



# The Transcript

www.cmb.wisc.edu  
2013

## Welcome From the Chair

Hello CMB alumni and welcome once more to the CMB Transcript. Much has happened in the past year here in the Badger State, to the point where it is difficult to choose the most newsworthy event. Was it the record high temperatures and drought? Was it the election of Tammy Baldwin to the U.S. Senate? Was it Paul Ryan's selection as Mitt Romney's running mate? Was it the astonishing midcourt shot by Ben Brust that tied the game at the end of regulation against Michigan which the Badgers went on to win in overtime (you owe it to yourself to see this: <http://www.youtube.com/watch?v=kbYPFNfEa-Y>)? Was it the first time ever in which the Brewers, Packers and Bucks have all made the playoffs in the same year? Or was it the abrupt departure of the Badger football coach, Bret Bielema who was hired away from UW-Madison by Arkansas? (Apparently, Bielema was particularly excited when he learned that the Razorback colors are red

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Figure 1. The scene from Regent Street on game day in Madison. A man raises his fist upward in the universal sign of approbation. But what is it that has attracted his admiration?



and white, because it meant he would not have to buy any new shirts.) And then there was the rash of high profile returns associated with Wisconsin: Tommy Thompson returned to politics, won the Republican Senate Primary and then lost to Baldwin; Governor Scott Walker and Tom Barrett returned to face each other in the recall election, which Walker won; the Badger football team returned to the Rose Bowl and Barry Alvarez returned as their coach for that game, which, sadly, they lost.

## Welcome From the Chair...

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But there was another noteworthy event which, if not specific to Wisconsin or UW-Madison, may be of interest to CMB alumni. A high-powered National Institutes of Health panel issued a report which calls for serious changes in graduate student and postdoctoral support and training (if you want to see it, go to <http://acd.od.nih.gov/bwf.htm>). The report is a little confusing in that some of the conclusions seem mutually contradictory (e.g. the contention that too many Ph.D.s are being trained and that Ph.D. training needs to be made more attractive to potential students) but nonetheless the analysis is thought-provoking. The major point is that the number of Ph.D.s graduated each year in the U.S. far outstrips the available positions in academic science. Now, for most of us, this is hardly news.



Figure 2. It's a badger and, remarkably, it's on a van, growling its support for passersby.

Indeed, when I was a postdoc in 1991-1994 there was wide-spread concern that there were far too many Ph.D.s competing for just a handful of academic science positions. At the time, I remember reading an article in Science in which it was opined that postdocs had become "the burger flippers of science". At that time, only about 34% of postdocs went on to tenure track positions, versus about 26% today. What is news, however, is that the NIH is finally paying attention to this issue. Among other things, the panel recommends training Ph.D.s for a broader variety of career paths than just academic science at major research institutions. It is not clear whether the NIH will adopt the suggestions of the panel, and even if they do, it will likely take years to do so. CMB has a large, strong contingent of alumni who have taken nonacademic career paths and, for several years now, we have been periodically bringing in such alumni to share their experiences with current students. However, we would like to become more systematic about this and to develop a database of information concerning different careers. Accordingly, we would like to appeal to you alumni to email us your thoughts about your jobs--what are you doing, what do you like or dislike about it, to what extent do you think your graduate training helped you and what additional training would you have found helpful. Send your emails to [cmb@bocklabs.wisc.edu](mailto:cmb@bocklabs.wisc.edu). The information will be organized by the CMB Career Development committee and shared with current students.

Bill Bement  
CMB Program Chair

## Support CMB

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As one of the largest biological science graduate programs at UW-Madison, CMB has been committed to excellence in graduate education since the 1960's. If you would like to make a gift to this long-standing effort, visit the CMB website ([www.cmb.wisc.edu](http://www.cmb.wisc.edu)) or scan the QR code below. Your generous support is greatly appreciated!



## Tell us what you've been up to!

We would like to know any updates in your personal and professional life for use in the next issue of The CMB Transcript. Be sure to keep us informed of address changes so that we can continue to send you a copy of the newsletter each season. You can send your information to [cmb@bocklabs.wisc.edu](mailto:cmb@bocklabs.wisc.edu)

Name:  
Current employer:  
Job Title:  
Business address:  
Telephone Number (home/business):  
E-mail:  
Home Address:  
CMB Degree Year & Thesis Advisor:  
News you'd like to share:

Would you like to speak about your career to current graduate students in the CMB Program and the biological sciences at UW? We are especially in need of alumni who work in areas other than tenure track faculty at large research institutions. Let us know if you'd like to be contacted about speaking to graduate students about your career.

## CMB Donors 2012-2013

Dr. Gene Ananiev  
Dr. Philip Andersen  
Dr. Barry Buchbinder  
Dr. Sarah Kagan

**Thank you for  
your contributions!**



Congratulations to the following CMB students who received the 2013 National Science Foundation Graduate Research Fellowship

**Sarah Neuman**  
Class of 2011  
Arash Bashirullah Lab

**Adam Bayless**  
Class of 2011  
Andrew Bent Lab

## Lab Profile: Dr. Andrew Mehle

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By: Emily Kelly

It was during a virology class in his undergraduate studies when Andrew Mehle discovered he wanted to study influenza. After learning that influenza makes its messages via a process known as cap snatching, Mehle became fascinated with how the virus functioned and decided to pursue a career in virology. He earned his bachelor's degree in biology from Villanova University and continued on to earn his Ph.D. in virology from Harvard University. After graduating from Harvard, Mehle took a postdoctoral fellowship at the University of California – Berkeley in the laboratory of Jennifer Doudna, Ph.D. In 2011, he came to the University of Wisconsin – Madison as an assistant professor to study influenza virus polymerase.



Above: Dr. Andrew Mehle. Photo courtesy of Andrew Mehle

The Mehle lab is interested in understanding how influenza viruses transmit across species, e.g., from birds to humans. They focus their research on the influenza virus polymerase, the “machine” that amplifies the viral genome and generates the transcript for making viral proteins. Polymerases from viruses isolated from birds function poorly in human cells and this causes avian influenza viruses to be restricted in humans unless they acquire the necessary adaptations. The Mehle lab is trying to understand the virus host interactions that underly the restriction of avian polymerases in human cells. Ultimately, they hope that their research will help predict, and possibly prevent, the cross-species transmission of the influenza virus and provide new avenues for the development of antiviral therapies.



Above: Members of the Mehle Lab. From left to right back row: Daniel Poole, James Kirui, Andrew Mehle, Christopher Andrews, Arindam Mondal. From left to right front row: Cait Hamele, Vy Tran.

## Lab Profile: Dr. Andrew Mehle...

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Mehle is fairly new to the UW-Madison campus and is excited to see the lab grow. One of the more rewarding aspects for him is to see his people develop as independent scientists, assume more responsibility and help train and pass on research techniques. When asked about his mentoring style, Mehle describes it as hands on, as he is still heavily involved in the research, but it is evolving as other responsibilities such as grant writing require attention. The lab dynamic is also in a state of evolution. The lab started out with three full-time members, Dr. Mehle, Daniel Poole, a research specialist, and James Kirui, a current CMB graduate student. It now has five full-time members, who all have their own projects. Although they all have ownership over their projects, the research is still interconnected in terms of influenza replication.

James Kirui was Mehle's first graduate student. Kirui, who is from Kenya, came to the U.S. in 2007 to pursue his undergraduate degree at Bethune Cookman University in Daytona Beach, Florida. During the summer of 2009, Kirui came to



Above: CMB Student, James Kirui. Photo courtesy of Jessica Ciomperlik

UW-Madison for a summer internship in Bill Sugden's lab at the McArdle Laboratory for Cancer research to study Epstein Barr virus genome partitioning. He enjoyed the university and the city of Madison and decided to attend CMB for his Ph.D. Kirui's research focuses on looking at the differences in structure between the influenza virus polymerases from avian viral isolates and human viral isolates. He is also studying differential post-translational modifications that the influenza polymerase proteins undergo in human and avian cells. The overall goal of his research is to determine if structural differences and post-translational modifications contribute to restriction of avian influenza polymerase in humans.

Similar to Mehle, Kirui decided to study virology because of his fascination with influenza. Influenza is Kirui's favorite virus because of its unusual genome and high mutation rate, which makes it very dynamic and more fascinating to study. His other motivation to study influenza is the fact that it is a major global health concern and his research could help prevent pandemics in humans.

# 6 Take a Look at...



Above: Joseph Bruckner, CMB Student in Kate O'Connor-Giles' lab and Weekend Manger for Recruiting Season. Photo courtesy of Jessica Ciomperlik



Above: Microbial Sciences Building. Photo courtesy of Jessica Ciomperlik



Above: Blue Union Chair, new addition to campus Spring 2012. Photo courtesy of Jeff Miller/UW-Madison



Above: CMB Students at the WID reception during Recruiting Season: Bryan Sibert, Holly Basta, Lily Wong, Laura Winkler. Photo courtesy of Jessica Ciomperlik



Above: CMB Students in Bill Sugden's lab: Catherine Albright, Malika Kuzembayeva, Danielle Westhoff Smith. Photo courtesy of Jessica Ciomperlik



Above: Nick Davenport, CMB Student in Bill Bement's lab. Photo courtesy of Jessica Ciomperlik



Above: The Wisconsin Institute for Discovery (WID) Photo courtesy of Jeff Miller/UW-Madison



Above: Abraham Lincoln statue at night over-looking Madison, part of the new University campaign called #UWRightNow. Photo courtesy of Jeff Miller/UW-Madison



Above: Kelly Werner, CMB Student in David Pagliarini's lab. Photo courtesy of Jessica Ciomperlik

## ...what is going in CMB at UW-Madison!

## CMB Graduate Student Publications

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**Baldwin KL, Strohm AK, Masson PH.** Gravity Sensing and Signal Transduction in Vascular Plant Primary Roots. **Am J Bot.** 2013 Jan;100(1):126-42.

**Baldwin KL, Dinh EM, Hart BM, Masson PH.** CACTIN is an essential nuclear protein in Arabidopsis and may be associated with the eukaryotic spliceosome. **FEBS Lett.** 2013 Apr 2;587(7):873-9.

**Barcus CE, Keely PJ, Eliceiri KW, Schuler LA.** Stiff Collagen Matrices Increase Tumorigenic Prolactin Signaling in Breast Cancer Cells. **J Biol Chem.** 2013 Mar 24.

**Boateng LR, Huttenlocher A.** Spatiotemporal regulation of Src and its substrates at invadosomes. **Eur J Cell Biol.** 2012 Nov-Dec;91(11-12)

**Brown PT, Handorf AM, Jeon WB, Li WJ.** Stem Cell-based Tissue Engineering Approaches for Musculoskeletal Regeneration. **Curr Pharm Des.** 2013 Feb 11.

**Bruckner JJ, Gratz SJ, Slind JK, Geske RR, Cummings AM, Galindo SE, Donohue LK, O'Connor-Giles KM.** Fife, a Drosophila Piccolo-RIM homolog, promotes active zone organization and neurotransmitter release. **J Neurosci.** 2012 Nov 28.

**Ducett JK, Peterson FC, Hoover LA, Prunuske AJ, Volkman BF, Craig EA.** Unfolding of the C-terminal domain of the J-protein Zuo1 releases autoinhibition and activates Pdr1-dependent transcription. **J Mol Biol.** 2013 Jan 9.

Johansson MW, **Han ST, Gunderson KA, Busse WW, Jarjour NN, Mosher DF.** Platelet activation, P-selectin, and eosinophil  $\beta$ 1-integrin activation in asthma. **Am J Respir Crit Care Med.** 2012 Mar 1.

**Ihry RJ, Sapiro AL, Bashirullah A.** Translational control by the DEAD Box RNA helicase belle regulates ecdysone-triggered transcriptional cascades. **PLoS Genet.** 2012.

**Jobe EM, McQuate AL, Zhao X.** Crosstalk among Epigenetic Pathways Regulates Neurogenesis. **Front Neurosci.** 2012.

**Kuzembayeva M, Chiu YF, Sugden B.** Comparing proteomics and RISC immunoprecipitations to identify targets of Epstein-Barr viral miRNAs. **PLoS One.** 2012.

**Yoo SK, Lam PY, Eichelberg MR, Zasadil L, Bement WM, Huttenlocher A.** The role of microtubules in neutrophil polarity and migration in live zebrafish. **J Cell Sci.** 2012 Dec 1.

**Lam PY, Yoo SK, Green JM, Huttenlocher A.** The SH2-domain-containing inositol 5-phosphatase (SHIP) limits the motility of neutrophils and their recruitment to wounds in zebrafish. **J Cell Sci.** 2012 Nov 1.

## CMB Graduate Student Publications...

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**Lauck M, Sibley SD, Hyeroba D, Tumukunde A, Weny G, Chapman CA, Ting N, Switzer WM, Kuhn JH, Friedrich TC, O'Connor DH, Goldberg TL.** Exceptional simian hemorrhagic fever virus diversity in a wild African primate community. **J Virol.** 2013 Jan.

**Lennon CW, Ross W, Martin-Tumasz S, Touloukhonov I, Vrentas CE, Rutherford ST, Lee JH, Butcher SE, Gourse RL.** Direct interactions between the coiled-coil tip of DksA and the trigger loop of RNA polymerase mediate transcriptional regulation. **Genes Dev.** 2012 Dec 1.

**Lera RF, Burkard ME.** High mitotic activity of Polo-like kinase 1 is required for chromosome segregation and genomic integrity in human epithelial cells. **J Biol Chem.** 2012 Dec 14.

**Lera RF, Burkard ME.** The final link: tapping the power of chemical genetics to connect the molecular and biologic functions of mitotic protein kinases. **Molecules.** 2012 Oct 17.

**Loveless T, Hardin J.** Cadherin complexity: recent insights into cadherin superfamily function in *C. elegans*. **Curr Opin Cell Biol.** 2012 Oct 24.

**Ma S, Kwon HJ, Johng H, Zang K, Huang Z.** Radial glial neural progenitors regulate nascent brain vascular network stabilization via inhibition of Wnt signaling. **PLoS Biol.** 2013 Jan;11.

**Ma S, Kwon HJ, Huang Z.** A functional requirement for astroglia in promoting blood vessel development in the early postnatal brain. **PLoS One.** 2012.

**Ma S, Kwon HJ, Huang Z.** Ric-8a, a guanine nucleotide exchange factor for heterotrimeric G proteins, regulates bergmann glia-basement membrane adhesion during cerebellar foliation. **J Neurosci.** 2012 Oct 24.

**Manthei DM, Jackson DJ, Evans MD, Gangnon RE, Tisler CJ, Gern JE, Lemanske RF Jr, Denlinger LC.** Protection from asthma in a high-risk birth cohort by attenuated P2X(7) function. **J Allergy Clin Immunol.** 2012 Aug.

Yang C, **Park AC, Davis NA, Russell JD, Kim B, Brand DD, Lawrence MJ, Ge Y, Westphall MS, Coon JJ, Greenspan DS.** Comprehensive mass spectrometric mapping of the hydroxylated amino acid residues of the  $\alpha$ 1(V) collagen chain. **J Biol Chem.** 2012 Nov 23.

**Park S, Dimaio TA, Liu W, Wang S, Sorenson CM, Sheibani N.** Endoglin Regulates the Activation and Quiescence of Endothelium by Participating in Canonical and Non-Canonical TGF- $\beta$  Signaling Pathways. **J Cell Sci.** 2013 Feb 15.

**Pittman KJ, Skop AR.** Anterior PAR proteins function during cytokinesis and maintain DYN-1 at the cleavage furrow in *Caenorhabditis elegans*. **Cytoskeleton (Hoboken).** 2012 Oct.

## CMB Graduate Student Publications...

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**Roy RM**, Paes HC, Nanjappa SG, Sorkness R, Gasper D, Sterkel A, Wüthrich M, Klein BS. Complement Component 3C3 and C3a Receptor Are Required in Chitin-Dependent Allergic Sensitization to *Aspergillus fumigatus* but Dispensable in Chitin-Induced Innate Allergic Inflammation. **MBio**. 2013 Apr 2.

**Roy RM**, Wüthrich M, Klein BS. Chitin elicits CCL2 from airway epithelial cells and induces CCR2-dependent innate allergic inflammation in the lung. **J Immunol**. 2012 Sep 1.

**Roy RM**, Klein BS. Dendritic cells in antifungal immunity and vaccine design. **Cell Host Microbe**. 2012 May 17.

**Rensvold JW**, Ong SE, Jeevananthan A, Carr SA, Mootha VK, Pagliarini DJ. Complementary RNA and protein profiling identifies iron as a key regulator of mitochondrial biogenesis. **Cell Rep**. 2013 Jan 31.

**Strohm AK**, **Baldwin KL**, Masson PH. Multiple roles for membrane-associated protein trafficking and signaling in gravitropism. **Front Plant Sci**. 2012.

**Taff HT**, Nett JE, Zarnowski R, Ross KM, Sanchez H, Cain MT, Hamaker J, Mitchell AP, Andes DR. A *Candida* biofilm-induced pathway for matrix glucan delivery: implications for drug resistance. **PLoS Pathog**. 2012.

**Taff HT**, Nett JE, Andes DR. Comparative analysis of *Candida* biofilm quantitation assays. **Med Mycol**. 2012 Feb.

**Koehn TA**, **Trimble LL**, Alderson KL, Erbe AK, McDowell KA, Grzywacz B, Hank JA, Sondel PM. Increasing the clinical efficacy of NK and antibody-mediated cancer immunotherapy: potential predictors of successful clinical outcome based on observations in high-risk neuroblastoma. **Front Pharmacol**. 2012.

**Westhoff Smith D**, Sugden B. Potential cellular functions of Epstein-Barr Nuclear Antigen 1 (EBNA1) of Epstein-Barr Virus. **Viruses**. 2013 Jan 16.

**Winkler LL**, Hwang J, Kalejta RF. Ubiquitin-Independent Proteasomal Degradation of Tumor Suppressors by Human Cytomegalovirus pp71 Requires the 19S Regulatory Particle. **J Virol**. 2013 Apr.

**Yoo SK**, Freisinger CM, LeBert DC, Huttenlocher A. Early redox, Src family kinase, and calcium signaling integrate wound responses and tissue regeneration in zebrafish. **J Cell Biol**. 2012 Oct 15.

**Yoo SK**, Lam PY, Eichelberg MR, Zasadil L, Bement WM, Huttenlocher A. The role of microtubules in neutrophil polarity and migration in live zebrafish. **J Cell Sci**. 2012 Dec.

## CMB Graduate Student Publications...

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**Lam PY**, **Yoo SK**, Green JM, Huttenlocher A. The SH2-domain-containing inositol 5-phosphatase (SHIP) limits the motility of neutrophils and their recruitment to wounds in zebrafish. **J Cell Sci**. 2012 Nov 1.

**You JS**, Frey JW, **Hornberger TA**. Mechanical stimulation induces mTOR signaling via an ERK-independent mechanism: implications for a direct activation of mTOR by phosphatidic acid. **PLoS One**. 2012.

**Zeng H**, Wu J, Bedford MT, Sbardella G, Hoffmann FM, Bi K, Xu W. A TR-FRET-Based Functional Assay for Screening Activators of CARM1. **Chembiochem**. 2013 Apr 12.

Liu P, **Zhang H**, Liu H, Wang Y, An T, Cai W, Yang H, Yao X, Zhu G, Webb R, Zhao H. Vapor-Phase Hydrothermal Growth of Novel Segmentally Configured Nanotubular Crystal Structure. **Small**. 2013 Apr 16.

## CMB Professional Development Committee

By: Viswa Colluru, CMB Graduate Student

Great scientific publications, an innovative thesis, proven versatility, immaculate powers of observation, an unbridled curiosity, a penchant for creativity, an indefatigable tenacity and (last but not the least), a world class Doctor of Philosophy degree – the average repertoire of a CMB student. Yes, we truly are equipped to conquer the deliciously diverse world that lies in wait outside graduate school! As a generation that routinely shuns stereotype and takes pleasure in novelty, all we need is a gentle nudge in the right direction and a timely word of wisdom. The Professional Development Committee (PDC) hopes to fill that very void, kick-starting our journey into uncharted territory. In a rapidly evolving and ultra-competitive job market, access to information and contacts could make a world of difference. 'Networking' is key.

Our interests, and prospects, range from traditional post-doctoral positions in academia to science writing and business intelligence. Drawing upon the wealth of our alumni's diversity and the range of their exploits, the PDC is involved in finding and providing access to resource personnel engaged in various avenues of pursuit. The season of vocational enlightenment began with an 8 member interactive panel discussion featuring leading members of the local biotech industry here at Madison, including three recent CMB alumni. Keen questions, candid comments and extensive myth-busting later, the 60 odd attendees of the May 9th event left an informed lot. Most of them stayed on to interact personally with members of the panel in a specially arranged breakout session and yes, score some networking points (I know I did)! Buoyed by the enthusiastic student response and exclamations of approval from prospective panelists, the PDC has a host of such events on the anvil. On June 6th, the PDC will host an eclectic panel dedicated to and engaged in teaching. Armed with the aegis of the CMB leadership and an enthusiastic team of student volunteers, the PDC hopes to bring success one step closer through awareness, education and interaction.



Above: Biotech Career Panel 2013. Photo Courtesy of Jessica Ciomperlik

# Lab Profile: Dr. Douglas McNeel

By: Emily Kelly

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Above: Dr. Douglas McNeel. Photo courtesy of Viswa Colluru

Douglas G. McNeel M.D./Ph.D., is currently an Professor in the Department of Medicine, division of Hematology/Oncology, at the University of Wisconsin-Madison (UW-Madison). Dr. McNeel received his BA in Chemistry and Music at Whitman College in 1986. He then pursued graduate training at the University of Chicago, and received his Ph.D. (Biochemistry and Molecular Biology) in 1992 and MD in 1994. Dr. McNeel has served as the PI for multiple clinical trials, and co-investigator for multiple other trials for patients with genitourinary malignancies. Dr. McNeel himself has mentored nearly 30 graduate or post-graduate trainees in the laboratory, and many other medical trainees in clinical medicine and clinical research projects. Dr. McNeel's laboratory and clinical research program is focused on prostate cancer immunology with the goal of developing anti-tumor vaccines as treatments for prostate cancer. Dr. McNeel is the Thesis Advisor for current CMB student, Viswa Colluru. I sat down with Viswa to talk more about McNeel Lab and their work.

**Emily Kelly (EK): Can you tell me about your educational background and why you decided to do your graduate work in CMB at UW-Madison?**

**Viswa Colluru (VC):** I did my undergraduate in biotechnology at Andhra University in Andhra Pradesh, India, where I am originally from. I chose UW-Madison because two of my favorite textbooks from undergrad were written by professors here at the university. *Lehninger's Principles of Biochemistry* by Nelson and Cox and *The World of Cell* by Wayne M. Becker were the books. I thought that people here really knew their science and I thought that I should apply to UW-Madison. The first program that came up after I did a google search was CMB. I emailed a couple of current students and they told me that as long as your PI and you are on the same page, CMB is always supportive and never puts up any hurdles. I really liked the flexibility it offered, as well as the less course work and more focus on research, so I applied.

**EK: Can you tell me about your lab's research?**

**VC:** Our laboratory is interested in the development of immunological treatments and vaccines that can eradicate prostate cancer. The long-term goal of these studies is to identify in the laboratory, and test in clinical trials, vaccines that can elicit prostate cancer-destructive immune responses. This work is "translational" research in that it uses patient-derived samples to formulate hypotheses and drive laboratory research and discovery and then takes these laboratory findings to preclinical and clinical studies. We are specifically interested in DNA vaccines encoding tumor antigens, and have demonstrated their ability to confer effective anti-tumor benefit in preclinical models. A DNA vaccine encoding Prostatic Acid Phosphatase (PAP) is also being evaluated in early phase clinical trials by our laboratory.

**EK: What is your research and role in the lab?**

**VC:** I'm a second year graduate student. Since I've completed my course-credit requirement, all my working hours are devoted to ensuring the fruition of my projects. My primary research project involves understanding the mechanisms underlying DNA vaccine immunogenicity in humans, including identifying the essential cell types and cytokines involved in this process. I hope to be able to use this information to launch a focused and informed effort to improve existing DNA vaccine treatment modalities. DNA vaccines have several advantages over traditional vaccines, including ease of handling, low cost, enhanced safety and easy modification. Though DNA vaccines were shown to be remarkably efficacious in over 30 preclinical disease models, including several different types of cancers, they have been relatively unsuccessful in several human trials conducted to date. I believe my project could not only shed light on this inconsistency but also provide a solution to it, potentially paving the way for an inexpensive, highly efficient vaccine configuration applicable to several diseases.

# Lab Profile: Dr. Douglas McNeel...

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**EK: Why did you choose this particular research?**

**VC:** I lost my mother to leukemia in 2004. Her doctor was my mentor and uncle, who is one of the leading surgical oncologists in India. He told me that even though we have a huge database of knowledge regarding the clinical treatment of cancer, we still don't know how and why it occurs. So I thought I should probably do this and try to save lives. That is the reason I chose the McNeel lab, because it is translation research. We build the bridge between basic research findings and taking that information to the clinic. The vaccines that my PI initially made are the ones in clinical trials right now and we have already seen encouraging results. I would definitely say it has extended and improved the quality of life for many people, if not saved them. I am a fan of research that can show influence in my lifetime. Basic research is extremely important because translation research builds off of years of basic research, but I would much rather be at the focus of the transition from the bench to the clinic.



Above: CMB Student Viswa Colluru. Photo courtesy of Viswa Colluru

**EK: Can you tell me about the structure and atmosphere of the McNeel Lab?**

**VC:** My PI is around most of the time and his door is always open. That is what I initially liked about him; he is extremely open and friendly with grad students. You can always walk into his office and ask him absolutely anything, from the most basic techniques to a new hypothesis that you just came up with. He doesn't mind letting you arrive at the flaws of your idea instead of telling you what might be wrong with it right away. I think that is what makes Doug one of the best people you can work for. Another remarkable thing about him is that he treats his own colleagues and an undergrad that is two days old in the lab with the same respect. He gives them the same time and priority and I think that is exceptional for a PI. My PI allows us to give him nicknames when we are not pleased with him and he does the same with us. It is a very fun loving, laid back lab. My PI floods our mailboxes with junk mail and we return the favor by playing pranks on him. It has forced him to lock his office at night because he would come to work and find his desk covered in plastic animals. There is absolutely no tension in the atmosphere and that is why we are all great friends.

**EK: What is your favorite part about research?**

**VC:** It is not just a particular task, but also the excitement of finding something new. Research and science is about finding and sketching a universe of reality. It is about finding the truth, and there are many ways to arrive at that. What makes science exciting is that you can come into work everyday expecting to discover something. The knowledge of looking at a piece of data and thinking no one else in the world knows this happens but me right now, well that is the most gratification you can get. If you couple that with a larger picture of that fact that this research could save lives one day, it is a great feeling. I think the combination of both is my favorite thing.



Above: Dr. McNeel and Viswa Colluru. Photo courtesy of Viswa Colluru

# Faculty Awards and Honors

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## Paul Ahlquist, Professor, Plant Pathology

- Elected to the American Association for the Advancement of Sciences (AAAS) (November 2012)

## Seth Blair, Professor, Zoology

- Chancellor's Award for 2013 Distinguished Teaching Award at UW-Madison. The awards honors "faculty members whose teaching is of such quality that it merits recognition and award". (March 2013)

## Emery Bresnick, Professor, Cell & Regenerative Biology

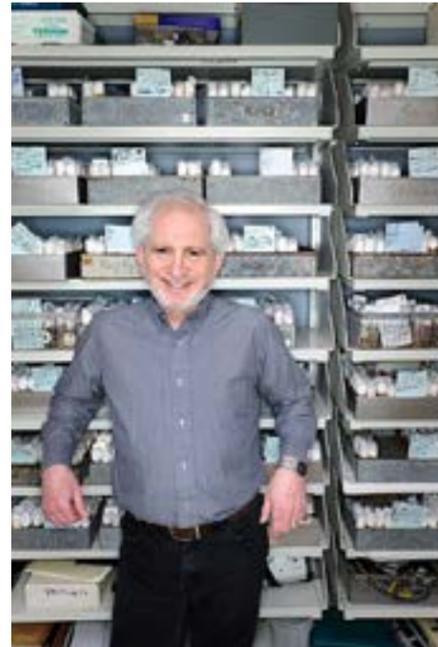
- Kellett Mid-Career Award at UW-Madison. The Kellett award, supported by the Wisconsin Alumni Research Foundation (WARF), recognizes outstanding mid-career faculty members who are five to twenty years past the first promotion to a tenured position. The award is named for William R. Kellett, a former president of the WARF board of trustees and retired president of Kimberly-Clark Corporation. (February 2013)

## Tim Donohue, Professor, Bacteriology

- Elected President of the American Society for Microbiology (February 2013)

## Barry Ganetzky, Steenbock Professor, Genetics

- Hilldale Award for teaching research and service in the biological sciences at UW-Madison. The Hilldale Awards, which honor contributions to teaching, research and service each year, are based on UW-Madison's four divisions: biological sciences, physical sciences, social studies, and arts and humanities. The awards are sponsored by the Hilldale Fund, which supports the advancement of scholarly activity at UW-Madison. (April 2013)



Above: Barry Ganetzky  
Photo courtesy of Jeff Miller/UW-Madison

## Yoshihiro Kawaoka, Professor, Pathobiological Sciences

- Elected to the U.S. National Academy of Sciences (NAS). (May 2013)

## Patricia Keely, Professor, Cell & Regenerative Biology

- Romnes Faculty Fellowship: Recognizes exceptional faculty members at UW-Madison who have earned tenure within the last six years. The award is supported by the Wisconsin Alumni Research Foundation (WARF) and is named for the late H. I. Romnes, former chairman of the board of AT&T and former president of the WARF board of trustees. (February 2013)

## Ching Kung, Professor, Genetics

- Elected as a fellow of the American Academy of Microbiology. Dr. Kung is one of 80 new fellows, who are elected by their peers in recognition of their scientific achievements and original contributions to advance the study of microbiology. (May 2012)

## Andrew Mehle, Assistant Professor, Medical Microbiology

- 2012 Shaw Scientist Award. Chosen by a panel of prominent scientists from around the country. (May 2012)



Photo courtesy of Jeff Miller/UW Madison

# Faculty Awards and Honors...

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## Marisa Otegui, Associate Professor, Botany

- Romnes Faculty Fellowship: Recognizes exceptional faculty members at UW-Madison who have earned tenure within the last six years. The award is supported by the Wisconsin Alumni Research Foundation (WARF) and is named for the late H. I. Romnes, former chairman of the board of AT&T and former president of the WARF board of trustees. (February 2013)

## David Pagliarini, Assistant Professor, Biochemistry

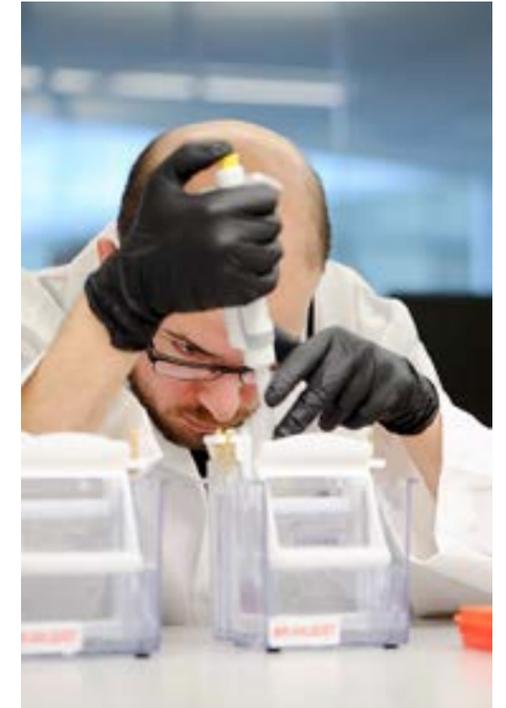
- 2012 Shaw Scientist Award. Chosen by a panel of prominent scientists from around the country. (May 2012)

## Jennifer Reed, Assistant Professor, Chemical & Biological Engineering

- Five-year early-career award from the U.S. Department of Energy Office of Biological and Environmental Research to explore new possible ways to produce biofuels. (May 2012)

## James Thomson, Professor, Cell & Regenerative Biology

- McEwen Award for Innovation from the International Society for Stem Cell Research (ISSCR). The McEwen Award recognizes Thomson's career history of influential discoveries as well as groundbreaking work within the past 10 years. The ISSCR's award is supported by the McEwen Centre for Regenerative Medicine in Toronto, Canada. (April 2013)



Above: Graduate student Justin Massey works in the virology lab of Paul Ahlquist, professor of molecular virology, oncology and plant pathology, at the Wisconsin Institutes for Discovery (WID). Photo courtesy of Jeff Miller/UW Madison



Above: Yoshihiro Kawaoka, a professor of pathobiological sciences in the School of Veterinary Medicine at the University of Wisconsin-Madison, talks with a group of media representatives during a tour of the Influenza Research Institute. Photo courtesy of Bryce Richter/UW-Madison





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