B116 Northeast Regional Forensic Institute, 12 Week, 12 Graduate Credit Hour Academies (DNA Casework, Databank, and Serology)

W.Mark Dale, MBA, and Donald D. Orokos, PhD, Northeast Regional Forensic Institute, 1400 Washington Avenue, Biology 225, Albany, New York 12222*

After attending this presentation, attendees will be aware of an innovative DNA academic program as an alternative to traditional mentor training. An academic based 12 week, 12 graduate credit hour, DNA Casework, Databank, and Serology academies prepare new forensic scientists for casework. Individual modules can also be used for professional development.

This presentation will impact the forensic community and/or humanity by providing alternatives to traditional mentor training. Many forensic laboratories are lacking the resources (facilities, equipment and staff) needed to provide training for new employees and professional development. Forensic technologies change rapidly. Academic based curriculums within designated laboratories staffed by educators and forensic scientists are producing favorable results and efficiencies. Policy makers need information on the positive impacts derived from education on the quality and productivity of forensic services.

This presentation will describe the newly revised curriculum and staffing model for the DNA Academy designed for New York State. NERFI has now developed and implemented a separate 12-week, 12 graduate credit hour curriculums for DNA Casework, Databank, and Serology. The process used to develop support for the DNA Academy programs as a result of an expansion of the New York State DNA Databank will be discussed. An update on the changes made to the NERFI DNA Academy program (at least five DNA Academies will be completed by February 2007) including feedback from client agencies will be provided. The collaboration between the University at Albany Forensic Molecular Biology program and the NERFI DNA Academy will be described to show the benefits of partnering with the academic community. Collaboration with the New York State Police Forensic Investigation Center is further exemplified in the essential integration of the University at Albany computer network with the New York State Police Laboratory Information Management System. All students perform at least twice the number of analyses required by the Scientific Working Group DNA Analyses Methods guidelines.

Conceived as a center for forensic academic excellence, the NERFI addresses a critical and ongoing need to produce highly trained, case- ready technical personnel for careers in forensic laboratories. NERFI will foster collaborations between local, state, and federal criminal justice agencies and other academic institutions to develop forensic programs in education, research, and outreach. The DNA Academy program was designed to provide a solution to address the nationwide shortage of forensic scientists. The explosive growth of DNA technology in the field of forensic science has created critical casework backlogs in all public and private forensic laboratories. Traditionally, the overwhelming majority of forensic laboratories have been forced to use one–on–one mentor training for new employees and very little professional development opportunities are available for existing employees. Mentor training and competition for casework instruments decreases laboratory efficiency and potentially eliminates the mentor's productivity. The NERFI DNA Academy replaces the conventional one on - one mentor 12 month training programs with a dedicated state of the art forensic training facility, university approved 12 week, 12 graduate credit hour curriculum, staffed with SUNY Albany faculty and nationally renowned visiting scientists. Students successfully completing the DNA Academy will earn 12 credit hours of graduate course work. More importantly, the newly trained scientists will also meet all mandated state, national, or international accreditation standards for forensic laboratories.

The curriculum from the Graduate program in Forensic Molecular Biology has provided the courseware framework for the DNA Academy. The University at Albany was one of the first in the Northeast to deliver a 40 credit Graduate Program in Forensic Molecular Biology. Overall, this program has been very successful. The program is now in its fifth year and graduates have proceeded to placement in many private laboratories, public laboratories, and Ph. D. programs.

The DNA Academy curriculum consists of four modules that deliver 12 graduate credits hours of academic course work. There is now a 12 week / 12 graduate credit hour curriculum for Casework, Serology, and Databank. Individual modules of the curriculum are used to provide professional development for experienced scientists. Module 1 is a one credit hour, 1-week long lecture component that provides the latest theories of forensic DNA technologies. A digital library of all pertinent reference materials and interactive video conferencing will be used for the distance-learning module. Module 2 and 3 (10 credit hours), consist of 8 weeks of laboratory instruction held at the University at Albany. The "Mirror Laboratory" concept is continuously updated to employ the latest technologies currently in use in all forensic laboratories. The students will analyze evidentiary samples that are identical to the items received at crime scenes and submitted to forensic laboratories. For example, bloodstains on all types of substrates will be recognized, collected, amplified, and analyzed by identical instruments and techniques used in forensic laboratories. A one-week module covering instrumental theories, trouble shooting and maintenance and one week of statistics is delivered between Module 2 and 3. Moot court, one credit hour, will then be used to measure the competency of all students as per national accreditation

Copyright 2007 by the AAFS. Unless stated otherwise, noncommercial *photocopying* of editorial published in this periodical is permitted by AAFS. Permission to reprint, publish, or otherwise reproduce such material in any form other than photocopying must be obtained by AAFS. ** Presenting Author*

guidelines. Individual segments of the program will also be used to provide professional development programs that are mandated by New York legislative and international accreditation criteria. The graduates of the program will be competent to analyze a variety of evidentiary items routinely submitted for DNA analyses when they return to their home laboratories.

Forensic Education, DNA, Academies

Copyright 2007 by the AAFS. Unless stated otherwise, noncommercial *photocopying* of editorial published in this periodical is permitted by AAFS. Permission to reprint, publish, or otherwise reproduce such material in any form other than photocopying must be obtained by AAFS. ** Presenting Author*