UNIVERSITÀ DEGLI STUDI DI TRIESTE

DSCF Dipartimento di Scienze Chimiche e Farmaceutiche

SEMINAR ANNOUNCEMENT

On **Wednesday October 9st, 2024**

at **2:30 PM (14:30)** in **Sala del Consiglio**

1st floor , C11 Building

Department of Chemical and Pharmaceutical Sciences

Prof. Elia Marin

Kyoto Institute of Technology, Japan

Will give a lecture titled:

History of biomaterials: five millennia of innovations

Those interested in a scientific discussion with Prof. Marin should email Dr. Greco at enrico.greco@units.it

The Department Director
Prof. Paolo Tecilla

Prof. Elia Marin

Kyoto Institute of Technology, Japan

History of biomaterials: five millennia of innovations

Abstract

The history of biomaterials is a story of human dedication and scientific evolution spanning over five millennia. From the earliest evidence of natural materials used in rudimentary prosthetics and surgical tools to today's advanced synthetic polymers and biocompatible metals, the field of biomaterials has continually adapted to meet the needs of medicine and surgery. This seminar will explore key milestones in the development of biomaterials, beginning with ancient civilizations' use of gold, wood, ivory, and bones in medical devices, through the revolutionary advances in metallurgy and ceramics in the 19th and 20th centuries.

Modern innovations in biomaterials science have led to breakthroughs in tissue engineering, regenerative medicine, and implantable devices that integrate with biological systems. By examining the historical context and progression of biomaterials research, we can understand the impact that these materials have had on healthcare, alongside the ethical, cultural, and technological challenges that have shaped their development.

Short Bio

Elia Marin was born in Spilimbergo, Pordenone. He earned a degree in mechanical engineering from the University of Udine, where he later completed a master's degree in metallurgical engineering. He completed his academic studies at the University of Padua, with a thesis on materials for prosthetic use and 3D printing. In 2014, he was awarded the prestigious "long-term fellowship" from the Japanese Society for the Promotion of Science. In 2017, he became a specially appointed assistant professor at the Kyoto Prefectural University of Medicine. In 2018, he was appointed as a "Global Excellence" assistant professor at the Kyoto Institute of Technology, where he became an associate professor in 2022. Since 2023, he has been a member of the Biomedical Research Center at the Kyoto Institute of Technology, and in 2024, he opened the Biomaterials Engineering Laboratory. His academic career includes research periods at prestigious institutions such as the University of Las Palmas (Spain), the University of Mons (Belgium), and the University of Basel (Switzerland). His research interests span various aspects of biomaterials science, from historical developments to metallurgy and 3D printing.