



## Engineering Sciences Section - 2014

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### **C43 How One Small Forensic Business Has Contributed to Forensic Science Education and Mentorship**

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After attending this presentation, attendees will understand how a small forensic business can provide mentoring and education for aspiring scientists.

This presentation will impact the forensic science community by inspiring other companies to become more involved with forensic science education and mentoring efforts.

MVA Scientific Consultants is an independent testing and consulting laboratory with a staff of 15 part-time and full-time employees. In the past 23 years of existence, it has had over 40 paid interns and a number of unpaid interns who received college credit for their time at work. Because the education level of the interns has varied from high school to graduate student, the mentor with each intern has balanced the needs of a particular project with the intern's capabilities. Beyond washing laboratory glassware and cleaning up the warehouse, the interns have assisted in a wide variety of projects. Some interns have assisted with pharmaceutical contamination investigations, while others have concentrated on projects involving the World Trade Center Disaster, the aftermath of Hurricane Katrina, the Tennessee Valley Authority fly ash spill, dust in the air from Air Force tests of burning air planes, dust from the Alamo Dome Super Fund site in Texas, unknown particles from an intensive care newborn facility in Tennessee as well as moon dust, comet dust, and dust collected floating around in the space shuttle. Interns have received training and become operators of light and electron microscopes, as well as users of the infrared and Raman instruments. One intern spent the summer trying to figure out ways people might cheat on scratch-off lottery tickets. One intern won a scientific microscope photography contest with a submission of a 3D cenosphere fly ash particle that was taken with a scanning electron microscope during an environmental forensic project. Another intern won the annual company holiday card contest with an image of a talc particle that was colorized to look like a Christmas stocking. A collaboration between MVA Scientific Consultants and Gwinnett Technical College's Bio-technology program has provided a number of students with the opportunity for on-the-job training and commercial business hours they needed to complete their technical degree. Many of the interns have gone on for more education in a scientific area and some have eventually become employees of MVA. MVA Scientific Consultants has also contributed to forensic science education by hosting the Georgia Microscopical Society Young People's course on Microscopy for over 20 years. Staff members of MVA join other members of the Atlanta area microscopy community in teaching this free course for middle-school students and teachers on seven Saturday mornings in the winter. In addition to basic instruction on how to use a microscope, the course includes sessions on criminal forensic and environmental forensic microscopy, as well as geology, biology, and photography through the microscope.

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#### **Mentors, Forensic Education, Internships**