Chair’s Corner

I hope that you all are faring well this semester!

After the excitement of moving most but of the teaching laboratories from the Life Sciences Building to Oliver North, we are off and teaching in our beautiful new space. Following the purchase of equipment from HEETF and STF before the winter break, we are moving the final Forensic Science laboratory courses to the new space for the Spring 2010 semester. Add to that the new ceiling and paint in the Oliver North Hallway, and things are looking FANTASTIC.

Based on news from the Dean’s office, it looks like we will weather the budget cuts without significant impacts to our core mission of preparing students for careers in forensic science, science and graduate and professional schools. In particular, we have avoided major cutbacks in course budgets and courses taught by our many exceptional adjunct faculty.

I’d also like to remind you to please keep an eye out for all the great upcoming events sponsored by the Department, the Forensic Science Student Club or both. There is much to do, and many ways to be engaged.

In terms of major items upcoming, two are of particular note. The first is that the Department will be applying to FEPAC for full reaccreditation of both the B.S. and M.S. Programs during 2010, beginning with the initial application in March, submission of draft of a comprehensive self-study in July, updating and resubmitting the self-study in August, a site visit by FEPAC representatives in September-October, and final decision and announcement in February 2011. Based on the great work of faculty, staff and students in creating, enhancing and maintaining both Programs, I am fully confident that both will receive full accreditation for five years.

The other news, of which you are already aware, is that I will be stepping down as chair of the Department of Forensic Science in June, 2010 in order to return to my previous life as a corn geneticist. It has been my greatest pleasure and honor to have been given the gift of leading the Department for what will have been 7 years by June 2010. The Department’s outstanding faculty, students and staff have made this a rewarding and exciting journey. But as with all good things, it now is time for me to hand the reigns to another faculty member to guide the Department to even greater accomplishments.

I will be returning to research and teaching Genetics and Molecular Genetics in the Fall 2010 semester, and hope to see many of you in my classes in the future. In the meantime, the Department will operate as it has always has, with outstanding service and a view to the future, thanks to all of you.

A new Chair will be selected within the next few months, and it will be my pleasure to hand the keys to the kingdom over to her/him July 1 and to step back and watch where the Department goes from here.

Best Wishes and See you soon,
Dr Eggleston

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Hey everyone. Welcome and welcome back for another great year at VCU and with the Forensic Science Student Club!

This year as usual we have a lot planned for you all. In October, November, and December, look forward to lots of fun and informative events!

This year we are going to make all new posters for open houses and other events. If you have not noticed, the ones we have are getting a little old.

Our plan is to make the poster making a lot more fun and make it into a casual mentorship program by teaming up underclassmen or new members with upperclassmen or older members. This way everyone can have more fun making posters.

We also really need help with getting our website up to date and keeping it updated. So if anyone knows anything about setting up websites your help would be greatly appreciated! We will be having a web committee along with numerous other committees, such as Relay for Life, CAA blood drive, Murder Mystery Dinner Theater, Open Houses and more.

We always need people to join these committees and volunteer at all of our events. If you have any questions at all or want to join the club, feel free to e-mail me at tutenjm@vcu.edu.

As soon as we have any events coming up I will post announcement on Blackboard and send out an email to everyone.

Jennifer Tuten

For more information about getting involved with the Forensic Science Student Club contact Jennifer at fssc@vcu.edu.
For three weeks this summer I worked for SNA International (SNA), a forensic consulting firm in Northern Virginia assisting with the validation and implementation of LISA, a forensic DNA statistical software package.

LISA, developed by Future Technologies Inc. (FTI), is a sophisticated DNA analysis software program used by a number of leading laboratories in the US to track samples and perform comparative analysis between unknown samples such as unidentified human remains and known or reference samples. While LISA can be used for any type of forensic DNA comparison, it is especially beneficial for searching and comparing DNA profiles following a mass fatality.

Pedigrees (family trees) are created for each missing person and known family reference samples are associated to the pedigree. DNA profiles can then be associated with each sample.

Screening tools are used to search DNA profiles from unidentified human remains against DNA profiles from the pedigrees and other references (such as hair and tooth brushes). Once a potential match is found, further calculations are performed to generate likelihood ratios.

Under the direction of Dr. Amanda Sozer, I validated the newest version of LISA to document that the likelihood ratios were accurate and that the system was running appropriately.

We did this by comparing the LISA calculations to those performed by hand. I also worked with FTI to make modifications to LISA that enhanced the user interface.

Once SNA had performed validation, I traveled with Dr. Sozer to a SNA client site and worked with the DNA analysts in the forensic DNA laboratory to support the validation at the client’s site, train the forensic analysts on the use of the system, and assist in the upload the client’s cases into the system.

The implementation of LISA will allow the forensic laboratory to rapidly and effectively use DNA to identify missing persons.

The opportunity to work with Dr. Sozer was very rewarding since I was able to familiarize myself with a system that performs kinship analysis and calculates likelihood ratios based on possible direct or family matches.

In my VCU curriculum, I have practiced the laboratory aspect of DNA analysis; being able to work with the next step – a software program to identify individuals – was a unique experience.

Working with forensic science professionals provided insight into various career avenues in the field.
Congratulations!

Honoring Our Graduates

VCU Forensic Science Congratulates our Fall Graduates on their Accomplishment

Bachelor of Science Graduates

Abdullah Alawadhi
Bader AlBlushi
Hayley Dean
Abdullah Haidari
Kimberly Malpaya

Patrick Monolo
Carrie Pederson
Gina Rodriguez
Courtney Scotto
Erin Summers

Lauren Sutton
Samantha Tenke
Danielle Weaver
Lauren Wolfe

Award Winners

NIJ/FSF Grant Recipients
Daniel Mabel
Samantha Boyd
Heather Dawn Cross

If you have won an award and would like to be included in our Spring newsletter, please contact us at fos@vcu.edu. We’d love to include your name!
Alumni Updates

Keeping in Touch
News and Events from Former Forensic Science Students

Autum Pairett B.S. Spring 2007 is in her 3rd year working towards a Ph.D. in Evolutionary Genetics, looking at the evolution of scallop eyes. Her sister Cierra Pairett is working toward a Master’s in Genetics. She is currently doing rotations to find a lab and studying the envelope of Equine Infectious Anemia Virus (EIAV) during different stages of the disease.

Congratulations to Forensic Science alumnus Sean Fox, B.S. Fall 2007. Sean welcomed a son, Carter Paul Fox, into the world on August 7, 2009. Join us in congratulating Sean and his family on their new addition!

Students Today Alumni Tomorrow (STAT)
Students Today, Alumni Tomorrow seeks to connect students and alumni

There is a new student program offered by the alumni association, called STAT (Students Today, Alumni Tomorrow) and it’s up, running and off to a great start!

It’s a student organization on campus to build VCU pride. They have programs, events and some really great perks! This organization really is all about the perks.

STAT is a great opportunity for you to engage with other students and alumni and it costs about as much as three trips to Starbucks.

Not only will you connect with the VCU Alumni Association before you graduate, but you also can take a leadership role with the STAT Board of Directors. The Board will be comprised of the students who will lead STAT. They are the program planners and event throwers. They are also the students who will be called on to host major alumni and donor events.

Where else could you make better connections?

This organization is going to need strong leaders from all VCU walks of life. It is very important that both graduate and undergraduate students are included so that programs and events can be planned for you. Even if you don’t have the time to be involved as a leader in STAT this year, I hope that you will consider joining for the benefit of connecting with an alumni mentor in your specific field of interest.

Did I mention the laundry benefit? What a great deal: $15 for a wash, dry and fold at Richmond Laundry Services, all you can fit in your bag!

If you are interested in learning more, please contact Morgan McDowell (contact info below) and she can share more one-on-one. They look forward to seeing you!

To find out more about STAT and all the benefits that come with being a part of this great new student organization check it out on the Web at:
http://www.vcu-mcvalumni.org/site/c.frKHIIPloE/b.5461235/k.7A00/Students_Today_Alu
mi_Tomorrow_STAT.htm

To learn more about STAT contact:
Morgan McDowell
Coordinator for Student & Young Alumni Engagement
Alumni Relations
804-828-8191
mcdowellme@vcu.edu
www.vcu-mcvalumni.org
## Winter Departmental Events
A Handy Calendar of Forensic Science Events for Fall/Winter 2009

### November

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<tr>
<th>Date</th>
<th>Event</th>
<th>Time</th>
<th>Location</th>
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<tbody>
<tr>
<td>November 2</td>
<td>Spring Semester Advance Registration begins</td>
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<tr>
<td>November 7</td>
<td>University Undergraduate Open House</td>
<td>10:00am - 12:00pm</td>
<td>Oliver 2019&amp;2021</td>
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<tr>
<td>November 19</td>
<td>Career Information Session</td>
<td>12:00pm - 1:30pm</td>
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<tr>
<td>November 26-29</td>
<td>Thanksgiving Holiday - University Closed</td>
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### December

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<tr>
<th>Date</th>
<th>Event</th>
<th>Time</th>
<th>Location</th>
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<tbody>
<tr>
<td>December 4</td>
<td>Last Day of Fall Classes</td>
<td></td>
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<tr>
<td>December 7-15</td>
<td>Final Exams</td>
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<tr>
<td>December 12</td>
<td>Diploma Ceremony</td>
<td>2:00pm - 3:30pm</td>
<td>Commons Theatre</td>
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<tr>
<td>December 19-31</td>
<td>Winter Break - University Closed</td>
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Q&A: How to Apply for NIJ/FSF Grants
...and a Glimpse Into Research Being Conducted by Awardee Samantha Boyd

How did you find out about the grant?

Samantha: Professor Seashols. It was through her that my research got started and got its focus, and she suggested that I look into doing the NIJ/FSF grant to fund the work that I would be doing with her and Professor Bertino (a physics professor), the other mentor who is guiding my work.

What was the application process like?

Samantha: The application process itself was not as hard as I made it out to be. It was a bit exhaustive in that there were a lot of parts that had to be present in my application, and each part had to have specific information that, had it been absent, would have immediately disqualified me for consideration. The only part that was difficult for me was mustering the willpower to complete it during summer break. Luckily Professor Seashols and Professor Bertino kept pushing me and helping me along the way.

How did you find a project idea?

Samantha: The project got its start from Professor Seashols. Well, that’s kind of half true... Really, I was taking my first physics course ever (Physics 101), and had all of these questions about how the world works. So I set up an appointment with Professor Bertino, and was asking him how airplanes can fly and how microwaves can heat up my food (really ridiculous, elementary questions), when he laughed at me and told me I had “enthusiasm”. He wanted to know what my major was, and I told him it was Forensic Science. He then told me that, were I interested, and if the Forensics Department could supply specimens, the Physics Department had a Raman Spectrometer that I could use, under his supervision. So I met with Ms. Seashols. She was thrilled to hear that the Physics Department had a Raman Spectrometer, and told me that this would be a great opportunity to do research, since using Raman Spectrometers as confirmatory identification tool for blood and other bodily fluids is a new “thing” in forensics. From there the research took off, and suddenly I am awarded this grant. It’s a pretty cool thing... It just goes to show you that getting to know your teachers is a good thing.

What aspect of the project are you most looking forward to working on?

Samantha: I’m looking forward to seeing what effects SERS (Surface Enhanced Raman Scattering) will have on blood. And the fact that I get to work with liquid nitrogen is just a bonus.