A celebration of science and life

As I write this column, I’m sitting in the airport one day after NIST’s 100th anniversary celebration of its metallurgy division and 50th year of its polymers program. Longtime NISTers Bob Shull and Chad Snyder spent several months pulling together amazing speakers and entertainment to commemorate a century of materials science advances at the National Bureau of Standards (NBS), which became the National Institute of Standards and Technology (NIST) in 1988. The festivities were full of interesting and funny stories, tales of technology advances, and an optimistic look toward the future of materials science and engineering (MS&E).

Looking back with a nod to the past, associate director for laboratory programs Willie May—with 43 years under his belt at NIST—kicked off the celebration with a warm welcome and a bit of history from 1901, when NBS was first established. Eric Lin, MS&E division chief, then thanked the sponsors (including a shout-out to ASM) and talked about NIST’s dedication to public service, technical excellence, and an open and dynamic working environment.

Lin turned things over to Isaac Sanchez, a fixture in the polymers division during the 1970s and 80s, who shared a few good stories plus some tidbits of advice that helped shape his life. One gem he kept in mind throughout his career involved Ed DiMarzio, his original NIST advisor. DiMarzio said you don’t need hundreds of great ideas to build a career, only two or three good ones per year. Sanchez admitted that, in reality, he’s only had about one good idea each year, but this has sustained him throughout a long and interesting career.

In the next lecture, Richard Fields spoke about several disaster investigations NIST has been involved with from the early days to recent times. He shared how tragedies drove the creation of the metallurgy division: From 1902 to 1912, 41,578 train derailments occurred, with roughly 13,000 deaths each year. The division was established in 1913 to improve train safety, which translated to improvements in steelmaking. This knowledge was then transferred to shipbuilding, with technologies such as welded construction vs. rivets. Fields also spoke about bridge collapses, airline accidents, and the Twin Towers investigation, and how such tragedies can lead to new standards and technologies.

Next up, several other interesting speakers rounded out the day, followed by a lively reception catered by Dogfish Head Alehouse. The best part besides tasty craft beer and pork sliders? NIST director Pat Gallagher presented a gift to renowned materials scientist Richard Fields (at NIST from 1977-2004) with Frances Richards and NIST’s ASM Historical Landmark designation.

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