

# The Effect of Skin Pigmentation on Pulse Oximeter Accuracy – Outline Programme

Wednesday 22<sup>nd</sup> May 2024 - London

09:55	10:00	<b>Welcome and Introductions</b> Peter Charlton, University of Cambridge
10:00	10:25	<b>The History of Pulse Oximetry</b> Panicos Kyriacou, City University of London
10:25	11:00	<b>Talk Title TBC - Clinical Perspective</b> Dan Martin, Professor of Intensive Care Medicine, University of Plymouth
11:00	11:15	<b><i>Does skin tone affect the accuracy of machine learning classification applied to photoplethysmography signals?</i></b> Philip Aston
11:15	11:45	<b>Coffee Break</b>
11:45	12:05	<b><i>Monte Carlo Simulation of the Effect of Melanin Concentration on Light-Tissue Interactions for Transmittance Pulse Oximetry Measurement</i></b> Raghda Al-Halawani; City, University of London
12:05	12:20	<b><i>Understanding the effect of tissue optical properties on pulse oximetry through Monte Carlo simulations.</i></b> Suvvi Kuppur Narayana Swamy; University of Nottingham
12:20	12:40	<b><i>Is the ear-canal the optimum site for racially equitable oximetry?: Discussion of EarMetrics</i></b> Nick Gompertz EarSwitch Ltd

12:40	13:40	<b>Lunch</b>
13:40	14:10	<b>Panel Discussion and Q&amp;A Speakers</b> Chair - Panicos Kyriacou, City University of London
14:10	14:35	<b>Racial bias in pulse oximetry: next steps</b> Peter Charlton, University of Cambridge
14:35	15:00	<b>Breakout groups - discussion</b> All
15:00	15:15	Coffee break
15:15	16:00	<b>Group Feedback and wider discussion</b> Chairs: Peter Charlton, University of Cambridge & Panicos Kyriacou, City University of London
16:00	16:10	<b>Final Thoughts &amp; next steps</b> Peter Charlton, University of Cambridge & Panicos Kyriacou, City University of London