

CIMD Newsletter

VOLUME VII, ISSUE I

JANUARY 2009

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Highlights of CIMD 2008 Accomplishments

There were numerous accomplishments in CIMD this past year, and here are just a few:

- Ph.D. degrees were awarded to [Jaya Dasgupta](#) and [Sita Subbaram](#).
- [James R. Drake, Ph.D.](#), was promoted to Professor (tenured).
- [Meenakshi Malik, D.V.M., Ph.D.](#), was promoted to Assistant Professor (non-tenured track).
- Several local newspapers featured CIMD research that brought attention not only to

Albany Medical College, but to the importance of the work being done in the Center. Highlighted CIMD investigators included [Drs. Fuller, Metzger, Sun, and Sellati](#).

- CIMD faculty had 18 peer-reviewed publications.
- [Drs. Fuller, Melendez, and Sellati](#) each received major grant funding from NIH.
- CIMD graduate students received a total of eight awards at the 2008 Graduate Student Poster and Research

Awards Day.

- Two Postdoctoral Trainees, [Drs. Hempel](#) and [Kirimanjeswara](#), each received Fellowship grants.
- Seven Postdoctoral Fellows and Graduate Students received conference travel awards.
- Teaching awards were given to [Drs. Drake, Melendez, and Crawford](#).
- Congratulations to CIMD staff who celebrated the births of three boys and one girl!


2008 Theobald Smith Annual Lecture

On Friday, October 10, 2008, CIMD was honored to host this year's Theobald Smith Lecturer, Bruce Beutler, M.D. Dr. Beutler is Professor and Chairman of the Department of Genetics, and Professor in the Department of Immunology at The Scripps Research Institute in La Jolla, CA.

Dr. Beutler has been a leader in the field of innate immunity for over 25 years. He was the first to

isolate mouse tumor necrosis factor (TNF) and to recognize that TNF is endowed with inflammatory activity, mediating many of the effects of lipopolysaccharide (LPS).

Among his many achievements, Dr. Beutler's work has also been recognized with the Balzan Prize (2007), the William B. Coley Award (2006), and the Robert Koch Prize (2004).



Albany Medical College
2008 Theobald Smith Annual Lecture
Presented by the
Center for Immunology & Microbial Disease

"Sensing Infection and Responding to it: The Genetic Analysis of Innate Immunity"

Bruce A. Beutler, M.D.
Professor and Chairman, Department of Genetics
Professor, Department of Immunology
Member, National Academy of Sciences
The Scripps Research Institute

Friday, October 10, 2008
4:00 p.m., Room 36E-700
Albany Medical College

©2008 Dennis W. Metzger, Ph.D.
Professor and Theobald Smith Alumni Chair Director
Center for Immunology & Microbial Disease
(518) 262-6750



Dr. Fuller' Research Part of Museum Exhibit

The research of [Deborah Fuller, Ph.D.](#), is being displayed through an interactive traveling exhibit entitled, "Putting DNA to Work." The exhibit is currently at the Schenectady Museum and Planetarium through January 25, 2009.

"Explore PMED," highlights Dr. Fuller's universal influenza vaccine research, being conducted at CIMD.

Called a Particle-Mediated Epidermal Delivery (PMED) vaccine, this vaccine activates a person's immune system to protect them against multiple strains of flu. Unlike the current "inactivated" flu vaccine, which use a needle and syringe to inject inactive flu viruses, PMED delivers microscopic gold beads coated with DNA directly into skin

cells and then the DNA instructs the cells to produce the vaccine.

This novel vaccine is designed to provide protection against several strains of the flu, including the bird flu that may possibly cause a future pandemic.

Dr. Fuller's research is supported by a \$5.4 million grant from the National Institutes of Health.

Dr. Malik Receives Grant

[Meenakshi Malik, D.V.M., Ph.D.](#), received a 3-year, \$431,750.00 grant from the National Institutes of Health, National Institute of Allergy and Infectious Diseases for her work entitled, "Synergistic extra- and intracellular Recognition of *F. tularensis*."



CIMD Attendees Receive SFRBM Awards

[Nadine Hempel, Ph.D.](#), [Sita Subbaram, Ph.D.](#), and [Amanda Melillo](#) attended the 15th Annual Society for Free Radical Biology and Medicine (SFRBM) meeting in Indianapolis, IN, on November 19-23, 2008.

Nadine's presenta-

tion was entitled, "Altered Redox Status Accompanies Progression to Metastatic Human Bladder Cancer."

Sita's presentation was entitled, "Redox Control of Co-activators and Repressors of MMP-1 Transcription."

Amanda's presenta-

tion was entitled, "A Role for *Francisella tularensis* Antioxidant Enzymes in Macrophage Kinase and Phosphatase Signaling."

Each received travel awards as well as "Outstanding Young Investigator" awards. These awards recognize exceptional young scien-

tists and were judged by experts in the field of Free Radical Biology. Over 300 papers were eligible for these awards. There were a total of 15 awards given which included a \$500 cash prize and free registration to the next annual meeting.

Dr. Jacobson Celebrates Discovery

[Herbert I. Jacobson, Ph.D.](#), and colleague Dr. Elwood Jensen celebrated the 50th anniversary of their landmark discovery of the estrogen receptor that has led to saving the lives of over 100,000 women each year. The celebration took place at the University at Albany's "Conversations in the Capital District on Hormones," October 23-24, 2008.



Conferences, Meetings and Study Sections

[J. Andrés Melendez, Ph.D.](#), served on the NIH *Cancer Etiology* Study Section in San Francisco, CA, on September 29, 2008.

[Dennis W. Metzger, Ph.D.](#), served on the NIH *Immunity and Host Defense* Study Section in Chicago, IL, October 2-3, 2008.

[Edmund J. Gosselin, Ph.D.](#), was invited to give a presentation entitled, "Monoclonal Antibodies as Vaccine Adjuvants: From Potential to Protection," at the ERHLICH II, 2nd World Conference on Magic Bullets, in Nuremberg, Germany, October 3-5, 2008.

[Dennis W. Metzger, Ph.D.](#), served as a member of the NIH Special Emphasis Advisory Panel on *NIAID Regional Centers of Excellence for Biodefense and Emerging Infections* in Washington, DC, October 6-8, 2008.

[J. Andrés Melendez, Ph.D.](#), was invited to give a presentation entitled, "Redox Control of Cell Fate & Function," at the University of Kentucky in Lexington, KY, on October

6, 2008.

[Edmund J. Gosselin, Ph.D.](#), served on the NIAID Special Emphasis Study Section *Microbial Vaccines*, in Washington, DC, on October 27, 2008.

A number of individuals from CIMD attended the 11th Annual Upstate New York Immunology Conference in Bolton Landing, NY, on October 19-22, 2008. Several were chosen to give oral presentations. [Anthony Franchini](#), gave an oral and poster presentation entitled, "GM-CSF Improves Mucosal and Systemic Immune Responses to HA Elicited by Epidermal DNA Vaccination in non-Human Primates."

[Jonathan Harton, Ph.D.](#), gave an oral presentation entitled, "Pyrin-only Protein 2 (POP2): Negative Regulation of the Inflammasome." [Anthony Hickey](#) gave an oral and poster presentation entitled, "Assessing the Ability of *Francisella tularensis* Outer Membrane Protein FopA to Act as a Subunit Vaccine Against Respiratory Tularemia." [Keer Sun, Ph.D.](#), gave an oral presentation entitled, "Inhibition of Pul-

monary Anti-bacterial Defense by IFN- γ Produced During Recovery from Influenza Virus Infection." [Girish Kirimanjeswara, Ph.D.](#) and [Bhuvana Katkere](#) presented posters.

[Thomas D. Friedrich, Ph.D.](#), attended "NIH Day" at the University at Albany (NY) on October 28, 2008.

[Dana R. Crawford, Ph.D.](#), was involved in the planning of and asked to chair both the Capital Region Cancer Research (CRCR) Steering Committee as well as the Conference Program Committee. The Conference was held November 7, 2008, at Rensselaer Polytechnic Institute, Troy, NY.

[Edmund J. Gosselin, Ph.D.](#), served on the NIAID Special Emphasis Panel for *R13 Conference Grants*, in Bethesda, MD, in November, 2008.

[Deborah Fuller, Ph.D.](#), and [Dennis W. Metzger, Ph.D.](#), served on the NIAID *Cooperative Centers for Translational Research on Human Immunology and Biodefense*

Study Section in Rockville, MD. Dr. Fuller served November 20-21, 2008 and Dr. Metzger served December 4-5, 2008.

[Deborah Fuller, Ph.D.](#), was invited by GE Biosciences to give a seminar entitled, "Particle-mediated DNA Vaccines," in Niskayuna, NY, December 4, 2008.

[Deborah Fuller, Ph.D.](#), was invited to give a presentation entitled, "Prospects for Developing a Universal Vaccine Against Influenza," during *National Influenza Vaccination Week 2008*, organized through the New York State Department of Health's Immunization Program at the Wadsworth Auditorium, Empire State Plaza, Albany, NY, on December 11, 2008.

[Jing-Ren Zhang, Ph.D.](#), was appointed to the editorial board of the *Journal of Clinical Microbiology*. The term of appointment is January 2009 through December 2011.

Peer-reviewed Publications

[Chen H](#), [Ma Y](#), [Yang J](#), [O'Brien CJ](#), [Lee SL](#), [Mazurkiewicz JE](#), [Haataja S](#), [Yan JH](#), [Gao GF](#) and [Zhang JR](#). Genetic requirement for pneumococcal ear infection. *PLoS ONE*. 3:e2950. doi:10.101371/journal.phone.0002950

[Lu L](#), [Ma Z](#), [Jokiranta TS](#), [Whitney AR](#), [DeLeo FR](#) and [Zhang JR](#). Species-specific interaction of *Streptococcus pneumoniae* with human complement factor H¹. *J. Immunol.* 181:7138-7146, 2008.

[Hempel N](#), [Ye H](#), [Abessi B](#), [Mian B](#) and [Melendez JA](#). Altered redox status accompanies progression to metastatic human bladder cancer. *Free Radic Biol Med*. In press, 2008.

[Kirimanjeswara GS](#), [Olmos S](#), [Bakshi CS](#) and [Metzger DW](#). Humoral and cell-mediated immunity to the intracellular pathogen *Francisella tularensis*. *Immunol Rev.* 225:244-55, 2008.

(Continued on page 4)



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*Knowledge is our goal,
Teamwork and Excellence
is our standard.*

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

Deadline for submission: 3/15/09

Next Issue: April 2009

Other News Items...

- [Eric Yager, Ph.D.](#), Research Associate, joined Dr. Fuller's lab on November 24, 2008.
- Congratulations to [Kristen Porter](#) and her husband, Johan Gaudron, on the birth of Abigail Ryan Gaudron, born on October 20, 2008.
- Dates have been set for the **2009 Graduate Studies Program Poster Day and Awards Day**:
 - Abstract submission deadline is February 6, 2009.
 - Poster submission as a PDF is March 1, 2009.
 - Poster Day is March 2, 2009
 - Awards Day will take place on Tuesday, April 7, 2009 (exact time to be determined).
 Everyone who needs a poster printed are reminded to make an appointment with Wendy.

(Continued from page 3)

[Bakshi CS](#), [Malik M](#), [Mahawar M](#), [Kirimanjeswara GS](#), [Hazlett KR](#), Palmer LE, Furie MB, Singh R, [Melendez JA](#), [Sellati TJ](#) and [Metzger DW](#). An improved vaccine for prevention of respiratory tularemia caused by *Francisella tularensis* SchuS4 strain. *Vaccine*. 26:5276-88, 2008.

Tupin E, Benhnia MR, Kinjo Y, [Patsey R](#), Lena CJ, [Haller MC](#), Caimano MJ, Imamura M, Wond CH, Crotty S, Radolf JD, [Sellati TJ](#) and Kronenberg M. NKT cells prevent chronic joint inflammation after infection with *Borrelia burgdorferi*. *PNAS*. 105:19863-19868, 2008.

Upcoming CIMD Seminars

January 26, 2009

12 Noon, MS-316

Dana Crawford, Host

David A. Lawrence, Ph.D.

Professor, School of Public Health
New York State Department of Health
Research Scientist
Clinical and Experimental Endocrinology and Immunology
Wadsworth Center

"Is the CNS Privileged to Have Immune Cells?"

April 6, 2009

12 Noon, MS-169

Jing-Ren Zhang, Host

Jon Skare, Ph.D.

Associate Professor
Medical Microbiology & Immunology
Texas A & M University

"TBA"

February 2, 2009

12 Noon, MS-316

Edmund Gosselin, Host

Catarina E. Hioe, Ph.D.

Assistant Professor
Pathology
New York University

"Using Immune Complexes to Stimulate Protective Immune Responses Against HIV-1"

www.amc.edu/academic/research/imd.html