



# CIMD Newsletter



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## Six CIMD Faculty Awarded New Grants From the NIH

**James R. Drake, Ph.D.**, Professor, received a \$433,625, two-year American Recovery and Reinvestment Act grant from the NIH, National Institute of Allergy and Infectious Diseases in support of his research entitled, "MHC Class II subsets in B Lymphocyte Biology."

**Edmund J. Gosselin, Ph.D.**, Associate Professor, received a \$1.6 million, four-year grant from the NIH, National Institute of Allergy and Infectious Disease in support of his research

entitled, "Mechanisms Involved in, and Development of, FcR-enhanced Mucosal Vaccination."

**Jonathan A. Harton, Ph.D.**, Assistant Professor, received a \$1.4 million, four-year grant from the NIH, National Institute of Allergy and Infectious Diseases in support of his research entitled, "Regulation of Innate Immunity by Pypin Proteins."

**Dennis W. Metzger, Ph.D.**, Professor, received a \$431,750, two-year grant

from the NIH, National Institute of Allergy and Infectious Diseases for his research entitled, "The Influence of IgA on B Cell Homeostasis."

**J. Andrés Melendez, Ph.D.**, Associate Professor, received a \$168,648 supplement to his existing \$1.6 million, five-year grant from the NIH, National Institute on Aging to support his research entitled, "Redox-control of MMP-1 and Senescence."

**Jing-Ren Zhang, D.V.M.**

**Ph.D.**, Associate Professor, received a \$431,750, two-year grant from the NIH, National Institute of Allergy and Infectious Diseases in support of his research entitled, "Functional Analysis of the Francisella cap-BCA Gene Locus.

## CIMD Ph.D. Graduate Invited to Speak at Commencement Ceremony

**Justin Wilson**, graduate student, successfully defended his Ph.D. thesis entitled, "Modulation of Macrophage Antigen Presentation by *Francisella tularensis*," on April 29, 2009.

Justin was also nominated by the graduate stu-

dent body to address the audience at the Albany Medical College's 171st Commencement Ceremony held Thursday, May 21, 2009 at the Saratoga Performing Arts Center in Saratoga Springs, NY.

"Today, for the first time in 20-plus years, we will no

longer hold the title of 'student,'" Justin stated.

The College awarded a total of 211 degrees.

Justin also received the 2009 Graduate Student Award from the Alumni Association which was presented at its annual luncheon on April 25, 2009.

He will begin his post-doctoral fellowship in the laboratory of Dr. Jenny Ting in the Lineberger Comprehensive Cancer Center at the University of North Carolina at Chapel Hill.

(Mentor: **James R. Drake, Ph.D.**)

## Dr. Drake Receives Sosa Academy Outstanding Mentor Award

**James R. Drake, Ph.D.**, Professor, was inducted into the Albany Medical College Sosa Academy when he received the 2009 Outstanding Mentor Award which was presented during this year's Commencement Ceremony.

## Fellowships and Awards

**Keer Sun, Ph.D.**, Research Associate, received a \$32,500, one-year Senior Research Training Fellowship from the American Lung Association in support of her research entitled, "Influence of Influenza Infection on Alveolar Macrophage Anti-bacterial Activity." Dr. Sun also received a 2009 AAI Abstract Trainee Award in the amount of \$500 from the American Association of Immunologists to give a presentation entitled, "Regulatory Role of IFN-gamma on Alveolar Macrophage Function During Influenza Infection," at its 96th Annual Meeting in Seattle, WA, May 8-12, 2009.

**Douglas Durrant**, graduate student, was selected to receive a \$1,000 Young Investigator Travel Award from the Society of Mucosal Immu-

nology to present his research entitled, "IL-12 Alleviates IL-17-mediated Allergic Lung Inflammation in the Absence of T-bet Regulation," at the 14th International Congress of Mucosal Immunology in Boston, MA, July 5-9, 2009.

**Girish Kirimanjeswara, D.V.M., Ph.D.**, Research Associate, was selected to receive a \$1,000 Young Investigator Travel Award from the Society of Mucosal Immunology to present his research entitled, "Influence of IgA Expression on B Cell Homeostasis," at the 14th International Congress of Mucosal Immunology in Boston, MA, July 5-9, 2009.

**Amanda Melillo**, graduate student, received a \$500 Corporate Activities Program Student Travel Award from

the American Society for Microbiology to give a

poster presentation of her research entitled, "A Novel Role for *Francisella tularensis* Antioxidant Enzymes in Modulating Human Macrophage Signaling and Activation," at its 109th General Meeting in Philadelphia, PA, May 17-21, 2009.

**Justin Wilson**, graduate student, received the AMC Alumni Association's 2009 Graduate Student Award. This award is presented to the AMC student who has shown outstanding personal, academic and professional qualities, and has exhibited an active interest in the projects and programs of the Alumni Association.



## Peer-reviewed Publications

**Metzger DW.** IL-12 as an adjuvant for enhancement of protective humoral immunity. *Expert Rev. Vaccines* 8:515-518, 2009.

**Mahawar M, Kirimanjeswara GS, Metzger DW and Bakshi CS.** Contribution of citrulline ureidase to *Francisella tularensis* Strain Schu S4 pathogenesis. *J. Bacteriol.* 191:4798-806, 2009.

**Hazlett KR, Cirillo KA.** Environmental adaptation of *Francisella tularensis*. *Microbes Infect.*, in press.

Joseph LC, **Bennett JA**, Kirschner KN, Shields GC, Hughes J, Lostritto N, **Jacobson HI**, and Andersen TT. Antiestrogenic and anticancer activities of peptides derived from the active site of alpha-fetoprotein. *J. Pept. Sci.* 15:319-325, 2009.

Tower AM, Trinward A, Lee K, Joseph L, **Jacobson HI, Bennett JA**, and Andersen TT. AFPep, a novel drug for the prevention and treatment of breast cancer, does not disrupt the estrous cycle or fertility in rats. *Oncol. Rep.* 22:49-56, 2009.

**Dasgupta J, Kar S**, Remmen HV, and **Melendez JA.** Age-dependent increases in interstitial collagenase and MAP kinase levels are exacerbated by superoxide dismutase deficiencies. *Exp. Gerontol.*, in press.

## Capital News 9 and Fox 23 News Interviews Dr. Metzger Regarding Swine Flu

According to the Centers for Disease Control and Prevention, there are now over 100 confirmed cases of the swine flu, a form of the more common so called 'flu.'

"With normal seasonal flu, there are about 100 deaths per day in the U.S., so flu is something we should be concerned about. But we should be even more concerned about it if this is

a new strain." said research scientist, Dr. Dennis Metzger.

According to Dr. Metzger, this particular virus is affecting young adults with an average age of 16. Although the initial death rate from the flu in Mexico was fairly high, at this point, the death rate in the United States and elsewhere is not. In fact, as time goes on, the flu weakens.

"Many times, a virus will appear and

be very deadly at the beginning, but as it progresses through the human population, it gets weaker and weaker. That's what we are seeing here."

The typical flu symptoms include headache, muscle aches and fever. So when is it time to get worried?

"We get worried when we start

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## Conferences, Invited Talks, Meetings and Study Sections

**J. Andrés Melendez, Ph.D.**, was invited to give a talk entitled, "Manganese Superoxide Dismutase: A Key Determinant of Redox-dependent Mitochondrial Signaling," at the Oberley Memorial Free Radical Symposium at the University of Iowa, April 3-4, 2009.

**Dennis W. Metzger, Ph.D.**, was asked to chair the NIH National Institute of Allergy and Infectious Diseases Special Emphasis Panel to review "Large Scale T Cell Epitope Discovery" Broad Agency Announcement (BAA) applications, in Silver Spring, MD, April 6-8, 2009.

**Dana R. Crawford, Ph.D.**, gave a poster presentation of his research entitled, "The Potential Use of Diet for Rational Gene Targeting in Treating Genetically-defined Pathologies," at the FASEB Experimental Biology 2009 Conference in New Orleans, LA, April 18-22, 2009.

**Dennis W. Metzger, Ph.D.**, was invited to give a seminar entitled, "The Role of Mucosal Immunity in Viral-Bacterial Synergistic Lung Infections," at the University of Maryland, College Park, MD, April 23, 2009.

**Jing-Ren Zhang, D.V.M., Ph.D.**, served on the NIH National Institute of Allergy and Infectious Diseases Special Emphasis Panel for *Basic HIV Vaccine Discovery Research* in Washington, DC, April 29-May 1, 2009.

**Timothy J. Sellati, Ph.D.**, was invited to give a talk entitled, "Is the Sky Green and the Grass Blue? With Lyme Disease Pathogens the Answer is Sometimes Yes," as part of the Microbial Pathogenesis Seminar Series, NYS Department of Health, David Axelrod Institute at Wadsworth Center Albany, NY, May 1, 2009.

**J. Andrés Melendez, Ph.D.**, was invited to give a talk entitled, "Redox-Control of Senescence Associated MMP-1," at the Division of Aging Biology New Investigator Meeting in Bethesda, MD, May 5-7, 2009.

**James R. Drake, Ph.D.**, served as Programming Chair for *Antigen Processing and Presentation Abstracts* at the AAI Immunology 2009 meeting in Seattle, WA, May 9-12, 2009.

**Jonathan A. Harton, Ph.D.**, served as Chair and Speaker for the Major Symposium session *The Inflammasome*, at the AAI Immunology 2009 meeting in Seattle, WA, May 9-12, 2009. Dr. Harton also gave a presentation entitled, "Pyrin-only Proteins: Regulators of the Inflammasome."

**Dennis W. Metzger, Ph.D.**, was an invited speaker for the Society for Mucosal Immunity Symposium *Enemies at the Gate: Control of Microbes at Mucosal Surfaces* at the AAI Immunology 2009 meeting in Seattle, WA, May 9-12, 2009. His talk was entitled, "The Role of Mucosal Immunity in Viral-Bacterial Synergistic

Lung Infections."

**Thomas D. Friedrich, Ph.D.**, was invited to give a talk entitled, "Polyomaviruses, DNA Damage and Disease," for the Biology Department at Union College, Schenectady, NY, May 14, 2009. Dr. Friedrich also spoke about CIMD's Graduate Studies Program at Albany Medical College.

**Dennis W. Metzger, Ph.D.**, was invited to give a talk entitled, "The Role of Mucosal Immunity in Viral-Bacterial Synergistic Lung Infections," in the symposium *Molecular Pathogenesis of Co-Infections* at the 109th American Society for Microbiology General Meeting in Philadelphia, PA, May 17-20, 2009.

**Dennis W. Metzger, Ph.D.**, was invited to give a talk entitled, "Inhibition of Pulmonary Antibacterial Defense by Interferon-gamma During Recovery from Influenza Infection," at the 2nd Co-Infections Meeting, Memphis, TN, May 28-29, 2009.

**Keer Sun, Ph.D.**, was invited to give a talk entitled, "Post-influenza MRSA Infections in Mice," at the 2nd Co-Infections Meeting, Memphis, TN, May 28-29, 2009.

**Dennis W. Metzger, Ph.D.**, served on the National Institutes of Health *Innate and Host Defense (IHD)* Study Section in Washington, DC, June 4-5, 2009.

**J. Andrés Melendez, Ph.D.**,

served as a reviewer on the *Cancer Etiology* Study Section in Bethesda, MD, June 8-9, 2009.

**Timothy J. Sellati, Ph.D.**, served on the NIH National Institute of Allergy and Infectious Diseases *Host Interactions with Bacterial Pathogens (HIBP)* Study Section in Washington, DC, June 10-12, 2009.

**James R. Drake, Ph.D.**, **Karen M. Duus, Ph.D.**, and **Deborah L. Fuller, Ph.D.**, were judges for the STANYS State Science Congress annual science project competition for middle and high school students at the College of St. Rose in Albany, NY, June 12-14, 2009.

**Dennis W. Metzger, Ph.D.**, **Deborah L. Fuller, Ph.D.**, and **Timothy J. Sellati, Ph.D.** served as reviewers for the National Institutes of Health RC1 Challenge Grants, June 15-19, 2009.

**Dennis W. Metzger, Ph.D.**, and **Edward J. Gosselin, Ph.D.**, served as members of the National Institute of Health Special Emphasis Review Panel for R13 Conference Grant Applications, June, 2009.

**Deborah L. Fuller, Ph.D.**, has accepted an invitation to become a member of the National Institutes of Health, *HIV/AIDS Vaccines* Study Section for a four-year term starting July 1, 2009.

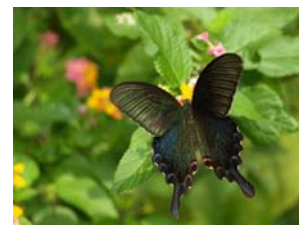
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seeing that it is causing large numbers of worldwide deaths. Again, we know it can spread from human to human, but it is not causing a lot of serious illness in countries other than Mexico," Metzger said.

Many people are going to the local pharmacy to buy over the counter products that contain vitamin C or zinc. Chances are you're wasting money.

"Various things are supposed to boost the immune system, but I know of only a few that have been

proven scientifically."





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*Knowledge is our goal,  
Teamwork and Excellence  
are our standards.*

If you have an item you would like  
considered for the next edition,  
please submit to Dawn Bellville at:  
Bellvid@mail.amc.edu  
Thank you.

**Deadline for submission: 9/15/09**  
Next issue: October 2009

## Other News Items...

- The following AMC medical students successfully defended their theses and received "Distinction in Research" awards with their diplomas, all mentored by **Dana R. Crawford, Ph.D.**, Assistant Professor.
  - Amber Mitchell**—presented her research thesis entitled, "The Role of ADAPT78 in Apoptosis," on February 23, 2009.
  - Dipti Bhoiwala**—presented her research thesis entitled, "The Role of ADAPT78 in Immunity," on April 10, 2009. Dipti was also one of twenty medical students from AMC (out of 400 state-wide) to present her research entitled, "The Role of RCAN1 in Infectious Disease," at the NY American College of Physicians Annual Chapter Scientific Meeting 2009 in New York, NY, May 30, 2009.
  - Lalithapriya Jayakumar**—presented her research thesis entitled, "The Involvement of ADAPT78 in Nitric Oxide Regulation," on April 16, 2009. Priya also won the Neil Lempert Prize, which is awarded to an AMC medical student for excellence in the field of transplantation and immunobiology, which was conducted in Dr. Crawford's laboratory.
- The 2009 Annual CIMD Research Retreat will be held from 8:30 a.m.-3:30 p.m. on Thursday, August 20, 2009 at the River Stone Manor in Scotia, NY. All faculty, staff, and students will be in attendance.

## Upcoming CIMD Seminars

**July 17, 2009**

12 Noon, MS-316

Dennis Metzger, Host

**Yingzi Cong, Ph.D.**

*Faculty Candidate*

Assistant Professor, Medicine and Microbiology  
Department of Medicine  
University of Alabama at Birmingham  
**"Immune Regulation of Host Responses to  
Commensal Bacteria"**

**July 20, 2009**

12 Noon, MS-316

Dennis Metzger, Host

**James J. Moon, Ph.D.**

*Faculty Candidate*

Postdoctoral Fellow  
Department of Microbiology and Center for Immunology  
University of Minnesota  
**"Characterization of Epitope-specific CD4+ T cells  
in the Naïve Repertoire"**

**August 5, 2009**

10:00 a.m., Huyck Auditorium

Dennis W. Metzger, Host

**Yeonseok Chung, Ph.D.**

*Faculty Candidate*

Postdoctoral Fellow  
Department of Immunology  
University of Texas  
MD Anderson Cancer Center, Houston  
**"IL-1 in Th17 Biology and Autoimmunity"**

**August 18, 2009**

10:00 a.m., Huyck Auditorium

Dennis W. Metzger, Host

**Joshua J. Obar, Ph.D.**

*Faculty Candidate*

Postdoctoral Fellow  
Department of Immunology  
University of Connecticut Health Center School of Medicine  
**"Early Events Regulatory Effector and Memory CD8+  
T cell Differentiation"**

[www.amc.edu/academic/research/imd.html](http://www.amc.edu/academic/research/imd.html)