

INTERNATIONAL COLLEGE OF PROSTHODONTISTS
London Symposium - Satellite Meeting

KING'S
College
LONDON
London
UK

ICP 2023

August 30 - September 2, 2023

* The ICP Main Symposium is taking place
in Shanghai, China October 14-17, 2023

**International College of Prosthodontists
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Invited Speaker – Sherif Elsharkawy

Title

Bioengineering Solutions to Tackle Prosthodontic Challenges

Abstract

Nature has evolved throughout the years to generate inspiring designs, in a way that intrigued humans to exploit and mimic those designs to generate advanced futuristic technologies. As prosthodontists, we should investigate novel bio-inspiring solutions to solve some of our challenging clinical problems. Our work reports on the discovery of the intrinsically disordered nature of key proteins, which enables modulation over their molecular conformation in a controlled manner. We exploited this molecular tuneability to guide organic-inorganic interactions and control mineralization. My lab is interested to utilize this expertise in developing bio-inspired and digital platforms, not only to provide new tools to repair dental hard tissues such as bone or teeth, but also to create solutions for edentulism.

Biography

Dr. Sherif Elsharkawy is a Senior Lecturer and Honorary NHS Consultant in Prosthodontics at King's College London. Dr Elsharkawy carried out his PhD in Engineering and Materials Science at Queen Mary University of London, before joining KCL, where he completed his clinical academic specialist training funded by NIHR. His research group is interested in developing bioengineering solutions to fabricate hierarchically- organized materials to tackle enamel disorders, bone defects, and other prosthodontic challenges. His group also focuses on understanding the role of protein disorder in pathological calcifications including cardiovascular and brain calcifications.