

The Microscience Microscopy Congress 2015, incorporating Electron Microscopy and Analysis Group of the Institute of Physics and the Scanning Probe Microscopy and Frontiers in Bioluminescence meetings was held in the Manchester Central Convention Complex. Located in the heart of the 'European City of Science', the conference brought together scientists, industry experts, and researchers to discuss and learn about wide-ranging areas of microscopy and imaging. The convention was Europe's largest exhibition of the year—covering microscopy equipment and training—combined with a large scientific conference that incorporated various areas of imaging and microscopy across both physical and life sciences. The four-day conference brought together over 1000 people from across the world, and included pre-congress workshops, six daily parallel sessions, various social and networking events, and even a free exhibition which included workshops and a Learning Zone.

The Royal Microscopical Society's biggest event of the year, mmc2015 gave researchers, stakeholders and industry experts, exposure to cutting-edge developments and research in the fields of imaging and microscopy, through internationally celebrated Plenary Speakers, commercial workshops, Journal of Microscopy Workshops, a huge Poster Village and daily poster sessions, the RMS Scientific Imaging Competition, and several other satellite events. With six parallel sessions each day, in addition to four parallel workshops or talks within the free congress exhibition, there was always something fascinating—and made it hard to choose!

In addition to a wide range of exhibitions, talks, and workshops, the conference had several opportunities for delegates, organisers, and industry representatives to digest and discuss the full day's events through a plethora of social activities. From the Welcome Drinks on the first day, the SPM Dinner at a nearby Italian restaurant, and the Annual Congress Banquet to the much-celebrated Frontiers in Bioluminescence Poster Session followed by the Frontiers Bioluminescence Dinner, as well as the EMAG Dinner, conference attendees were never short of fun atmospheres to make new contacts, strengthen old contacts, and celebrate the exciting congress event.

As if the academic presentations and social events were not enough, the congress boasted a huge exhibition space with over 100 companies represented, with their newest and most exciting products, services, and even advice for researchers and delegates. Another feature, also made available to visitors for no charge, was the RMS's Learning Zone, where equipment donated from congress exhibitors and manned by an expert team was on display. Several microscopy techniques were showcased, and enabled visitors to discuss their research, ask questions, and attend short seminars on each day of the conference. I particularly appreciated the hands-on approach of the Learning Zone, which provided the perfect sounding board for me to voice my ideas as well as concerns about the application of technologies such as Digital Microscopy and Specimen Preparation. I asked about the difference between SEM and TEM techniques, and was thrilled to receive a detailed explanation of the difference in the resolution, electrons (scattered or transmitted), sizes of the sample able to be analysed, and examples of applications and uses.

As a lucky visitor to the—completely free—mmc2015 exhibition, I was also able to see the short-listed images from the annual RMS Scientific Imaging Competition, while being

given access to training workshops and industry lectures. Of particular note was the first workshop I attended, Agar Scientific's eCommerce case study presentation, where I was taken on a whirlwind tour of the developments of the past few years at the company, and hearing about the challenges involved in building the company's successful site. I have always been interested in learning about start-up companies and business promotion but, as a student, I had never had much exposure to the 'inside' industry story. The talk concluded with an exciting look at new developments within the company, leaving me with an appreciation for the development of past and current microscopy and scientific products and services. Following my first workshop, I was able to attend FEI's presentation on the challenges and solutions of Multidimensional *in-situ* S/TEM imaging and analysis. As an environmental research student, I was interested in hearing about the ultra-high resolution microscopy developments and the company's role as a leader in Environmental Transmission Electron Microscopes, and learning more about three-dimensional generation of computed tomography images. The talk also highlighted the wide variety and applicability of transmission electron microscopy (TEM), which fascinated me as I look to learn more about using novel technologies in my PhD studies.

After a brief coffee break to process all the new information, I attended CoolLED's presentation on maximising the potential of bright field and fluorescence microscopy, using, naturally, LED technology. The presentation demonstrated the importance of selecting the right filter, through illustration of the impacts of proper and improper filter selection, and followed with advice for how to select the right filter for differing purposes. I was also illuminated about the potential to excite into both ultra-violet and near infra-red in the company's new generation of LED systems. I followed up with EDAX, Ametek's presentation about the TEAM 3D software to increase the information garnered from 3D EDS mappings, and the novel methods for interpretation of mappings through spectrum library matching to confidently identify material—without the need to rely on the analyst's skill and interpretation of the data.

The combination of cutting-edge technology and recent developments in the friendly and amiable environment of RMS's Microscience Microscopy Congress made for a truly enjoyable experience. I appreciated the opportunity to stretch my mind and discover techniques I had never heard of, while learning even more about others I was familiar with, and even asking questions of experts and delegates. The enthusiasm of the microscopy and scientific community was contagious, and look forward to the next mmc congress!

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