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Issue 2

What's New at TCNJ:.



Chemistry majors with interests in Forensic Chemistry continue to excel. At the December 15, 2004 meeting of the New Jersey Association of Forensic Scientists in Bordentown, TCNJ senior **Harry J. Rose** was honored as this year's NJAFS scholarship recipient. Harry was one of five TCNJ interns at the New Jersey State Police Laboratory in Hamilton during the Summer of 2004. In other news, Chemistry junior **Cheryl Strelko** has recently been offered an internship at the FBI Laboratory in Quantico, VA. Congratulations to Harry and Cheryl!

In February, four TCNJ Forensic Science Interns attended the 57th Annual American Academy of Forensic Science (AAFS) in New Orleans. While there, the students had the opportunity to hear expert lecturers talk about forensics and learn about new techniques and procedures during workshops. Also during the conference, there were poster sessions regarding research conducted in Criminalistics, Engineering Sciences, Toxicology, Odontology, Pathology and Biology, Psychiatry & Behavioral Science, Jurisprudence, Questioned Documents, and Physical Anthropology.

Research Experiences for Undergraduates

Internships are much more than summer jobs. Companies fund internships to make contact with good students with the hopes of someday being their employer. Likewise, a student will return to campus with good experiences, and in turn help the company recruit new interns. Also, there is a national need for people interested in pursuing a career in the sciences. In response to this need, the federal funding agencies have made money available to major research universities to run summer research programs. The program, funded by the National Science Foundation is called the Research Experiences for Undergraduates (REU for short). Universities are not supposed to use this as a recruitment tool, but chances are if you have a really good experience with faculty there, you may decide to attend the school's graduate program. REU opportunities in Chemistry, Biological Sciences, Materials Research, Astronomical Sciences, Computer and Information Science and Engineering, Mathematical Sciences, Physics, and other fields are available.

Begin your search today at: http://www.nsf.gov/crssprgm/reu/reu_search.cfm

Other Internship Opportunities

Not all internships are for the summer. Some places such as the FBI offer internships for up to a 12 month period, so you can get some serious experience through these opportunities.

Some government labs have research programs. You might want to take a look at the websites for:

The newly-formed Department of Homeland Security

<http://www.orau.gov/dshed/05ugrad.htm>

Center for Disease Control and Prevention

<http://www.cdc.gov/hrmo/intern.htm>

National Institutes of Health Student Programs

<http://www.training.nih.gov/student/index.asp>

There are also many other websites and listed at:

<http://www.cs.uu.nl/wais.html/na-dir/sci/chem-faq/intern.html>

While hunting for a position:

- (1) Start your search early! Forensics has become a hot new field with many people competing for limited positions.
- (2) Do your research. Make sure your interests match what the agency or company has to offer.
- (3) Get organized. Be mindful of deadlines for the applications and paper work.
- (4) Be confident and don't get discouraged. All of your time and energy will be rewarded.

Links for Teachers

Check out these links for interactive games, lesson plans, and fun classroom activities that are sure to foster an interest in science and forensics:

Interactive games and curriculum units for middle and high school aged students:

http://www.courttv.com/forensics_curriculum/

Online teachers guide to fun labs and lesson plans:

<http://www.shodor.org/workshops/forensic/>

You've seen it done on the Discovery Channel, now apply it in the classroom:

<http://school.discovery.com/lessonplans/>

Links for primary, intermediate, and secondary school students:

<http://www.skewlsites.com/physci.htm>

Quick Hits for Students

Do like learning about weird things? Are you a walking database of useless, but interesting facts? Are you just putting off typing up that lab assignment? If you answered yes to any of these questions, check out these links:

Do people really eat that?!-

<http://weird-food.com/>

It's a duct tape world-

<http://www.octanecreative.com/ducttape/>

Find out who invented everything from A to Z-

<http://www.enchantedlearning.com/inventors>



Hot Websites

The Chemist on CSI finds a trace amount of dichlorohexabronodibutoxymethylethylhexadoic acid in the victim's hair. "He must have been wearing a NY Mets baseball cap," they say. How in the world did they know that? Well, you can start to become familiar with the chemicals around you at: <http://www.topsecretrecipes.com/recipes.htm>

The world at large may run on petroleum, but money keeps scientific research moving ahead. If you need some more, here is a gateway to almost 1,000 government programs from the 26 federal grant-making agencies: <http://www.grants.gov>

A colleague walks up to you and cautions, "Everything I say to you is a lie." Is he telling you the truth, or is he lying? You don't have to be a riddle nut to enjoy the answer, and hundreds of other brain teasers and riddles offered at this entertaining site: <http://www.riddlenut.com>

Looking for a Forensic Science Position?



A website dedicated to recruitment in the sciences-

<http://www.sciencejobs.com/search.action>

Search for jobs and also find tips for resume writing, career advice and more-

<http://recruit.sciencemag.org/>

Forensic careers information and links-

http://www.forensictraining.org/forensic_careers.htm

Search for jobs in biology, chemistry, biochemistry, biotechnology, and a range of related science jobs-

<http://www.scijobs.org/>

Looking for a fellowship or a job? Look no further-

<http://www.post-docs.com/>

NJAFS Spring 2005 Seminar

Who: New Jersey Association of Forensic Scientists

What: Crime Scene Reconstruction: Piecing It Together

Topics: Blood Spatter, Accident Scene Reconstruction, Firearms Trajectory Reconstruction, and Case Studies in Crime Scene Reconstruction

Where: Trump Marina Hotel-Casino, Atlantic City, NJ

When: Friday May 6, 2005 from 8:00 AM to 4:00 PM

How: Download registration form at <http://www.njafs.org/registration2005.pdf>

Return completed form with registration fee by **April 22, 2005**

Fees: NJAFS members- \$75; NON-MEMBERS- \$105; FULL-TIME STUDENTS- \$75

For more information visit the NJAFS Website at www.njafs.org

Careers in Forensic Science: FORENSIC PATHOLOGIST

If you are interested in a career in the Forensic Sciences, many choices await you. The American Academy of Forensic Science, the largest forensic science organization in the world, classifies its members into ten major groups. In this section of this newsletter and subsequent newsletters, areas of interest will be presented. Here we present the job of FORENSIC PATHOLOGIST:



WHO are Forensic Pathologists and WHAT do they do?

Forensic Pathology is the application of the principles of pathology, and of medicine, in general to the legal needs of society. Pathologists study disease by performing a type of surgery called an autopsy and examining the tissues removed, and by observing surgically removed specimens under the microscope. The forensic examination of the body includes examining the clothing on the body, the body itself, and an internal examination of the organs, which is the autopsy. The body is usually photographed and diagramed, with a detailed written report describing any injuries or disease process. The autopsy usually

includes microscopic examination of the tissues of the body. X-rays may also be taken to look for bullets, broken bones, or other abnormalities.

WHERE can you find a Forensic Pathologist?

Forensic pathologists are usually employed by city, county or state medical examiners' offices, hospitals, and federal government agencies, such as the Center for Disease Control (CDC) and the Armed Forces Institute of Pathology (AFIP).

HOW can I become a Forensic Pathologist?

All forensic pathologists are medical doctors. Therefore, the training requirements involve many years of studious effort. After four years of college and four years of medical school, an apprenticeship in pathology, known as a residency, is required. Forensic pathology is a subspecialty of pathology, so an additional one or two-year fellowship specifically in forensic pathology must then be completed after college, medical school, internship, and pathology residency. Certification in pathology or one of its several subspecialties is acquired from The American Board of Pathology.

Other physicians with MD or DO degrees or scientists with a PhD degree in a biological-related field may also qualify for membership in the Pathology/Biology Section of the AAFS.

Interested in learning more about Forensic Pathology? Stop by these websites:

The American Board of Pathology- <http://www.abpath.org/>

Review the archives of Dr. G- <http://health.discovery.com/fansites/drg/drg.html>

This newsletter has been brought to you by Dr. John Allison, Director of Forensic Chemistry and Stacey Kohler, Administrative Assistant. Please feel free to contact us through e-mail if you have any additional questions.

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