

Hear for Tomorrow – The 1st In-person Event for 2 years!

On the 30th March 2022 the Royal Academy of Engineering hosted the 103 week delayed Hear for Tomorrow event. This was the first in-person event post COVID but did utilities a flexible delivery with four presenters using Zoom. The capacity had to be reduced from 70 attendees down to 45 for reasons of social distancing. As we approached the esteemed building two construction workers were drilling a hole in the pavement, which was rather apt for the coming event.

The symposium was organised jointly with the newly formed UK Hearing Conservation Association, their first ever event. The symposium had the support of the UK Acoustics Network (UKAN) www.acoustics.ac.uk. with three special interest groups coming together: Communication and Room Acoustics, Hearing, and Biomedical Acoustics working with the IOA Musical Acoustics Group. The event was split into two parts: a full day programme of presentations and an evening soiree centred around the exhibition.

The programme started with a welcome from Professor Stephen Dance (London South Bank University) who gave an overview of the sponsor, UKAN. This was followed by Dr David Greenberg (Eave.io) introducing the reasons behind forming the UK Hearing Conservation Association. Chris Steel from the Health and Safety Executive detailed the recent changes to noise regulations and the role of the regulator. To finish the first session Dominique Perrissin-Fabert gave an overview on the journey the Royal Opera House had taken with regard to hearing safety. Coffee and pastries were then enjoyed.

The second session focused on solutions and began with a two hander by Dr Rob Shepard (James Paget Hospital) and Dr Finola Ryan (UCL Hospital). Dr Shepard gave a clinical view on a new early diagnosis tool- Otoacoustic Emissions which had been used to assess the hearing of Royal College of Music students. This was followed by Dr Ryan's update on the new British Association of Performance Arts Medicine Hearing Conservation Guidance for the Performing Arts. Dr Tobias Goehring (University of Cambridge) then gave a virtual presentation (COVID precaution) on the technological improvements available in terms of hearing devices, in particular machine learning to improve speech in noise. The session ended with a short discussion on the presentations led by Professor Stephen Dance.

After a good lunch the presentations continued with the theme of guidance. Professor Stephen Dance, in a change to the programme, gave a presentation in his otoacoustic emission testing with the Royal Academy of Music. He showed how the categorisation breakdown (normal, mild, severe) of the musicians closely matched the HSE guidance when the OAE tests were used, but with pure tone audiometry the results were favourably skewed. This was followed by Dr Adam Hill (University of Derby) on recently introduced WHO guidance on Entertainment noise in an outdoor setting. He showed there was agreement around sound levels (LAeq, 15min 100 dBA) for the audience with a wide discrepancy between countries, but at least a starting point had been set. The final talk of the session was an engrossing virtual presentation (International presenter) Professor Colleen Le Prell (University of Texas) on Noise Induced Hearing Loss: Pathophysiology, Treatment and Prevention focusing on animal studies (rodents and monkeys). Coffee and cake was then enjoyed by all.

After coffee the final session commenced with the virtual keynote given by Professor Kathleen Campbell (International presenter- University of Southern Illinois) on results from a new pharmacological solution to noise induced hearing loss, D-MET. Here Kathy outlined the 23 year journey to test a pharmacological preventative measure involving 7g per day per Drill Sergeant candidate, for an 11 day course, and an orangey placebo in a randomized double blind study. At the US Army training camp, South Carolina, the personnel fired M16 rifles (600 rounds) using approved hearing protection to gain promotion in a competitive setting. Her experience of military process and hierarchy emphasised the difficulty in running a medical trial. Eventually obtaining independently verified statistical data which showed an 80% confidence in the treatment, not high enough for Federal Drug Administration approval, due to a lack of test subjects. Kathy explained that failing the Army tests resulted in immediate dismissal from the training camp, hence the lack of test subjects completing the prescribed course of medicine. The final thought provoking presentation was given by Dr Noe Jimenez (University of Valencia) on brain therapy using acoustic holograms to treat neurological conditions using ultrasound, which was literally mind blowing! The day

event ended with a discussion panel of the presenting talking about the future direction of hearing conservation and the association led by Francis Rumsey.

The evening session kicked off with canopies and actual drinks. This allowed an informal brain storming session to bounce ideas on future events and direction of travel for UKHCA. Between brain storms the exhibitors showed off their wares. Minuendo showed off their new lossless musician focused multi-filtered earplug; Casella their latest Bluetooth enabled octave band dosimeter, and Path Medical/Hearing Coach demonstrating their otoacoustic emission hearing assessment instrumentation.

Feedback very positive, many new contacts established securing the future of the UKHCA and most importantly bringing people together.





