



AI IN PHYSIOLOGICAL SCIENCES

Academy for Healthcare Science Webinar

Thursday 7th March 2024

12:00 - 13:30

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Overview

Continuing our AHCS Webinar Series on scientific leadership around artificial intelligence, AI, we are delighted to present three speakers at the cutting edge of AI in current clinical services. In this webinar, we shall focus on three applications within respiratory, cardiac and gastrointestinal services which are actively supporting physiological teams today.

We shall learn innovative ways of data interpretation and quality using digital power and algorithms to simplify complex data processing thereby releasing the clinical physiologist to focus on the patient and / or reduce reporting times. These specific examples may offer an insight into solutions for other physiological and scientific diagnostic services to reduce the 'log jams' of daily practice.

After our three 20-minute presentations, there will be time for questions, comments and discussion, since we believe this is where others can adapt the technology and ideas for their own practice. As healthcare scientists, we should be the powerhouse of innovation and the bastions of quality in physiological measurement. We hope that this webinar stimulates your appetite to engage in AI for your healthcare science service.



Programme

Introduction



Professor Brendan Cooper

President of the Academy for Healthcare Science and Consultant Clinical Scientist, Professor of Respiratory & Sleep Physiology, University Hospitals Birmingham, UK.

Chair



Professor Stephen O'Connor

Visiting Professor in Biomedical Engineering, Royal Academy of Engineering and City, University of London, UK.

Julie Maes, Product Manager, ArtiQ, Leuven, Belgium

How can AI support in respiratory physiology?



Julie Maes is biomedical engineer by background and is currently the product manager for diagnostic solutions at ArtiQ. This is a spin-off company of the University Hospital of Leuven in Belgium. The mission of the company is to empower respiratory professionals with AI to accurate and timely diagnoses, treatment and follow-up of patients with lung diseases. The ArtiQ team focuses on applications for lung function testing in primary care, secondary care and pharmaceutical clinical trials. The technologies have been extensively validated in collaboration with leading experts and institutions in the respiratory space, several of which have resulted in peer reviewed publications.



Dr Zaibaa Patel, Senior Clinical Trial Manager, Odin Vision, UK

AI advances in endoscopy



Dr Zaibaa Patel has a PhD in Biomedical Engineering from City, University of London. Her research focused on the development of an optical system for physiological measurements within the area of Colorectal Cancer. Currently, Zaibaa is a Senior Clinical Trial Manager at Odin Vision. She aids the advancement of AI technology for endoscopy, plans and coordinates clinical trials, from pilot studies to international randomised controlled trials. With a robust history in Medical Device R&D, she has made impactful contributions as a Pre-clinical Research Associate in Wearable Technology at Imperial College, London and a Research Associate in Optical Engineer at King's College, London. She was a Young Scientist Awardee at the Global Young Scientists' Summit and a Young Physics Scientist at the Lindau Nobel Laureate Meeting.

Dr José Alonso Solís-Lemus, Postdoctoral Research Associate at the Cardiac Electro-Mechanics Research Group, Imperial College London, UK.

AI advances in cardiology



Dr José Alonso Solís-Lemus is a Research Software Engineer with a PhD in Biomedical Engineering from City, University of London. Currently, a Postdoctoral Research Associate at the Cardiac Electro-Mechanics Research Group at Imperial College London, José specialises in developing algorithms for advanced cardiac image analysis to be used by researchers and clinicians alike. He leads the ongoing development of an interactive medical imaging platform, CemrgApp, influencing over 40 research projects. His interests include open-source initiatives and promoting reproducible science, notably creating reproducible pipelines for patient-specific cardiac models delivering scientific advances to the bedside.

