MMG has had an interesting and active year. Several labs have moved to new locations to make room for Stafford Hall’s basement and first floor renovations. We will be welcoming Department of Neuroscience faculty and staff to Stafford Hall very soon as these renovations are rapidly coming to a close. The fresh paint and updated lighting has changed the feel of our basement from a gloomy, shadowy hallway to well-lit, state-of-the-art laboratory space. The Bond, Bouffard and Li groups will also be moving from the Given Building to the first floor of the Hills Building, bringing them closer to “home.”

Special Seminar and Celebration
Save the date! On October 8, 2013, Professor Emerita Dr. Paula Fives-Taylor will be celebrating her 80th birthday. In honor of this day and her many contributions to the MMG department, Dr. Hui Wu, a former graduate student (Ph.D., 1999) in Paula’s lab and now a tenured professor at the University of Alabama, will be giving a seminar describing how he has continued and extended Paula’s research on how oral bacteria form biofilms. The seminar will be at 2:00 pm in Stafford 401 and will be followed by a reception in Dr. Fives-Taylor’s honor at 3:30 pm outside the MMG office.

Welcome New Undergraduates!
This year our incoming undergraduate class is composed of fifty percent Vermont Residents, three of whom are also members of the Honors College.

Microbiology
Rachel Cooper       Adam Moshinsky
Ellie Fortner-Buczala      Alfonso Poire
Michael Guo           Lynden Prior
Daisy Hoagland        Daniel Sullivan

Molecular Genetics
Morgen Clark       Alex Pierce
Leyla Dickason     Emily Semmelrock
Thomas Echelberger  Viktoria Sjolund
Cori LaPan         Niles Trigg

Welcome New Graduate Students!
Graham Willsey ................. Wargo Lab
Yan Xing .................. Mintz Lab
Arvis Sulovari ............. Li Lab

Awards
Faculty Awards
Aimee Shen, Ph.D. was named The Pew Charitable Trusts’ biomedical Researcher of the Month in August 2013 for her creative research on health care-associated infections. Aimee studies the bacterium Clostridium difficile, the cause of thousands of diarrhea-related deaths every year in the United States. See the University Communications article for more detail.

Doug Johnson, Ph.D., was chosen as this year’s winner of the 2013 North American Colleges and Teachers of Agriculture (NACTA) Teaching Award.

Cardy Raper, Ph.D., Emerita, was elected by the AAAS (American Association for the
Advancement of Science) as an AAAS Fellow. Fellows are elected for "efforts on behalf of the advancement of science or its applications that are scientifically or socially distinguished."

Paula Fives-Taylor, Ph.D., Emerita, was the Burlington Free Press Volunteer of the Week last December. Paula was recognized not only for her teaching and scientific research career, but for her new career as a hospice volunteer with the Visiting Nurse Association in Chittenden County. Paula's good works were also recognized by the Cabot Creamery Cooperative, which awarded her a "Community Celebrity" award celebrating the selfless and heroic work of volunteers. This award came with a fabulous prize, an all-expenses-paid Alaskan cruise.

**Graduate Student Awards**

Chloe Adams, from the Doublié and Shen Labs, won first place in the Poster Contest at the College of Medicine's Graduate Research Day last September. K.P. Smith, from the Mintz Lab, received second place, and Kovi Bessoff, from the Huston Lab, won third place in the oral presentations.

**Undergraduate Student Awards**

Thomas Hilzinger (2014) was the winner in the Health and Biological Sciences Section of the University's Student Scholars Poster Competition. This competition included graduate and medical students. Andrea Lee, postdoc in the Wallace Lab, was Tom's mentor.

Tom also received the Nicole J. Ferland Award. This award, in honor of Nicole Ferland, an exemplary 2011 Microbiology and Molecular Genetics graduate, is given to a sophomore or junior majoring in Microbiology and Molecular Genetics for summer research or internship opportunities that enhance his/her undergraduate degree program and to help prepare him/her for advanced degree study.

In addition, Tom received the Alexander Kende Academic Merit Award, honoring the memory of the late Alexander Kende, a sixth generation Vermonter, who graduated in May 2000 with honors at the top of his class in the CALS Life Sciences: Biological Science Program. This award recognizes a second-semester junior CALS student for his/her academic excellence, demonstrated interest in medicine or biomedical research, service to and caring for others, integrity, personal courage and good humor.

Samuel Ashley (2014) was the recipient of an Office of Undergraduate Research Summer Research award also in the Wallace Lab.

The Lucille P. Markey Outstanding Senior in Molecular Genetics Award, in recognition of academic excellence and professional growth was presented to Midori Eckenstein.

Robert Rudy was awarded the Warren R. Steinbring Outstanding Senior in Microbiology Award in recognition of academic excellence and professional growth.

Evan Semiao received the Microbiology and Molecular Genetics Undergraduate Teaching Assistant Award at the CALS Honors Day in April.

MMG had four Distinguished Undergraduate Research Program recipients. The Distinguished Undergraduate Research Program of the College of Agriculture and Life Sciences recognizes students who, in addition to pursuing their regular course of study, conduct original research under the immediate supervision of a faculty member.

Midori Eckenstein - “Threonly tRNA synthetase (TARS) promotes angiogenesis through effects on cancer cells and vascular endothelial cells.”

Mentor: Dr. Karen Lounsbury

Ben Lane - “The role of glutaredoxin-1 in IKKa and IKKb-induced NF-κB activation.”

Mentors: Dr. Yvonne Janssen-Heininger and Stephanie Phelps, M.S.

Cody Paiva - “The role of c-FLIP cleavage during innate immune response to viral infection.”

Mentors: Dr. Iwona Buskiewicz and Stephanie Phelps, M.S.
Robert Rudy - "Suppression of voltage-gated potassium channels in brain parenchymal arterioles: A potential role for protein kinase C activation."
Mentor: Dr. Doug Johnson

---

**LAB NEWS**

**Bond Lab**

Our group continues to focus on developing and applying massively parallel sequencing (MPS) services. Bob Devins came to us from the Vermont Advanced Computing Center and developed Vagabond, software that automates MPS data analysis tasks. Ramiro Barrantes returned to our group to prototype MPS services, which he then hands off to Bob Devins for integration with Vagabond. Ramiro also consults on a wide variety of topics in statistics and informatics.

Marni Slavik returned to MMG to help in the application of MPS but quickly transformed our process management practices. She now also oversees exchange of information with the experiment design team and Tim Hunter’s AGTC.

Julie Dragon is now the lead on microarray bioinformatics services and core operations. Julie is also the lead on a TCGA (The Cancer Genome Atlas) data analysis project and exome variant services, which play a central role in a new and exciting translational collaboration with the Joann Sweasy, Susan Wallace, and Marie Wood laboratories. We continue to enjoy collaborations with MMG’s POI (Doublie/Morrical/Pederson/Sweasy/Wallace/Warshaw) team and Ralph Budd’s VCIID. Work with the Shen laboratory resulted in a *PLoS Genetics* paper. Our role in the Neuroblastoma & Medulloblastoma Translational Research Consortium continues to grow.

Jeff abandoned his search for a fetching toupee after comparisons were drawn with Quirinus Quirrell (see picture).

In September we will join Gerry Bouffard and Dawei Li in moving to the first floor of the Hills Building.

---

**Bouffard Lab**

Gerry’s twins start their first year of college this Fall. Thomas will be at RIT in Rochester, NY and Marie will be at Villanova, just outside of Philadelphia. Fifteen year old Nicholas will then have the benefit (?) of Gerry’s undivided attention. These are exciting times!

---

**Burke Lab**

John developed and taught a new course, *MMG* 233 Genetics and Genomics, which will be offered every year in the fall semester. The course is designed for both advanced undergraduates and graduate students. He also contributed to a number of *Wikipedia* articles in the field of molecular genetics, which were collectively accessed over 40 million times during the course of the year.

On a personal as well as professional note, John says he had his genome analyzed, “out of general curiosity and for use in my teaching and research. Among many other things, the analysis says that I have 2.9% Neanderthal ancestry, a high risk for macular degeneration, a low risk for male-pattern baldness, and blue eyes.”

He also presented talks on *The Human Genome and Race* to several groups, and was interviewed on the subject by Vermont Public
Radio and WPTZ television as well as appearing on Vermont Public Radio in a discussion on academic use and misuse of Wikipedia.

---

**Doublié Lab**

It has been another exciting year in the Doublie lab. Molly Coseno decided she didn’t have enough time with us and is back for the summer 😊. She recently got a new dog named Gus and is expecting a baby girl in October.

Ash Prakash has somehow managed to enjoy the Vermont wilderness by camping and hiking, even with all of the long hours she spends fighting with glycosylases. She keeps the lab’s spirits up with her goofy sense of humor.

Chloe Adams recently joined a dragon boat team called Malia and this summer they are racing in two competitions in Montreal, Quebec, and one in Hartford, Connecticut. She hasn’t kicked the travel bug yet with trips to Maine and Utah as well!

Our other nature lovers Brian Eckenroth and Karl Zahn still find time to bike like pros. Karl successfully defended his thesis back in March and is continuing on as a postdoc for a bit while searching the globe for another. He has recently started sailing on Lake Champlain and skate skiing in the winter when there is not enough snow. If he is not in the lab solving structures he is outside! Brian, our resident equipment expert, still finds time to do his own projects while helping everyone else. He continues to find time to enjoy the outdoors and the local breweries.

Brittany Carroll is preparing applications for graduate school for next fall. She welcomed her first nephew, Jaxson, back in November.

Our high school researcher, Zeke, is coming back this fall. He has been away at a dance camp for the summer along with traveling to visit family.

Last but not least, we are eagerly awaiting the delivery of a brand new X-ray set in the fall. The purchase was made possible through a very generous donation by a College of Medicine alum, Mr. Erving Trunk. The state of the art X-ray equipment includes a sealed tube X-ray generator, a CMOS detector, and cryogenic system. We can’t wait to take it for a spin.

---

**Gilmartin Lab**

Greg is resurrecting MMG 220 Environmental Microbiology, and will be teaching the course next Spring. This course was last offered in 2006 and taught by Tom Lewis.

---

**Johnson Lab**

The past year has been a good one for the Johnson lab. John Midkiff defended his M.S. thesis in August 2012 and has moved back to Colorado.

Todd Cramer successfully defended his M.S. thesis in August 2013 and has moved on to Boston. Undergraduate researchers Dylan White and Samantha Case graduated in May 2012; Dylan is now working for Tetra Tech in St. Albans and Samantha did a one-year internship with the CDC in Alaska and is starting graduate school there this year.

We have had a number of talented undergraduates and Post-bac students in the lab this year, including Amelia Taber, Kate Anderson, Vanessa Perez, and Liz Carson, who have done great work. Currently, we have four undergraduates, Olivia Poryanda, Kori Gargano, Samantha Niles, and Dan Spitzer, who will be carrying on the _C. albicans_ biofilm research in the lab.

After a slew of injuries and operations, Doug is finally on the mend. He is enjoying his time advising Honors College students in CALS and teaching MMG 101 with Brenda Tessmann (150 students this semester!!). Doug was very surprised at a recent faculty meeting when Tom Vogelmann, Dean of CALS, arrived with a cartload of champagne and presented him with The Teaching Award of Merit from the North American Colleges and Teachers of Agriculture!! Doug says, “One of the best faculty meetings ever!” Next year promises to be even better. We miss all the former Johnson labmates….keep in touch!!

---

**Li Lab**

Dr. Dawei Li joined the MMG faculty and started his laboratory on September 1, 2012. His team is one of the few groups focusing on human
statistical genetics and genomics, primarily of mental disorders and brain diseases, on the UVM campus. **Arvis Sulovari**, a first-year Ph.D. student in the CMB Program, joined the lab for his rotation research in January 2013 and has now decided to join the lab for his Ph.D. research. Arvis graduated from Dartmouth College three years ago, and spent the following two years in a human genetics laboratory at Dartmouth before joining us.

**Kelly Nguyen**, an UVM Honors College junior in MMG, has also joined Li lab for her thesis research. This summer, Arvis and Dawei were awarded training scholarships in statistical genetics from University of Washington, and University of Alabama at Birmingham, respectively. In August they led a two-day workshop, titled “An Introduction to Genetic Association Study of Human Complex Traits” open to students from all departments in CMB.

Recently, Dawei was appointed as assistant professor (secondary) with the UVM Department of Computer Science. The picture shows Dawei and graduate students enjoying a good day in the lab.

---

**Mintz Lab**

**KP Smith** attended two conferences this year presenting research on two independent projects. At the International Association for Dental Research in Seattle, Washington, KP was chosen to give a talk at the *Aggregatibacter Actinomycetemcomitans* session, and it was very well received. The second talk was given at the University of Pennsylvania periodontal conference where he presented a poster on his research.

CMB Graduate student **Yan Xing** was welcomed to the lab this year. Upon discovering them, he quickly developed a fondness for cherries and chocolate mousse cake.

**Thomas Freeman** has joined the lab from Dartmouth College after receiving his Masters in Chemistry. He likes fishing, cycling and knows a lot about object oriented programming, whatever that is. Another addition to the lab is **David Danforth**, who is currently volunteering his time after receiving his masters in Bacteriology from the University of Wisconsin, Madison.

Richard Voogt finally got his drivers' license this July. After all these years of not having a license he is now the designated driver on every trip. Richard has attempted to explain cricket to various members of the lab, to no avail. This attempt is a regular event, with one particular sticking point being the fact that games can be five days long and can still end in a tie.

A new criterion for joining the Mintz lab has come into force: Juggling. New lab members are in training programs while KP and Richard are developing their trick sets such as juggling off the wall.

---

**Pederson Lab**

Former lab member **Joy-El Barbour**, who is close to finishing her Ph.D. research at Berkeley, took time off to get married recently, in beautiful Saranac Lake, New York. She and Jared will mosey over to the west coast to continue the celebration with friends whose carbon footprint concerns kept them from traveling east.

We said goodbye to **Ian and Anahi Odell** who, during their time at UVM, married, and acquired two Ph.D.'s, one M.D., and one pretty darn cute baby. Ian has plunged into the residency program in Dermatology at Yale, and reports "seeing a lot of interesting diseases here - leprosy, ichthyosis, cutaneous sarcoidosis -- and [that] Anahi is very much enjoying the multicultural atmosphere, cafés, and beaches with Ellie and me on the weekends."

Meanwhile, on the homefront, **C.J. Yu** said a temporary goodbye to his wife, Helen, who left for a graduate program in Fashion Merchandizing at
Iowa State, and Wendy Cannan earned a second degree black belt in Kempo Jujitsu. Ever since, David has made an effort to stay away from her potato chip supply.

The entire lab was devastated recently when Joyce Heckman suffered a stroke. For years Joyce has provided wise counsel to numerous students and post-docs, on matters both personal and scientific. She has enriched our lab meetings and journal clubs, helped us move the lab to a new space last fall, and, more generally, has helped make the lab a happy place. We hope that Joyce will make a full recovery, and are looking forward to her return.

Sarkar Lab

The group is gearing up for some major changes. Graduate students Ahmed Nabhan and Vivek Sharma are completing their last studies as they ready themselves for defenses by the end of 2013.

Undergraduates Emily Bates and Joseph Romano are also nearly complete with their current projects with their eyes set on drafting manuscripts in the coming year. Undergraduates Alyssa Humphrey and Matthew McAvoy have graduated and have moved on to new adventures, but we are happy to have Christina Yu join the group.

PI Neil Sarkar is proud to announce that this was the first year in nearly a decade that he has flown less than 2,500 miles – largely due to increased ability to participate in meetings via video-conferencing. The reduced travel has meant that he is able to spend more time with his son Nat (who is now 20 months and has mastered running) and the newest member of the family, Euclid (who was adopted from All Breed Rescue in May).

Shen Lab

The past year has involved a lot of champagne and cake as we celebrated the acceptances of three papers: Chloe Adams (mentored jointly by Sylvie Doublie) reported the first structure of the CspB family germination proteases in PLoS Pathogens. Emily Putnam described the first spore morphogenetic proteins of Clostridium difficile in the Journal of Bacteriology, and Kelly Fimlaid published a global analysis of the regulatory pathway controlling C. difficile sporulation in PLoS Genetics. This latter analysis was the first RNA-sequencing run at the University of Vermont and was greatly facilitated through the hard work of Scott Tighe and Dr. Jeffrey Bond in the Advanced Genome Technologies Center and the RNA whisperer Kristin Schutz in the Shen lab.

Kelly gave her first talk at an international conference (on Gram-Positive Pathogens) in Nebraska this past fall, and she will be taking the show on the road to give a talk at the International ClostPath meeting in Cairns, Australia, this October.

After helping set up the lab and keeping the lab running, Emily Putnam is moving on to start graduate school at Yale University in the Biology & Biomedical Sciences Program. We miss Emily greatly, particularly her cheerful disposition, love of organizing things by color, and delicious baked goods, although we are excited to hear about her new adventures.

Keyan Pishdadian, a graduating senior, joined the lab as a technician and has been wowing the lab with his baking skills. Owen Jensen, an incoming senior, spent the spring and fall semester in the lab learning the ins-and-outs of C. difficile research.

Outside the lab, Kelly has been hitting the mountain biking trails, Keyan has been climbing the walls of New England (he even was a finalist in
a regional bouldering competition!), Kristin has been taking her daughter Lily horseback riding, Owen got some great skiing at Jay in this season, Chloe started dragon boat racing, and Aimee backpacked the Torres del Paine circuit in Patagonia.

Our “Baked Good” Friday tradition continues and was shared with the department with dueling mini-pie makers at a recent Friday party. The unofficial lab “hazing” now involves having newcomers sit next to the baked goods all day.

Thali Lab

Is it already time for another installment of the MMG newsletter? It feels like just yesterday I (Nate Roy) was writing this exact update (please, don’t go into the archives; according to last year’s newsletter I should already have a productive postdoc and two more papers out...). Alas, a whole year has passed, and things are changing in the Thali lab. Marie Lambé is wrapping up her work here, and plans to be back in Europe in early 2014, so wish her the best of luck. I myself will also be departing soon, although to an unknown destination. That will leave Mel Symeonides (who recently returned from a trip home to Cyprus) as the only graduate student in the lab to fend off Markus’s barrage of projects that need to be started.

Speaking of the current projects, we are entering a new era for the lab, as many older projects are evolving newer, more exciting directions. Jany Chan has been working on one of these directions, for which she wrote and was awarded a grant, and is preparing a first manuscript to get her feet wet here at UVM. The Thali household is becoming smaller and smaller as three of Markus’ four children are off to college. The youngest is a senior in high school. Time flies.

Wallace Lab

Summer of 2013 finds the Wallace Lab in great spirits! Heather Galick’s paper entitled, “Germ-line Variant of Human NTH1 DNA Glycosylase Induced Genomic Instability and Cellular Transformation” was accepted to *PNAS* in July 2013. Congratulations to Heather and coauthors! Jia Zhou’s paper entitled “Neil3 and Neil1 DNA Glycosylases Remove Oxidative Damages from Quadruplex DNA and Exhibit Preferences for Lesions in the Telomeric Sequence Context” was accepted to the *Journal of Biological Chemistry* in August 2013. Congratulations to Jia and coauthors! In addition, Tom Hilzinger was the winner of the Student Scholars Poster Competition in Health and Biological Sciences in fall of 2012.

The lab was fortunate to attract two talented undergraduates for summer research. Samuel Ashley (2014) was the recipient of an UVM Undergraduate Research Stipend and has worked with Scott Kathe on the characterization of new NEIL1 and NEIL2 SNPs from cancer patients. Thomas Hilzinger (2014) was the recipient of the MMG Nicole J. Ferland Award for summer research, and has worked with Andrea Lee on single-molecule studies of mouse glycosylase variants that are implicated in colon cancer. Tom also was awarded a URECA grant, was the recipient of the Alexander Kende award for Excellence in CALS, and was named a membership to the UVM Boulder Society Class of 2014. The lab was sorry to say goodbye to undergraduate Megan Hess (2013) who left to attend a program in physical therapy at SUNY Upstate Medical School. The Wallace Lab is excited to welcome Krystina Kattermann (2015), who will join the lab in the fall of 2013 for undergraduate research working with Carolyn Marsden investigating the in vivo activity of cancer-related Neil1 and Neil2 SNPs. Krystina has accepted an invitation to be an undergraduate student representative on the CALS Board of Advisors. The Board has one graduate student and one undergraduate student, each for a two-year term. The purpose of the Board is to provide advice to the Dean regarding opportunities, future directions, and challenges for the College; and the Dean seeks your
perspective as an undergraduate student to enhance and improve the undergraduate student experience.

Finally, Andrea Lee (Postdoc) and Matthew Liptak, UVM Assistant Professor of Chemistry, welcomed a new baby girl to their family. Jacqueline Lee Liptak was born on February 25, 2013!

Ward Lab

This has been a big year for turnover in the Ward lab. Anahi Odell and Qing Tang both defended their theses this spring, and Luke Tilley and Jacqueline Leung are on deck to defend by Christmas. We will be welcoming a new postdoc to the lab in September, Pramod Rompikuntal. Pramod comes to us from the southeastern part of India via Umea University in Sweden and University of Connecticut.

There have also been several new additions to our extended lab family: Eleanor Veronica Odell was born to Anahi and Ian on May 21 (see picture); Ethan David Winfree was born to Stacey Gilk and Seth Winfree on St. Patrick’s Day; and Aoife Heaslip and Tom Sladewski had twin girls, Maeve and Orla, on July 24. All the babies are incredibly cute, all the moms are healthy, and all the couples are very tired. Congratulations to the new parents!

Wargo Lab

There were a number of comings and goings in the Wargo Lab last year. We welcomed the arrival of our NIH ROI and part of a NASA EPSCoR grant, the latter of which enabled us to bring CMB graduate student Graham Willsiey on board this June. We had to bid farewell to Ken Hampel, Ph.D., now gainfully and likely more lucratively employed at Tetra Tech in St. Albans. Dr. Heather Bean, who has been occupying a bench in our lab and learning how to make Pseudomonas mutants, has moved along with Jane Hill’s lab to Dartmouth. MMG Undergrad Tom Briggs joined and left the lab in the last year, having worked on SDS metabolism by Pseudomonas for his Honors Thesis. We have had the continued presence of MMG undergrad Kenny John who is now going into his fourth ‘semester’ of research after finishing his second summer stint in our lab, as well as recently graduated UVM undergrad Chaz Cao, who helps Jamie in her projects.

Grad student Annette LaBauve awaits the fickle whims of peer review while writing her thesis. Grad student Jamie Meadows published her first first-author paper this year in Applied and Environmental Microbiology and has recently submitted a review manuscript. Grad student Adam Nock got engaged and otherwise has been working diligently on his Qual, outlining his first paper, and generating a large colony of Madagascar Hissing Cockroaches (see picture) for use in
future *Burkholderia thailandensis* infection studies.

---

**Teaching News**

Lynn Willette visited the Vermont Institute of Natural Science in Quechee where she saw some awesome eagles, buzzards and owls. These raptors are all rescues being rehabilitated at the nature center. If you go, don’t miss the live raptor show!

---

**Office News**

Welcome Barbara Drapelick, our new Administrator, to the Department. Barbara’s career path has brought her to us from the World Learning/SIT Graduate Institute in Brattleboro, and before that from the University of New Mexico in Albuquerque. Barbara, husband Tony, and cats Sammy and Dutch like to spend weekends at their home in Dummerston, Vermont. Debbie Stern and her husband, Mitch, traveled to Japan for two weeks this year during cherry blossom season. We traveled everywhere by train to the *Tama Densha*, a very small train line.

---

Click on the *YouTube* videos if you like trains and cats! Aside from the usual touristy things we did, such as touring Hiroshima, Tokyo, seeing a baseball game at the Tokyo Dome, eating sushi and staying in traditional Japanese inns (ryokans), we also visited a *cat café* and an animae (Japanese cartoons) convention. Definitely visit Japan if you get the chance!

---

**Alumni News**

Stacey Gilk (Ph.D., 2004 Ward Lab) writes, ”I recently finished my post-doc at the NIH Rocky Mountain Labs in Hamilton, MT, where I spent five awesome years enjoying life both inside and outside the lab. My husband, Seth, and I moved this last January to Indianapolis, where I have a tenure-track position at the Indiana University School of Medicine. My research is focused on the role of lipids in host-pathogen interactions, in particular the intracellular bacterium *Coxiella burnetii*. Seth is a microscopist, and has a position in the microscopy core at the medical school. This last St. Patrick’s Day we welcomed our son, Ethan, into the world. While we’ll miss snowboarding and mountain biking, we’re excited to explore Indiana and the Midwest.

Nils Walter (postdoc 1995-1999, Burke Lab) The Walter lab saw a record number of 5 PhD students graduate within a period of 2 weeks in April/May of this year (wow, that meant lots of reading for Nils!), several of which have decided to stay on for a little while as postdocs, while others moved to new positions in academia and industry. This turnover has meant for the group to go from 18 PhD students to a balanced mix of PhD students and new postdocs. Early in the
year, Nils also received two prestigious awards:
The Imes and Moore Faculty Award of the College of Literature, Science and the Arts for excellence in directing the SMART single molecule Center and making exceptional contributions in mentoring minority graduate students; and the University of Michigan’s 2013 Faculty Recognition Award for outstanding achievements in scholarly research, demonstrated excellence as a teacher and mentor, and service as a conscientious and engaged citizen of his department, school, and college.

W. Hunter White (MS, 1997, Johnson Lab) writes, “I’m still in R&D at Elanco Animal Health (a division of Eli Lilly & Company), in Greenfield, IN (just east of Indianapolis)...for the most part managing the discovery research efforts support anti-parasitics for small and large animals (i.e., new treatments to kill pesky 6 and 8 legged creatures as well intestinal parasites that wreak havoc on various 4-legged creatures), but over the past year things have expanded somewhat and I am also involved with later-stage research that supports new product submissions to regulatory agencies. My wife, Tina, and I celebrated our 23rd wedding anniversary last spring...getting close to that magical #25!!! Our daughter, Haley, will be starting her senior year at University of Indianapolis and is contemplating graduate school (translation: more tuition bills for us). Every summer and fall, I still somehow find the time to coach men's cross country at our local high school (working on our fourth consecutive trip to the semi-state level with an eye on eventual state championship meet) as well as continue to run myself. I’ve also been home brewing for some time...blame Doug and all that yeast I worked with over the years...my specialty seems to have fallen under the umbrella of big beers, particularly imperial IPA's, Baltic porters and English or American barleywine ales. The good thing about these styles - they're so complex with flavor that they're hard to mess up; the bad thing - it's tough to let them sit around and age long enough to be decent! My wife has taken to making some pretty darn good artisanal limoncello (and other citrus-cello) as well - we'll see where she takes us on this venture (maybe a small nano-distillery in the near future). Other than this, for all intents and purposes we appear to be a normal family - 1 dog of 6.5 years in age (a Nova Scotia Duck Tolling retriever); a 4-year-old cat (who thinks she is a dog and acts just like one); a fish; a vegetable and herb garden (including various hop varieties, of course); plenty of ants for pollination since our new neighbor seems to love the mosquito squad and has managed to decimate all the bees around the cul-de-sac; various species of somewhat tame wild-life including Canadian geese who refuse to leave for the winter, a 3-legged fat raccoon who dines alongside our cat at night, giant squirrels who like to throw nuts at me when I mow the lawn, and a few small brown bat houses (hint to neighbor...bats work just as well as the mosquito squad).

Warren Schaeffer, PhD, Emeritus writes, “Besides enjoying the pool, it does require effort to keep it in top shape! Additionally, I enjoy meeting with a weekly group that meets to discuss foreign affairs and whatever else is "trending". Our Osher Lifelong Learning Institute is gearing up for the Fall Semester and I've signed up for four courses. I teach my course ("Genes and Cells") there in the Spring Semester.”

Joe Sucic (postdoc 1992-1996, Moehring Lab) Joe currently works at the University of Michigan—Flint, and was just promoted to Professor from Associate Professor. He was married to Holly Benisek, who earned an M.S. from MMG in 1996 (Pederson Lab); sadly, she passed away in 2005.
Cardy Raper, Ph.D., Emerita writes, “My formerly self published memoir, "Love, Sex and Mushrooms: Adventures of a Woman in Science" has a new cover and a more sobering title as now published by Hatherleigh Press, distributed by Random House. "A Woman of Science: An Extraordinary Journey of Love, Discovery, and the Sex Life of Mushrooms" sold 1100 copies in its first month after release--twice as many as 'Robert Galbraith's' "The Cuckoo's Calling" before its real author was revealed as J. K. Rowling. Why the new title? The old one seems to have attracted too many folks not interested in the science of mushrooms.

Now I’m writing another book tentatively titled "Tobacco Farm Tales". It is about the Raper family, seven boys, one girl, growing up on a poor North Carolinian tobacco farm in the early part of the last century. They tell in their own colorful words of their hard working youth growing tobacco--relieved only on Sundays by large doses of religion--and how they managed to leave the farm, get an education, and find more rewarding work elsewhere.

As for leaving one place for another, I just switched summer dwellings on Lake Champlain from North Hero to a larger family gathering spot within walking distance of Basin Harbor Museum.”

---

**Microbiology and Molecular Genetics**

The Department of Microbiology and Molecular Genetics strives to be competitive in the scientific community. The Department funds many activities that bring researchers, students, postdoctoral associates and technicians together in a collegial manner to share research and ideas. These activities include, but are not limited to, graduate student activities, seminars, a departmental library, monthly departmental gatherings and retreats. Annual gifts from alumni and friends help defray the costs that grant money will not cover, and keep the excitement and drive at a high level among the various laboratories.

Please consider making a contribution in support of the Department of Microbiology and Molecular Genetics. You may make your gift in honor of a UVM colleague or co-worker if you would like.

Enclosed is my donation of $ ___________________.

Name: __________________________________________

Mailing Address: __________________________________________

__________________________________________

My gift is in honor of __________________________________________

Please make checks out to The University of Vermont and send to The Department of Microbiology & Molecular Genetics, University of Vermont, 95 Carrigan Drive, Stafford Hall, Burlington, Vermont 05405.

Gifts may also be made by credit card
American Express □ MasterCard □ Visa □ Discover □

Card Number: __________________________ Expiration date: __________________________

You may also send your gift via the Internet. Use the following web address, [https://alumni.uvm.edu/giving/support.asp](https://alumni.uvm.edu/giving/support.asp) Under "Gift Designation" be sure to check "Other" and type in Department of Microbiology and Molecular Genetics.

All gifts are greatly appreciated, no matter how large or small.

Thank you!!!