evaluation of a novel 68Ga-labeled DOTA-depsipeptide derivative as a radioligand for PET infection imaging
Thomas Ebenhan, University of Pretoria & Steve Biko Academic Hospital, University of KwaZulu-Natal

LBAP 105: Visualizing immune response against Hepatitis B virus vaccination with different adjuvants in vivo mouse model
Taemoon Chung, nuclear medicine

LBAP 106: Tracking of monocytes derived from HoxB8-immortalized progenitors sheds light on immune cell infiltration after experimental murine myocardial infarction
Lisa Honold, University of Muenster

LBAP 107: Imaging of infiltrating leukocytes in ischemic-reperfusion brain injury by formyl peptide receptor specific cFLFLFK-HYNIC-99mTc
Dongfeng Pan, University of Virginia

LBAP 108: MRI monitoring of intrapancreatic ductal nanodrug delivery to insulin producing cells
Ping Wang, Massachusetts General Hospital

LBAP 109: Evaluation of Homogeneous Sn-117m Colloid Radiosynovectomy in Normal Dogs Using Scintigraphy, PET-MRI and Other Modalities
Cynthia Doerr, R-NAV

LBAP 110: Selective Nanotube Targeting to Monocytes for Multimodal Cancer Imaging
Bryan Smith, Stanford University

LBAP 111: Alendronate a new class of theragnostic compounds with non targeted bystander effect enhancing properties.
Rao Papineni, University of Kansas Medical Center, Precision X-Ray Inc, Pact & Health

LBAP 112: In vivo imaging of pancreatic islets transplanted into the mouse eye to study diabetes progression
Pim van Krieken, Karolinska Institutet

LBAP 113: Personalized cellular therapy for Parkinson's Disease: Tracking the fate of Parkinson's patients brain cells in NOD/SCID IL2-gamma knockout mice
Paula Foster, University of Western Ontario

LBAP 114: Evaluation of [18F]BR420 and [18F]BR351 as potential PET ligands for in vivo imaging of MMP-9 activity in an animal model of traumatic brain injury
Stephan Missault, UAntwerp

LBAP 115: Functional connectivity in ischemic stroke rat model at hyperacute stage using resting state functional MRI
Yonghee Han, SMC

LBAP 116: Spatiotemporal Microstructural White Matter Changes in Diffusion Tensor Imaging after Transient Focal Ischemic Stroke in Rats
Won Beom Jung, Samsung Medical Center

LBAP 117: EVALUATION OF SV2Alox/Cre TRANSGENIC MOUSE USING [18F]UCB-H IN IN VITRO AUTORADIOGRAPHY
Guillaume Becker, Centre de recherches du Cyclotron

LBAP 118: Pharmacokinetic and Pharmacodynamic Imaging of Intrathecally Administered Antisense Oligonucleotides
Ken Zasadny, inviCRO, LLC

LBAP 119: Nicotinamide administration improves remyelination after stroke
Congxiao Wang, southeast University

LBAP 120: Neurovascular Analysis of the Aging Murine Brain using 3D in vivo Gadolinium Micelle-Enhanced Magnetic Resonance Angiography
Lindsay Hill, New York University School of Medicine, SUNY Downstate Medical Center

LBAP 121: mGluR5 but not mGluR4 is regionally elevated in fragile X syndrome: Longitudinal PET studies in FXS mouse model
Anna-Liisa Brownell, Massachusetts General Hospital

LBAP 122: In vivo evaluation of cerebral blood flow metabolism, apoptosis and stem cell trafficking following traumatic brain injury using multi-spectral optoacoustic tomography imaging in rats.
Eugene Park, Li Ka Shing Knowledge Institute at St. Michael's Hospital

LBAP 123: Metabolism of 1-13C Pyurvate to Lactate in the Mouse Brain Using an Absorptive Mode EPSI Sequence on a 1 Tesla Permanent Magnet
Vesselin Miloushev, Memorial Sloan Kettering Cancer Center

LBAP 124: In vivo PET evaluation of an AAV-αSYN rat model of Parkinson's diseases
Laura Kuebler, Eberhard Karls University Tuebingen

LBAP 125: Translational imaging biomarkers in a BAC α-synuclein Tg rat model of Parkinson's: 123I-ioflupane SPECT/CT imaging of the dopamine transporter and 18F-FDG PET/CT imaging of metabolism
Patrick McConville, Molecular Imaging, Inc.

LBAP 126: In vivo quantification of the ultrasound mediated delivery of Gd3+-labeled nanoparticles into human colon cancer xenografts using 3D T1 mapping with 3-TI MPRAGE MRI
Steven Machtaler, Stanford

LBAP 127: Preclinical optimization of anti-CA19.9 immunoPET in the context of shed antigen
Jacob Houghton, Memorial Sloan Kettering Cancer Center

LBAP 128: Targeting orthotopic 4T1 breast cancer allografts in BALB/c mice by NOTA-derivatized pH (Low) Insertion Peptide (pHLIP) complexes with 64Cu and 18F
Kimberly Edwards, Memorial Sloan Kettering Cancer Center

LBAP 129: Genetically controlled and photobleaching-resistant biosynthetic far-red pigment for bacterial tumor imaging via optoacoustics.
Gil Westmeyer, Technical University Munich, Helmholtz Zentrum Muenchen

LBAP 130: Optimal Injection Time of Indocyanine Green for Intraoperative Fluorescence Image-guided Thoracoscopic Resection of Lung Cancer in Rabbit Model
Yuhua Quan, Korea University Guro Hospital, Korea University College of Medicine

LBAP 131: Study for single and fractionated radioimmunotherapy (RIT) of 90Y-labeled anti-α6β4 integrin antibody in pancreatic cancer model
Winn Aung, National Institute of Radiological Sciences

LBAP 132: [18F]FDG-PET imaging as a surrogate biomarker to monitor tumor cell metabolism change in response to the treatment of PI3K/mTOR inhibitor PF-05212384
Cathy Zhang, Pfizer Inc

LBAP 133: Dual Modality ImmunoPET/Fluorescence Imaging of Prostate Cancer
Wen-Ting Tsai, University of California Los Angeles

LBAP 134: Radiolabeling and nano-SPECT/CT imaging of 188Re-cetuximab in NCI-H292 tumor bearing mice
Chih-Hsien Chang, Institute of Nuclear Energy Research

LBAP 135: Reappearance of hyperpolarized 13C-pyruvate/lactate in MRS in mice models of breast cancer: indicator of tumor heterogeneity or tumor metabolic profile?
Georgios Batsios, ETH Zurich

LBAP 136: Image-guided surgery of intraperitoneal tumor lesions using NIR-labeled nanobodies
Sophie Hernot, Vrije Universiteit Brussel

LBAP 137: Non-invasive Optical Imaging of Targeted Therapy-induced Tumour Cell Death
Bangwen Xie, University of Cambridge

LBAP 138: Enhanced Delivery of Doxorubicin-loaded Hollow Gold Nanospheres (Dox@PEG-HAuNS) for Improved Dual Photothermal Ablation-Chemotherapy of Liver Tumors Using μPET/CT Imaging Guidance
Junjie Li, The University of Texas MD Anderson Cancer Center

LBAP 139: Imaging of Carbonic Anhydrase IX with Radio-Labeled Dual-motif inhibitors
Il Minn, Johns Hopkins University

LBAP 140: Enhanced delivery of near-infrared fluorescence dye-labeled liposomes to lung tumor through targeting interleukin-4 receptor on both tumor cells and tumor endothelial cells
Byung-Heon Lee, Kyungpook National University, Kyungpook National University

LBAP 141: Imaging of Tumor Vascularity and Response to Anti-Angiogenic Therapy in Real-Time
Bakhos Tannous, Massachusetts General Hospital

LBAP 142: PET imaging of hyaluronan-masked HER2+ breast cancer using 89Zr-trastuzumab
Nerissa Villegas, Karmanos Cancer Institute

LBAP 143: In vitro and in vivo evaluation of a novel 68Ga-labeled BVD15 analogue for neuropeptide Y1 receptor imaging with positron emission tomography
Chengcheng Zhang, BC Cancer Agency

LBAP 144: Preclinical 89Zr-immunoPET of Epithelial Ovarian Cancer and Lymph Node Metastasis
Sai Kiran Sharma, MSKCC

LBAP 145: The SPECT/CT Imaging of 123I-Panitumumab in a LS-174T Human Colon Tumor-Bearing Mice Model.
Ya-Jen Chang, Institute of Nuclear Energy Research

LBAP 146: Local tumour irradiation enhanced tumor targeting of immunocytokine NHS-IL12 in vivo
Julia Schmitt, Eberhard Karls University

LBAP 147: Prediction of Treatment Response in Colon Cancer Xenografts Using Three-Dimensional Ultrasound Molecular Imaging
Jianhua Zhou, Stanford University

Poster Session 2 (continued)

LBAP 148: Multimodal imaging of PTK7 receptor: Aptamers as probes
Victoria Calzada, Universidad de la República

LBAP 149: Multiplexed photoacoustic theranostic imaging of the tumor microenvironment for precision medicine
Jiefu Jin, Johns Hopkins University School of Medicine

LBAP 150: Liposomal 64Cu-PET Imaging of Anti-VEGF Drug Effects on Liposomal Delivery to Breast Cancer Xenografts in Mice.
Stephanie Blocker, Wayne State University

LBAP 151: In vivo bioluminescence imaging as indicator for active disease in cancer-induced bone pain
Sarah Falk, University of Copenhagen

LBAP 152: Effects of specific activity on the performance of [68Ga]-DKFZ-PSMA11 to delineate PSMA expressing tumors
Naga Vara Kishore Pillarsetty, Memorial Sloan Kettering Cancer Center

LBAP 153: Metabolic PET stratification of therapy targeting oncogenic signaling in glioblastoma
Jason Lee, Crump Institute for Molecular Imaging, David Geffen School of Medicine at UCLA

LBAP 154: In vivo biodistribution of a gallium-68 labeled substance-P-derivative in healthy dogs for prospective PET imaging of pancreatic cancer
Thomas Ebenhan, University of Pretoria & Steve Biko Academic Hospital, University of KwaZulu-Natal

LBAP 155: 18F-FMISO kinetic modeling for the characterization of tumor perfusion and hypoxia in response to cediranib treatment
Sean Carlin, Memorial Sloan Kettering Cancer Center

LBAP 156: The PET/MRI strategy: Combination of functional and anatomical imaging allows fast and precise identification of necrotic areas and vital tumor tissue of hepatocellular carcinoma (HCC)
Eva Koziolek, Berlin Experimental Radionuclide Imaging Center (BERIC), Präklinische Bildgebung am DKFZ-Partnerstandort Charité Berlin

LBAP 157: Noninvasive detection of oncolytic immunotherapy activity using a radiolabeled penciclovir analog
Charles Glaus, Amgen, Inc.

LBAP 158: Photoacoustic Imaging of Peptide vs. Antibody Tumor Penetration by Time Resolved Functional Perfusion Analysis
Patrick McConville, Molecular Imaging, Inc.

LBAP 159: Performance Results of a Motorized Variable Angle Slant-hole Collimator for Molecular Breast Imaging
Andrew Weisenberger, Thomas Jefferson National Accelerator Facility

LBAP 160: Application of parametric imaging using 18F-FDG PET/CT dynamic multi-bed scanning in differential diagnosis of pulmonary lesions
Rong Fu Wang, Peking University First Hospital

LBAP 161: Software platform for Spectral CT forward projection simulation
Shouping Zhu, Xidian University

LBAP 162: Development of a fully automated dose applicator for small laboratory animals
Sebastian Eigner, SKS Biotech Ltd.

LBAP 163: Imaging primary prostate cancer in prostate tissue culture sections using FDG radioluminescence microscopy
Silvan Tuerkcan, Stanford University

LBAP 164: A comparison of SAFARI MRI, QUESPOWR MRI and acidoCEST MRI for quantification of tissue pH
Leila Lindeman, University of Arizona

LBAP 165: T1 Relaxometry Applied to Ebola-Infected Non-human Primates
Jeffrey Solomon, NIH

LBAP 166: Quantitative Susceptibility Functional MRI (QSfMRI) of Rat Brain during Electrical Stimulation of Forepaw
Hsin-Chih Lo, National Taiwan University, National Taiwan University

LBAP 167: Hyperspectral Microscopy of Near-Infrared Fluorescence Enables 12-Chirality Carbon Nanotube Imaging
Daniel Heller, Memorial Sloan Kettering Cancer Center

LBAP 168: 3D in vivo Quantification and Localization of a Urinary Tract Infection
Neal Paragas, University of Washington

LBAP 169: Development of a Pulse Measurement System in The Radial Artery Using Optical Coherence Tomography
Jaeyul Lee, Kyungpook National University

LBAP 170: Elimination routes assessment of fluorescent probes and drug delivery systems using µCT-FMT
Wa'el Al Rawashdeh, RWTH Aachen University

LBAP 171: Morphological analysis of growth inhibiting chemicals primed Capsicum annum seeds using spectral domain optical coherence tomogrphy
Mansik Jeon, Kyungpook National University

LBAP 172: Wide-field diagonal 3D optical coherence tomography probe for iIn vivo scanning of the human tympanic membrane using a wide-field diagonal 3D optical coherence tomography probe
Kibeom Park, Kyunpook National University

LBAP 173: Single cancer cell isolation and visualization in microfluidic chip for cytoscreening of cancer stem cells
Daisuke Onoshima, Nagoya University

LBAP 174: Quantification of Radioactivity in Microtiter Plates with PET Imaging
Nicholas Vandehey, Lawrence Berkeley National Laboratory

LBAP 175: Impact of local definition of input function on quantitative PET imaging
M'hamed Bentourkia, Université de Sherbrooke

LBAP 176: A Modified Multiresolution Transform for Small-Animal PET Image Denoising
Jie Zhao, Xuzhou Medical University

LBAP 177: The Noise-Weighted Filtered Backprojection Algorithm Performs as Well as the Iterative ML-EM Algorithm for Nuclear Medicine
Larry Zeng, Weber State University, University of Utah

LBAP 178: Synthesis of fluorine-18 agents for PET imaging of hypoxic tissue in tumours
Lee Wenn Chong, The University of Melbourne

LBAP 179: Approach to high brightness of the near-infrared light-emitting luciferin
Masahiro Kiyama, The University of Electro-Communications, Super Collaborative Graduate School

LBAP 180: PEG-LPrA2: A Novel Adjuvant for Breast Cancer Treatment
Courtney Dill, Morehouse School of Medicine

LBAP 181: Novel adjuvant therapy targeting chemotherapeutic resistance in Triple Negative Breast Cancer
Tia Harmon, Morehouse School of Medicine

Preclinical in vivo Studies

Cardiology

P288: Comparison of the PET imaging agents for atherosclerotic plaque detection
Mikako Ogawa, Hamamatsu University School of Medicine, Hokkaido University

P289: Intravascular molecular-structural NIRF-OCT assessment of stent fibrin deposition and tissue coverage in coronary stents in vivo
Jason McCarthy, Massachusetts General Hospital

P290: In vivo Kinetics PET/CT Imaging of Angiogenesis by 68Ga-NOTA-PRGD2 Probe in Porcine Heart post Myocardial Infarction
Bo Tao, Xijing Hospital

P291: Activated Platelet Targeted Theranostic Microbubbles for Concurrent Diagnosis and Treatment of Thrombosis via ultrasound
Xiaowei Wang, Baker IDI Heart andDiabetes Institute

P292: Atherosclerotic plaque permeability: in vivo quantification in the aortic root of ApoE-/- mice using DCE-MRI
Claudia Calcagno, Icahn School of Medicine at Mount Sinai

P293: FMT imaging in the development of targeted liposomes for cell-specific delivery of small molecule drugs to the infarct border zone after myocardial infarction
Alexander Klibanov, University of Virginia, University of Virginia

P294: angioCEST: using TmDOTMA encapsulated liposomes and chemical exchange saturation transfer for enhanced MRI angiography
Todd Soesbe, UT Southwestern Medical Center, UT Southwestern Medical Center

P295: Rapid Screening of the Biodistribution of Adeno-associated Vectors Using NIS Reporter Gene Imaging
Kah-Whye Peng, Mayo Clinic

P296: TGFβRI Inhibition Produces Dual Cardioprotective Actions through Increasing Survivin and Inhibiting Wnt Expressions in Cardiac Progenitors
Wen-Pin Chen, Institute of Pharmacology, College of Medicine, National Taiwan University, Taiwan.

P297: Using high resolution ultrasound to asssess direct parasympathetic control of ventricular contractility: A comparison a with pressure-clamped mode
Asif Machhada, UCL Centre for Cardiovascular and Metabolic Neuroscience, UCL Centre for Advanced Biomedical Imaging

P298: PET Imaging Evaluation for Induced Pluripotent Stem Cell Transplantation in a Rat Model of Myocardial Infarction
shuang wu, The Second Affiliated Hospital of Zhejiang University School of Medicine

P299: PEGylated Nanoliposomes to Treat Myocardial Ischemia
Hyosook Hwang, Chonbuk National University Hospital

P300: The effect of moderate endurance exercise during doxorubicin-treatment in tumor-bearing mice
Chia-Ying Lien, National Taiwan University

P301: Evaluation of polymeric micelle MR contrast agent for mice MR imaging: comparison with gadofluorine M
Shigeru Kiryu, Institute of Medical Science, The University of Tokyo

Infectious Disease

P302: Longitudinal bioluminescence imaging to increase the in vitro and in vivo screening efficiency of antifungal activity against Candida albicans biofilms
Greetje Vande Velde, KU Leuven

P303: Differentially and non-invasively characterizing brain lesions by use of multimodal MRI, MRS and fibered confocal fluorescence microscopy in a mouse models of cerebral cryptococcosis
Greetje Vande Velde, KU Leuven

P304: Set up and MR-PET imaging of a S. aureus vascular graft infection model in mice
Hélène Van de Vyver, University of Münster (Germany)

P305: Introduction of an antibody based PET tracer for the imaging of Alveolar Echinococcosis compared to various standard clinical PET tracers
Anna-Maria Rolle, Eberhard Karls University Tuebingen

P306: Pathogen specific antibody-based molecular imaging of Invasive Aspergillosis with the newly developed PET tracer [64Cu]DOTA-JF5 and its humanized variant [64Cu]NODAGA-hJF5
Anna-Maria Rolle, Eberhard Karls University Tuebingen

P307: Imaging Bacterial Infection Induced Inflammation in a Mouse Model using 68Ga-transferrin
Delphine Chen, Washington University

P308: PET imaging of 18F labeled PZA in M. tuberculosis-infected animals to quantify drug concentrations in infected tissues
Zhuo Zhang, Stony Brook University, Stony Brook University

P309: Differentiating bacterial infection from inflammation in mouse lung using 2-[18F]-fluorodeoxysorbitol (18F-FDS)
Junling Li, University of Louisville

P310: NanoAu-Cocktail-pulsed Dendritic Cells Preferentially Homing to Liver-Draining Lymph Nodes and Inducing Anti-Viral CD8+ T Cell Responses monitored by Bioluminescence imaging
Iinsheng zhan, Beijing Institute of Transfusion Medicine

P311: Intravital two-photon imaging of pulmonary invasive aspergillosis using fluorescent versions of the monoclonal antibody JF5 and its humanized variant
Mike Hasenberg, University of Duisburg/Essen

P312: Visualizing pathogenesis of Francisella tularensis (F. tularensis)
Kee-Jong Hong, Institut Pasteur Korea, Korea National Institute of Health

P313: Therapeutic Effect by High Intensity Focused Ultrasonic (HIFU)-Mediated Liposome Encapsulated Vascular Endothelial Growth Factor (VEGF)-Peptide in Hindlimb Ischemic Rodent Model
MinJoo Kim, chonbuk National University Medical School and Hospital

Inflammation/Immunology

P314: ImmunoPET imaging of murine T helper lymphocytes with an anti-CD4 cys-diabody
Amanda Freise, UCLA

P315: In vivo magnetic resonance imaging and microscopy of vessel permeability and endovascular inflammation using targeted microparticles of iron oxide
Lisa Whittingstall, Université de Sherbrooke

P316: In vivo PET imaging of inflammation in rheumatoid arthritis (RA) using the platelet-collagen binding tracer [64Cu]NOTA-GPVI
Kerstin Fuchs, Werner Siemens Imaging Center

P317: 18F-FEDAC, a radiolabeled ligand targeting Translocator protein, as a PET tracer to image Rheumatoid Arthritis in a mouse model
Seock-jin Chung, Seoul National Unversity

P318: Coupling of non-invasive bioluminescence imaging (BLI) and giant magnetoresistor-Biosensor (GMRB) for longitudinal monitoring of antibodies-mediated spontaneous lymphoma cells regression in living subjects.
Carmel Chan, Stanford University, Molecular Imaging Program in Stanford (MIPS)

Poster Session 3 (continued)

P319: TbiLuc mouse: in vivo imaging of T cell localization and activation using multicolor bioluminescence.
Laura Mezzanotte, Leiden University Medical Center

P320: PET Imaging of Tumor-Targeting Salmonella typhimurium using [18F] Fluorodeoxysorbitol in small animal models
Dong-Yeon Kim, Chonnam National University Hwasun Hospital

P321: Lung-imaging in a rodent model of COPD: A comparison of CT and MRI at 15.2 Tesla
Wolfram Stiller, University Hospital Heidelberg

P322: In vivo Imaging of Lung Apoptosis in an Emphysema Model
Yared Tekabe, Columbia University

P323: Optimization of non-invasive [18F]fluoromethyl-PBR28 PET study for quantification of neuroinflammation using alternative reference compartments in rat Parkinson's disease model
Hyun Soo Park, Graduate School of Convergence Science and Technology, Seoul National University

P324: PET Imaging Reveals a Greater Recruitment of Zirconium-89-oxine-labeled Monocytes to Cancer and Inflammation Compared to Macrophages.
Sho Koyasu, National Cancer Institute, NIH

P325: In vivo quantification of ischemic memory following acute kidney injury using molecular ultrasound imaging
Kenneth Hoyt, University of Alabama at Birmingham

P326: SWIFT MR Imaging of Grafted Mesenchymal Stem Cells in Bone Tissue
Sergio Wong, University of California, San Francisco

P327: Assessing implant wear- induced inflammation using PET [11C]PK11195 imaging in a rat model
Weiping Ren, Wayne State University, Providence Hospital

P328: DCE-MRI Reveals The Role of Cellular Senescence in Placental Processing of Labeled-Albumin
Marina Lysenko, Weizmann Institute of Science

P329: Quantification of the endolymphatic hydrops in Ménière's disease using contrast enhanced small animal MRI
Julia Mannheim, Werner Siemens Imaging Center

P330: Fluorine vs iron oxide labeling of mesenchymal stem cells (MSCs) for image-guided therapy of acid burns
GHULAM MUHAMMAD, Johns Hopkins University, University of the Punjab

P331: In Vivo Optical Imaging of Immune Response
Zhihong Zhang, Britton Chance Center for Biomedical Photonics-Wuhan National Laboratory for Optoelectronics

P332: Molecular imaging of atherosclerosis using the novel magnetic resonance contrast agent Gadofluorine P and T1 mapping techniques
Almut Glinzer, Klinikum Rechts der Isar, Technische Universität München

P333: Evaluation of migration ability of bone marrow-derived dendritic cells induced with different cytokine condition using in vivo fluorescent imaging
Su-Bi Ahn, School of Medicine, Kyungpook National University

P334: Multiplexed transfer of immune genes into an allogeneic transplant model and in vivo screening by bioluminescence imaging demonstrates short-term protection from acute rejection
Michael Bachmann, Stanford University

P335: Imaging Arthritis Disease Activity By Targeting S100A9 and Gelatinases Expression In A Mouse Model Of Inflammatory Arthritis
Mahesh Kondapuram, University of Münster

P336: A 3D mouse atlas from in vivo micro-CT and its applications for preclinical evaluation
Liqin Xie, Regeneron

P337: Feasibility of Dynamic Quantification of Knee Changes using 18F-FDG PET in an In Vivo Dog Model of Osteoarthritis
Maria Menendez, The Ohio State University, College of Veterinary Medicine. The Ohio State University

P338: Effectiveness of Losartan-loaded Hyaluronic Acid (HA) Micelles for the Reduction of Advanced Hepatic Fibrosis in C3H/HeN Mice Model
REJU THOMAS, Chonnam National University Medical School

P339: Therapeutic Efficacy Evaluation and Underlying Mechanism of Quetiapine in Collagen Induced Arthritis Animal Model
Tzu-Yao Huang, National Yang-Ming University

P340: Folate receptor beta is a target for macrophage imaging in acute lung inflammation
Timothy Blackwell, Vanderbilt Univeristy

P341: Identification of the Role of Autophagy in Salmonellae-mediated Cancer Imaging and Therapy
Mai Duong, Chonnam National University

P342: Immunosuppressive nanotherapeutic micelles downregulate endothelial cell inflammation and immunogenicity in models of transplantation
Ann-Marie Broome, Medical University of South Carolina, Medical University of South Carolina

P343: Use of organic iron oxide nanoparticles in magnetically controlled embolization applications
Dustin Osborne, University of Tennessee

P344: Image-guided Drug Delivery to Macrophages for Targeting Inflammation
Carolyn Anderson, University of Pittsburgh

P345: Imaging the impact of eosinophil cationic protein in breast cancer progression
Mei-Ling Hsieh, China Medical University

P346: Imaging of tumor targeting by cytotoxic cells in mouse models with positron emission tomography
Michael Weist, City of Hope

Metabolic Disease

P347: Detection of thyroid function by in vivo I-131 Cerenkov luminescence imaging
Chien-Chih Ke, National Yang-Ming University

P348: Impaired kidney development in mice with a mutation in the planar cell polarity protein Celsr1
Hortensja Brzoska, UCL Institute of Child Health

Neurology

P350: Spatially-precise brain-specific genetic reporter expression enabled by magnetic resonance-guided focused ultrasound and nonviral nanoparticle carriers
Raag Airan, Johns Hopkins Medical Institutions

P351: Targeted delivery of GCPII/PSMA molecular imaging probes to the brain
Raag Airan, Johns Hopkins Medical Institutions

P352: CEST and FLEX MRI for the detection of CNS graft rejection
Sujith Sajja, Johns Hopkins School of Medicine, Institute for Cell Engineering, Johns Hopkins University

P353: PET/MRI Image-guided Therapy of Peripheral Neuropathic Pain using a Sigma-1 Receptor Antagonist
Deepak Behera, Stanford University School of Medicine

P354: Age-related changes in CSF dynamics assessed with PET/MR imaging of simultaneous intra-cisternal Gd-DTPA and 89Zr-DTPA infusion in young and old beagle dogs
Tyler Wellman, inviCRO LLC

P355: In vivo quantification of tissue engineered scaffold degradation using computed tomography
Erik Shapiro, Michigan State University

P356: Machine learning quantification of stem cell transplant into rodent brain using MRI-based single cell detection
Erik Shapiro, Michigan State University

P357: Simultaneous PET/MR imaging of sustained whisker stimulation in rats applying [18F]FDG-PET and BOLD-fMRI using a novel, single scanning session, protocol
Mario Amend, University of Tuebingen

P358: Co-transplantation of Mesenchymal Stem Cells Improves Neural Stem Cell Survival in a Mouse Model of Amyotrophic Lateral Sclerosis.
Amit Srivastava, Johns Hopkins University, Cellular Imaging Section and Vascular Biology Program, Institute for Cell Engineering

P359: Near Infrared Imaging of Damaged and Dystrophic Muscle
Glenn Walter, University of Florida

P360: Role of p38 MAPK on MMP Activity in Ischemic Stroke as Measured by a Novel Fast MMP Activatable Nanoprobe
Di Chang, Zhongda Hospital, Medical School of Southeast University

P361: PET Imaging of copper delivery to brain by intravenous 64Cu Acetate and 64Cu-GTSM
Erica Andreozzi, Kings College London

P362: Implications for Understanding the Cellular Response for Pulsed Focused Ultrasound Associated with Blood-Brain Barrier Opening
Zsofia Kovacs, National Institutes of Health

P363: Image-guided Drug Delivery across the Blood-Brain Barrier using Theranostic Microbubbles
Twan Lammers, RWTH Aachen University

P364: Non-invasive fast calcium neuroimaging of zebrafish behavior with complementary light-field and selective plane illumination microscopy
Gil Westmeyer, Technical University Munich, Helmholtz Center Munich

P365: Visualizing in vivo retinal pigment epithelium cell death using a caspase-targeted fluorescent probe
Kabhilan Mohan, Univ of Kentucky

P366: Uptake and retention of Mn and 52Mn in the rat brain for PET/MRI in neurological applications
Christina Lewis, University of Wisconsin-Madison

P367: Multimodal imaging of 6-hydroxydopamine induced neurodegeneration and its impact on neuroinflammation and neurogenesis
Inga Fricke, University of Muenster, University of Muenster

P368: Multi-modal imaging assessment of glioma growth, glioma associated microglial activation, and active matrix metalloproteinases in vivo.
Bastian Zinnhardt, University of Münster

P369: In vivo Monitoring of Sevoflurane-induced Neuronal Injury in Neonatal Nonhuman Primates using Small-animal Positron Emission Tomography
Xuan Zhang, NCTR

P370: Long term tracking of human neural progenitor cells derived from pluripotent stem cells using mitochondrial ferritin as an MRI reporter gene
Kazim Narsinh, UC San Diego School of Medicine, Sanford Consortium for Regenerative Medicine

P371: Mass Spectrometry Imaging as a novel tool for monitoring the effects of 11β-hydroxysteroid dehydrogenase-1 deficiency and inhibition on region-specific glucocorticoid regeneration in mouse brain using stable isotope tracers
Diego Cobice, University of Edinburgh

P372: Simultaneous in vivo MR imaging of neural stem cells and endothelial cells in a rat model of stroke.
Michel Modo, University of Pittsburgh

P373: Evaluation of metabolic change of photochemically-induced brain ischemia by FDG/PET
Chien-Chih Ke, National Yang-Ming University

P374: Improving Cerebral Blood Flow through Liposomal Delivery of Angiogenic Peptides: Potential of 18F-FDG PET Imaging in Ischemic Stroke Treatment
Hyosook Hwang, Chonbuk National University Medical School and Hospital

P375: Validation of neuronavigation as a tool to improve coil positioning in rodent rTMS studies
Nick Van Laeken, Ghent University

P376: Functional MRI of the visual system of Chamaeleo Chameleon: binocular and monocular stimulation
Inbal Biton, Weizmann Institute of Science

P377: Molecular PET imaging of serotonin 5HT1A receptor and brain metabolism after electrical stimulation of Medial Raphe Nucleus (MRN) in rats.
Miguel Pozo, Instituto Pluridisciplinar UCM, Instituto Tecnológico PET

P378: SPECT Imaging in a mouse model of muscular dystrophy: MDX mice have higher uptake of 99mTc-MDP in muscle than healthy age-matched controls
Jack Hoppin, inviCRO, LLC

P379: In Vivo Quantitative Analysis with PET of the Dopamine Transporter in the KI-G2019S and KI-R1628P LRRK2 mice with [18F]FE-PE2I
Zhimin WANG, Nanyang Technological University

P380: A translational awake rodent pharmacological MRI imaging model: a report investigating central effects of MK-801
*Sakthivel Sekar, Singapore Bioimaging Consortium (SBIC), Agency for Science, Technology & Research (A*STAR)*

P381: Targeting Apoptotic Cells In Vivo in Ischemia Stroke by a Novel Small-molecule Probe
Cheng Qian, Southeast University, Zhongda Hosipital

P382: Molecular Imaging of VCAM1 expression on the blood brain endothelium in animal model of MS
Lode Goethals, Universitair Ziekenhuis Brussel, Vrije Universiteit Brussel

P383: Gadolinium-Gold nanoparticles for non-invasive detection of transplanted cells using MRI
Michel Modo, University of Pittsburgh

P384: FDG PET Imaging of the Brain in a Mouse Model of Dystonia
Weibin Shi, University of Virginia

P385: Motexafin Gadolinium-Enhanced Molecular MR and Optical Imaging of Rat Gliomas for Potential Intraoperative Determination of Tumor Margins
Longhua Qiu, University of Washington School of Medicine

P386: Imaging of Retinal Vascular Disease Using Hypoxia-Sensitive Contrast Agents
Md Imam Uddin, Vanderbilt Eye Institute

P387: Glymphatic Clearance Impaired In A Mouse Model of Tauopathy: Captured Using Contrast-Enhanced MRI
Asif Machhada, University College London, UCL Centre for Advanced Biomedical Imaging

P388: In vivo two-photon imaging of neural activity for small animals
Hui Hui, Institute of Automation

Poster Session 3 (continued)

P389: In vivo investigations of restorative neuronal functions during the circadian rhythm applying diffusion MRI
Mario Amend, University of Tuebingen

P390: Molecular Imaging the Impact of Disrupted-In-Schizophrenia 1 in Glutamatergic Transmission
Wei-Ling Chen, Taichung Veterans General Hospital, China Medical University

P391: Assessing the utility of gadolinium-based contrast agents administered by the intravenous and the intraperitoneal route
Jeyan Kumar, National Institute of Health

P392: Altered GABAA receptor function by the administration of tiagabine in the rat brain: [18F]Flumazenil PET study using a bolus plus constant infusion protocol
Wook Kim, Soul National Unversity

P393: Bioluminescence Imaging of Transplanted Human Endothelial Colony-Forming Cells in Ischemic Mice Model
Jie Ding, southeast university

P394: Noninvasively track Schwann cells repair of peripheral nerve injury in vivo with MRI
Kangan Li, Shanghai First People's Hospital,Shanghai Jiaotong University School of Medicine

P395: Imaging of reactive oxygen species in mouse brain by using [3H] Hydromethidine as a potential radical trapping radiotracer
Nozomi Takai, Shionogi & Co. Ltd.

P396: PET imaging for evaluation of neurogenesis in adult mammalian brain
Yasuhisa Tamura, RIKEN

P397: Accumulation of [18F]FACE in cerebral ischemia
Hiroshi Mizuma, RIKEN Center for Life Science Technologies

P398: In-vivo magnetic resonance imaging of neurotransmitter reuptake
Aviad Hai, Massachusetts Institute of Technology

Oncology

P399: Comprehensive characterization of tumor progression from precancer to invasive breast cancer using multiparametrical imaging
Jennifer Schmitz, Eberhard Karls University Tuebingen

P400: Targeting CA19.9 for Radioimmunotherapy and Therapeutic Monitoring in Pancreatic Cancer
Ryan Lanning, Memorial Sloan Kettering Cancer Center

P401: Quantifying Lactate Secretion in Tumours using Hyperpolarised Nuclear Magnetic Resonance
Markus Durst, Technical University of Munich

P402: Prognostic evaluation of PET/MR imaging with [68Ga]-DOTA-A2B1 in gliomas
Chiun-Wei Huang, Chang Gung Memorial Hospital

P403: Evaluating Natural Products against Human Gliomas through Molecular Imaging
Edwin Chang, Canary Center, Stanford University, Stanford University

P404: Fluorescence imaging of lymph nodes and afferent lymph vessels in an in-vivo rat model differentiates normal from cancer-bearing nodes
Alisha DSouza, Dartmouth College

P405: Effects of Fenbendazole on Tumor [18F]FDG-PET Imaging
Yun Lin, Department of Preclinical Imaging and Radiopharmacy, Eberhard Karls University

P406: Volumetric Molecular Ultrasound Imaging of Tumor Angiogenesis: Intra-Animal Comparison with Dynamic Contrast-Enhanced Imaging
Huaijun Wang, Department of Radiology, Molecular Imaging Program at Stanford, Stanford University, School of Medicine

P407: Detection of tumor macrophage recruitment by MRI following treatment with GSK2849330, an ADCC and CDC optimized anti HER3 mAb, in CHL-1 melanoma xenograft tumors
Hasan Alsaid, GlaxoSmithKline

P408: Delineation of tumor margins in vivo with an uPAR-targeted NIR optical imaging probe, using the fluorophor Indocyanine green.
Karina Juhl, Rigshospitalet and University of Copenhagen

P409: Spatial distribution and intracellular delivery of therapeutic microRNA loaded nanocarriers in tumors using ultrasound induced microbubble cavitation
Tzu-Yin Wang, Stanford University

P410: Assessment of low dose PET imaging of Non-Hodgkins lymphoma in a humanized transgenic mouse model using novel immunoPET tracer
Frezghi Habte, Stanford University

P411: Targeted imaging of the KISS1 receptor for oncological bone disease in breast cancer and multiple myeloma
Robert Tower, University Hospital Schleswig-Holstein, Section Biomedical Imaging

P412: Characterization of two patient derived colon cancer tumor models in mice
Marcel Krueger, University Hospital Tuebingen

P413: Dose Ranging of Anti-Lymphangiogenic Treatment for Enhanced Antibody-based Therapy in an Animal Model of Head and Neck Cancer
Lindsay Moore, University of Alabama at Birmingham

P414: Acoustic Radiation Force Decorrelation Weighted Pulse Inversion (ADW-PI) Method for Ultrasound Molecular Imaging
Frank Mauldin, University of Virginia

P415: Radiation dosimetry of degradable polymer microspheres labeled with 99mTc and 68Ga intended for radiomicrosphere therapy planning
Manuel Sztejnberg, Centro Atómico Ezeiza

P416: Stimulation of endothelin B receptors increases [18F]FDG uptake in cancerous lesions in mice
Svetlana Selivanova, CRCHUS, Unviersité de Sherbrooke

P417: Homomultivalent Fluorescent Imaging Agents Targeted to the Delta-Opioid Receptor for Cancer Imaging
Amanda Shanks Huynh, H. Lee Moffitt Cancer Center

P418: Pre-clinical evaluation of a novel CEA-targeting near-infrared fluorescent tracer delineating colorectal and pancreatic tumors
Martin Boonstra, Leiden University Medical Center

P419: Acid-Induced Collagen Remodeling Study in the Microenvironment of Tumors Using Window Chamber Model
mehdi damaghi, Moffitt Cancer Center

P420: Predictive Estimation of Therapeutic Effects of Liposomal Anti-cancer Agents by SPECT/CT Imaging of Radiolabeled Liposomes in Mouse Xenograft Models
Izumi Umeda, National Cancer Center

P421: Remnant living tumor cells exhibit cancer stem cells-like characteristics in histone deacetylase inhibitor resistant xenograft of lung cancer in mouse model
Wei-Ying Kuo, National Yang-Ming University

P422: αVβ3 Integrin Targeted Tumor Theragnosis by Using Camptothecin Loaded c-RGD Conjugated Microbubbles in a Mouse Allograft Tumor Transplantation Model
Wei-Tsung Chen, Radiology Department, Taipei City Hospital, National Taiwan University, School of Medicine

P423: Molecular imaging of polymer nanoparticles facilitated multi-microRNA therapy for triple negative breast cancer in small animal model
Rammohan Devulapally, Stanford University

P424: Bioluminescence imaging reveals tissue specificity of extracellular vesicle-mediated biomolecule transfer in vivo
Masamitsu Kanada, Stanford University

P425: Transgenic mice model expressing ERα-intramolecular folding reporter sensor for ER-ligand characterization–A special focus on environmental estrogen (Bisphenol-A) induced carcinogenesis
Thillai Sekar, Stanford University

P426: Integrated Optical Tools Using Molecular Imaging for In Vivo Pathology in an Orthotopic Xenograft Model of Colon Cancer
Stephan Rogalla, Stanford University, Stanford University

P427: Comparison of Acquisition Schemes for Hyperpolarised 13C Magnetic Resonance Imaging
Markus Durst, Technical University of Munich

P428: Imaging of Stem Cell in the Brain Using Integrated High-Performance SPECT/CT and SPECT/MR Systems
Irina Balyasnikova, University of Chicago

P429: Administration route dependent effects of tumor-associated antigen specific Th1 cells during immunotherapy of cancer
Christoph Griessinger, Eberhard Karls University Tübingen

P430: A novel small-molecule CXCR4 PET radioligand as companion diagnostics for anti-CXCR4 therapy
Yoon Hyeun Oum, Emory University

P431: Molecular targeted theranostic photoimmunotherapy combining two types of monoclonal antibodies targeting different epitopes of HER2: enhanced phototherapeutic effect based on fluorescence molecular imaging.
Kimihiro Ito, Jikei University School of Medicine

P432: In vivo Detection of miRNA expression in tumors using an activatable nanosensor
Anna Moore, Massachusetts General Hospital, Harvard Medical School

P433: Imaging of the response of Head and Neck Squamous Cell Carcinoma to irradiation using a Poly(ADP-ribose) Polymerase 1 targeted optical imaging agent
Susanne Kossatz, Memorial Sloan Kettering Cancer Center

P434: Imaging HGF with 89Zr-DFO-Rilotumumab as a Companion Diagnostic for Rilotumumab Treatment of Gastric Cancer
Eric Price, Memorial Sloan Kettering Cancer Center, Memorial Sloan Kettering Cancer Center

P436: Zirconium-89-Oxine Complex Enables Quantitative Monitoring of Systemic Bone Marrow Cell Trafficking by Positron Emission Tomography.
Noriko Sato, National Cancer Institute, NIH

P437: Tumor pO2 and glycolytic activity in pancreatic cancer xenografts as biomarkers to guide treatment.
Murali Cherukuri, NCI

P438: 18F-Sgc8 ssDNA aptamer for PET Imaging of Tumor PTK7 expression
Orit Jacobson Weiss, NIBIB/NIH

P439: OKN-007 decreases free radicals levels in a preclinical F98 rat glioma model
Rheal Towner, Oklahoma Medical Research Foundation

P440: In vivo CA6-antigen stratification using 64Cu-DOTA-B-Fab – a companion diagnostic for antibody-drug conjugate (SAR566658) therapy
Ohad Ilovich, Stanford University

P441: Monitoring Tumor Hypoxia Following High Dose Radiation Therapy Using Oxygen Sensitive MRI on a Lung Cancer Xenograft Rat Model
Heling Zhou, UT Southwestern Medical Center

P442: Novel multimodal embedded imaging platform dedicated to translational research in oncology: Ultrasound & Photoacoustic imaging associated with biophotonics.
Florian RAES, French National Centre for Scientific Research (CNRS)

P443: Ex-vivo detection of human oral cancer using an activatable fluorescence probe targeting γ-glutamyltransferase and the Artemis imaging system
Maxime Slooter, L.U.M.C.

P444: Noninvasive imaging of macrophage migration to tumor lesion and their promotion of tumor growth in living mice with colon cancer using in vivo dual optical imaging
Seul-Gi Oh, School of Medicine, Kyungpook National University

P445: Photoacoustic imaging of the endogenous molecular contrast of haemoglobin in preclinical models of colorectal cancer in response to vascular disruption with OXi4503
Sean Johnson, University College London

P446: MicroPET/CT Imaging of Co-expressed EGFR and HER2 in Breast Cancer Tumour Xenografts in Mice using Bispecific Radioimmunoconjugates (bsRICs)
Luke Yongkyu Kwon, University of Toronto

P447: Targeting RAGE expression in ovarian cancer for imaging and therapy
Yared Tekabe, Columbia University

P448: Imaging tumor hypoxia using infrared fluorescent protein (iRFP) reporter under control of hypoxia driven HRE-promoter
Martin Schneider, ETH Zürich, University Zurich

P449: Liposomal Nano-constructs for Image-guided Delivery in Tumor Vasculature
Sudath Hapuarachchige, Johns Hopkins University School of Medicine

P450: Quantitative modeling of effect of radiation therapy on [18F]Dasatinib tumor uptake in a glioma xenograft model
Edward Fung, Memorial Sloan Kettering Cancer Center, Memorial Sloan Kettering Cancer Center

P451: Study of Tumor Suppressive Response of microRNA let-7i in Rhenium-188 Liposomal Drug Treated Head and Neck Squamous Cell Cancer
Chun-Yuan Chang, National Yang Ming University

P452: Molecular imaging of A431 tumor xenografts in mice to guide treatment regimen and obtain treatment response
shun kishimoto, NCI

P453: Tumor-associated macrophage imaging to delineate the margins of glioblastoma using a triple-modality PET-MRI-fluorescent nanoparticle
Jung Sun Yoo, Seoul National University

P454: Optical imaging visualized anti-metastatic effect of TSAHC, an inhibitor of TM4SF5, in nude mouse orthotopic liver cancer model.
Juri Na, Seoul National University, Seoul National University Hospital

P455: Spectroscopic Photoacoustic Molecular Imaging of Breast Cancer Using an Antibody-Dye Contrast Agent
Katheryne Wilson, Stanford University

P456: Micro- and nano- bubble based dual modality ultrasound and photoacoustic contrast agents for in vivo prostate cancer detection
Sri Rajasekhar Kothapalli, Stanford University

Poster Session 3 (continued)

P457: Gold-198 Nanocluster for Cerenkov Luminescence Transfer Imaging and Tumor Therapy
Xiaowei Ma, Stanford University, Xijing Hospital, The Fourth Military Medical University

P458: Three dimensional in vivo and ex vivo visualization of metastatic liver vasculature with Magnetic Resonance Imaging and Optical Projection Tomography
Angela d'Esposito, UCL

P459: Multiparametric contrast enhanced ultrasound with VEGFR-2 targeted microbubbles and DCE-MRI for monitoring the effects of regorafenib on colorectal adenocarcinoma xenografts in rats with immunohistochemical validation
Ralf Eschbach, University Hospital Munich LMU

P460: Biodistribution of IRDye700DX in Cynomolgus Tissues Following i.v. Cetuximab-IRDye700DX
Esther de Boer, University of Alabama at Birmingham, University Medical Center Groningen

P461: Optimizing multislice acidoCEST MRI for assessments of extracellular pH in tumor and kidney tissues.
Edward Randtke, University of Arizona

P462: PET-CT Imaging Of Tumor Angiogenesis And Metabolism For Evaluation Of Complementary And Alternative Medicine (CAM) Treatment Of Breast Cancer.
Iwona Dobrucka, University of Illinois at Urbana-Champaign

P463: PET imaging with a novel phosphatidylserine-targeted molecular probe for monitoring cell death induced by chemotherapy.
Kai Chen, University of Southern California

P464: Monitoring tumor response to chemotherapy by near-infrared fluorescence imaging of cell death using PSVue-T-643.
Kai Chen, University of Southern California

P465: SPECT imaging of mouse xenografts expressing different levels of EGFR using 111In-labeled ABT-806
Sarah Mudd, Abbvie

P466: Pulsed radiotherapy alters dynamic tumor contrast enhancement in a mouse model of glioblastoma
Sarah Krueger, Beaumont Health System, Oakland University-William Beaumont School of Medicine

P467: Integrin $\alpha 2\beta 1$ targeting PET imaging as a prognostic biomarker of malignant non-small Lung cancer in vivo: comparison with 18F-FDG
Shih-Ting Hsu, Center for Advanced Molecular Imaging and Translation

P468: Improved identification and quantification of cancer tissue with paired-agent fluorescence guided brain tumor surgery: finding an optimal control agent
Xiaochun Xu, Illinois Institute of Technology

P469: In vivo radiopharmaceutical excited fluorescence imaging for highly sensitive tumor detection
Kun Wang, Institute of Automation, Chinese Academy of Sciences

P470: Towards a universal tumor-imaging agent: surface-enhanced resonant Raman spectroscopy (SERRS) nanostars for high-precision cancer imaging
Ruimin Huang, Memorial Sloan Kettering Cancer Center

P471: 18F-Albumin PET imaging detects efficacy of the targeted angiogenesis inhibitor, sunitinib (RTK) in human glioblastoma (U87-MG) tumors
Elaine Jagoda, NCI

P472: OKN-007 decreases VEGRF-2 levels in a preclinical GL261 mouse glioma model
Rheal Towner, Oklahoma Medical Research Foundation

P473: Positron Emission Tomography of Furin Activity in Living Subjects with a Smart-Activatable Self-assembling probe
Niladri Chattopadhyay, Stanford University

P474: Ultrasound and Microbubble Mediated Therapeutic Modulation of Hepatocellular Carcinoma using Two Complementary MicroRNAs
Sayan Mullick Chowdhury, Stanford University

P475: 18F-labeled anti-CD20 cys-diabody for same day immuno-PET of B-cells malignancies in transgenic mice
Kirstin Zettlitz, University of California, Los Angeles

P476: Targeting extracellular acidic tumor microenvironment in pancreatic adenocarcinoma: Multispectral Optoacoustic Tomography detects pH-low insertion peptide probes in vivo
Lacey McNally, University of Louisville

P477: Longitudinal in vivo monitoring of cancer cachexia development points towards browning of white adipose tissue and enhanced utilization of fatty acids in brown adipose tissue
Wolfgang Thaiss, Werner Siemens Imaging Center, Diagnostic and Interventional Radiology

P478: E-cadherin as a potential target to image epithelial-to-mesenchymal transition in vivo.
Gemma Dias, BC Cancer Research Centre

P479: Targeted PET Imaging of Breast Cancer Using Bisphosphonates
Brad Ahrens, Beckman Research Institute at City of Hope

P480: Investigation of Cancer Vaccine Formulations Using MRI and PET/CT
Christa Davis, Biomedical Translational Imaging Centre, IWK Health Centre

P481: Evaluation of the Effect of High Intensity Focused Ultrasonic (HIFU) treatment with Liposome Encapsulated Doxorubicin on CT26 tumor model: drug release in vitro and therapeutic effect in vivo
Jeongil Kwon, chonbuk National University Medical School and Hospital

P482: DCA promotes tumor progression in vitro and in vivo
Benedikt Feuerecker, Department of nuclear medicine, Technische Universität München

P483: 4-[18F]Fluoroglutamine PET to Assess ASCT2 Expression in Lung Cancer
Jason Buck, Vanderbilt University, Department of Radiology and Radiological Sciences

P484: Investigation on a minimally invaded sentinel lymph node model by high resolution ultrasound coupled to PA imaging with spectral unmixing and NIRF imaging.
Andrew Needles, FUJIFILM Visualsonics Inc.

P485: In-vivo DCE-MRI for the discrimination between glioblastoma and radiation necrosis.
Julie Bolcaen, Gent University Hospital

P486: Bone Marrow Derived Myeloid Cells Orchestrate Resistance to Anti-angiogenic Therapy in Novel Chimeric Mouse Model of Glioblastoma
Ali Arbab, Georgia Regents University

P487: Development of Radiotherapeutic and Companion Imaging Agents to Target MC1R in Melanoma
Narges Tafreshi, H. Lee Moffitt Cancer Center

P488: Engineered Antibody Fragments for PSMA-targeted Imaging and Therapy of Prostate Cancer
Liang Shan, Howard University

P489: Why is it challenging to develop a gastro-oesophageal reflux disease by using rat as animal model? A new discovery: duodenum-gastric reflux in rat is a physiologic phenomenon.
Luca Basso, IRCCS San Martino IST Hospital

P490: Intraoperative Identification of Metastasis in Sentinel Lymph Nodes Using Macrophage Targeted Fluorescent; Indocyanine Green:Neomannosyl Human Serum Albumin
Yuhua Quan, Korea University Guro Hospital, Korea University College of Medicine

P491: Development of polyethylene glycol conjugated with indocyanine green as a photoacoustic tumor imaging probe
Kohei Sano, Kyoto University, Kyoto University Hospital

P492: Towards clinical validation of the tumor-specific near-infrared fluorescent agent cRGD-ZW800-1
Hein Handgraaf, Leiden University Medical Center

P493: In vivo PET- lymphography imaging and Cerenkov guided resection of metastatic lymph nodes in a PC3-mouse model
Hannah Lockau, Memorial Sloan Kettering Cancer Center

P494: Combined IUdR and enriched characteristic X irradiation for Auger electron cancer therapy
Chien-Chih Ke, National Yang-Ming University

P495: Near-Infrared Dye-Albumin Conjugates as Imageable Photothermal Theranostics for Imaging-Guided Cancer Therapy
Peng Huang, NIH

P496: High Field In-Vivo MRI-Guided Development of Brain Edema Model
Jeeva Munasinghe, NIH/NINDS

P498: In vivo visualization of murine KB tumors using folate-targeted photoacoustic nanoparticles
Hoang Lu, Princeton University

P499: The relationship between Adenine Nucleotide Translocase2 expression and 18F-FDG uptake in anaplastic thyroid cancer
Chul-Hee Lee, Seoul National University, Seoul National University

P500: Orthotopic Human Hepatocellular Carcinoma Model in Rabbits for Combined Ultrasound-Guided and Transcatheter Hepatic Arterial Drug Delivery
Sunitha Bachawal, Stanford University, School of medicine

P501: Tumor cellularity is a negative prognostic factor of pancreatic cancer identified by diffusion weighted – magnetic resonance imaging
Rickmer Braren, Technische Universität München

P502: Combining radioimmunotherapy with cetuximab significantly enhances therapeutic efficacy in localized and metastatic models of colorectal cancer
Vessela Vassileva, UCL Cancer Institute

P503: Fluorescence-guided Resection of Glioma using Fluorescently-labeled Antibodies
Jason Warram, University of Alabama at Birmingham

P504: Targeting lysyl oxidase for molecular imaging in breast cancer – a preclinical study in mice with correlation to human tissue samples
Melinda Wuest, University of Alberta

P505: Phage Display Selection of ErbB2/ErbB3 Targeting Peptides
Susan Deutscher, Harry S. Truman Veterans Memorial Hospital, University of Missouri

P506: Biodistribution of Macrophage Internalized Gold Nanoshells in a 4T1 Murine Model
Barry Edwards, University of Pittsburgh

P507: Radiofrequency Hyperthermia-Enhanced Local Chemotherapy of Pancreatic Cancers: Monitored by Dual Modality Imaging
Zhibin Bai, University of Washington School of Medicine

P508: Radiofrequency Hyperthermia Enhanced Herpes Simplex Virus-Thymidine Kinase Gene Therapy of Hepatocellular Carcinoma:Monitored by Dual-Modality Imaging
Jianfeng Wang, University of Washington, School of Medicine, Beijing Chaoyang Hospital

First-in-Human & Clinical Studies

Oncology

P509: Multiplexed molecular imaging with targeted SERS nanoparticles for intraoperative guidance of tumor resection
Yu Wang, University of Washington

P510: Imaging of the invasive prostate cancer phenotype: a first-in-human study using uPAR PET/CT
Andreas Kjaer, Rigshospitalet & University of Copenhagen

P511: Fluorescence-guided resection of newly-diagnosed glioblastoma: A tumor morphology and survival benefits analysis of Phase II clinical trial data
James Cordova, Emory University

P512: Intraoperative micro-hepatocellular carcinoma detection using surgical navigation system with fluorescence molecular imaging technology
Chongwei Chi, Institute of Automation, Chinese Academy of Sciences

P513: Imaging Patients with Breast and Prostate Cancers Using Combined 18F NaF/18F FDG and TOF simultaneous PET/ MRI
Andrei Iagaru, Stanford Hospital and Clinics

P515: High resolution micro-endoscopy for the diagnosis of gastric carcinoma and precancerous lesions
Haifeng Liu, General Hospital of Chinese Armed Police Forces

P516: 68Ga-PSMA dynamic PET/CT in prostate cancer
Antonia Dimitrakopoulou-Strauss, German Cancer Research Center

P517: Clinical value of FAZA-PET/CT in advanced lung cancer patients: comparison with FDG-PET/CT
Tsuneo Saga, National Institute of Radiological Sciences

P519: Clinical Trial: Safety of 68Ga-DOTATATE PET/CT in Patients with Neuroendocrine Tumors
Ronald Walker, Vanderbilt University Medical Center

P520: Correlation Study between Choline and β-catenin Molecular Pathways in Breast Cancer using in-vivo MR Spectroscopy and ELISA
Naranamangalam Jagannathan, All India Institute of Medical Sciences

P521: Fluorescence imaging characteristics of the intravital tumor targeting agent BLZ-100 from a first in human skin cancer study
Miko Yamada, The University of Queenslad

P522: Mapping relative and absolute brain tissue pH using pixelwise, multipower SAFARI
Kyle Jones, University of Arizona

P523: Diagnostic Performance of Hybrid PET/MR for Determination of Preoperative axillary Lymph Node Status in Patients with invasive breast cancer
Eun-jung Kong, Yeungnam Univ Hospital

P524: The prognostic value of total lesion glycolysis via 18F-fluorodeoxyglucose PET-CT in surgically treated esophageal squamous cell carcinoma
Joon-Kee Yoon, Ajou University Medical School

P525: Pulmonary Nodule Detection during Fluorescence Image-guided Surgery with Indocyanine Green
Hyun Koo Kim, Korea University Guro Hospital, Korea University College of Medicine

P526: NIS-guided drug development: the contribution of reporter gene imaging
Stephen Russell, Mayo Clinic

P527: Brain tumor cellularity maps trained with co-registered histology predict tumor presence in pathologically confirmed regions sampled ex-vivo
Peter LaViolette, Medical College of Wisconsin

P528: Effects of Respiratory-gated 18F-FAZA PET-CT on Hypoxic Fraction in patient and phantom
Douglass Vines, Princess Margaret Cancer Centre, University of Toronto

P529: First clinical experience of solid state digital PET/CT in oncologic FDG imaging
Michael Knopp, The Ohio State University Wexner Medical Center

P530: Dedicated breast PET (dbPET) the extraordinary contribution of Molecular Imaging in the assessment response to neoadjuvant therapy in breast cancer.
Michel Herranz, University Hospital Complex

P531: The survival-paradox of patients with differentiated thyroid cancer
Alexis Vrachimis, University Hospital of Muenster

P532: Molecular Imaging of Non-Small Cell Lung Cancer (NSCLC) using 82Rubidium and 18FDG PET/CT
thida Win, East and North Herts NHS Trust

P533: PERCIST guidelines is better than EASL and RRECIST in assessing the short-term response in primary hepatocellular carcinoma after interventional therapy
Shengjun Wang, Fourth Military Medical University

P535: Comparison of image quality with 62Cu and 64Cu-radiotracers in whole body tumor imaging
Masato Kobayashi, Kanazawa University

P536: Ductal carcinoma in situ and ductal carcinoma in situ with microinvasion: correlation of F-18 FDG uptake with histological and biological prognostic factors
YE YOUNG SEO, Yeouido St Mary's Hospital, College of Medicine, The Catholic University of Korea

P537: FDG PET/CT total lesion glycolysis predicts prognosis in patients with operable extrahepatic cholangiocarcinoma
Eun Jeong Lee, Seoul Medical Center

P538: Physiology of breast parenchyma: Association of breast parenchymal uptake of 18FDG with age, tissue composition and breast parenchymal enhancement on dynamic contrast-enhanced breast MRI
Doris Leithner, University Hospital Frankfurt/Main

P539: Not all DTC patients with N positive disease deserve the attribution "high risk". Contribution of the MSDS trial
Alexis Vrachimis, University Hospital of Muenster

P540: Multimodality imaging in Von Hippel-Lindau (vHL) Syndrome with emphasis on the value of new molecular imaging agents
Vani Vijayakumar, University of Mississippi Medical Center

P541: Prognosticating Outcomes and Dose Painting in Lung Cancer using Fdg-Pet in the Era Of 4-D Computerized Tomography Based Radiotherapy Treatment Planning
Srinivasan Vijayakumar, University of Mississippi Medical Center

P542: Clinicopathologic factors associated with F-18 FDG uptake of early gastric cancer
Joon-Kee Yoon, Ajou University Medical School

P543: Stimulated Raman imaging of brain and breast cancer tissue for label-free surgical pathology
Nathalie Agar, Brigham and Women's Hospital, Dana-Farber Cancer Institute

P544: Defining the Priority of 18F-FDG PET for Curative Intent Concurrent Chemoradiotherapy in Small Cell Lung Cancer
Tzu-Chen Yen, Chang Gung Memorial Hospital

P545: Early Experience with Radium 223 Xofigo Therapy in Patients with Prostate Bony Metastases.
Isis Gayed, University of Texas Health Science Center at Houston

P546: Correlation of FDG-PET imaging with fibronectin expression in non-small cell lung cancer
Bi Fang Lee, National Cheng Kung University Hospital

P547: Fluorine-18 fluorocholine PET/CT reflects CDP-choline metabolism as one of the two major phosphatidylcholine synthesis pathways in the liver
Sandi Kwee, University of Hawaii, The Queen's Medical Center

P548: Image Registration and Integration of PET-CT and SPECT functional imaging with Anatomic MRI fusion as an alternative to hybrid imaging in localizing epileptogenic cortex, tumors and Radiation Therapy Planning
Vani Vijayakumar, University of Mississippi Medical Center

P549: Staff Exposure from Tc-99 Nuclear Medicine Department
Khalid Alzimami, King Saud University, King Saud University

P550: The value of intraoperative near-infrared fluorescence imaging based on enhanced permeability and retention of indocyanine green: feasibility and false-positives in ovarian cancer
Leonora Boogerd, Leiden University Medical Center

P551: Thyroid Absorbed Dose Estimate Using I-123 MIBG Imaging
Jianqiao Luo, Virginia Commonwealth University

P552: Critical Decision Points in Screening and Diagnosis of Prostate Cancer and the Role of Molecular Biomarkers: Implications for the Imaging Community
Srinivasan Vijayakumar, University of Mississippi Medical Center

P553: 18F-FES PET/CT Estrogen Receptor Activity Imaging of Desmoid Tumors
Karen Ayres, Vanderbilt University Hospital

P554: Case Report: Glioblastoma Imaging and Therapy With 64CuCl2
Gianluca Valentini, ACOM Advanced Center Oncology Macerata SpA

P555: Treatment response evaluation using 18F-FDG PET-CT in patients with recurrent head and neck cancer.
Rakesh Kumar, AIIMS

P556: Prognostic surrogate markers for survival, a case series for a novel antiangiogenic therapy (Multi-targeted Epigenetic therapies/MTET)
M. Nezami, Pacific Medical Center of Hope

Preclinical in vivo Studies

Oncology

P558: Imaging β-glucuronidase Activity in Human Breast Cancer Tumor Xenografts Using Fluorescein Substrate
Li Liu, UT southwestern Medical Center

P559: EGFR targeted nanobody-photosensitizer conjugates for imaging and photodynamic therapy in head and neck cancer – first preclinical studies
Paul van Bergen en Henegouwen, Utrecht University

P560: Ketamine/Xylazine anesthesia reveals superior signal-to-noise ratios in 18F-FAZA-PET tumor hypoxia imaging when compared to Isoflurane anesthesia
Wolfgang Thaiss, Werner Siemens Imaging Center, Diagnostic and Interventional Radiology

P561: How Improvements in In-vivo Cell Labeling by MRI Contrast Agents Led to Better Drug Delivery
Li Liu, Carnegie Mellon University

P562: In vivo HER2-Targeted Magnetic Resonance Tumor Imaging Using Iron Oxide Nanoparticles Conjugated with Anti-HER2 Single Chain Antibody
Kohei Sano, Graduate School of Pharmaceutical Sciences, Kyoto University, Kyoto University Hospital

P563: An integrated approach to modeling targeted agent penetration into pancreatic tumors using intravital fluorescence microscopy.
Veronica Estrella, H. Lee Moffitt Cancer Center

P564: Dynamic PET evaluation of the increased FLT uptake level after sorafenib treatment in mice bearing a human renal cell carcinoma xenograft
Naoyuki Ukon, Hokkaido University

P565: Early prediction of response to capecitabine with 3'-deoxy-3'-[18F] Fluorothymidine positron emission tomography in mice bearing human colon cancer xenografts
Seog-Young Kim, Institute for Innovative Cancer Reserch

P566: Visualization of CD44 expression and CD44+ cancer stem like cell in Breast cancer by Gamma irradiation
Yong Jin Lee, Korea Institute of Radiological and Medical Sciences

P567: Enhancement of Trastuzumab penetration using Atorvastatin and Cyclophosphamide to Her2+ NCI N87 xenograft mouse model
KyungDeuk Cho, Korea Institute Radiological and Medical Sciences

P568: Differential Impact of Ubiquitin-Activating Enzyme (UAE) Inhibition on 3'-Deoxy-3'-[18F]Fluorothymidine (FLT) and 2-Deoxy-2-[18F]Fluoro-D-Glucose (FDG) Uptake: Studies in Cells and Cell- or Patient-Derived Xenograft Tumor Models
Nicolas Salem, Millennium Pharmaceuticals, Inc., a wholly owned subsidiary of Takeda Pharmaceutical Company Limited

P569: In vivo fluorescent imaging of tumor bombesin and transferrin receptor expression as early indicators of Sorafenib efficacy in small animal models
Jeffrey Peterson, PerkinElmer

P570: Integration of Craniocaudal Rotation System in Molecular Image Guided Radiation Therapy.
Rao Papineni, Precision X-Ray Inc, University of Kansas Medical Center

P571: Ultrasound mediated siRNA and Chemotherapeutic Drug Delivery in treatment of Prostate cancer: In vivo and in vitro Evaluation
Hak Jong Lee, Seoul National University Bundang Hospital, Seoul National University

P572: Glutathione Peroxidase 3 (GPx3) suppressed HCC invasiveness through JNK-cJun-MMP2 signaling pathway - Application of in vivo real-time molecular imaging
Kwan Man, The University of Hong Kong

P573: Tumor Progression and Regression Monitoring using Hyperpolarized [1-13C] Pyruvate Metabolic Imaging in a Breast Cancer Murine Model
Peter Shin, UCSF

P574: Integrin expression and angiogenesis in Non Small Cell Lung Cancer (NSCLC): A in vivo hybrid Fluciclatide PET/ CT perfusion molecular imaging study.
Thida Winn, University College London

P575: A PEG-free Biomimetic Porphyrin Nanoplatform for Personalized Cancer Theranostics
Juan Chen, University Health Network, Universtity of Toronto

P576: Assessing Changes in Tumor Extracellular pH during Metabolism-Targeting Therapies with acidoCEST MRI
Paul Akhenblit, University of Arizona

P577: Optical Imaging-Monitored Intra-Esophageal Radiofrequency Hyperthermia-Enhanced Local Chemotherapy of Esophageal Cancers
Yaoping Shi, University of Washington School of Medicine

Poster Session 4 (continued)

P578: TSPO PET to Visualize Patient-Derived Glioma
James Harty, Vanderbilt University

P579: In vivo PET imaging of 64Cu-NOTA-aptide targeting tumor-associated fibronectin extra domain B
Mi Jeong Kim, Seoul National University, Cancer Research Institute, Seoul National University

P580: Antibody mimics, fibronectin domain III for EphA2-targeting as a probe in murine tumor model
Seung-Hwan Park, Chonnam National University Medical School

P581: Radiosynthesis and In Vivo evaluation of 64Cu Labeled Repebody for EGFR-mediated tumor Imagingin Small Animals
Ayoung Pyo, Chonnam National Unversity Hwasun Hospital

P582: A novel 68Ga-labeled c(CGRRAGGSC) for microPET imaging of IL-11 receptor expression
Jin Sun, Jiangsu Province Hospital

P583: Understanding blood brain barrier breakdown in a metastatic tumor mouse model, using bioluminescence with ABCG2 inhibition
Jeyan Kumar, National Institute of Health

P584: Biological Evaluation of RGD-EGF Fusion Protein as a Dual-targeting Theranostic Agent
Jia-Je Li, National Yang-Ming University

P585: Microscopic Imaging Reveals Preferential Tumor Cellular Uptake and Retention of Indocyanine Green for In Vivo Imaging
Nobuhiko Onda, Olympus Corporation, Tokyo University of Agriculture and Technology

P586: Non-invasive Bioluminescence Imaging of AKT Kinase Activity and Apoptosis Reveals Therapeutic Efficacy in Tumor Mouse Models of Human Lung and Brain Cancer
Thomas Poeschinger, Roche Innovation Center Penzberg

P587: Single Injection of scVEGF/177Lu Targeted to VEGF Receptors Inhibits Growth of 4T1luc Breast Bone Metastases in Syngeneic Mice
Joseph Backer, SibTech, Inc.

P588: Multi-modality patho-physiological imaging of orthotopic glioblastoma in mouse brain
Chris, Jun Hui Ho, Singapore Bioimaging Consortium

P589: Imaging glucose and fructose metabolism in breast cancer: A mouse study
Melinda Wuest, University of Alberta

P590: Tracking Breast Cancer Tumor Growth and Angiogenesis in vivo with Perfluorocarbon Microbubbles
Danny Robles, University of ARizona, University of Arizona

P591: Photodynamic therapy inhibited tumor growth by targeting upregulated translocator protein in mitochondria
Mingfeng Bai, University of Pittsburgh

P592: Comparing alkylphosphocholine analogs NM346 & NM397 in a breast cancer murine model
Justin Jeffery, University of Wisconsin-Madison, University of Wisconsin-Madison

P593: Early monitoring of tumor response to photothermal therapy delivered by nano-graphene oxide through T2*-weighted and Diffusion-weighted MRI
Fan Zhang, Xiamen University

P594: Nanoparticle-based translational MR Imaging for immune-therapy trials in glioblastoma
Olga Lenkov, Stanford University

P595: Antibody radiolabeling: Improving tumor contrast in vivo by blocking the neonatal Fc receptor.
Gemma Dias, BC Cancer Agency

P596: Open air fluorescence imaging of tumors using the Solaris imaging system
Jeffrey Meganck, PerkinElmer

P597: Comparison of In Vivo Distribution of 64Cu-labeled Trastuzumab Fragments Conjugated with DOTA, NOTA, and NODAGA in PET Imaging of Tumor-bearing Mice.
Yousuke Kanayama, RIKEN Center for Life Science Technologies

P598: Orthotopic Canine Prostate Cancer Model for Molecular Imaging of Human Cancer Receptors
Michael Tweedle, The Ohio State University, The Ohio State University

P599: Imaging tumor microenvironment with 125I-iodinated hyaluronan
Zhonglin Liu, The University of Arizona

P600: Visualization of EGFR expressing mammary carcinomas in mice by SPECT applying 99mTc(CO)3-labeled single domain antibodies
Thomas Krüwel, University Medical Center Göttingen

P602: Dual assessment of early tumor hypoxia: oxygen partial pressure measurement coupled to photoacoustic imaging in breast carcinoma models in mice.
Florian RAES, French National Centre for Scientific Research (CNRS)

P603: Evaluation of 11C-Acetate and 18F-FDG PET/CT in Mouse Multidrug Resistance Gene-2 Deficient Mouse Model of Hepatocellular Carcinoma
Paul Territo, Indiana University School of Medicine

P604: Determination of GD2 Expression in Osterosarcoma with PET
Elizabeth Butch, St. Jude Children's Research Hospital

P605: Two-stage combined imaging method to detect sentinel lymph node metastasis using 99mTc phytate and Affibody fluorescent probes in animals
Makoto Tsuchimochi, The Nippon Dental University School of Life Dentistry at Niigata, The Nippon Dental University Graduate School of Life Dentistry at Niigata

P606: Application of texture analysis to SPECT images of 125I-A5B7 anti-CEA antibody localisation in metastatic colorectal cancer models: Correlation with histological microarchitecture and response to antivascular therapy.
Vineeth Rajkumar, University College London

P607: Cancer-specific killer-reporter adenovirus for curative fluorescence-guided surgery of soft-tissue sarcoma
Robert Hoffman, AntiCancer, Inc., University of California San Diego

P608: Detection of mouse liver cancer by means of fluorescence molecular tomography after indocyanine green enhancement
Jinzuo Ye, Institute of Automation

P609: In vivo fluorescence and MR imaging of delivery of IL-4 receptor-targeted Bcl-xL siRNA/BPEI-SPION complexes to tumor for anti-tumor therapy
Guruprasath Padmanaban, Kyungpook National University, Kyungpook National University

P610: NMR Metabolomics and Hyperpolarized Magnetic Resonance Imaging Reveal Altered- Metabolism in Patient-derived Pancreatic Ductile Adenocarcinoma (PDAC) Mouse Xenografts
Prasanta Dutta, M.D. Anderson Cancer Center

P611: Molecular imaging of drug delivery by using high resolution microscopic mass spectrometry
Masahiro Yasunaga, National Cancer Center Hospital East

P612: Comparison of tumor uptake of the radiotracers targeting cancer metabolism
Takako Furukawa, National Institute of Radiological Sciences

P613: Mouse dosimetry studies for 64Cu-DOTA-B-Fab - an immunoPET companion diagnostic for antibody-drug conjugates targeting CA6
Ohad Ilovich, Stanford University

P614: Combined Endogenous Chemical Exchange Saturation Transfer and Hyperpolarized 13C-Pyruvate Metabolism Imaging in Subcutaneous Tumours in Rats
Geoffrey Topping, Technische Universität München

P615: Molecular Magnetic Resonance Imaging of Breast Cancer using Core/Shell Nanoparticles
Barbara Blasiak, University of Calgary

P616: A preliminary study for radioimmunotherapy targeting F0F1 ATP synthase in stomach cancer xenograft model using I-131 ATP synthase mAb
Joon-Kee Yoon, Ajou University Medical School

P617: In vivo photoacoustic microscopy of nanocarrier-enhanced chemotherapy response in small animal.
Liming Nie, Center for Molecular Imaging and Translational Medicine

P618: Optimizing 99mTc-etarfolatide imaging of folate receptor-positive tumors: Effect of mass dose and post injection time
Christopher Leamon, Endocyte, Inc.

P619: Limits of bioluminescence imaging highlighted by High resolution Ultrasound and Photoacoustic imaging on orthotopic mice models of hypoxic cancers.
Florian RAES, French National Centre for Scientific Research (CNRS)

P620: Phosphoramidon Improves the Theranostic Prospects of the GRPR-Antagonist SB3, Labeled with Different Radiometals
Theodosia Maina, INRASTES, NCSR "Demokritos"

P621: Peptide-guided in vivo optical imaging and targeted delivery of therapeutics to lung tumor in a transgenic mouse model
HyunKyung Jung, kyungpook national university, Tumor Heterogeneity and Network Research Center

P622: The Compatibility of Barcode Eartags for Automated Animal Identification in Small Animal Imaging Modalities.
Eric Ibsen, RapidLab, Studylog Systems, Inc.

P623: Biodistribution of 89Zr-labeled ABT-806 in the cynomolgus macaque
Sarah Mudd, AbbVie

P624: UVC irradiation cures metastatic human pancreatic cancer by killing residual disease remaining after fluorescence-guided surgery in orthotopic mouse models
Robert Hoffman, AntiCancer, Inc., University of California San Diego

P625: Therapeutic evaluation of 188Re-human serum albumin microsphere in hepatoma model by 3D ultrasound
Liang-Cheng Chen, Institute of Nuclear Energy Research

P626: Hyaluronic Acid-Based Nanoplatform for Prostate Cancer Therapy
Magdalena Swierczewska, Johns Hopkins University

P627: Redox- and pH-sensitive polymeric micelles based on poly(β-amino ester)-grafted-disulfide methylene oxide poly(ethylene glycol) for anti-cancer drug delivery
Moon-Sun Jang, Samsung Medical Center, Sungkyunkwan University School of Medicine and Center for Molecular and Cellular Imaging, Samsung Biomedical Research Institute

P628: Characterization of Preclinical Intratumor Heterogeneity via Textural Analysis on 18F- Fluorodeoxyglucose and 18F-Fluorothymidine Positron Emission Tomography Images
Ozlem Yardibi, Takeda Pharmaceuticals Inc.

P629: Optimization of tri-contrast microCT for detection of colon lesions in a longitudinal murine model
Michelle Williams, The Ohio State University

P630: Integrin-targeted fluorescence molecular imaging of neoangiogenesis in a small-cell lung cancer model
Valerie Phi van, TU München

P631: Fluorescence-guided surgery inhibits recurrent and increases survival in an orthotopic osteosarcoma nude-mouse model
Robert Hoffman, AntiCancer, Inc., University of California San Diego

P632: 44Sc labelling of DOTA-PSMA DKFZ-617 for dosimetry and therapy of prostate cancer
Ana de la Fuente, Johannes Gutenberg University

P633: The Monitoring Value of PET in Huaier Extract to Therapy of Nude Mice Bearing Human Breast Cancer Xenografts
chen yao, nuclear medicine

P634: Smart viral nanoparticles targeting angiogenic vasculature for tumor imaging and treatment
John Lewis, University of Alberta

P635: Developing a molecularly targeted T2-exchange MRI contrast agent for the early detection and diagnosis of primary and recurring thyroid cancers
Mark Milne, UT Southwestern Medical Center

P636: Investigation of the ExiTron imaging agents.
Inneke Willekens, UZ Brussel

P637: Variable-magnification and spectral-separation fluorescence imaging systems are complementarity for noninvasive detection of metastasis and intravital detection of single cancer cells in mouse models
Robert Hoffman, AntiCancer, Inc., University of California San Diego

P638: Tumor-targeting Salmonella typhimurium A1-R inhibits spontaneous and experimental lung metastasis of soft-tissue sarcoma
Robert Hoffman, AntiCancer, Inc., University of California San Diego

P639: Glutathione responsive anti-proliferative nanoparticle for efficient delivery of therapeutic gene in colon cancer xenograft mouse model
In Kyu Park, Chonnam National University

P640: Real-Time Molecular Imaging for Detecting Oncogenic Activity in Melanoma Using the Melanoma Detection System (MDS)
Catherine Shachaf, Orlucent

P641: The Role of USPIO in Evaluating the Dignity of a Lesion
Perla Seyfer, University Hospital of Marburg

P642: Fluorescence-guided surgery of prostate cancer bone metastasis in combination with Zoledronic acid increases disease-free survival in nude mouse models
Robert Hoffman, AntiCancer, Inc., University of California San Diego

Reporter Genes, Signal Transduction & Epigenetics

P643: Bioluminescent imaging and real time monitoring of hepatic apoptosis (caspase-3 activity) in mice.
Michitaka Ozaki, Hokkaido University School of Medicine

P645: The More Efficient Radioiodine Therapy Induced by BRG1 Bromodomain Dominant Negative Effect has been Visualized in vivo mouse.
Juri Na, Seoul National University, Cancer Research Center

P646: Quantitative In Vivo pO2 Images with Electron Paramagnetic Resonance and Cancer
Howard Halpern, University of Chicago

P647: The urea transporter – an MRI gene reporter that can be detected using transmembrane water exchange measurements
Franz Schilling, Cancer Research UK Cambridge Institute, University of Cambridge, Li Ka Shing Centre

P648: An Integrated Imaging and MicroRNA-based Blood Reporter Strategy for Cell Tracking in Mice
Aloma D'Souza, Stanford University

P649: Magnetic Resonance Imaging (MRI) of Adipose-Derived Mesenchymal Stem Cell Enhanced Tropism For Brain Tumors
Lina Alon, Johns Hopkins University School of Medicine, Institute for Cell Engineering

P650: The assessment of tumor's malignant-behavior with MR ferritin reporter imaging mediated by hTERT promoter
Dong ZHANG, Xinqiao Hospital, Third Military Medical University

P651: Non-invasive Molecular Imaging Of Tumor Metastasis Affected By MicroRNA Let-7 Family
man-jyun Liao, yang-ming university

P652: In vivo Bioluminescence Imaging (BLI) Tracking of Mesenchymal Stem Cells (MSCs) Survival and Proliferation in Injured Liver
Dan Li, The Third Affiliated Hospital of Sun Yat-sen University

P653: Simultaneous in Vivo Monitoring Adipose Derived Mesenchymal Cells by Ffly-mcherry and Gaussia-GFP Reporter Genes
Mengyu Wang, Oslo University Hospital

P654: Temporal analysis of hippocampal glucocorticoid receptor activity in the therapeutic action of fluoxetine
Song Her, Korea Basic Science Institute

P655: Imaging of neuronal associated miRNA expression using transgenic mouse model via reporter system
Yoori Choi, Seoul National University

Technology & Software Developments

Clinical PET/SPECT

P656: Use of a Variational Bayesian inference method for the quantification of brain PET data at the voxel level
Gaia Rizzo, University of Padova

P657: Spatial resolution recovery utilizing multi-ray tracing and graphic processing unit in PET image reconstruction
HAO PENG, McMaster University

P658: Velocity estimation for mucociliary transit studies using purpose written software
Alice Cottee, Concord Hospital

P659: GPU-based prompt gamma ray imaging from boron neutron capture therapy
Do-Kun Yoon, The Catholic University of Korea

P660: An operator independent method for lesion segmentation to evaluate metabolic response in MET-PET studies
Alessandro Stefano, CNR-IBFM

P661: Classification Study of 99mTc-TRODAT-1 SPECT Image by Skewness and Dopamine Transporter Activity Volume
Yun-Hsuan Hsu, E-DA Hospital, I-Shou University

P662: Research on Sensitivity Improvement of Semiconductor PET Scanner with the use of event data by multiple interaction: A Simulation Study
Yohei Kikuchi, Graduate School of Engineering, Tohoku University

P663: Comparison between Tumor heterogeneity and PET imaging features in non-small cell lung cancer
Hyeon Sik Kim, Chonnam National University Hwasun Hospital

P666: Scattering Correction of SPECT by Fourier Transformation on Projection Data
Huei-Yung Chen, E-DA Hospital, I-Shou University

P667: Development of application program based on Fuzzy logic to enhance the image contrast on PET Scan
Anil Pandey, All India Institute of Medical Sciences, New Delhi

CT

P668: High-sensitivity x-ray fluorescence computed tomography using gold L-shell characteristic x-rays
Moiz Ahmad, Stanford University

P669: Spectrum-based Calibration Method for Energy Discriminating X-ray Detectors Using Commercial X-ray Generators
Xiaoman Xing, Suzhou Institute of Biomedical Engineering and Technology

P670: Reproducibility over time of 4DCT derived ventilation distribution data
Geoffrey Zhang, Moffitt Cancer Center

P671: Automated detection, segmentation, axis extraction, and morphometric analysis of cortical and trabecular compartments of skeletal bones in small animal micro-CT imaging
Ali Behrooz, PerkinElmer

P672: Iterative CT Image Reconstruction with non-local Prior Image Integration
Maik Stille, University of Luebeck

P673: Novel Integrated Parameter Based Stopping Criterion for Iterative Reconstruction Methods
Shih-Chun Jin, National Yang-Ming University

P674: A Method for the Reduction of Respiratory Motion Blur in Small Animal Computed Tomography
Richard Taschereau, Crump Institute for Molecular Imaging, UCLA

Hybrid Multimodality

P675: Quantitative evaluation of bone-anatomy compensation methods for MR-based attenuation correction for brain PET imaging in a time-of-flight PET/MRI system
Jaewon Yang, UCSF

P676: Multi-scale Cryo-imaging Platform for Analysis of Molecular MR imaging of Micro-metastases
David Wilson, Case Western Reserve University

P677: Optimized Image Generation with Hybrid Optoacoustic Ultrasound System using Concave Arrays
Elena Nasonova, Institute for Biological and Medical Imaging (IBMI), Helmholtz Center Munich, iThera Medical GmbH

P678: Ex Vivo Assessment of Perfluorocarbon Emulsion as a Theranostic Agent of 19F MR-guided Focused Ultrasound
ChangKi Min, National Cancer Center

P679: Development of a PET/OMRI combined system for simultaneous imaging of positron and free radical probes in small animals
Seiichi Yamamoto, Nagoya University Graduate School of Medicine

P680: Quantitative estimation of EGFR expression in orthotopic preclinical brain tumors with MRI-guided fluorescence tomography data: image reconstruction vs. projection analyses
Negar Sadeghipour, Illinois Institute of Technology

P681: Do Carotid MR Surface Coils Affect PET Quantification in PET/MR Imaging?
Venkatesh Mani, Icahn School of Medicine at Mount Sinai, Icahn School of Medicine at Mount Sinai

P682: Ultrasound-bioluminescence hybrid modality imaging in a rodent model of breast cancer
Ryan Gessner, SonoVol

P683: Feasibility of 18F-Fluorodeoxyglucose Radiotracer Dose Reduction in Simultaneous Carotid PET/MR Imaging
Venkatesh Mani, Icahn School of Medicine at Mount Sinai, Icahn School of Medicine at Mount Sinai

P684: Workflow of sequential in vivo Magnetic Particle Imaging and in vivo Magnetic Resonance Imaging in mouse
Michael Kaul, University Medical Center Hamburg-Eppendorf

P685: In Vivo Observation of Tumor with Triple-modality Imaging
xiao liang, Chinese Academy of Sciences

MRI

P686: In Vivo Perfusion Imaging using Magnetic Particle Imaging
Patrick Goodwill, University of California, Berkeley, Magnetic Insight, Inc.

P687: Tracer kinetic model selection of pre- and post-therapy cervical cancer DCE MRI data
Joel Garbow, Washington University

P688: In Vivo Non-invasive Detection of Brown Adipose Tissue through Manganese Enhanced Magnetic resonance Imaging (MEMRI)
Francesca Rosa, IRCCS IST- San Martino

P689: Simultaneous Detection of Glutathione and Lactate using Spectral Editing at 3T
Peter Barker, Johns Hopkins University

P690: Quantitative Susceptibility Mapping Based Microscopy of Magnetic Resonance Angiography (QSM-mMRA) for In Vivo Morphological and Functional Assessment of Cerebromicrovascular
Meng-Chi Hsieh, National Taiwan University, National Taiwan University

P691: In vivo Manganese enhanced Magnetic Resonance imaging (MEMRI) as new tool to evaluate rat bone marrow cellularity
Francesca Rosa, IRCCS IST- San Martino

P692: Usefullness of 3D Fast Spin-Echo Protcol for Vessel Wall Imaging in Cerebral Main Artery Stenosis.
Michiya Igase, Ehime University Graduate School of Medicine

P693: A Machine-Learning Approach for Automated Classification of Spectral Quality and Metabolic Abnormality in High-Resolution, 3D MR Spectroscopic Imaging of Gliomas
James Cordova, Emory University

P694: Integrating Histology with MR Spectroscopic Imaging Using Digital Whole-Slide Image Analysis
James Cordova, Emory University

P695: MR thermometry for thermal therapy using frequency map
ChangKi Min, National Cancer Center

P696: Computational MR Model for Characterizing Atherosclerotic Plaques Morphology and Composition
Michael Dada, Federal University of Technology, Minna, Nigeria

P697: Development of an awake mouse MR imaging method using soft immobilization for a cryogenic probe system
Shunsuke Kusanagi, Kumamoto University

P698: Method development of a 3D reconstruction of the murine aortic arch
Almut Glinzer, TU München, Technische Universität München

P699: Computational Model for Comparative Analysis of MRI Contrast Agents
Michael Dada, Federal University of Technology, Minna, Nigeria

Optical Imaging

P700: Tissue Biodistribution of Plasmonic Nanoparticles with Sub-Cellular Resolution Using Hyperspectral Microscopy and Machine Learning
Orly Liba, Stanford University, Stanford University

P701: The novel and acute rupture-like thrombopoiesis processes from bone marrow megakaryocyte is regulated by IL-1alpha
Satoshi Nishimura, the Univ of Tokyo, Jichi Med Univ

P702: Advancing Bioluminescence Imaging and Tomography towards a true quantitative imaging modality for reliable pre-clinical studies
Shelley Taylor, University of Birmingham, University of Birmingham

P703: Near Infrared Fluorescent Image Based Evaluation of Gastric Tube Perfusion after Esophagectomy in Preclinical Model
Minji Kim, Korea University

P704: A Modified Clinical Endoscope for Fluorescence-based Colonoscopies using Pathology-targeted Nanoplatforms
Jeffrey Souris, The University of Chicago

P706: Improved spatial resolution in "paired-agent" quantitative imaging of cancer cell-surface receptors using early photon fluorescence tomography
Lagnojita Sinha, Illinois Institute of Technology, Illinois Institute of Technology

P707: Segmental 360° Bioluminescent Imaging using the Mouse Imaging Spinner (MiSpinner) Shows Potential For Accurate Monitoring of Tumor Development
Andrew Brannen, Auburn University

P708: Comparison of probe efficacy for Cherenkov excited luminescence imaging in tissue from linear accelerator radiation
Huiyun Lin, Dartmouth College, Fujian Normal University

P709: Highly resolved fluorescence imaging using STED nanoscopy for visualizing conformational difference of mitochondria in skin cells and tissues
Hyung Jun Kim, Department of Chemistry, Seoul National University, Department of Nuclear Medicine, Cancer Reaearch Institute, Seoul National University Hospital

P710: Challenges and Opportunities for the Development of Imaging Technologies for Global Health
Tiffani Lash, National Institute of Biomedical Imaging and Bioengineering

P711: Removing the Noise induced by High-energy Radiation in Optical Imaging using a Rank-ordered Mean Filter
Xu Cao, School of Life Science and Technology, Xidian University

P712: Systems and Materials Development for Second Biological Window of Small Animal Fluorescence Imaging
Kohei Soga, Tokyo Univ. of Science

P713: Ex-vivo light attenuation quantitation in the mouse brain: a comparison of three optical clearing techniques
Angela d'Esposito, UCL

P714: A novel design of fluorescence-guided surgical navigation system
Ya Mao, Institute of Automation

P715: Bioluminescence tomography based on the linearized Bregman iterative with Kicking
Chengcai Leng, Institute of Automation, Chinese Academy of Sciences

P716: Three-dimensional bioluminescence imaging of gene expression during pupal stages of Drosophila melanogaster by using UAS-P. matsumurai Luc reporter line
Ryutaro Akiyoshi, Olympus corporation

P717: Optical Projection Tomography (OPT) with Polarized Light
Mengjie Fang, Key Laboratory of Molecular Imaging, Chinese Academy of Sciences, Huazhong University of Science and Technology

Photo-Acoustic Imaging

P718: Performance of a 2D vs. 3D Hand-Held Multispectral Optoacoustic Tomography (MSOT) System in a Melanoma Brain Metastasis Model
Volker Neuschmelting, Memorial Sloan Kettering Cancer Center

Poster Session 4 (continued)

P719: Photoacoustic Molecular Imaging Advancement by Unmixing and Non focoused Ultrasound Sonoporation Method as improvement in tumoral treatment
Dieter Fuchs, Fujifilm VisualSonics

P720: Photoacoustic tomography for pre-operative assessment of cutaneous melanoma and other pigmented cutaneous lesions
Elizabeth Concannon, Galway University Hospital

P721: Transurethral photoacoustic endoscopy: making moves into the clinic
Liangzhong Xiang, University of Oklahoma

Preclinical PET/SPECT

P722: Multiscale photoacoustic microscopy for in vivo preclinical imaging
Xiaoquan Yang, Huazhong Univ. of Sci. & Tech.

P723: Ultra-high-resolution SPECT using variable pinhole collimator—a simulation study
Hakjae Lee, Korea University, Research Institute of Global Health Technologies at Korea University

P724: Prototype of an Awake Animal PET System
Andrew Weisenberger, Thomas Jefferson National Accelerator

P725: Planning lung radiotherapy incorporating motion freeze PET/CT imaging
Kuei-Ting Chou, China Medical University

P726: Two Level Multi-pinhole Collimator for a Small Field of View Gamma Imaging System
Jaekeon Bae, Korea University

P727: Development of a multi-purpose low-profile γ-ray imaging detector
Young-Jun Jung, Korea University

P728: Quantification constraints for preclinical PET systems at high background radioactivity from therapeutic radionuclides
Emma Mellhammar, Oncology and Pathology

P729: Development of I-131 single gamma correction after I-131 labeled monoclonal antibody during F-18 FDG PET follow up
JIN SU kim, Korea Institute Radiological and Medical Sciences

P730: Evaluation of Standard Performance of PET/MRI Systems for Imaging Small Animals, and Development of Protocol for Fused Images
Jin Hwa Chung, Asan Institute for Life Sciences, Asan Medical Center, University of Ulsan College of Medicine

P731: Multi Radioisotope Calibration Study of the Bioscan BioPET pre-clinical PET/CT Scanner
Stephen Adler, National Cancer Institute

P732: Evaluation of Radioactivity Concentration Estimations with I-125 to Determine the Impact of Isotope Dependence on Accuracy between Dose Calibrator, Gamma Counter, and microSPECT
Joshua Kentala, MPI Research

P733: Improvements of Radiation Treatment Planning Using Interpolated Average CT Technology
Yu-Rou Chiou, China Medical University, Taiwan

Systems Biology

P734: Quantitative simultaneous acquisition of dual tracer using 99mTc and 123I-labeled radiotracers in preclinical SPECT scanner with CZT detector
Asuka Mizutani, Kanazawa University

P735: Linking imaging to omics: Image-guided extraction of frozen tissue samples
Jonathan Disselhorst, Eberhard Karls University Tuebingen

P736: Novel segmentation of dynamic 18F-FDG PET bypasses the need of arterial plasma input function, delivering a robust quantification of the tumor microenvironment
Prateek Katiyar, Werner Siemens Imaging Center, Eberhard Karls University Tübingen

P737: A Method to Visualize Phosphorus Transport in Plant-Fungal Interactions in Soil
Andrew Weisenberger, Thomas Jefferson National Accelerator Facility

P738: Improved radiation dosimetry for lung ventilation scintigraphy
Martin Andersson, Lund University

Ultrasound

P739: Quantitative assessment of angiogenic biomarkers with dynamic contrast-enhanced ultrasound imaging – A pilot study of human breast cancer
Kenneth Hoyt, University of Alabama at Birmingham

P740: Molecular ultrasound imaging using targeted contrast agents and signal quantification based on the law of mass action
Sithira Ratnayaka, University of Alabama at Birmingham

P741: Quantification in molecular ultrasound imaging using a modified local density random walk model
Kenneth Hoyt, University of Alabama at Birmingham

P742: Feasibility of Bubble liposomes as ultrasound contrast agent; in vivo animal study
Yusuke Oda, Teikyo University

EXHIBITING COMPANIES

ABX advanced biochemical compounds

Advion

Aspect Imaging

Best Cyclotron Systems, Inc

Biospace Lab

Bruker BioSpin Corp.

CheMatech

Chroma Technology

Comecer Group

CSMI

Curadel ResVet Imaging

Endra Life Sciences

FASMI

Goryo Chemical, Inc.

Hamamatsu Corporation

Imanis Life Sciences

inviCRO

ISMRM

iThera Medical GmbH

Lablogic Systems Limited

Leica Biosystems

LI-COR Biosciences

Magnetic Insight

Mauna Kea Technologies

Mediso

MILabs BV

Molecubes

MR Solutions

nanoPET Pharma GmbH

Patterson Scientific

PerkinElmer

PreXion Corporation

SA Instruments, Inc.

Sedecal

Sofie Biosciences, Inc.

Spectral Instruments Imaging

S-Sharp Corporation

UVP LLC

VisualSonics, Inc.

Zevacor Molecular

A - C

ABX advanced biochemical compounds
www.abx.de

ABX is the leading manufacturer of PET precursors. We offer: FDG chemicals, Mannose Triflate (DMF), complete kits for all FDG modules, nucleophilic as well as electrophilic F-DOPA precursors and complete kits, FLT, F-Choline, F-MISO, FET, NaF precursors, reagents and hardware kits, comprehensive range of "scientific" precursors for oncology such as Fluoroestradiol, Choline … and neurology like Raclopride, Fallypride, PK11195, beta-CIT, PIB ... SPECT precursors, e. g. CuMIBI, PEPTIDES, e. g. PSMA and Somatostatins for Gallium-68 labelling, O-18 WATER. We are well experienced in GMP production and also do offer custom synthesis according to Q7 chapter 19 for clinical PET studies (APIs). Our laboratories and cleanrooms are GMP certified and meet pharmaceutical standards.

Advion
www.expressioncms.com

Advion's NanoTek is a microfluidic flow-chemistry system that provides chemistry on demand with high yield, high purity microsynthesis of multiple PET compounds on one platform. It is a modular, flow-based microchemistry system that allows the user maximum flexibility when producing radio-labeled imaging agents for research and clinical applications.

Aspect Imaging
www.aspectimaging.com

Aspect Imaging is a world leader in the design and development of compact MR imaging and NMR systems for pre-clinical, medical and advanced industrial applications. In the pre-clinical research market, the M-series compact one-touch MRI systems enable a wide variety of in vivo applications and research models. The M-series systems are also used for providing 3D MR-based Histology to complement and direct pathology and histology-based analysis. In the medical market, Aspect Imaging has multiple medical programs underway including highly efficient compact MRI, such as the FDA-cleared Wrist MRI System. The company's permanent magnets are also used in advanced industrial applications.

Best Cyclotron Systems, Inc
www.bestcyclotron.com

TeamBest through Best Cyclotron Systems, Inc. (BCSI), offers radioisotopes and production capabilities for nuclear medicine and radiotherapy with its range of cyclotron systems. TeamBest offers 15 MeV, 25 MeV, 35 MeV, and 70 MeV cyclotron systems, allowing for tailoring to the specific needs of the end user. Our staff assists from the planning stage, detailed design, facility construction, daily production, maintenance, and emergency repair through the TeamBest network. We provide solutions for PET-CT and molecular imaging radiopharmaceuticals with the same excellent customized care as demonstrated in our 34-year history of radiotherapy support.

Biospace Lab
www.biospacelab.com

In the last 20 years, BIOSPACE LAB has developed a comprehensive portfolio of ex vivo and in vivo preclinical imaging solutions for Life Sciences. BIOSPACE LAB's high-performance imaging instruments incorporate patented technologies and are used by several major pharmaceutical companies and prestigious academic research institutes worldwide. BIOSPACE LAB has also created strong links within the medical, pharmaceutical and scientific communities, in order to bring relevant and creative solutions to molecular imaging applications.

Bruker BioSpin Corp.
www.preclinicalimaging.com

Offering the largest range of Preclinical Imaging systems, with an unmatched 9 in-vivo modalities, Bruker is committed to supporting the scientific community with high-end instruments dedicated to disease research, translational science and Molecular Imaging. Benefitting from more than 5 decades of passionate innovation, Bruker customers enjoy a vast portfolio of possibility; from a single source they have endless opportunities for combining multiple modalities for seamless workflow and higher productivity. Our non-invasive in-vivo imaging modalities are designed to deliver greater scientific insight based on animal-centric solutions.

CheMatech
www.chematech-mdt.com

CheMatech is a leading company specializing in the design and synthesis of bifunctional chelating agents such as DOTA, NOTA and NODAGA derivatives. These molecules are widely used as precursors of contrast agents for MRI as Gadolinium complexes. They are also used for peptides or antibodies labeling with 67/68Ga, 111In, 64/67Cu. CheMatech offers a wide range of functionalized and protected chelating agents from milligrams to kilograms scale. CheMatech also realizes custom syntheses of new macrocyclic compounds. CheMatech has recently launched preclinical MRI probes such as Fe and Gd nanoparticles.

Chroma Technology
www.chroma.com

Chroma Technology designs and manufactures optical interference filters using advanced sputtering technologies. Our high performance filters are intended for imaging applications ranging from widefield and confocal fluorescence microscopy, TIRF and super-resolution techniques to flow cytometry, high content screening, multi-photon and Raman spectroscopy. Chroma also provides comprehensive technical and applications support.

Comecer Group
www.comecer.com

Comecer is a world leader in protection technologies in the field of nuclear medicine, pharmaceutical isolation technology and nuclear power plant equipment. Comecer produces shielding systems and equipment for special applications, designed for large industrial groups and research organizations. We work for hospitals, universities and pharmaceutical companies on tailored projects for the production of isolators for the treatment of toxic substances to be kept in safety. For nuclear plant management, we produce equipment for the processing, deactivation and disposal of radioactive substances deriving from nuclear plants.

CSMI
www.3dmed.net

There are 205 members in the Chinese Society for Molecular Imaging, who come from institutes, universities, and hospitals. The research interests of the members include information technology, medicine, optics, chemistry, biology, and mathematics. There is 1 director, 25 deputy directors, 45 standing committee, 79 members, and 55 youth members. It is worth mentioning that there are 14 professors specialized in medicine from General Hospital of the People's Liberation Army, Peking Union Medical College Hospital, Xuanwu Hospital Capital Medical University, West China Hospital and so on. Therefore, a complete system of "Theory – Method – Technology – Platform – Equipment – Application" for basic research and application development of molecular imaging can be established, so the future clinical applications of molecular imaging technology can be better promoted.

Curadel ResVet Imaging
www.curadelresvetimaging.com

Curadel ResVet Imaging (CRV) is a manufacturer of devices and drugs, for the research and veterinary markets, in the field of near-infrared (NIR) fluorescence imaging. CRV's FLARE® (FLuorescence-Assisted Resection and Exploration for surgery) brand of imaging systems permits virtually any target to be identified and quantified using NIR fluorescent light. CRV's product line of FLARE® contrast agents spans the spectrum from state-of-the-art general purpose reagents for molecular labeling to highly-specific tissue- and tumor-specific reagents. CRV prides itself on manufacturing the highest quality devices and drugs, for continual improvement of its products, and for excellent customer service.

Endra Life Sciences
www.endrainc.com

Endra Life Sciences develops photoacoustic imaging systems that combine optical illumination with ultrasound to provide high spatial resolution at depth. Endra's Nexus 128 is the only fully 3-D photoacoustic computed tomography scanner designed for fast, non-invasive, quantitative imaging of small animals. The device generates multispectral, three dimensional images of optical absorption using endogenous and/or exogenous contrast. Researchers use the Nexus 128 for in vivo quantification of tumor vasculature, hemoglobin concentration, molecular probe uptake and distribution, and other physiological parameters for preclinical research.

FASMI
www.fasmi.org

Federation of Asian Societies for Molecular Imaging (FASMI) has been jointly suggested by the Presidents of the National Societies for Molecular Imaging of Japan, Korea, and Taiwan, during the inaugural meeting of the Japanese Society for Molecular Imaging, which took place in Kyoto, on May 23-34, 2006. The goals of the Federation are: - To promote molecular imaging in Asian countries and throughout the world. - To facilitate communications between researchers and clinicians working in the field of molecular imaging and related disciplines. - To stimulate and mediate collaborations between molecular imaging researchers and clinicians in Asian countries and throughout the world. - To provide the network infrastructure for multi-disciplinary education and collaborative research in molecular imaging

GORYO CHEMICAL, INC.
www.goryochemical.com/english/

GORYO CHEMICAL, INC. provides novel fluorescent probes for cellular analysis, assay, and imaging in life science field. We have released over 150 unique fluorescent probes for in vitro assays as well as for in vivo imaging. At first, we recommend ProteoGREEN™-gGlu (gGlu-HMRG) fluorescent probe because it can detect only tumor in ex-vivo by green fluorescence. The second, AcidiFluor™ ORANGE has high S/N ratio on acidic state compared to other commercialized pH probes. In clinical trials, we are also developing new fluorescent probe that can detect cancer for fluorescent image guided surgery at pre-clinical and clinical trials in JAPAN. In near future, we will provide new method of fluorescent image guided surgery for patient.

Hamamatsu Corporation
www.hamamatsu.com

Imanis Life Sciences
www.imanislife.com

Imanis Life Sciences is a reporter gene imaging company providing reagents (lentivectors encoding reporter genes, antibodies, viruses) and contract research in the fields of oncology, gene, cell and virus therapies. A particular focus is the use of NIS (Na+/I- symporter) and other radionuclide reporters which, compared to luminescence reporters, are much better suited for long-term, longitudinal 3-dimensional mapping of the target cell in living animals of any species. Imanis has an experienced team of scientists who provide advice on study design, logistics, off-the-shelf and customized lab reagents, image data analysis, and full service contract research. Your success is our mission.

inviCRO
www.invicro.com

inviCRO is a dynamic life sciences company providing tissue-to-human services and software designed to advance the use of imaging in drug discovery and development research. By utilizing our contract imaging and data analysis services and tools, our customers can assess and visualize the value and efficacy of their new drug candidates across a wide range of therapeutic areas.

I - M

ISMRM
www.ismrm.org

The International Society for Magnetic Resonance in Medicine (ISMRM) is a nonprofit professional association dedicated to promoting communication, research, development and application of magnetic resonance techniques in medicine and biology. The ISMRM is a community made up of clinicians, physicists, engineers, biochemists and technologists – professionals united by a common interest in the ongoing dialogue between the scientific and clinical communities. In addition to sponsoring an annual meeting and other major educational and scientific workshops, it publishes two journals. The ISMRM 24th Annual Meeting & Exhibition will be held in Singapore 7-13 May 2016.

iThera Medical GmbH
www.ithera-medical.com

iThera Medical develops and markets biomedical imaging systems based on a novel technology called Multispectral Optoacoustic Tomography (MSOT). MSOT utilizes the photoacoustic effect to visualize and quantify anatomical, functional and molecular information, in vivo, in deep tissue and in real time. Today, MSOT allows the study of disease processes on a molecular level as well as the analysis of pharmacokinetic properties for new substances in small animals. For the future, MSOT also promises to become a valuable tool for clinical diagnostics

Lablogic Systems Limited
www.lablogic.com

LabLogic are a manufacturer of instruments and software to the Life Science, PET/Nuclear Medicine and Radiation Safety sectors. We have over 35 years' experience and expertise in providing solutions within highly regulated environments. Within PET and Nuclear Medicine, LabLogic have a range of market leading products which can be found in some of the world's most prestigious laboratories. Our products include a range of QC equipment including innovative r-TLC, r-HPLC instruments and a single point of control radiochromatography software package – Laura for PET. The complete QC package is also available from LabLogic, just ask about the QC solution. Furthermore Lablogic offer PETra, a purpose built PET LIMS system designed to improve efficiency and compliance. What's unique about PETra is that it directly captures data from all the equipment used. It acts as a central repository all information within PET production including batch record management, QMS, trending, inventory, instrument maintenance etc.

Leica Biosystems
www.leicabiosystems.com

Leica Biosystems is a global leader in anatomical pathology solutions and automation, striving to advance cancer diagnostics to improve patients' lives. Leica Biosystems provides pathologists, histologists and researchers a comprehensive range of products for each step in the pathology process. From specimen preparation and staining to imaging and reporting, our solutions help increase workflow efficiencies meaning patients receive their results sooner.

LI-COR Biosciences
www.licor.com

Looking for a simple, hassle-free bioluminescent small animal imaging system? The Pearl® Trilogy now has bioluminescence and is available for $65,000 (USD). Stop by our booth or go to www.licor.com/pearl for more information. Need solutions for clinical translation research? IRDye® 800CW dye has been used successfully for image-guided surgery. IRDye 700DX is currently being used by Aspyrian Therapeutics and Aura Biosciences for photoimmunotherapy applications. For more information, stop by our booth or go to www.licor.com/CT.

Magnetic Insight
www.magneticinsight.com

Magnetic Insight is leading the development of solution driven Magnetic Particle Imaging (MPI) for preclinical imaging. MPI is a completely new, ultra-sensitive, high resolution and quantitative molecular imaging approach that longitudinally detects nanoparticles regardless of depth. MPI harnesses the flexibility of iron oxide nanoparticles to label cells, as targeted probes, or freely flowing through the vasculature. www.magneticinsight.com

Mauna Kea Technologies
www.maunakeatech.com

Mauna Kea Technologies provides a unique solution designed for In Vivo FLI imaging at cellular resolution. Cellvizio Dual Band system will complement your assays and bring you key information in a fast and easy way. It is the ultimate modality that any imaging lab now needs. MKT develops and markets Cellvizio, a probe-based Confocal Laser Endomicroscopy (pCLE) imager designed for preclinical and clinical indications. Cellvizio Dual Band now allows combined structural and functional information or molecular interactions between different species.

Mediso
www.mediso.com

Mediso has been working in the field of nuclear and molecular medicine since 1990 with a profile of development, manufacturing, sales and servicing of multi-modality in-vivo imaging systems. The company offers complete solutions from hardware design to evaluation and quantification software, both for clinical patient care and high-level life science research into all animal models in between rodents and primates. Besides the unique triple-modality clinical SPECT-CT-PET hybrid AnyScan® system, Mediso launched the world's first pre-clinical integrated PET-MRI and SPECT-MRI cameras as members of the nanoScan® high-end small animal imager family, consisting of SPECT, PET, CT and MRI modalities. Mediso runs successfully two complex clinical diagnostic, research and educational centres and offers clinical and evaluation software trainings for the international medical community

MILabs BV
www.milabs.com

MILabs provides high-end and hybrid molecular imaging systems (PET, SPECT, CT) for biomedical research. Today these MILabs systems, with proven quarter-mm SPECT and three-quarter mm PET resolution, contribute worldwide to the development of new diagnostic solutions and therapies for diseases such as diabetes, cancer, cardiac and neurodegenerative diseases. MILabs U-SPECT4CT provides researchers by far the fastest, most sensitive and highest resolution small-animal SPECT imaging currently available and comes with low dose ultra-high resolution integrated CT. The VECTor option for this system enables simultaneous and ultra-high resolution PET and SPECT. MILabs systems have in common that they are extremely reliable, versatile, and user friendly.

MOLECUBES
www.molecubes.com

MOLECUBES presents a modular benchtop preclinical imaging line. Three high-end imaging CUBES allow you to combine SPECT (Gamma-CUBE), PET (Beta-CUBE) and CT (X-CUBE) imaging in a time and space efficient way. The combination of patented pinhole design, additive manufacturing techniques and high-resolution detector technology ensures competitive performance for full body mice and rat imaging.

MR Solutions
www.mrsolutions.com

MR Solutions is the Worlds' leading developer of cryogen free, preclinical MR imaging systems at 3T, 4.7T AND 7T. The company also supplies PET & SPECT modular units to accessorise its system for simultaneous or in line imaging possibilities. MR Solutions' has over 30 years of imaging and magnet technology development behind it and can upgrade existing unsupported or failing magnets or convert Clinical systems for pre-clinical use. The company is also a key supplier of Spectrometers for clinical system operation to OEM's and research institutes worldwide.

nanoPET Pharma GmbH
www.nanopet-pharma.com

nanoPET is a biopharmaceutical company specialized on R&D and manufacturing of innovative drug substances for Diagnostic Imaging. Nanotechnology is a key element of our business. We focus on relevant cardiovascular, oncological and neurological indications as well as on regenerative medicine. Our company provides the first comprehensive portfolio of preclinical imaging agents, ViscoverTM (www.viscover.com). All agents are adjusted to the requirements of research covering all relevant modalities. Additionally, nanoPET holds a patented core technology for use in human: Inorganic nanoparticle tracers for cell and molecular specific PET. We allocate customers our longstanding expertise within the scope of Consulting, Service and R&D projects, especially tailored to your needs.

Patterson Scientific
www.pattersonscientific.com

Patterson Scientific is the industry leader in the manufacture and sale of premier veterinary inhalant anesthesia systems and accessories. We base the development and manufacture of our products on proven technology and testing procedures. We are committed to educating and providing researchers and veterinarians worldwide with our high quality, safe, reliable, effective and user-friendly products for every research application.

PerkinElmer
www.perkinelmer.com

PerkinElmer is uniquely positioned to bring instruments, reagents and services to enable comprehensive imaging & detection solutions for your research. Our offering includes multiple modalities: Optical, microCT, and PET imaging. In addition to our flagship IVIS® imaging systems, learn about our new imaging platforms including: the G8 high sensitivity PET/CT scanner that fits on a benchtop, the Quantum GX combined high-speed, low-dose, and high-resolution microCT imaging system and Solaris™ open air fluorescence imaging system – an innovative system for fluorescence image-guided surgery designed for use with a broad spectral range of fluorescence probes.

PreXion Corporation
www.prexion.co.jp

We "PreXion Corporation" is specialized in medical imaging Research and Development Company in Japan. Since our company was founded in 2007 after spin off from TeraRecon Inc, we have been developing and distributing mainly Dental Cone Beam CT in US and other countries. With our excellent accumulated imaging technologies, we have succeeded in developing the world's first technology of Photoacoustic imaging system using NIR-LED light source. We will continuously develop new technologies to contribute to the human health in the world through company philosophy "Make IT Visible".

SA Instruments, Inc.
www.i4sa.com

SA Instruments is the worldwide leader in preclinical monitoring and gating systems. Multi-parameter systems are compatible with MR/CT/PET/SPECT and Optical imaging modalities. Parameters include ECG (>900 BPM), temperature, respiration, pressure including blood pressure, oxygen saturation and end-tidal CO2. Spare channels allow the user to acquire, record, display and gate from user generated analog signals. Waveform and trend data can be captured, stored and displayed. Air and fluid heating systems regulate animal temperature. A ventilator provides control of breathing for mice and larger animals. Multi-animal monitoring and gating systems are also available which can accommodate up to 20 animals simultaneously.

S - Z

Sedecal
www.sedecal.com

SEDECAL MOLECULAR IMAGING (SMI) with headquarters in Spain, is one of the oldest provider of Preclinical Molecular Imaging Devices with equipment all over the world in the most prestigious organizations. The company is part of SEDECAL GROUP, founded in 1994 with the investment in R&D as philosophy. The wide range of portfolio covers PET, CT, SPECT, PET/CT, SPECT/CT, PET/SPECT/CT and PET/MR systems. Our State of the art technology, PET in REAL TIME make us unique in the market. The PET in real Time will revolutionize the way of how the PET systems perform, being more accurate and faster.

Sofie Biosciences, Inc.
www.sofiebio.com

Sofie is combining new PET imaging agents with innovative imaging and synthesis systems to provide researchers and physicians with tools to better investigate the biology of disease. By empowering a wide array of people with valuable, translational imaging tools, Sofie is making PET scans more accessible and increasing the diversity of its applications.

Spectral Instruments Imaging
www.specimg.com

Spectral Instruments Imaging manufactures optical in vivo imaging instruments that offer the largest field of view on the market, enabling imaging of five or more mice or two rats at once. Our systems are capable of fluorescent and bioluminescent imaging and can all be configured with x-ray to expand their functionality. Our state of the art systems combine a -90°C CCD camera with spectrally discrete LEDs for excitation which limit "polluting" light for maximum sensitivity. With your choice of up to twenty emission filters our systems have the flexibility you need to satisfy all of your experimental needs all at a very affordable price.

S-Sharp Corporation
www.s-sharp.com

S-Sharp is dedicated to providing cutting edge solutions to preclinical and clinical research ultrasound. Our core competence is the ability to leverage rapid advancement of electronics technologies and powerful software computations into biomedical ultrasound and to address our customer's needs. Our preclinical ultrasound imaging product, Prospect, in an open platform designed to streamline the workflow and enhance the quality of small animal research. In addition, Prospect's unique imaging technologies, including shear wave elasticity measurements and Analog Doppler, assist users to perform high quality preclinical research that was not possible before. Our array ultrasound imaging product, Prodigy, shares the same core technologies and innovations. It is aimed to provide the highest research values to most people in need.

UVP LLC
www.uvp.com

UVP LLC, An Analytik Jena Company, manufactures iBox systems which are designed for fluorescence in vivo imaging in cancer research. iBox® Explorer™ Imaging Microscope enables macro to micro in vivo detection of fluorescence markers from whole animal to individual cells. Pre-clinical applications include tumor shedding, tumor angiogenesis, biodistribution monitoring, micro/macro metastases, hematogenous trafficking, tumor/host margins/interactions. iBox® Scientia™ Imaging System permits non-invasive, macro fluorescence in vivo detection and imaging of whole mice. Applications include tumor studies, heart disease, cancer research and metastasis. Analysis software provides tools such as multiplex image compositing, measurement of linear dimensions of tumor growth and volume of mouse tumors. UVP's gel/blot imaging systems include BioSpectrum® System (fully featured) and ChemiDoc-It®TS2 Imager (integrated computer/touch screen) for chemiluminescence Western blots (and Northerns/Southerns), fluorescence, multiplex and colorimetric imaging and quantitative analysis. Systems are available through world-wide dealer network.

VisualSonics, Inc.
www.visualsonics.com

The Vevo Imaging Systems by FUJIFILM VisualSonics empowers scientists with high resolution molecular imaging in in vivo models for research in cardiovascular, cancer, neurobiology and nanotechnology. Over 1000+ peer reviewed publications have demonstrated the strengths of VisualSonics' high-frequency micro-imaging and photoacoustic platforms. The Vevo Imaging Systems allow you to not only visualize cellular and molecular events but also quantify these events in 3D by fusing functional and molecular images to anatomical structures in real time. Learn more about FUJIFILM VisualSonics at www.visualsonics.com.

Zevacor Molecular
www.zevacor.com

Zevacor Molecular manufactures radiopharmaceuticals and radiochemicals for use in both clinical and pre-clinical settings. We have a network of PET Cyclotrons throughout the United States with our sister company IBA Molecular U.S. Our new manufacturing plant can produce a wide range of products through our 70 MeV Cycltron.

MEDISO INDUSTRY WORKSHOP

Thursday, September 4, 2015

08:00-09:30
Room 311, Hawaii Convention Center

High-end Solutions for Translational Imaging: from SPECT/CT to PET/MRI

Mediso is one of the World's largest manufacturers and suppliers of multimodality hybrid imaging devices. Behind the success is the constant technological innovation, which makes Mediso nanoScan® family the first-line choice for preclinical imaging. The wide range in portfolio includes the world's first integrated PET/MRI preclinical equipment, which has since been installed in four continents over the past four years. Combinations of SPECT/CT; PET/CT and the newest member SPECT/MRI Mediso can tailor the configuration to meet the requirements of advanced research institutes and start-up laboratories simultaneously, while maintaining the highest image quality standard on the market.

AGENDA

08:00 am	**Welcome Breakfast and Introduction to the pre-clinical imaging portfolio**
08:30 am	**nanoScan SPECT-CT at GRU Cancer Center: application overview** *Ali S Arbab, MD, PhD, Georgia Regents University, Augusta, GA, US*
09:00 am	**The PET/MRI strategy: Combination of functional and anatomical imaging in hepatocellular carcinoma (HCC)** *Eva J Koziolek, PhD, Charite Universitätsmedizin Berlin, Germany*
09:30 am	**Close**

PERKINELMER INDUSTRY WORKSHOP

Friday, September 4, 2015

08:00-9:30
Room 311, Hawaii Convention Center

Seeing Disease in a New Light: Multimodality Molecular Imaging for Translational Research

PerkinElmer is a global leader in the development of instrumentation and imaging agents for preclinical small animal non-invasive optical, PET and microCT imaging. PerkinElmer's workshop will cover the latest innovative imaging technologies enabling the clearest path for researchers to impact the clinic.

In the two decades since the seminal publication from Stanford University showing that disease events can be tracked non-invasively in living hosts using bioluminescence, researchers have utilized a plethora of optical reporters (bioluminescent, fluorescent, chemiluminescent and Cherenkov) to gain further understanding of complex diseases and their therapeutic treatment. The complementarity of optical imaging with clinically translational imaging modalities, such as PET and microCT, has led to the development of multimodality imaging techniques enabling the researcher to co-register data from multiple imaging platforms. This session will highlight how optical imaging and 3D multimodality imaging can enable the preclinical researcher to gain insights into disease progression and drug response across a wide range of disease models.

AGENDA

8:00 am	**Welcome Breakfast and Introduction**
8:15am	**Role in Multimodality Imaging in emerging applications and Translational Disease Research.** *Kevin P. Francis, Ph.D., Fellow, PerkinElmer*
8:45am	**Impact of Non-invasive Optical Imaging on Research at Stanford, twenty years after its inception.** *Timothy C. Doyle, D.Phil., Director, Stanford Small Animal Imaging Service Center*
9:30am	**Close**

AUTHOR INDEX

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NOTES

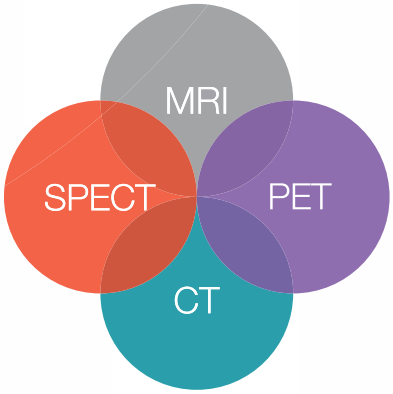
NOTES

nanoScan® FAMILY THE INTEGRATED MULTIMODALITY PLATFORM

nanoScan® SPECT/MRI

nanoScan® PET/MRI

nanoScan® SPECT/CT



nanoScan® PET/MRI 3T

nanoScan® SPECT/CT/PET

nanoScan® PET/CT

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BEYOND EXPECTATIONS