

MSE 2024

24 - 26 Sep 2024 (Darmstadt)

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Topic B: Biomaterials

B08: Metals in Medicine

Metallic biomaterials continue to dominate various medical applications, such as orthopedics, trauma, cranio-facial, and dental procedures. They also maintain their prominence as the preferred choice for specific implants in the cardiovascular field. Nevertheless, optimizing surface properties for cell adhesion, enhancing antimicrobial functionality, and tailoring mechanical attributes remain formidable challenges. Additionally, the emergence of degradable metals in clinical practice introduces the complexity of controlling their degradation rate alongside promoting tissue regeneration. Furthermore, the trend toward individualization extends to metallic implants, where additive manufacturing techniques, applicable to both permanent and degradable metals, enable customization of geometry and mechanical characteristics to align with each patient's unique requirements.

Our symposium will showcase recent advancements in these domains, underscoring metals' enduring significance in biomedical device research and development.

Symposium Organizer



Prof. Dr. Cecilia Persson
Uppsala University



Prof. Dr. Regine Willumeit-Römer
Helmholtz-Zentrum hereon GmbH

