

◀ *P. falciparum* sporozoite in a mosquito midgut



Infectious Diseases

Washington University in St. Louis
SCHOOL OF MEDICINE

DIVISION NEWSLETTER

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ID NEWS & NOTES

Washington University School of Medicine
Infectious Diseases Division
Faculty and Fellows Reunion

ID Week in San Francisco

Friday, October 4, 2013

Pacific Suite A

San Francisco Marriott Marquis

6:30 pm to 9:00 pm

Please RSVP to Alicia Cicerelli at acicerel@wustl.edu by September 15, 2013

Center for Neuroimmunology and Neuroinfectious Diseases Symposium
Eric P. Neumann Education Center

September 18, 2013

9:00 am - 3:00 pm

We are interested in your achievements, clinical and/or research activities, and other personal news since leaving Washington University School of Medicine. Please contact Dr. Gerald Medoff at gmedoff@dom.wustl.edu with any information you would like to share.

All division newsletters can be found at:
ID Division Newsletters

Development of a New Center for Neuroimmunology and Neuroinfectious Diseases

Robyn S. Klein, M.D., Ph.D.



Robyn S. Klein, M.D., Ph.D.
Associate Professor of Medicine

The field of neuroimmunology was originally a sub-field of pathology until the critical discoveries that autoreactive and effector immune cells may be protective within the central nervous system (CNS) during autoimmune, neurodegenerative and neuroinfectious diseases. Thus, not all leukocyte entry into the CNS is pathologic. Immune responses within the CNS are now viewed as specialized and essential for normal physiology. This more modern view of CNS inflammation has created opportunities for research at the interfaces between the basic sciences of immunology and neuroscience and the clinical specialties of neurology, radiology, rheumatology and infectious diseases. Despite the potential, few academic institutions have created the

kind of multi-disciplinary centers in which clinicians and scientists that treat and study the interplay and overlay of the immune and nervous systems in normal and pathological states can interact and synergize in their efforts.

Here at Washington University we have a core of faculty whose clinical and scientific niches fall within the fields of neuroimmunology and neuroinfectious diseases and a peripheral group of basic scientists with interest in specific aspects of disease processes within these categories. Although many of these faculty participate in a variety of successful interdepartmental scientific endeavors that include program projects, combined lab meetings and collaborative research projects, the creation and development of a Center for Neuroimmunology and Neuroinfectious Diseases (CNND), led by Drs. Robyn Klein (Division of Infectious Diseases) and Anne Cross, M.D. (Neuroimmunology Unit Leader), will provide additional structure and support for this interdisciplinary community, increase their synergy and enrich individual and collaborative translational and basic science research programs. The CNND, comprised of researchers and clinicians from Internal Medicine, Neurology and Radiology, is the first such multidisciplinary endeavor focused on the pathogenesis of CNS inflammatory and infectious diseases. The mission of the CNND will be to promote outstanding patient care and research for immunological and infectious disorders of the nervous system via the training of clinician consultants and basic science researchers, the development of novel diagnostic approaches and treatments, and by providing the WUSM scientific community with access to facilities and expertise in neuroimmune interactions and neurotropism.

To further the goal of increasing scientific interactions, the CNND is hosting a symposium on September 18, 2013 at the Eric P. Newman Center from 9 am until 3 pm. The purpose of the

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Above image (*P. Falciparum*): CDC/Dr. Mae Melvin (PHIL #2704), 1973. == Licensin). Masthead image: Ute Frevert; false color by Margaret Shear; Copyright: © 2005 Frevert et al.

FEATURED COLLEAGUE



Mary Beth Graham, M.D.
Associate Professor of Medicine

I am very happy to be an “ID-ologist.” When I was a resident at the University of Washington, I became fascinated with the host immune response to infections and infectious complications of immunocompromised patients. During fellowship interviews, Washington University seemed to offer the best mix of clinical and research opportunities to pursue my passion. However, unlike my “fellow mates” Tom Bailey and Vicky Fraser, who planted roots, it served as the starting point for a circuitous, albeit enlightening, route to my current position at the Medical College of Wisconsin.

After my clinical year (oh how I remember getting up at 5 AM and following up to 50 patients a day at Barnes prior to work hour rules. . .), I joined the laboratory of Thomas Braciale, M.D., Ph.D. to study host response to influenza infection using a murine model. During my second year in his lab, he was named the Director of the Beirne Carter Center for Immunology Research at the University of Virginia where I followed him with an NIH K award and husband, Neal, in tow.

We had a productive five years in Charlottesville in more ways than one, our first child Graham Christopher Nygard was born in 1993 as we continued our respective research programs. In 1997 we moved to the University of IL at Chicago where my career morphed from bench research to infection control and patient care. Our second son, Adam, was added to the mix in 2000 and for many

continued next column

Development of New Center *continued*

symposium is to introduce the burgeoning fields of neuroimmunology, neuroinfectious diseases and neuroimaging and to foster interactions between WUSM researchers working within these scientific disciplines. A morning session of talks will begin with keynote speaker, Avindra Nath, MD, Clinical Director of the National Institute of Neurologic Disorders and Stroke (NINDS), who will discuss the importance supporting the intersection of these fields. Steven Jacobson, PhD, Senior Investigator, NINDS, will then discuss virological causes of CNS autoimmunity. These invited talks will be followed by scientific presentations from leading WUSM researchers from the Departments of Internal Medicine, Radiology and Neurology: Michael Diamond, MD, PhD, (Division of Infectious Diseases) will discuss antiviral immunity within the CNS; Victor Song, PhD, (Neuroimaging Unit) will discuss how to image inflammation in the CNS; and David Clifford, MD, (Department of Neurology and Director of the ACTU) will discuss the transformation of Neurology by the HIV epidemic. An afternoon poster presentation session will allow WUSM researchers to connect and form new collaborative efforts. It is our hope that this informative and interactive day will galvanize basic science and translational research efforts aimed at novel diagnostic and treatment approaches for neuro-inflammatory and neuroinfectious diseases. We are grateful to the Children’s Discovery Institute at Washington University for partially supporting this symposium.

See CNND Symposium announcement on page 5

Mary Beth Graham, M.D. continued

personal and professional reasons, we made what I hope is our final move to the Medical College of Wisconsin (MCW) in 2002 where I now wear several hats including medical director of Infection Control, ID fellowship program director, and associate chief of ID.

MCW and Wisconsin has been great for all of us. I have been involved in a number of fascinating cases, including the North American monkeypox outbreak and the first cases of donor associated LCMV infection in transplant recipients. Our division is small enough to allow me to see patients with every kind of infectious disease, but my outpatient practice is focused on HIV, transplant, and musculoskeletal infections. Being a program director for the past ten years has been fun and frustrating – the fellows are fun, ACGME can be frustrating especially with the upcoming change from competencies to milestones.

Our family is thriving, Graham is a second year computer engineering major at UW-Madison and Adam is a precocious middle schooler with his own YouTube channel and a passion for all creatures great and small (don’t ask what our house looks like with 7 turtles, 3 cats, 6 hermit crabs, preying manti, goliath beetles. . . .need I go on. . .).

I will always be thankful for the training I received at Wash U and for the friendships I developed while there. If you ever have a chance to venture north across the cheddar curtain, be sure to look us up.

In closing, always remember why we chose to do what we do - “It’s ID. . . .not ego.”

Thank You to Our Supporters

Dr. Leon R. Robison III

Mr. Lee Charles Kling

Dr. Mitsuo Kitahara

Pavilion of Praise Christian Church, Inc.

To support the research, education and activities of the Infectious Diseases Division, please contact
Dan Korte, Division Administrator, Infectious Diseases Division
Campus Box 8051, 660 S. Euclid Ave., St. Louis MO 63110
phone: 314-454-8354 email: dkorte@dom.wustl.edu

awards & announcements

RECENT AWARDS

PRINCIPAL INVESTIGATOR	AWARD	PROJECT TITLE
Stephen Liang, M.D.	Barnes-Jewish Hospital Patient Safety Career Development Award	GARB-ED (Guarding Against Resistant Bacteria in the Emergency Department): Improving adherence to contact precautions against multidrug-resistant organisms in the emergency department
Benjamin Thomas, M.D.	Clinical Research Training Center (CRTC) Postdoctoral Mentored Training Program in Clinical Investigation (MTPCI).	Impact of Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry on the Clinical Management of Patients with Bacteremia. Mentor: Bernard Camins, M.D., MSCR
Michael Diamond, M.D., Ph.D.	National Institutes of Health (Dengue R01 competitive renewal)	Antibody Based Protection against Dengue Virus
Michael Diamond, M.D., Ph.D.	National Institutes of Health	Targets of Innate Immune Regulation by West Nile Virus Project
Gary J. Weil, M.D.	Bill and Melinda Gates Foundation	Biomarkers of Live Adult Onchocerca Volvulus Worm Infection

special recognition

Daniel Goldberg wins Alice and C.C. Wang Award in Molecular Parasitology

Daniel Goldberg, professor of medicine and molecular microbiology and co-chief of the Division of Infectious Diseases at Washington University School of Medicine in St. Louis, is the winner of the 2013 American Society for Biochemistry and Molecular Biology's (ASBMB) Alice and C.C. Wang Award in Molecular Parasitology.

The award is given to investigators who are making revolutionary contributions to the field of molecular parasitology. Goldberg was nominated for his contributions to understanding the biology of Plasmodium food vacuoles, primarily in Plasmodium falciparum, and the roles of proteases in the survival of parasites.

Dr. Goldberg is regarded as a pioneer of molecular parasitology, having developed molecular methods for transfection of selectable markers, transposon mutagenesis and systems for regulated expression using degradation domains that can be stabilized using molecular ligands.

Dr. Goldberg who graduated from Harvard University in 1978 and obtained his M.D. and Ph.D. from Washington University School of Medicine (WUSM) in 1985, has been a faculty member at WUSM since 1990 and a Howard Hughes Medical Institute investigator since 1994.

Dr. Goldberg received his award during the (ASBMB) meeting in Boston, where he delivered an award lecture.



*Daniel Goldberg, M.D., Ph.D.
Professor of Medicine*

next steps for 2013 graduates

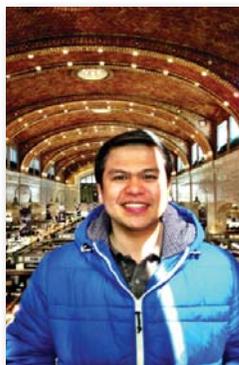


Sara Cross, M.D.

Next Steps: I will be joining the University of Tennessee ID faculty and will be working in the outpatient HIV clinic as well as on inpatient consults at The Med (Regional Medical Center) in Memphis, TN.

Highlights of fellowship: I loved my time as a fellow here at Washington University. One of the highlights was working alongside my fellowship colleagues Melissa, Hani, George, and Joy

during our 1st year of fellowship. We all became great friends and even though we argued frequently, we always were able to see the humor in situations and supported each other through a challenging year. I also loved getting to know the staff in the Northwest Tower as well as in the clinic and will greatly miss everyone. I have memorized a lot of phone numbers (Dr. Kirmani, Dawn-Michelle, Alicia, etc.) and will be calling frequently to check in.



Gerome Escota, M.D.

Next Steps: I am staying as a faculty member in the department of medicine (infectious disease hospitalist) starting this July.

Highlights of fellowship: I enjoyed the opportunity to work under the mentorship of Dr. Nur Onen on a research project: Role of the Veterans Cohort Study Index in Frailty Assessment. The research results were presented at the 18th

International Workshop on HIV Observational Databases (IWHOD) Apr 11-13, 2013, Cavtat, Croatia. I also had the opportunity to collaborate on the research study to answer the question: Does the prevalence of sexually transmitted disease reflect sexual transmission of hepatitis C infection in the HIV-infected population? This research will be presented at the 20th Meeting of the International Society for Sexually Transmitted Diseases Research in July 14-17, 2013 at Vienna, Austria. I published a review manuscript on tobacco use among HIV-infected adolescent, young adult and pregnant smokers, I enjoyed being a guest speaker on PrEP and Cure of HIV for the Midwest AIDS Training and Education Center April 2013, an event attended by primary care physicians, nurse practitioners, social workers, and other health care professionals from the greater St. Louis area.



Fernando Echaiz, M.D.

Next Steps: I will be joining Kennewick General Hospital (KGH) as an Infectious Diseases physician. The hospital is located in eastern Washington. My main responsibilities will include care of outpatients with general infectious diseases as well as inpatient consultation at KGH and two other local hospitals. Also, I will have an active role in overseeing the institution's infection prevention efforts. Finally, I have been accepted as a candidate for the Career MPH program

(Applied Epidemiology Track) at Rollins School of Public Health, Emory University, Atlanta. I am really excited about such a great opportunity.

Highlights of fellowship: I am very fortunate to have joined Barnes-Jewish Hospital and the Division of Infectious Diseases at Washington University School of Medicine. They provide one of the best programs for training in Infectious Diseases and Healthcare Epidemiology. During my 2 years in St. Louis, I have not only seen and treated a myriad of patients with infectious diseases, but also learned many aspects of clinical research and infection prevention and completed three research projects. I am very thankful to have worked with such a wonderful group of people. Particularly, I would like to thank Dr. David Warren and Dr. Jonas Marschall for their mentorship, support and career advice. Also, special thanks to Drs. Gerald Medoff and Erik Dubberke from whom I have learned so much every Thursday in clinic. I'll bring with me very good memories of my fellowship and I will miss everybody in the Division, my co-fellows, our great nursing staff, administrative staff, clinic staff and Cherie's group. I'll be in touch!



Cristina Vazquez Guillamet, M.D.

Next steps: With both joy (to join my husband) and sorrow (from leaving the Washington University family), I'll be transferring to University of New Mexico to continue my second year of fellowship.

Highlights of fellowship: From the complicated 7pm consults with unheard of pathogens and clinical presentations to the heart-warming get togethers with my co-fellows and quick bites with Alicia and Dawn, my first year provided

an unforgettable experience. I had the opportunity to see and take care of a vast array of infectious diseases with varied manifestations in unusual hosts. For my research projects, I had the chance to collaborate with Drs. Hotchkiss and Kollef to further develop my career combining critical care and infectious diseases. My projects focused on fungal sepsis and multi-drug resistant pathogens spanning the immune characteristics and new prediction scores. Drs. Kirmani and Presti have been my clinical mentors and more importantly my family away from home along with our tight group of fellows. Dr. Bailey shaped my enthusiasm with thoughtful approach and Dr. Powderly gently guided my quest of infectious diseases.

next steps for 2013 graduates



Melissa Viray, M.D.

Next steps: I will be returning to public health as the deputy state epidemiologist for the state of Hawaii. I am looking forward to new challenges and planning to use insights learned from the practice of clinical infectious disease in my new position.

Highlights of fellowship: I have had the opportunity to learn from fantastic attendings over the course of the last three years, both on the inpatient consult teams and in clinic. I also really enjoyed working with the staff and the excellent clinic nurses. Last but not least – Dawn-Michelle, you are a lifesaver. Thanks so much to you all for my three years here!

farewell...

A few months ago I was offered a position as hospital epidemiologist in my hometown's university hospital in Bern, Switzerland. It was not an easy decision given how much St. Louis has become my family's home and how well everybody in this division has treated me. I've come to realize that these past seven years have been one of the best and most productive times of my life and I would like to thank everybody for making me feel welcome and helping me along the way.

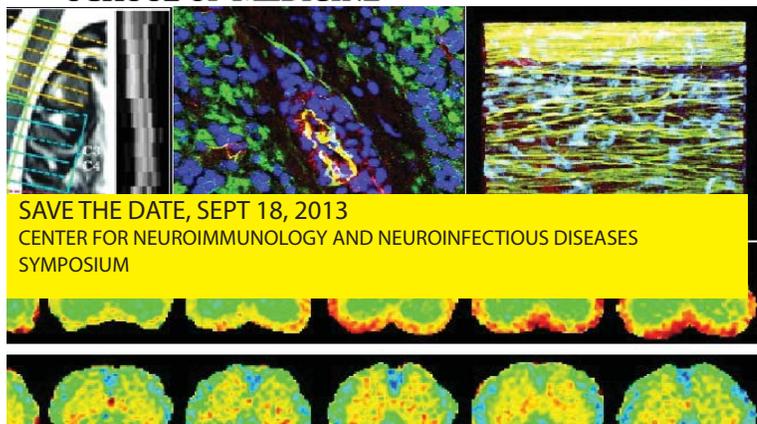
I believe that without my experience at Washington University this opportunity would not have knocked at my door (or at least not that soon). In my new role, I will not only oversee infection prevention but also attend in clinic and the consult service and, hopefully, continue doing clinical and translational research. I would also love to maintain collaborations with Washington University as an adjunct faculty member and will swing by just before this year's ICAAC to see how everybody's doing.

Sincerely, Jonas Marschall



Jonas Marshall, M.D., Tanja Loehri, Christine Rohrer, Doris Nydegger
Infection Prevention Specialists at Bern University Hospital in Switzerland

Washington University in St. Louis SCHOOL OF MEDICINE



Eric P. Newman Education Center (EPNEC)
320 S. Euclid Avenue, St. Louis, MO
9:00 am - 3:00 pm
More information can be found at [Conference Link](#)

Co Chairs

Robyn Klein, MD, PhD
Associate Professor, Department of Medicine, Co-Director of CNND

Anne Cross, MD
Professor, Department of Neurobiology,
Co-Director of CNND, Washington University

Speakers

Avindra Nath, MD, Clinical Director, National Institute of Neurologic Disorders and Stroke, NIH

Victor Song, PhD, Associate Professor of Radiology, Washington University

Steven Jacobson, PhD, Senior Investigator, National Institute of Neurologic Disorders and Stroke, NIH

Michael Diamond, MD, PhD, Professor, Department of Medicine, Washington University

David Clifford, MD, Melba and Forest Seay Professor, Department of Neurobiology, Washington University



Powderly Named Director of WUSTL's Institute for Public Health (IPH)

The Institute for Public Health announced the appointment of their new director, William G. Powderly, MD. Dr. Powderly, the J. William Campbell Professor of Medicine and co-director of the Division of Infectious Diseases at Washington University's School of Medicine, succeeds founding director Edward J. Lawlor, PhD, dean and William E. Gordon Distinguished Professor of the Brown School of Social Work.

Graham Colditz, MD, DrPH, the Niess-Gain Professor of Surgery and chief of the Division of Public Health Sciences in the School of Medicine and associate director of prevention and control at the Siteman Cancer Center, will continue to serve as the Institute's deputy director.

In his new role, Powderly will oversee all five centers and initiatives of the IPH, including the Harvey A. Friedman Center for Aging; the Center for Community Health & Partnerships; the Dissemination & Implementation Initiative; the Public Health Data & Training Initiative; and the Center for Global Health, for which Powderly currently serves as director.

In Memoriam

Thomas H. Steinberg, MD, Associate Professor of Medicine, died Sunday, June 16, 2013, in St. Louis of complications from amyotrophic lateral sclerosis (ALS), often referred to as Lou Gehrig's Disease. He was 61.

Steinberg, a cell biology researcher and infectious diseases physician, joined Washington University School of Medicine's Division of Infectious Diseases in 1989. His primary research training was as a macrophage cell biologist, though the focus of his lab evolved to encompass several areas related to intercellular communication.

"He was a great scientist and a very kind and compassionate physician," said Victoria Fraser, MD, the Adolphus Busch Professor of Medicine and head of the Department of Medicine. "He was well-recognized as an outstanding teacher and was an advocate for students at all levels. He will be missed by us all. He had ALS, but was able to keep his sense of humor, his grace and love for life until the disease overcame him."

Tom was a valued and popular colleague who bore his recent illness with great courage.

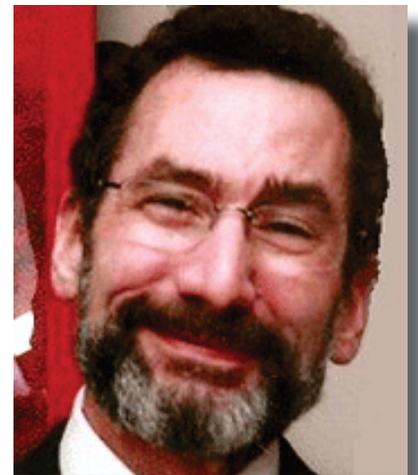
The Infectious Diseases Division is establishing a fund in Tom Steinberg's memory. Donations to the

Thomas H. Steinberg Memorial Award

will be used to support trainees studying or conducting research in infectious diseases.

Memorial contributions may be made to Washington University School of Medicine, Division of Infectious Diseases for the Thomas Steinberg Memorial Award. They may be sent to the attention of

Dan Korte, Division Administrator, Infectious Diseases Division
Campus Box 8051, 660 S. Euclid Ave., St. Louis MO 63110
phone: 314-454-8354 email: dkorte@dom.wustl.edu



Thomas H. Steinberg, M.D.