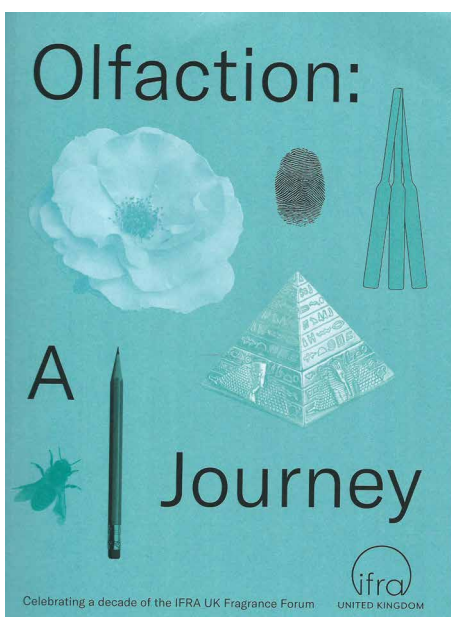


BOOK REVIEWS



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A decade of the Fragrance Forum
[IFRA] A global Fragrance Network
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Olfaction: A Journey (Celebrating a decade of the IFRA UK Fragrance Forum)

Dr Tony Curtis

Along with the IFEAT conference this is a major industry event in the year! In this edition of the ICATS Newsletter we review *The Story of Olive Oil: from Grove to table*. I well remember returning from an IFEAT Field-trip around the essential oil fields of Tasmania. The next week I was at an evening celebratory dinner for the awards of the Jasmine [perfumery] awards at a 5* London Hotel. I could have described our industry as everything from field to high fashion cat-walk. The second (2012) Fragrance Forum at the Royal Society (London) venue put it nicely *From Flower to Shower*.

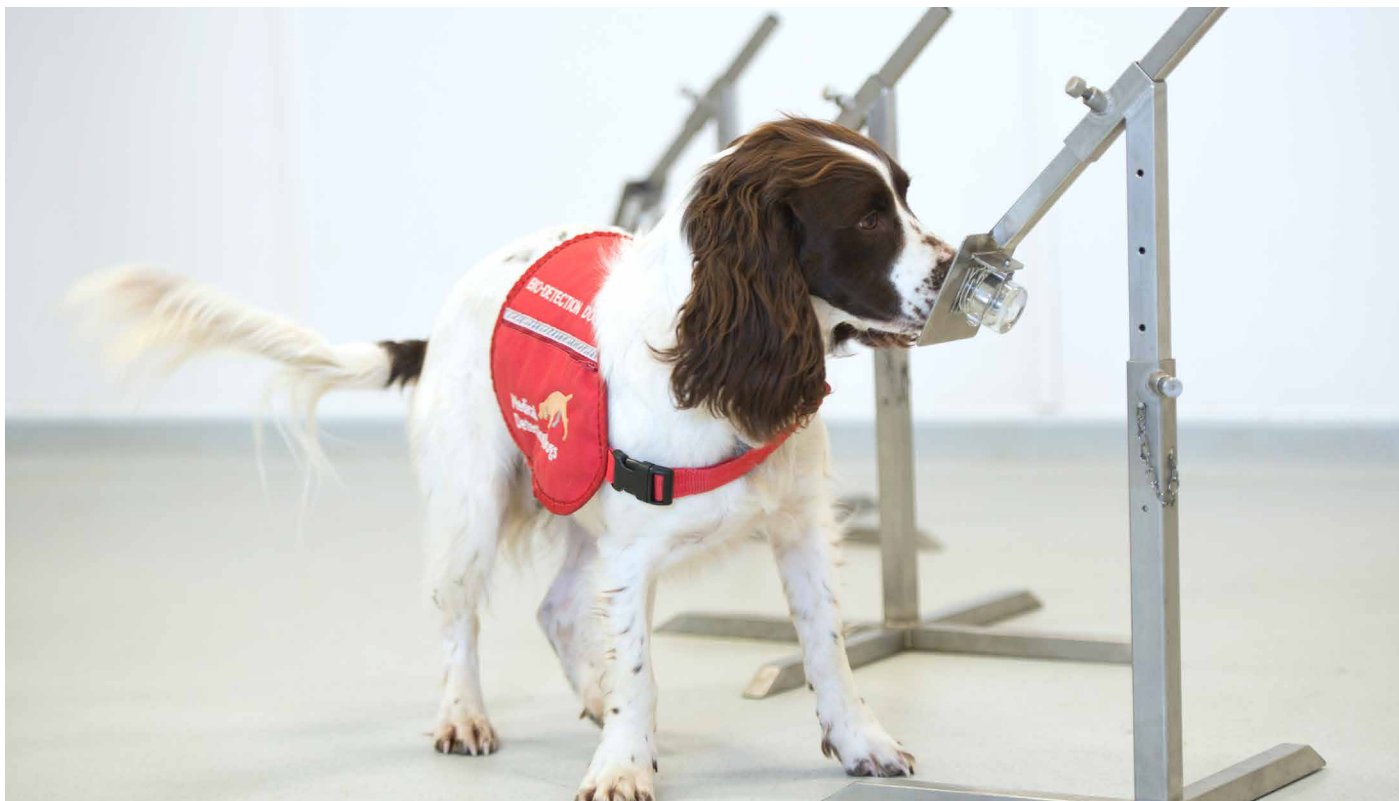
The section headings above give the scope and range of the topics covered in these outstanding meetings. The internationally scientifically prestigious venues nicely reflect the eminent presenters and leading-edge content of the lectures: Royal Society of Chemistry (Burlington House, London), The Royal Society (founded in

1660) and the Wellcome Collection. Of necessity it is only possible to sample a few of these eminent lectures.

Some years ago, a symposium at Birkbeck College (London University) also took a broad view of odours and olfaction. The proceedings were converted into a book *SENSE AND SCENT: An Exploration of Olfactory Meaning*. A particularly memorable lecture was: *The Importance of Smell in Medicine*. Historically in the 19th Century the Physician would smell the breath and get the Coachman to taste the patient's urine. In the 20th Century we developed advanced instrumentation (e.g. HPLC) to investigate disease markers in blood and urine. We had somewhat forgotten that the volatiles (odours) in breath are also diagnostic markers for some diseases. Dr Claire Guest's presentation *Sniffing it Out* (2017) is compelling and remarkable. The subheading says it all 'Each disease has its own volatile organic compound

'fingerprint' and dogs can be trained to smell out and detect a specific fingerprint at very low concentrations'.

The IFRA team do pick the hot topics. The May edition of *Chemistry World* feature article *The Air We Exhale* continues the story. The road-side breathalyser has been a cornerstone of drink driving curbs in many countries. This report presents further developments in this area. We are rediscovering 'The pathological world of smell' (Professor Jonathan Reinartz' Forum lecture in 2015). He nicely summed it up 'Medieval doctors were very attentive to the smell of patients' breath and sweat. Diseases were also associated with distinctive smells. Plague was said to smell of apples while typhus reputedly smelled of mice'. It is not all good news. *How to make a mosquito invisibility cloak* by Professor James Logan (2017) discussed mosquitos' ability to sniff out a good [infective] meal. Can we find an olfactory way to foil this?



As always with such richness of content it is invidious to cherry-pick articles to highlight. I have selected this next one as it not only draws upon our recent advances in the knowledge of the genetic basis of olfaction but also raises a deep philosophical question 'Do you smell what I smell?' This is yet another example of the nature – nurture puzzle.

No one knows what your nose knows. There may be much greater diversity between humans than previously assumed. And there is no 'true' smell for any given odour at all.

Genetic variation contributes to inherent, fixed differences in what we can each smell, and can predict how we respond to odours. We all have very different olfactory sensitivities.

Dr Darren Logan (2014)

The early experiments with an olfactometer determined the threshold values for odour perception. This work established that different people had different sensitivities to a given olfactory (volatile compound) stimulus. The recent advances our understanding now demonstrate that not only are there differences in ability to perceive odours (threshold values) but also how we interpret this stimulus into odours.

The more we learn, the more we realise how much more we have to learn. Each question answered stimulates new avenues of exploration. This event has deservedly developed a reputation as an annual high sport in the industry's calendar. This anniversary retrospective makes stimulating and provocative reading.

The date of the next Fragrance Forum UK is planned for the 14th October 2021. Do put it in your diary. *The Story of Olive Oil: from Grove to Table* gives a welcome focus to a specific area of the industry. The Forum surveys the whole mountain range of different aspects of our industries' science. It does keep you up to date with the current peaks of interest and cutting-edge research. The IFRA (UK) Team perform an outstanding achievement each year with the assembly of such a diverse range of topics and such renowned presenters. This is truly a highlight of our industry year.