The Role of Metals in Life and Medicine

Paul J. Dyson

EPFL Lausanne, Institut des sciences et ingénierie chimiques, EPFL SB ISIC LCOM, 1015 Lausanne, Switzerland paul.dyson@epfl.ch

The lecture will comprise two main parts. The first and shorter part will describe best practices when writing research proposals and is based on the speaker's extensive experience working at the Swiss National Science Foundation. Following this part, the lecture will switch topics and the role of metals in life and medicine will be introduced. Subsequently, research on metal-based drugs will be described, tackled from a mechanistic perspective, but also highlighting the main challenges in the field and approaches to overcome them.

Bio: Paul Dyson joined the Institute of Chemical Sciences and Engineering at the EPFL in 2002 where he heads the Laboratory of Organometallic and Medicinal Chemistry and between 2008 and 2016 chaired the Institute. He has won several prizes including the Werner Prize of the Swiss Chemical Society in 2004, the Award for Outstanding Achievements in Bioorganometallic Chemistry in 2010, the Centennial Luigi Sacconi Medal 2011 of the Italian Chemical Society, the Bioinorganic Chemistry Award of the Royal Society of Chemistry in 2015 and the European Sustainable Chemistry Award of the European Chemical Society in 2018. He is also a Clarivate Highly Cited Researcher and has an H-index >100 (google scholar). In recent years has held visiting professorships at the University of Bourgogne, University of Pierre et Marie Curie, University of Vienna, University of Rome Tor Vergara, Chimie Paristech and Shangai Jiao Tong University.