The 2005 CAMB Symposium will be Monday, September 26th.

The keynote speaker will be Dr. Michael Brown

Dr. Brown is currently the Paul J. Thomas Professor of Molecular Genetics and Director of the Jonsson Center for Molecular Genetics at the University of Texas Southwestern Medical School in Dallas. Dr. Brown and his long-time colleague, Dr. Joseph L. Goldstein, together discovered the low density lipoprotein (LDL) receptor, which controls the level of cholesterol in blood and in cells. They showed in one out of every 500 people in most populations that mutations in this receptor cause Familial Hypercholesterolemia, a disorder that leads to premature heart attacks. They have received many awards for this work, including the U.S. National Medal of Science and the Nobel Prize for Medicine or Physiology. **

(** from the Southwestern Medical School website)

Policy Changes for First Year Lab Rotations, see page 8
Please join us in welcoming the CAMB PhD students who will matriculate in 2005

Luis Agosto,  
Penn State University

Ori-Michael Benhamou,  
Duke University

Alexander Brown,  
University of Colorado

Nicholas Buchkovich,  
Brigham Young University

Mathew Cohen,  
Penn State University

Jennine Dawicki McKenna,  
St Josephs University

Brian Dehaven,  
University of Michigan

Allison Dell,  
Mt Holyoke

Christopher Edwards,  
Loyola College

Margaret Fleetwood,  
Knox College

James Flowers,  
Northeastern University

Joseph Francica,  
Vanderbilt University

Mark Garcia,  
Mass. Institute of Technology

Ashley Goss,  
Wake Forest University

Jennifer Grier,  
Marquette University WI

Adam Hersperger,  
Bucknell University

Daniel Hill,  
University of Wyoming

Christine Kosman,  
University of Delaware

Kathryn Matthias,  
Ursinus College

Lauren Mays,  
Miami University OH

Hestia Mellert,  
Ursinus College

Theresa Moser,  
Ursinus College

Laura Pontano,  
Drexel University

Andrew Rennekamp,  
University of Pennsylvania

Keshet Ronen,  
University of Cambridge

Susan Roth,  
University of Kentucky

Emily Rudomin,  
Franklin & Marshall College

Steven Saenz,  
University of New Mexico

Adam Siebert,  
Boston College

Robert Simone,  
Ohio State University

Jasmine Smith,  
Williams College

Kevin Smith,  
Rutgers University, New Brunswick

Elia Tait,  
Drew University

LaShon Ussin,  
Louisiana State University

Bently Varghese,  
Lehigh University

Ryan Whitmarsh,  
Amherst College

Cara Winter,  
University of Virginia

The 2006 admission weekends will be:

January 19th – 21st
February 9th – 11th
March 2nd – 5th

Please put these dates on your calendar.

Faculty - the interview times are:
10-10:30, 10:45-11:15, 2:15-2:45, & 3-3:30.

The CAMB office would like to thank everyone involved this season for their hard work, especially the student leaders:
Justin DiAngelo, Kim Schoenly, Meredith Caldwell, Earl Stoddard, Karla Leavens, Katie Nestor, Meghan Matukonis, Beth Burke, and Helen McGraw

We want to thank Jill Licata and Kyle Mansfield for their work on the CAMB Executive committee. Their input has been greatly appreciated. Their recent (or upcoming) defenses means that we are looking for two new student representatives.

The committee meets once a month, usually on the third Monday of the month. If you are interested in serving as one of the two student representatives to the committee please contact Meagan Schofer at mschofer@mail.med.upenn.edu

Student Members of the CAMB Executive Committee
December Graduation
15 CAMB students received PhDs in December

Andrew Fedoriw
Advisor: Marisa Bartolomei
"Transgenic RNAi reveals an essential role for Ctcf in H19/Igf2 imprinting"

Ethan Fingerman
Advisor: Paul Sniegowski
"Sequence Evolution of the Retrotransposon Ty3 in Natural Isolates of Saccharomyces cerevisiae and Saccharomyces paradoxus"

Aaron Gitler
Advisor: Jonathan Epstein
"Using your brain to make a heart: Endothelial cell signaling pathways in cardiovascular development"

Yue Hu
Advisor: Mark Fortini
"Functional characterization of g-secretase components"

Danielle Letting
Advisor: Gerd Blobel
"Formation of a tissue-specific chromatin structure by GATA-1 and FOG-1."

Christopher Sarkisian
Advisor: Lewis Chodosh
"Determination of a Dose-Specific Growth Arrest in Response to Ras Activation in Vivo"

Doug Stairs
Advisor: Lewis Chodosh
"Discovery, characterization and functional analysis of the serine/threonine kinase Krct."

Chad Swanson
Advisor: Michael Malim
"3 Rules for HIV Assembly: Location, Location, Location"

Natalie Terry
Advisor: Steve DiNardo
"Novel markers and regulators of the Drosophila male germline niche."

Lauren Zenewicz
Advisor: Hao Shen
"Modulation of the Immune Response by Gram-positive Pathogens"

Honorable Mention for NSF

Congratulations to
Justin Kosak,
a second year CAMB - CGC student.

Meredith Shaffer,
a third year CAMB - CBP student.

Anand Sitaram,
a second year CAMB - CBP student.

They recently received honorable mentions for the National Science Foundation Graduate Fellowship.
May Graduation

18 CAMB students received PhDs in May

Daniel Bauer
Advisor: Craig Thompson
"The Metabolism of Cell Growth"

Patrick Brennan
Advisor: Mark Green
"Mechanisms of Peripheral CD4+ T cell Tolerance"

Emily Chu
Advisor: Sarah Millar
"WNT/beta-catenin signals are required for multiple stages of epidermal appendage development"

Patricia Chui
Advisor: Mitchell Lazar
"Characterization of Novel Genes Regulated by PPARgamma Ligands in 3T3-L1 Adipocytes"

Sara Cullinan
Advisor: J. Alan Diehl
"Nrf2-Dependent Survival Signaling during the Unfolded Protein Response"

Richard DiTullio
Advisor: Thanos Halazonetis
"The Role of 53BP1 in an ATM-dependent Checkpoint Pathway and the Mechanism of its Recruitment to DNA Double Strand Breaks"

Scott Ferguson
Advisor: Hillary Nelson
"Negative Regulation of the Heat Shock Transcription Factor by Protein Kinase A in Saccharomyces cerevisiae"

Ryan Fortna
Advisor: Robert Doms
"Structural and Functional Studies on APH-1 and the Gamma-Secretase Complex"

Hannah Goldenberg
Advisor: Jeffrey Weiser
"The Effect of Human Antibody Specific for Phosphorylcholine on Streptococcus pneumoniae and Haemophilus influenzae"

Peter Hammerman
Advisor: Craig Thompson
"Regulation of cell growth and survival by Pim kinases"

Helen Hartman
Advisor: Mitchell Lazar
"Mechanism of Transcriptional Regulation by Nuclear Hormone Receptors"

Michael Keeley
Advisor: Ted Abel
"Gene Regulation during Memory Storage Provides Insight into the Cognitive Role of Neural Circuits"

Shannon Maude
Advisor: Gregory Enders
"Novel Roles for Cyclin-Dependent Kinases in Checkpoint Pathway Function and Prevention of DNA Damage"

Tracey Golembe Polsky
Advisor: Gideon Dreyfuss
"Protein-RNA Interactions of the Survival of Motor Neurons (Smn) Complex and the Implications for Snrnp Assembly"

Dimitra Tsavachidou
Advisor: Barbara Weber
"The Role of Sprouty-dependent Inhibition of the Ras/ERK Pathway in Melanoma Cells: A Systems Biology Approach"

Robin Vos
Advisor: Francisco Gonzalez-Scarano
"The Role of Annexin 2 During HIV-1 Infection of Monocyte-derived Macrophages"

Jiujiu Yu
Advisor: Mitchell Lazar
"Novel features of transcriptional repression by nuclear receptor corepressor SMRT"

Fanyi Zeng
Advisor: Richard Schultz
"Gene Expression during Preimplantation Development in the Mouse Embryo"
## CAMB Fall Courses

<table>
<thead>
<tr>
<th>Class</th>
<th>Instructor (s)</th>
<th>Day: Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOM 600: Cell Biology and Biochemistry</td>
<td>M. Ostap</td>
<td>M, W, F: 10:30 - 12:00</td>
</tr>
<tr>
<td>CAMB 518: Current Topics in Ion Channels</td>
<td>C. Deutsch, F. Horrigan</td>
<td>T, R: 9:30-10:30 (on alternate weeks)</td>
</tr>
<tr>
<td>CAMB 532: Integrative Physiology</td>
<td>M. Pring</td>
<td>M, W, F: 2:30 - 4</td>
</tr>
<tr>
<td>CAMB 542-401: Topics in Molecular Medicine - (MD / PhD only)</td>
<td>G. Koretsky, L. Brass, M. Kahn</td>
<td>W: 3:30 - 5:30</td>
</tr>
<tr>
<td>CAMB 542-402: Topics in Molecular Medicine - (VMD/PhD, PhD, and MD/PhD)</td>
<td>M. Atchinson</td>
<td>W: 5 - 7</td>
</tr>
<tr>
<td>CAMB 597: Developmental Neuroscience</td>
<td>M. Granato</td>
<td>W, F: 11 - 12:30</td>
</tr>
<tr>
<td>CAMB 605: First Year Seminar</td>
<td>D. Epstein</td>
<td>T: 1 - 4</td>
</tr>
<tr>
<td>CAMB 608: Regulation of Eukaryotic Gene Expression</td>
<td>T. Kadesch, K. Zaret</td>
<td>T: 3 - 5</td>
</tr>
<tr>
<td>CAMB 609: Vaccines &amp; Immune Therapeutics</td>
<td>D. Weiner, P.Offit</td>
<td>W, R: 3:30-5:30</td>
</tr>
<tr>
<td>CAMB 610: Molecular Basis of Gene Therapy</td>
<td>J. Wilson, J. Glick</td>
<td>M, W, F: 9 - 10</td>
</tr>
<tr>
<td>CAMB 617: Emerging Infectious Diseases</td>
<td>R. Doms</td>
<td>M, W, F: 10 - 11</td>
</tr>
<tr>
<td>CAMB 620: Molecular Mechanisms of Development</td>
<td>S. DiNardo</td>
<td>T: 10 -12</td>
</tr>
<tr>
<td>CAMB 630: Topics in Human Genetics and Disease</td>
<td>N. Spinner, K Kusumi, R. Nicholls, T. Shaikh</td>
<td>R: 1:30, 3:30</td>
</tr>
<tr>
<td>CAMB 650: DNA Damage Checkpoints and DNA Repair</td>
<td>C. Bassing, E. Brown</td>
<td>W: 3-6</td>
</tr>
<tr>
<td>CAMB XXX: MVP Introductory Course</td>
<td>P. Bates, A. Decatur, E. Pearce</td>
<td>TR: 10:30 - 12:00</td>
</tr>
</tbody>
</table>

CAMB students - please remember to discuss your course choices with your program advisor and to communicate with your coordinator so that she can register you properly.

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### Saul Winegrad Awards for Outstanding Dissertation

Congratulations to:
- **Sara Cullinan**
  Advisor: Alan Diehl
- **Aaron Gitler**
  Advisor: Jonathan Epstein
- **Yue Hu**
  Advisor: Mark Fortini

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### Mosenthal Award

Congratulations to **Morris Birnbaum**, Rhoda and Willard Ware Professor of Diabetes and Metabolic Disease, He has been recognized by the Northeastern Division of the American Diabetes Association.
Recent Papers from Students


Billings BC*, Fiori JL*, de la Pena, LS, Ahn, J, Kaplan, FS, Shor, EM. Fibrodyasplasia Ossificans Progressiva (FOP), a Disorder of Ectopic Osteogenesis, Misregulates Cell Surface Expression and Trafficking of BMPRIA accepted/in press: *Journal of Bone and Mineral Research* *These co-authors have made equal contributions to this study.


Buzzai M, Bauer DE, Jones RG, Deberardinis RJ, Hatzivassiliou G, Elstrom RL, Thompson CB. The glucose dependence of Akt-transformed cells can be reversed by pharmacologic activation of fatty acid beta-oxidation. Oncogene. 2005 Apr 4; [Epub ahead of print]


Hammerman PS, Fox CJ, Birnbaum MJ, Thompson CB. The Pim and Akt oncogenes are independent regulators of hematopoietic cell growth and survival. *Blood.* 2005 Feb 10;


Recent Papers from Students cont..


Upcoming Changes to 1st year PhD Students’ Lab Rotations

Under the current format, the length and nature of the three CAMB laboratory rotations are unequal. The fall rotation is significantly shorter than those in the spring and summer, and the summer rotation is a full-time effort (no classes). In an effort to make the rotations more equivalent and to get students into their thesis labs sooner, a new timetable was proposed by the CAMB Curriculum Committee and approved for the 2005-2006 year by the CAMB Executive Committee. All three rotations will be a minimum of 11 weeks in length. There will be one rotation in the fall and two between January and early June, allowing students to start full-time thesis research during the summer between the first and second year or to pursue a 4th rotation over the summer.

Start dates for rotations are:

**2005-2006**

- **Rotation I**: September 26 (no later then October 3rd) - Dec 21st
- **Rotation II**: January 9 - March 24th
- **Rotation III**: March 27 - June 2nd
- **Pre Dissertation Research (or Rotation IV)**: June 5th - Aug 19th

<table>
<thead>
<tr>
<th>2005 Fall Semester</th>
<th>2006 Spring Semester</th>
<th>2006 Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sept 12th</strong></td>
<td><strong>Jan 9th</strong></td>
<td><strong>June 2nd</strong></td>
</tr>
<tr>
<td><strong>Dec 21st</strong></td>
<td><strong>May 5th</strong></td>
<td><strong>June 5th - Aug 19th</strong></td>
</tr>
<tr>
<td><strong>BIOM 600</strong> - - - - - - - - - - - - -&gt;</td>
<td><strong>BIOM 555</strong> - - - - - - - - - - - - -&gt;</td>
<td><strong>Lab Rotation 4</strong></td>
</tr>
<tr>
<td><strong>CAMB 605</strong> - - - - - - - - - - - - -&gt;</td>
<td><strong>CAMB program class</strong> - - - - - - - - - - - - -&gt;</td>
<td><strong>Pre Dissertation</strong></td>
</tr>
<tr>
<td><strong>Lab Rotation 1</strong> (14 weeks)</td>
<td><strong>Lab Rotation 2</strong> (11 weeks)</td>
<td><strong>Lab Rotation 3</strong> (11 weeks)</td>
</tr>
<tr>
<td><strong>Lab Rotation 2</strong> (11 weeks)</td>
<td><strong>Lab Rotation 3</strong> (11 weeks)</td>
<td><strong>Pre Dissertation or Lab Rotation 4</strong> (11 weeks)</td>
</tr>
</tbody>
</table>

Dean’s Award for Excellence in Graduate Student Training

Congratulations to **Mark Lemmon**, Professor of Biochemistry & Biophysics. He is the winner of the 2005 Dean’s Award for Excellence in Graduate Student Training.

American Academy of Arts and Science Fellows

Congratulations to **Gideon Dreyfuss**, Isaac Norris Professor of Biochemistry & Biophysics. He was elected to the American Academy of Arts and Sciences.

William Wikoff Smith Professor of Cardiovascular Research

Congratulations to **Jonathan Epstein**, Professor of Medicine and Cell and Developmental Biology. He has been named the inaugural recipient of the William Wikoff Smith chair in Cardiovascular Research.

National Advisory Neurological Disorders and Stroke Council

Congratulations to **Francisco González-Scarano**, Professor of Neurology and Microbiology. He has been appointed to National Advisory Neurological Disorders and Stroke Council.
Lindback Award

Congratulations to
Phoebe Leboy,
Professor of Biochemistry
She is a winner of the 2005 Lindback award, given in recognition of distinguished teaching.

School of Medicine Teaching Awards

Congratulations to
Nina Luning Prak,
Assistant Professor of Pathology and Laboratory Medicine.
She is the 2005 winner of the Leonard Berwick Memorial Teaching Award

Veterinary Medicine Teaching Awards

Congratulations to
John Pehrson,
Associate Professor of Biochemistry
He is the 2004 winner of the Dean’s Award for Leadership in Basic Sciences.

James Lok,
Professor of Parasitology
He received the Class of 2007 Award.

Charles Vite,
Assistant Professor of Neurology (and former CAMB student).
He received the Class of 2006 Award

School of Medicine Awards of Excellence

Congratulations to
Craig Thompson,
Scientific Director of the Abramson Family Cancer Research Institute,
He is the 2004 winner of the Stanley N. Cohen Biomedical Research Award.

Jean Bennett,
Professor of Ophthalmology
She is the 2004 winner of the William Osler Patient Oriented Research Award.

Mark Kahn,
Assistant Professor of Cardiology
He is the 2004 winner of the Michael S. Brown Junior Faculty Research Award.

Births

Congratulations to
Tina Franklin-Dumont,
a seventh year CAMB-DB, MD/PhD student
On the birth of her daughter
Emma (Nov 2004)

Congratulations to
Helen Hartman,
recent CAMB Graduate
On the birth of her son
Benjamin (Oct 2004)

Future Newsletters

If you have announcements that you would like to include, please contact Meagan Schofer,
mschofer@mail.med.upenn.edu

We would like to thank the following Departments, Institutes and Training Grants for their support of the 2004 CAMB Retreat/Symposium

Abramson Family Cancer Research Institute
Cell and Developmental Biology Department
Cell Molecular Biology Training Grant
Developmental Biology Training Grant
Emerging Infectious Diseases Training Grant
Gene Therapy Training Grant
Genetics Department
HIV Training Grant
Microbiology Department
Training Grant in in Comparative Medical and Molecular Genetics
Physiology Department
The Wistar Institute