



## Department of Microbiology &amp; Immunology

## MICROSCOOP



## Inside this issue:

M & I Dept Picnic	2
Faculty Spotlight	
Personal News	
O's Game Outing	3
June Presentations	
Holiday RNE	
Future Spotlights	
1st Yr New Students	4
2nd Yr Students	5
Graduating Students	
The Journey of Tim McDaniel	6
M&I Cup Comp	7
Presentations	8
Grants	
Maryland Leading Women- Tonya Webb	
Publications	9
Univ of MD Softball	11
Contact Info	12

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**3<sup>rd</sup> Annual Crosstalk Symposium**

The third annual Crosstalk Symposium on Host-Pathogen Interactions was held at IBBR on the Shady Grove Campus of the University of Maryland on June 15, 2012. The Crosstalk Symposium, sponsored by two T32 training grants held by the University of Maryland School of Medicine and the University of Maryland, College Park, was created to provide a forum for the exchange of research, ideas, and experiences among students, faculty and other researchers from our two campuses, and this year's event provided a perfect example of inter-campus collaboration at its best. Kyle Wilson, Carly Page, Carolyn Morris, and Sergio Mojica from the UMSOM program in Molecular Microbiology and Immunology gave talks, as did Kevin Roelofs, Amanda Mahle, and Heather Cohen from UMCP. Numerous posters were presented by students and postdocs from both campuses, including Alison Scott from our program, who discussed the potential benefits of combining the high-throughput TLC/MALDI-TOF technology she is currently developing as part of her dissertation research with Kevin Roelofs's DRaCALA assay. The symposium was concluded with a keynote presentation from Philip Scott, Ph.D. (Professor of Microbiology and Immunology and Associate Dean of the University of Pennsylvania School of Veterinary Medicine) entitled "T Cells and Cytokines in Infectious Diseases."

**2012 ASM Meeting**

Once again at the annual ASM meeting, Dr. James Kaper and Dr. Harry Mobley (University of Michigan) hosted their annual Association of Alumni of Microbiology and Immunology Networking Event. The event was a great success, with much networking and seeing of old friends and colleagues. Begun in 1992 by Dr. Kaper and Dr. Mobley as networking for UMaryland, the event expanded to include the University of Michigan and University of North Carolina at Charlotte, though friends from all other schools are welcome to attend.

**Breaking News!**

**Brian Astry** has received an F-31 Predoctoral Fellowship for 2 years from the NIH. The title of his grant is "Immune mechanisms of Complementary and Alternative Medicine intervention in autoimmunity." The research will be validating the anti-inflammatory capabilities of traditional Chinese medicine, *Celastrus*, using an autoimmune arthritis animal model. Complementary and alternative medicines are becoming more widely studied because they can be taken with or in replace of the more toxic conventional medications. Brian is a Molecular Microbiology and Immunology student whose mentor is Dr. Kamal Moudgil, a Professor in the Microbiology and Immunology Department.

## Microbiology & Immunology Department Picnic

The annual M & I picnic was held on Friday August 24 just south of campus at Patapsco Valley State Park. The picnic is jointly sponsored by the Dept. of M & I, the MMI program and the Dept. of Microbial Pathogenesis. It was a beautiful day, we could not have ordered up better weather. The wide variety of dishes that were brought highlighted the culinary skills of our department and was a definite highlight of the picnic, enjoyed by all. After eating, a rousing game of kickball was initiated with both students and faculty participating. Meanwhile many were having a great time working hard on a get-to-know-you BINGO game organized by June Green. After all was said and done first year student Kyle Tretina won the BINGO trophy which he gracefully accepted with a huge smile. The department picnic is always thought of as an excellent opportunity to have fun and spend time with colleagues and their families outside of the lab, this year was no exception. Big thanks to all who helped to make this years 'picnic such a wonderful success!!!



### **THE FACULTY SPOTLIGHT IS ON... DR. AMANDA OGLESBY-SHERROUSE ASSISTANT PROFESSOR SCHOOL OF PHARMACY**



**Where are you from?** *Originally Garland, Texas; however, I have lived in Austin, TX longer than any other place in my life, and consider Austin to be my hometown.*

**What are your education and research backgrounds?** *I have a Bachelor's in Microbiology from University of Texas, Austin and a PhD from UT Austin. My research focused on Shigella iron regulation in Shelley Payne's lab. I did my post-doc in Denver in Mike Vasil's lab studying pretty much what I study now.*

**On that topic, what is your main research here at UMB?** *I study how PrrF and PrrH regulatory RNAs mediate heme regulation in Pseudomonas aeruginosa. I'm most interested in 1. How does this regulation fit into P. aeruginosa virulence and 2. Can we target these RNAs or their regulators for therapeutic purposes? In a nutshell, I'm interested in how heme affects P. aeruginosa virulence.*

**Now for the fun stuff – what are your activities outside of the lab?** *I have no life outside the lab. No, I like running and spending time with my husband and son. I like doing anything that gets me outside and away from the city – camping, hiking with my family, snowshoeing when I lived in Colorado (we need to find new winter activities here in Maryland). Anything that gets me back to nature.*

**Other than your family and those nearest and dearest to you, what is one thing you couldn't live without?** *I have to pick just one? Wine and chocolate – I'm going to break the rules. And cheese. In other words, all vices I hold dear.*



**Caitlin Doremus**, member of the Flajnik lab, was married to Quincy Castro on May 19<sup>th</sup>. It was a lovely ceremony held here in Baltimore with family and friends present to support the couple as they took their vows. Caitlin and Quincy continue to live in Baltimore City and are excited about what the future may bring.

**Daniel Powell**, a member of the Ernst lab, and his wife, Becky, are now the proud parents of their second child, Hanna Rose Powell. Hanna was 5 pounds 10 ounces and 18 inches long when she was born on August 8<sup>th</sup>. Her older brother Aaron, Daniel and Becky's first child, is happy to now have a little sister.

**June Green** is happy to announce the birth of her 1<sup>st</sup> Granddaughter, Charlotte June Whittemore born June 14<sup>th</sup>, 18 inches long and 5 pounds 1.6 ounces. Her daughter Jessica and son-in-law Adam Whittemore are the proud parents of Charlotte who made her first department appearance at this years' picnic.

## O's Game Outing

A group of enthusiastic O's fans from the UMB Microbiology & Immunology community attended the Baltimore Orioles game vs. Tampa Bay on Thursday, July 26, beginning at 12:35 PM. They were seated in the upper deck on the 3<sup>rd</sup> base side for this event, and were fortunate enough to get to see the O's beat the Rays 6-2 in nine innings. This outing was a great opportunity for colleagues to unwind and get to know each other better in the setting of Baltimore's beautiful Camden Yards.



## June Presentations



The MMI Department gathered together on June 6 and 7, 2012 for the annual Graduate

Student Symposium. The Symposium, often referred to simply as June Presentations, gives all graduate students the opportunity to present their work to other students and faculty, and receive feedback from assigned reviewers.

First year students presented for 10 minutes on one of their rotation projects, while older students presented for 15 minutes on their thesis work. In all, more than 30 students presented their research over the two days. As first year student Jeticia Sistrunk noted "I enjoyed the opportunity to present my research to the department and hear about the projects other students were

Story continued on page 7



## SAVE THE DATE

### **M & I Holiday Research Networking Event**

**Friday, December 14th  
1 to 5pm  
MSTF Atrium**

Joining our community are:

- Agnes Azimzadeh, PhD,
- Hanping Feng, PhD,
- Arnob Banerjee, MD, PhD
- Miriam Laufer, PhD



Keep an eye out for future faculty spotlights!







Originally from Ft. Lauderdale, FL, **Phillip Balzano** went to high school in Annapolis and attended Villanova University for his undergraduate, where he worked

with T cells and graduated in 2010. Phillip earned his Masters at Drexel University in 2012, and is coming to UMB straight from Drexel. His main interest is in host/pathogen interactions. In his free time Phillip loves to play basketball, soccer, tennis, and go cycling. Indoors, he builds scale models and plays the saxophone.



**Sarah Boudova** is originally from Minnesota. She completed her undergraduate and Masters degrees at the University of Pennsylvania and

continued to work there as a lab manager for 1 year. She then worked as a research assistant at Rockefeller University for 1 year, and is now working on her MD/PhD at the University of Maryland, Baltimore. Her research interests include malaria and immunology. In her free time, Sarah enjoys traveling, reading, hiking, cross-country skiing.



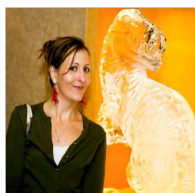
**Kyle Tretina** is originally from Maple Shade, New

Jersey. He graduated from Wheaton College in 2011, and is interested in bacterial symbiosis/pathogenesis, genetics. In his free time, he likes to explore the city, play sports, watch Netflix, and play board/card/video games.



**Beth French** grew up in North East, MD but lived in D.C. for two years before moving to Baltimore for school. She completed her undergraduate studies at Philadelphia University and

then completed a Master's in Microbiology at Thomas Jefferson University in Philadelphia. For the past two years Beth worked at Johns Hopkins University. She is not quite sure what her scientific interests are yet and is deciding which part of microbiology or immunology fascinates her the most. She hopes that by the end of her rotations she will have figured the answer out. In her free time Beth normally travels to visit friends, reads or plays with her new puppy.



Originally from Alaska, **Kelsey Gregg** has lived in Maryland for 5 years. She completed her undergraduate studies at the University of Alaska

Fairbanks ('07). For two years she worked as a lab tech and received her Masters in Biotechnology with a focus in biodefense at Johns Hopkins University. For the last 2.5 years, Kelsey has been working at the Federation of American Scientists in Washington, D.C. She is interested in microbial pathogenesis and host-pathogen interactions, and enjoys hiking, working with her German shepherd dog, and chilling with her husband.

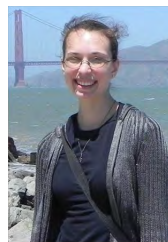


**Lanie Wallace** is originally from Harford County and completed her

undergraduate studies at Hood College. Her research interests are bacterial pathogenesis and persistence, and she enjoys baking and spending time with her husband and two children, Liam and Claire.



**Raja Venkataraman** is originally from a city in southern India named Chennai. He completed his undergraduate degree in Bangalore, India in Biosciences. He subsequently completed a Masters degree in Biotechnology, also in India. Raja worked and studied at the University of Miami where he completed two Masters degrees in Cell, Developmental and Molecular Biology and Computer Information Systems. He did this while working in a lab that studied interferon-signaling pathways. Raja hopes to study innate immune pathways triggered during infection by different pathogens. He finds signal transduction pathways fascinating because they dictate a cell's interaction with its environment. Different signaling pathways interact and influence each other and he hopes to come up with new ways to characterize and understand how these various pathways work, especially in the context of diseases caused by pathogens. In his free time, Raja tries to play as much tennis as he can and golf. When he is doing neither one of these and wants to relax, he tries to get his hands on a good book (non-fiction usually, but a good novel once in a while doesn't hurt).



**Grace Maldarelli** grew up in the Gaithersburg/North Potomac area of Montgomery County, MD. She completed her undergrad at Johns Hopkins University (graduated in May 2010), and came to UMB

that fall as an MD/PhD student; she spent the past two years completing the first two years of medical school before starting here in the graduate school. Grace's scientific interests are still rather broad, and include microbial pathogenesis, host-pathogen interactions, and antimicrobial resistance (both mechanisms and molecular epidemiology thereof); she also is interested in translational research/public health-related applications of her work. In her free time, Grace sings in a choir, rings English hand bells (in a choir), enjoys going to concerts, and is usually reading at least one non-school-related book. Also, she recently started running, and is excited to be a part of one of the MSTP marathon-relay teams in this fall's Baltimore marathon.



**Edward So** is originally from New Jersey. He completed his undergraduate studies at Johns Hopkins University, and has been working the past few years. His academic interests are immunology and immunotherapies, and in his free time, Edward likes to watch movies, sports, and play basketball.

## SECOND YEAR STUDENTS



**Laura "Latey" Bradford's** home and roots are in Dayton, Ohio but after graduating from a private school with a senior class of 36 students, most of whom she had been classmates with from 1st through 12th grade, she was anxious to move away and experience a totally different scene. So Latey moved to Baltimore 7 years ago to attend the University of Maryland, Baltimore County (Go Retrievers!).

There she studied Biological Sciences and minored in Africana Studies and Sociology. Although she entertained the idea of joining the Peace Corp or traveling the world after graduating from college, Latey played it safe and decided to move on to medical school right away. She could not be more excited (and relieved) to have made it through the ups and downs of the past two years and to have finally begun her graduate studies. Her research interests fall under the broad umbrella of women's health and are specifically related to understanding the vaginal microbiota and its role during health and disease. Latey has many hobbies outside of science that provide a creative outlet. She enjoys singing and leading worship at her church, planning and organizing community service projects, and mentoring and teaching elementary students.

**Leon De Masi** defended his thesis entitled "Novel Roles for Two Proteins in Type IV Pilus Biogenesis of Enteropathogenic *Escherichia coli*" on July 3, 2012. Leon joined the department immediately after graduating from Saint Joseph's University in Philadelphia in 2005, and performed his dissertation research in Michael Donnenberg's laboratory. He is currently pursuing an academic postdoctoral fellowship.

**Teresa Hsi-Lee** defended her thesis entitled "Regulation of the Endoribonuclease RNase-L by the miR-29 Family of MicroRNAs" on August 9, 2012. Teresa graduated from Harvard University with a degree in Biology in 2003, and then worked as a technician at the Harvard Center for Neurodegeneration and Repair for 2 years prior to entering the MD/Ph.D. program at UMSOM. She began her dissertation work in Bret Hassel's laboratory in 2007. Teresa's immediate plans are to return to medical school to complete her MD, ultimately specializing in Hematology/Oncology.

**Mark Marohn** defended his thesis entitled "The *Francisella tularensis* Phagosomal Transporter Subfamily of Major Facilitator Superfamily Transporters Is a Critical Determinant of Pathogenesis and Virulence and Modulates the Host Immune Response" on April 19, 2012. Mark graduated from Lehigh University in 2001 with a BS in Molecular Biology, and worked at the Walter Reed Army Institute of Research prior to joining the department in 2006. He performed his dissertation research in Eileen Barry's lab, and is currently searching for a position at either a government lab or a biotech/pharmaceutical company.



**Chun-Nian "Kevin" Chen** is originally from Taiwan, and did his undergraduate work at the National Chung-Hsing University in Taichung, Taiwan. He then ventured to the United States and received his M.Sc. from the University of Connecticut. Afterwards he began working in Hanping Feng's lab before beginning his PhD work at Tufts

University. He came to the University of Maryland, Baltimore with Dr. Feng earlier this year.

His scientific interests are bacterial pathogenesis, host immune defense and immune system in general. Kevin likes to play sports such as badminton, basketball, swimming, and fishing in his free time.

## GRADUATING STUDENTS

**Steve Bowen** defended his thesis entitled "Abnormal V(D)J Recombination in Ataxia Telangiectasia Mutated (ATM)-Deficient DN2/3 Thymocytes" on June 28, 2012. Steve earned a BS in Biology from Syracuse University in 2004, and worked for 2 years in the laboratory of Weiping Zheng at the University of Rochester before joining the department in 2006. He performed his dissertation research between the laboratories of Ferenc Livak at UMSOM and Richard Hodes at the National Cancer Institute, and is continuing his research as a postdoc in the Hodes lab.

**Melissa Hayes** defended her thesis entitled "Pathogenic Old World Arenaviruses Inhibit the TLR2-Dependent Activation of Innate Immune Responses *in vitro*" on February 24, 2012. Melissa graduated from Worcester Polytechnic Institute in Worcester, MA in 2000 with a degree in Biotechnology, and worked at a biotech startup company prior to joining the department in 2006. Melissa performed her dissertation research in the laboratory of Igor Lukashevich. She will begin a postdoctoral fellowship at Johns Hopkins in September.

**Kristen Shatynski** defended her thesis entitled "Regulation of Adaptive Immune Responses by the Phagocyte-Type NADPH Oxidase in T Cells and Antigen Presenting Cells" on June 21, 2012. Kristen earned a BA in Biology from LaSalle University in Philadelphia in 2006 and immediately joined the MMI program. She performed her dissertation research in Mark Williams's laboratory, and has been selected as the 2012-2013 Congressional Science Fellow by the American Society for Microbiology, a position in which she will serve on the staff of an individual congressman of a congressional committee focusing on the use of scientific knowledge in government.



## Tim McDaniel's Journey



**Dr. Tim McDaniel**, a PhD graduate of Dr. James Kaper's lab, recently visited our campus and spoke openly about his journey to attempt to cure his mother's cancer using genomic sequencing, a project featured on the front page of the New York Times a week before his visit. Mrs. Beth McDaniel was diagnosed in 2005 with Sezary Syndrome, a rare T-cell lymphoma in which malignant T cells migrate to the skin and cause tumor growth. After several years of unsuccessful treatments, Dr. McDaniel, a Research Group Head at Illumina, decided to help his mother by sequencing her tumor cells in hopes of finding some information to aid her treatments. Collaborations with TGen (a nonprofit research organization), the Mayo Clinic, and Illumina successfully sequenced Mrs. McDaniel's cancer in January 2011. Data analysis finished in May 2011, and yielded unique abnormality: a CTLA4-CD28 gene fusion. This aberration was treatable with a new melanoma drug. By September, Mrs. McDaniel had markedly improved; unfortunately, her cancer returned vigorously in a matter of weeks, and she succumbed in November 2011. However, many scientists remain hopeful that genomic sequencing will aid cancer treatments, as explained in an interview with Dr. McDaniel by Sabina Kaczanowska.

**SK:** Was the CD28-CTLA-4 fusion mutation present in the relapsed cancer?

**TM:** Yes. Not only was it present, but it remained highly expressed in the relapse. I also looked for compensating mutations downstream in the CD28 pathway, but there was nothing obvious that would account for the resistance. Of course, it is possible that I missed something, that the change lay undetected within rare gaps in the sequence, that the change was epigenetic, or that the compensation came from another pathway. In the many years of my mother's disease, these cells had been subject to eight prior modalities, including drugs, UV treatment, and radiation. At least four of these work by damaging DNA. So there was undoubtedly a lot of lurking variation to give rise to the resurgent clone.

**SK:** Also, have there been any follow-up studies to test other T cell lymphoma patients for this CD28-CTLA-4 fusion mutation?

**TM:** In progress. It is remarkably difficult to get these rare samples, although my Mayo Clinic collaborators have done so.

**SK:** Are there any plans to start sequencing more cancer patients' DNA to find treatment options?

**TM:** Absolutely! This is an approach that wide swaths of the scientific and medical community are acting on. There were already a dozen

or so medical schools and research institutes testing the waters of personalized medicine with genomic sequencing when I started on my mom's case. Earlier this year, funding started for the first prospective clinical trials of the approach, including trials for prostate cancer and advanced stage melanoma. These are exciting, unconventional studies, because, unlike a traditional trial, they are not just testing a drug, they're testing a method for selecting among many drugs based on the individual characteristics of the patient. There are also new companies offering clinical services for comprehensive cancer sequencing, including PGDx and Foundation Medicine, and several others just a little behind them. Look on the PGDx and Foundation web sites--they were started by some of the best academic scientists in the world.

**SK:** Do you think that your story has inspired doctors and researchers to bring this technology into the clinic and apply it on a regular basis in the diagnosis and treatment of cancer?

**TM:** I hope it will, by incrementally driving public pressure to hasten what I believe is inevitable. Despite all of this activity, the technology won't be applied as a standard practice until there is rigorous evidence of improved patient outcome. This can only come from the sort of prospective trials I mention above. Since the first trickle

of studies won't be done until 2015, wide use is still a few years off, even assuming I'm right that the approach will prove to broadly improve patient outcome.

In the mean time, the technology will first be applied to patients in clinical trials, or to those motivated individuals who find oncologists comfortable working at the frontiers. Although nothing like the numbers that would be seen if the methodology goes mainstream, these early patients could still number in the tens of thousands per year.

**SK:** Do you plan to play a role in that process?

**TM:** Yes! You couldn't stop me. It's become my full-time job. This speaks to the point I was trying to make in my rushed speech in the end of our session last week: follow your heart! I started this project because life had somehow placed me in a unique position to help my mom. I did it *despite* career concerns. As it turned out, the decision opened more doors than anything I could have plotted out. It led to my meeting an amazing team of scientists and doctors, who have become dear friends and are now among my most important professional contacts. When I returned to Illumina, I was asked to establish the R&D group for a new division focused on using sequencing in the clinic. This is a position I would have been totally unqualified for had I not worked on my mom. Follow your heart! (Then make a plan. Then seek great, like-minded people. Then act.) But first, follow your heart!



## June Presentations continued from page 3...



working on. The evaluations were also helpful in allowing me to polish my presentations skills.”

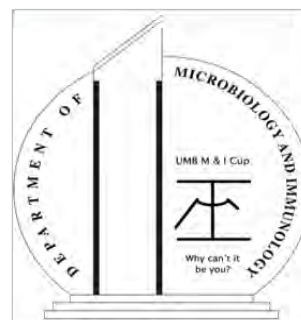
Held in a new location this year, the BioPark II Discover Auditorium, this year's Symposium also made efforts to go green. Spearheaded by the Symposium's organizers Catlin Castro, Carly Page, Anna Seekatz, and faculty advisor Robert Ernst, attendees were encouraged to bring their own reusable coffee mugs and utilize the electronic version of the abstracts booklet so as to limit the M & I Department's carbon footprint. The two-day event closed with a well-attended Research Networking Event.

## M&I Cup Competition

The M&I Cup Trophy changed hands this past semester. After spending the last two semesters in the hands of immunology folk, the M&I Cup committee was proud to announce that the **M&I Cup winner for the Spring 2012 semester is Eileen Barry's lab.** After finishing fourth in the fall 2011 tally, the Barry lab took a huge step forward and claimed the \$100 department sponsored lunch, Kaper Scope Trophy, as well as their lab name engraved on a custom-made plaque. Only 34 points separated the top two spots but the Barry lab was too much for the Vogel lab to handle. With six new labs added to the M&I Cup roster, the competition has grown every semester with more labs participating in various departmental events. The past three semesters have seen three different winners. Will your lab be crowned the next M&I Cup champion?

### Marti Point Totals Spring 2012

BARRY	608
VOGEL	574
FLAJNIK	421
FRIEMAN	353
WEBB	347
ANTONY	268
KAPER	263
BAVOIL	261
MOUDGIL	221
GASPARI	218
OBATA	214
GARZINO-DEMO	204
HASSEL	197
BRUNO	184
BLANCHARD	175
KEEGAN	166
WILLIAMS	155



WHY CAN'T IT BE YOU?

## PRESENTATIONS

**Astry B.**, Venkatesha S, Nanjundaiah S, Yu H, Tong L, Moudgil KD. (2012). Celastus suppresses the progression of autoimmune arthritis in rats by reducing cellular migration as well as production of pro-inflammatory cytokines and chemokines. AAI Meeting; Boston, MA; May 4-7.

**Bavoil P.** (2012). The Well Kept Secretome of Chlamydia. Johns Hopkins University; April 19.

**Bavoil P.** (2012). Publishing in English language journals and An introduction to Pathogens and Disease. Tianjin Medical University, May 15; Beijing Children's Hospital, May 17; China Agriculture University, May 22; China ICDC, May 23; and Lanzhou Veterinary Institute, May 24.

**Bavoil P.** (2012). Launching PAD (Pathogens and Disease), a Journal of the Federation of European Microbiological Societies (FEMS). Leopoldina Institute; Halle, Germany; June 7.

**Bavoil P.** (2012). Eco-Pathogenomics of Chlamydial reproductive tract infection. Leopoldina Institute; Halle, Germany; June 8.

**Doremus C.** (2012). J-chain and Blimp-1 are non-coordinately expressed and may define lineages of shark plasma cells. Gene Expression and Signaling in the Immune System meeting, Cold Spring Harbor Labs; April 24-28.

**Harberts E.**, Fischelevich R, Gaspari AA. (2012). TLR agonist treatment elicits an increase in DNA repair machinery. AAI Meeting; Boston, MA; May 4-7.

**Mistry P.** (2012). Identification of a Small Molecule TLR2 Antagonist Using Computer-Aided Drug Design (CADD). Keystone Symposia in Innate Immunity in Keystone, Colorado.

**Tettelin H.** and Riley D. (2011). Microbial genomics: impact of comparative analyses and pan-genome studies. 4<sup>th</sup> Congress of European Microbiologists, Federation of European Microbiological Societies (FEMS), Geneva, Switzerland.

**Tettelin H.**, Kumar N., Riley D.R., Sengamalai N., Sadzewicz L., Tallon L.J., Daugherty S.C., Abolude K., Pallavajjala A., Hine E., Parankush Das S., Baughman W., McGee L., Farley M.M., **Fraser-Liggett C.M.**, Stephens D.S., and Chancey S.T. (2012). Emergence of multidrug resistant and vaccine replacement serotypes of *Streptococcus pneumoniae*: comparative genomic analysis of 150 isolates. 8<sup>th</sup> International Symposium on Pneumococci and Pneumococcal Diseases, Iguaçu Falls, Brazil.



### GRANT NEWS!!!

Dr. Claire Fraser, Director of the Institute of Genome Sciences, received a grant in the amount of \$469,001 for "Genetic Basis of Pulmonary Non-Tuberculous Mycobacterial Infections (whole exome sequencing project)." Genome Sequencing Centers for Infectious Diseases Contract to IGS, PI – NIAID HHSN272200900009C. 08/01/31-07/31/13 PI on subproject (30%)



### **Dr. Tonya Webb named to Top Women of Maryland**

Every year the Baltimore Daily Record Leading Women organization names the Top 100 Women of Maryland to honor women who are 40 years old or younger for the accomplishments they have made so far in their careers. They are judged on professional experience, community involvement, and their commitment to inspiring change. They are recognized as the leaders of the future.

This year our own Tonya Webb, Assistant Professor of Microbiology & Immunology, was named to this elite group. The announcement was made by the Daily Record and you can read about it here: <http://thedailyrecord.com/leading-women/>. Two years ago, Julie Dunning Hotopp, Assistant Professor of Microbiology & Immunology in the IGS, was also named to the Top 100 women. Although the majority of the top 100 women are usually from business backgrounds, we are clearly making significant inroads into this group with our outstanding women scientists.





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## University of MD Softball

**B**eginning Tuesdays June 12, 2012 Unger's Fields at Northeast Highland Park was the scene for the University of Maryland softball intramural games. The M & I Department, led by captain Brian Astry, fielded a team. Playing double headers once a week, the department team, Occam's Bat, beat teams made up of future nurses and physical therapists. The team ended with a regular season record of 6-1-1, which solidified a top place finish in the Tuesday league and a spot in the playoffs.

In the single-elimination playoffs, Occam's Bat lost a hard fought game to the second place team in the Wednesday league, The Hard Drives, with a score of 9-5. The team's pain of defeat was eased by Dr. Kaper's generous provision of assorted popsicles following their final game of the season.



VICTORY GAME- JUNE 2012



NEWSLETTER OF THE MICROBIOLOGY & IMMUNOLOGY COMMUNITY  
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