

MeetingReport

Microscopy & Microanalysis 2015



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The Microscopy Society of America (MSA), the Microanalysis Society (MAS), and the International Metallographic Society (IMS), the world's leading triumvirate of societies showcasing the smaller worlds around us, had the most successful Microscopy & Microanalysis meeting to date (M&M 2015). The meeting was held in beautiful Portland, Oregon, August 2–6. As a host city, Portland provided outstanding weather, facilities, and hospitality.

The conference included 43 symposia with a total of 1,294 scientific presentations (847 talks and 447 posters). There were 1,843 scientific attendees and 1,377 exhibitors representing 122 companies. Thus, total attendance was a new all-time high of 3,220 registrants. This attendance number was over 10% higher than any previous year. The number of exhibitors was up 18% over 2014; the exhibition showcased the most innovative microscopy and microanalysis gear on the planet. From the pre-meeting congress, workshops, and opening reception on Sunday until the last session on Thursday, the crowds were noticeable to all who attended.

Monday's plenary session opened the meeting with two distinguished speakers from quite different fields. Nobel Prize Laureate Prof. Roger Tsien (Figure 1) presented "New Molecular Tools for Light and Electron Microscopy." Centering his talk on probes that facilitate intrinsic labeling, he showed how correlative modes of light and electron microscopy at multiple scales can be used to resolve sub-cellular features. He concluded his presentation by describing how he "closed the loop" on a career goal of his: to create the tools that changed the direction of biological studies for future generations of scientists. The second plenary talk by NASA Astronaut Dr. Donald Pettit (Figure 2) revealed some "out of this world" challenges in "Some Unexpected Difficulties in Microscope Operation in Microgravity." He showed how microgravity environments, cosmic rays, and fluid dynamics affect experiments conducted on the International Space Station (ISS). Dr. Pettit spent some 370 days in orbit where he conducted scientifically challenging experiments and photographed beautiful views of Earth from an altitude of 249 miles. It was not only great to hear their presentations, in addition our plenary speakers attended lectures, exhibits,



Figure 1: Nobel Laureate Prof. Roger Tsien delivering his plenary presentation.

and social events throughout the meeting (Figure 3).

Two memorial symposia honored microscopy pioneers who passed away in recent years: Dr. Peter Swann (1935–2013) and Dr. Robert Apkarian (1953–2006). The Apkarian symposium, "Advances in High Resolution Scanning Electron Microscopy," recognized his life, his work in the field of biological electron microscopy, and his service to MSA and other microscopy societies. Dr. Peter Swann's symposium, "Bringing the Real World in to the Electron Microscope," recognized the impact his many contributions made on TEM and materials science. He designed over 600 pioneering instruments, including a differentially pumped gas reaction cell that brought the "real world" inside the electron microscope. Both symposia dovetailed with other symposia on topics that grew from these past leaders.

The exhibition floor was, once again, the place to learn about the latest techniques and applications. Tutorials and demonstrations took place throughout the meeting. The MSA MegaBooth was again the central hub of the exposition floor, whether to find out what was going on, find a job, schedule a tutorial, or just to relax and read email. The poster sessions in the exhibition area were heavily attended because of the high quality of the poster presentations and the selection of Portland beers on hand. Daily poster awards were announced for the most outstanding scientific posters, once again reinforcing poster sessions as a highlight of M&M meetings.

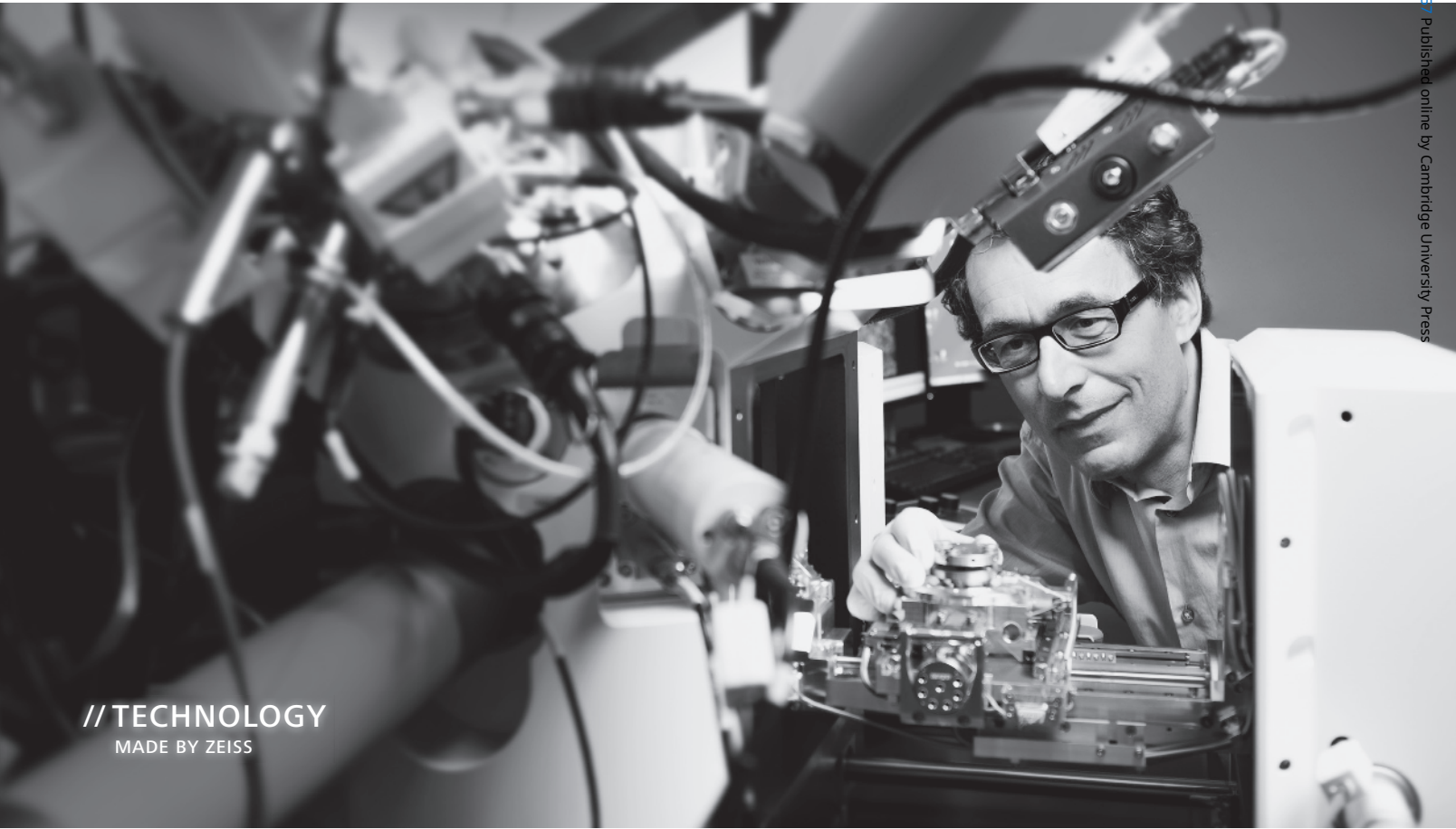
Throughout the week, in-meeting courses focused on some perennial topics: SEM imaging, X-ray compositional analysis, specimen preparation for biological microscopy, and analysis of nanomaterials. Attendees also sought out the educational opportunities intended for broader audiences like Project MICRO, Microscopy in the Classroom, and It's a Family Affair.

As the meeting drew to a close on Thursday, concluding a week of engaging science and learning, the weather in Portland was still as fantastic as the hospitality and the sponsored social activities. Those activities included a riverboat dinner cruise, a pedal pub tour of Portland, and winery tours—welcome distractions to our jam-packed

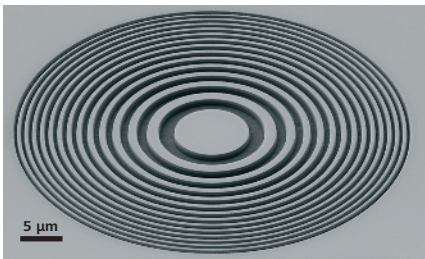


Figure 2: Astronaut Dr. Donald Pettit making a point during his plenary lecture.

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Using ZEISS Atlas 5 software, a light microscope overview image (brown) is correlated with high resolution SEM images (gray) for a fossiliferous carbonate sandstone sample. Sample courtesy of D. Schumann, Fibics Incorporated, Ottawa, Canada.

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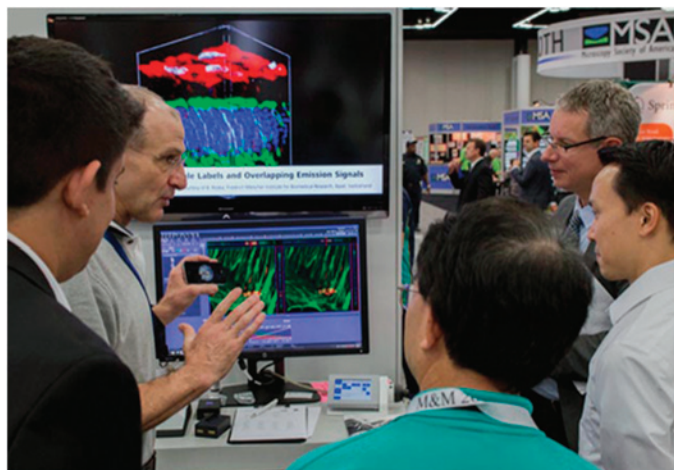


Figure 3: Astronaut Dr. Donald Pettit (back left) explaining the need for microscopic imaging on the International Space Station (ISS) in the M&M 2015 Exhibition Hall.

scientific schedule. We hope the new mobile app this year helped you keep track of it all!

The Executive Program Committee, the large number of symposium organizers, and our meeting management are all quite pleased with the success of Microscopy & Microanalysis 2015. On behalf of MSA, MAS, and IMS, I suggest that you to start thinking about M&M 2016, July 24–28 in Columbus, Ohio!

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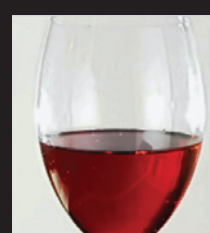
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