

## **Chemistry of Contrast Media**

### **Particles and Polymers**

#### **Targeted particles and polymers**

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Learning Objectives:

- Understand contrast material design driven by imaging modality vs application driven choice of contrast material/imaging modality
- Introduction into methods for ligand conjugation
- Understand different kinds of target interactions and their pros and cons for specific applications

Over the last decades a plethora of targeted particles and polymers have been developed. In this educational talk it is aimed to introduce several basic concepts and considerations in the development, characterization and application of these materials. The diversity of different approaches to achieve target specificity will be outlined and several mechanisms of target interaction (e.g. cellular internalization or enzymatic activation) will be illustrated with examples from literature. Furthermore, the concepts of multivalent and synergistic targeting will be introduced.

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