From the Director:

As we continue to evolve and grow as an Institute, we are working on honing strategies for success, and you can expect a number of clear initiatives, growth and changes. As we work towards this, we want to hear from you. We welcome your ideas, and want to hear about your successes. We want to know if you’ve been invited to provide talks at leading conferences. Did you land a grant or a publication in a top-tiered journal? Have you registered a new patent or formed a new company? We’d like to know so that we can highlight your accolades.

Along the same lines, please remember to acknowledge your affiliation to PI4D when submitting proposals for external funding. Providing credit to PI4D is a reflection of your affiliation as a member of PI4D and it does not prevent you of providing credit to your department or center. Lookout for “Purdue Institute of Inflammation, Immunology and Infectious Disease” listed on the dropdown menu that asks you to select all affiliated University centers and/or Life Sciences Pillars. This metric for us is important because it reflects the heartbeat of PI4D and your collective effort to do world-renowned research.

- Dr. Richard Kuhn

*Director, PI4D*

PS - Congratulations to our very own Cate Hill on her "Big Idea Challenge" Award - Revolutionizing Control of Vector-Borne Infectious Diseases. Click here for the full list of winners.

We are excited to announce an upcoming PI4D Graduate Student Event. Please join us on Thursday, April 13th from 4-7PM in Marriott Hall for a social. More information will be distributed shortly.
Please Welcome Dr. Sintim

Dr. Herman Sintim, Drug Discovery Professor of Chemistry – Organic Chemistry/Chemical Biology has joined the PI4D Leadership team as the new Control and Intervention program Leader.

Dr. Sintim received his bachelor’s degree from University College London, and his doctorate from Oxford University. He came to Purdue from University of Maryland at College Park where he rose through the ranks to Professor of Chemistry. Among several research interests, Dr. Sintim studies the chemical biology of bacterial communication, virulence factors production and biofilm formation (quorum sensing and c-di-GMP/c-di-AMP signaling in bacteria). His work focuses on the discovery of new antibiotics with novel modes of action and the catalytic cycle of total syntheses of complex bioactive molecules and the discovery of new reaction methodologies and new DNA nanostructures and machines for bioanalyte detection. Dr. Sintim will be replacing Dr. Jean Chmielewski. We wish to thank Dr. Chmielewski for all the time and effort she has dedicated to us. Learn more from his website here. Please welcome Dr. Sintim by stopping by DRUG 123/BRWN 4103A or sending an email to him at hsintim@purdue.edu.

Special Topics in Immunology and Infectious Disease Seminar Series

Dr. Chang Kim (Immunology Leader of PI4D) has launched the Special Topics in Immunology and Infectious Disease - PI4D Research in Progress Seminar Series (scheduled for Fridays at 12:30 PM, in Drug Discovery's first floor conference room). We have an exciting list of topics to discuss this year and the roster of speakers is superb. You are strongly encouraged to participate in this valuable opportunity and join us for these exciting talks.
March 17th: Spring Break-No seminar.
March 24th: Professor Qing Deng, microRNAs and neutrophilic inflammation
March 31st: Professor Yava Jones-Hall, The Gut Microbiome in Crohn’s Disease: The implications of disease status, sex, age, and immunity
April 7th: Professor Harm HogenEsch, Adjuvants: The fuel that propels the immune response to vaccine
April 14th: Professor Suresh Mittal, Progress towards a universal influenza virus vaccine
April 21st: Professor Cate Hill, Title TBD
April 28th: Professor Doug LaCount, Title TBD
May 5th: Professor Elizabeth Taparowsky, Critical Decisions in Immune System Function Are Regulated by BATF

*Registered students must sign in on the attendance sheet.
See you all at 12:30 PM.

---

Health and Disease:
Science, Technology, Culture and Policy
Research Poster Session
Thursday, March 23, 2017
1:00 PM - 3:00 PM
North Ballroom, Purdue Memorial Union

Sponsored by Colleges of:
Agriculture, Engineering, Health and Human Sciences, Liberal Arts, Pharmacy, Science, Polytechnic Institute, Veterinary Medicine, Libraries

To promote interdisciplinary collaboration in health and disease research across Purdue University

All students, faculty and staff are invited to participate and/or attend.

For poster participation:
To submit a poster, please click [here](#) to register. Graduate students must fill out the competition portion of the registration, if participating. All student poster submissions must be approved by the student's advisor. For more information, please contact Kim Sagendorf at ksagendorf@purdue.edu. **Deadline submission:** Tuesday, March 21.

**Prizes for Graduate Student Poster Competition:**
1st place: $300 2nd place: $200 3rd place: $100

*Refreshments will be provided.*

**Healthcare and Life Science Conference**
The conference detailing the intersection to technology and health will be held on April 13, 2017 in Indianapolis. Visit their [website](#) for additional information.

The link to submit your application can be found [here](#).

**Join NIAID and make a difference!**

**Postdoctoral Fellow**
The Caliciviruses Section in the Laboratory of Infectious Diseases, located on the main NIH campus, seeks a postdoctoral fellow with expertise in viral immunology to work on development of antiviral therapy for the noroviruses. Candidates should have a strong background in virology, immunology, molecular biology, antibody engineering, or stem cells. Applicants must have a Ph.D., or M.D., or equivalent, and less than five (preferably have less than two) years of postdoctoral experience. Visit the [Office of Intramural Training and Education](#) for more information about the position and how to apply. Visit [Careers at NIAID](#) for more information about working in NIAID’s dynamic atmosphere. HHS, NIH, and NIAID are equal opportunity employers.

**Dr. John Glasser**
Mathematical Epidemiologist
Centers for Disease Control and Prevention

“Modeling for Public Health Decision-Making”
PI4D Seminar
Tuesday, March 21, 2017
1:30 – 2:30 in Drug Discovery - First Floor Conference Room

Dr. Glasser will define mechanistic modeling, outline its history in public health and describe several recent collaborations with Zhilan Feng, Professor of Mathematics at Purdue: evaluations of the global response to SARS, impact of heterogeneity in vaccine coverage due to personal-belief exemptions in the US, vaccination during the H1N1 pandemic, also in the US, and strategies for eliminating measles and controlling rubella in China.

John Glasser studied biology, population biology, and epidemiology and biostatistics at Princeton, Duke and Harvard Universities, respectively. He was an Epidemic Intelligence Service officer in Reproductive Health and a post-doctoral fellow with Richard Levins in mathematical biology at Harvard. Since 2000, he has assisted in designing or evaluating and occasionally improving vaccination programs at home and abroad by modeling influenza, measles, pertussis, rubella, smallpox, and simultaneously, varicella and zoster. He led the CDC modeling team that helped the Secretary, Department of Health and Human Services, to formulate the US government’s response in the event that smallpox were reintroduced by terrorists, and has served as a technical consultant to the CDCs in Beijing, China and Taiwan, the Ministries of Health in Costa Rica and the Brazilian State of São Paulo, the Public Health Institutes in Romania and Sweden, and the World Health Organization. Currently, he serves as a mathematical epidemiologist in the Division of Viral Diseases, NCIRD, and a member of the graduate faculties of Population Biology, Ecology and Evolution at Emory and Mathematics at Purdue.

Michael Stern, Ph.D.
Chief Scientific Officer
ImmunEyez, LLC.
&
Adjunct Associate Professor
Department of Ophthalmology
Baylor College of Medicine
Dry Eye (Kerato Conjunctivitis Sicca) is a disease of the ocular surface. It is a chronic inflammatory disease characterized by pain, decreased visual acuity and a significant decrease in quality of life. Research by our laboratory and a few others has served to define Dry Eye as an immune-based inflammation of the Lacrimal Functional Unit. I will be discussing the nature of this disease and the immunology which leads to its development and progression. The role of various T-cell populations as well as B-cell and T-regulatory cells will also be demonstrated. Finally, the activity of Dendritic Cells will be included. There will also be some discussion of the roles and activities of various therapeutics.

Michael E. Stern received his BS in Biology from Purdue in 1975. Following that he received his MS and PhD from the Medical College of Wisconsin, Department of Physiology (1982) under Dr. Henry Edelhauser. The next seven years were spent at Alcon Labs. in Fort Worth, Texas where he worked in the Department of Toxicology developing models of corneal wound healing. In 1989 he moved to Allergan, Inc. in Irvine California in the Department of Biological Sciences where he focused on the pathophysiology of dry eye disease. Dr. Stern led an effort at Allergan elucidating the pathophysiology of Dry Eye. This laboratory was key in defining this disease as an immune based inflammation of the Lacrimal Functional Unit. Further research defined the role of T-helper cells, T-regulatory cells, Dendritic Cells and B-cells in the initiation and maintenance of this chronic immune pathology. Additionally, Dr. Stern’s laboratory helped to define the role of cyclosporine as a therapeutic in this T-cell based disease. Dr. Stern has over 100 publications and 300 abstracts. He co-edited, along with Dr. Steven Pflugfelder And Dr. Roger Beuerman, and wrote several chapters in a book: Dry Eye and Ocular Surface Disorders (2004). He is on the editorial board of three publications: The Ocular Surface, Investigative Ophthalmology and Visual Science and The Journal of Ocular Pharmacology and Therapeutics. He is a Gold level Fellow of the Association for Research in Vision and Ophthalmology (ARVO). He is an Adjunct Associate Professor of Ophthalmology at Baylor College of Medicine and Co-Director of Ocular Immunology at IOBA, University of Valladolid, Spain. He was awarded the Diaz-Caneja Award in Spain and gave the Award Lecture at the International Ocular Surface Society. Additionally, he is Chief Scientific Officer at ImmunEyez, LLC which is focused on ocular surface therapeutics. He served on Purdue’s BSAAC (Biological Sciences Alumni Advisory Committee) for nine years.
Dr. Jung Hyun Park Purdue Visit

Dr. Jung Hyun Park from NIH will visit Purdue and present at PI4D’s CPB seminar series. Dr. Park is a Senior Investigator and Chief in the cytokine biology section with the National Cancer Institute. Faculty and grad students are welcome to attend Dr. Park’s seminar.

When: March 30, 2017
Time: 3:30 PM
Location: VPTH 126
Title: “Innate T cell Development by Cytokine Receptor Signaling”

Funding Opportunities

<table>
<thead>
<tr>
<th>Opportunity</th>
<th>Award Amount</th>
<th>Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NIH Systems Biology: The Next Generation for Infectious Diseases (U19)</strong></td>
<td>Varies</td>
<td>March 15, 2017</td>
</tr>
<tr>
<td><strong>HHS-BARDA BAA for Advanced Research and Development to Expedite the Identification, Development, and Manufacturing Medical Countermeasures against Infectious Diseases</strong></td>
<td>Varies</td>
<td>April 30, 2017</td>
</tr>
<tr>
<td><strong>NIH NK Cells to Induce Immunological Memory to Prevent HIV Infection (R01)</strong></td>
<td>Varies</td>
<td>May 7, 2017</td>
</tr>
<tr>
<td><strong>NIH Formative and Pilot Intervention Research for Prevention and Treatment of HIV/AIDS (R34)</strong></td>
<td>450,000</td>
<td>May 7, 2017</td>
</tr>
<tr>
<td><strong>NIH Early Phase Clinical Trials in Imaging and Image-Guided Interventions (R01)</strong></td>
<td>Varies</td>
<td>June 28, 2017</td>
</tr>
<tr>
<td><strong>NIH Research Education Program Grants for CryoEM Curriculum Development (R25)</strong></td>
<td>Varies</td>
<td>July 25, 2017</td>
</tr>
<tr>
<td><strong>NIH Global Infectious Disease Research Training Program (D43)</strong></td>
<td>230,000</td>
<td>July 27, 2017</td>
</tr>
<tr>
<td><strong>NIH Regional Consortia for High Resolution Cryoelectron Microscopy (U24)</strong></td>
<td>Varies</td>
<td>August 7, 2017</td>
</tr>
<tr>
<td><strong>NIH Oral HIVacc: Synergistic Strategies to Systemic Vaccination (R01)</strong></td>
<td>Varies</td>
<td>November 24, 2017</td>
</tr>
<tr>
<td><strong>NIH Notice of Intent to Publish Funding Opportunity Announcements to Promoter Implementation Science (R01) and Dissemination and Implementation Studies (R18)</strong></td>
<td>Varies</td>
<td>Calendar Year</td>
</tr>
<tr>
<td><strong>NIH-NIAID Omnibus Broad Agency Announcement</strong></td>
<td>Varies</td>
<td>Varies</td>
</tr>
</tbody>
</table>

**Newly added**

Additional Resources from NIH: [https://public.csr.nih.gov/Pages/csrwebinar.aspx](https://public.csr.nih.gov/Pages/csrwebinar.aspx)

Send us your images and news stories! Images and stories can be deposited [here](https://public.csr.nih.gov/Pages/csrwebinar.aspx), or email us at pi4d@purdue.edu