UKIAFT Travel Grant Award Winner 2026 Report: Dr Peter Maskell

The 2026 SOFT/TIAFT meeting held in Chicago was attended by around 1300 delegates from around the world, allowing for a global forensic toxicology perspective and flavour. The conference started with 2 days of workshops on topics ranging from how to use Excel, Coding and Python for improvements to laboratory workflows, practical tips for mental welfare for toxicologists to GLP-1 receptor agonists. The rise of the GLP-1 receptor agonists use around the world was of particular interest for alcohol interpretation as these substances may have effects on alcohol absorption, and even the amount of alcohol GLP-1 receptor agonists users may consume. This is a rapidly evolving area for forensic toxicology with few answers.

The highlight of the first evening was the Elmer Gordon Forum, an open forum where anyone can, and does, ask forensic toxicology questions and see if the assembled forensic toxicologists can help solve/answer the question. One high point was a debate over the merit of testing stomach contents in post-mortem cases and the analytical testing of Kratom (mitragynine), which seems to be a particular concern for toxicologists in the United States, but based on my experience, less so in the U.K.

The scientific sessions were held over 2 ½ days with parallel sessions running each day. The overarching themes for the sessions were i) analytical analysis – HRMS, innovations, quality and troubleshooting; ii) Drugs & driving; iii) Alternative matrices, iv) Postmortem Toxicology; v) NPS; vi) Drug facilitated crime; vii) Clinical and environmental toxicology. A new set of sessions not previously given at toxicology conferences focused on the use of New Technologies AI and Data Science. With the “AI revolution”, it is not surprising to see a focus on this topic area. Although it does not appear like forensic toxicologist will be replaced by AI anytime soon, AI certainly has much to offer. One presentation by a scientist from the San Francisco Office of the Chief Medical Examiner was of particular interest, as they utilised AI to determine the presence of as yet unidentified NPS from their HRMS analytical data. The approach used could predict the possible structure of the analyte and would then search CRM vendors to see if CRMs already exist. To date, they have had one successful hit! The other overarching themes of the conference presentations of note were the rapidly evolving drug markets, the emergence of the orphines, at least in the US, replacing the nitazenes, the use of real time drug surveillance using wastewater analysis and interestingly for me, the revolution that is happening around the world with increasing reliable and accurate automation of batch processing. This is of particular relevance with the move to HRMS analyses and the very large volumes of data that need to be processed. There was too much going on to talk about everything by the abstract book from the conference can be found here: SOFT_TIAFT_2026_Abstract_Book.pdf

I would like to thank UKIAFT again for awarding me the travel grant, giving me the opportunity to go to and present at the 2026 SOFT/TIAFT meeting held in Chicago. It was particularly usefully to be able to network and exchange ideas from people from around the world.