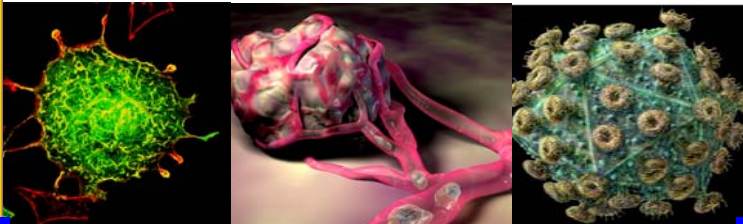


# *Molecular Pathology Graduate Program*



*2007 Spring  
Research Retreat*



*Welcome to the Molecular Pathology  
Graduate Program's  
Annual Spring Retreat 2007*

Thursday, May 31, 2007  
Martin Johnson House, SIO

*Hosted by:*  
Eric Lau  
and  
Eliot Bourk

- 8:30-9:00**      *Coffee & Pastries*
- 9:00- 9:10**      *Introduction by Mark Kamps*
- 9:10-10:25**      *Session I: Structural Biochemistry  
& Signal Transduction*  
*Chair:* Brendan Eckelman

Brendan Eckelman  
*Can an IAP function as a Caspase Activator? Caspase-3  
attenuates XIAP-mediated inhibition of caspase-9*

Mandy Janssen  
*3D Characterization of (Meta)Vinculin-Actin  
Assemblies using Transmission Electron Microscopy*

Eric Yu  
*How does a Vaccinia Viral Protein Inhibit Apoptosis?*

Rodolpho Gonzales  
*Human ZNF206: A Novel Regulator of Human Embryonic  
Stem Cell Self-Renewal and Pluripotency*

10:25-10:45 *Break*

10:45-11:45 *Session II: Infectious Diseases*

*Chair:* Paula Campos-Soto

Paula Campos-Soto

*CD4+ T cell proliferation and the establishment of HIV-1 latency*

Heather Maisey

*The role of Group B Streptococcal pili in disease pathogenesis*

Jessica Ricaldi

*Sialylated proteins in Leptospira interrogans*

11:45-1:00 *Lunch & Poster Set-up*

1:00-2:30 *Session III: Cancer*

*Chair:* Robin Lester

Robin Lester

*uPAR induces epithelial-mesenchymal transition in Hypoxic Breast Cancer Cells*

Jacob Haling

*The Exploration of a Signal Transduction Pathway that Suppresses Integrin Activation*

Debbie Liao

*The Role of hypoxia Inducible Factor-1a in Mammary Gland Tumorigenesis*

Eliot Bourk

*Targeting Inflammatory Signaling In Hormone-Resistant Prostate Cancer*

2:30-4:15

*Wine & Cheese / Poster Session*

Kristina Beiswenger

*The Time Course of Structural and Functional changes in Epidermal nerves of a Mouse Model of Type 1 Diabetes*

Miklos Bekes

*Deconjugation Profiles of Human SENPs*

Cecille Browne

*Restoration of Signaling in PTEN-deficient Autoreactive B Cells*

Matthew Buschman

*Characterization of Tks5 in Podosome Formation*

Denise Cecil

*Transamidation by TG2 Transforms S100A11 into an Inducer of Dysregulated Matrix Catabolism and Chondrocyte Hypertrophic Differentiation*

Shing-Fai Chan

*Identification and Characterization of a Molecular Link between the Kinase ATM and The Prosurvival Transcription Factor MEF2 in Cerebellar Neurons*

Amy Chen

*Functional and mechanistic studies of the SCF-TOME-1 Ubiquitin Ligase complex*

Erin Conn

*Pro-angiogenic Capacity of Human Prostate Cancer Cells Selected In Vivo for Ability to Intravasate into the Vasculature*

Leslie Crews

*The Role of CDK5 Signaling in Neurogenesis: Implications for Aging and Alzheimer's Disease*

Joshua Gregory

*Concurrent Hypertension Exaggerates Peripheral Neuropathy in STZ-Diabetic Rats*

Miller Huang

*Sites on The p130Cas Substrate Domain Specifically Involved in EGF-mediated FG Cell Migration on Vitronectin*

Anokhi Kapasi  
*Specific Components of The Most Transcription Machinery  
Localize with the Immediate Early Transcription Sites in Human  
Cytomegalovirus Infected Cells*

Eric Lau  
*Response to Pre-RC Protein Deficiency in Normal Human Cells*

Katie Medders  
*p38 MAPK Signaling in HIV-1 Mediated Neurotoxicity*

Amanda Opaluch  
*PTPome-wide siRNA Screening for Cell Survival*

Cynthia Perry  
*Reperfusion Injury is Mediated by Reactive Oxygen  
Species, Arachidonic Acid Metabolism, and p38MAPK  
in a Sulfaphenazole- Sensitive Pathway*

Diego Romero-Perez  
*Pleiotropic Properties of Minocycline Preserve Cardiac Function  
in Isolated Rat Hearts during Ischemia/Reperfusion Injury.*

Tingdong Tang  
*A putative GTP Binding Protein that Binds RGS-PX1 and May  
be Involved in EGF Receptor Trafficking and Mitochondrial  
Dynamics*

Karen Tran  
*Human Cytomegalovirus Inactivates The APC/C by  
Destabilizing The Complex to Induce Cell Cycle Arrest.*

Maria Williams  
*The Function of uPAR and its Control of Cancer Cell  
Physiology*

Linda Woo  
*Semaphorin 3A: A Potential Inhibitor of VEGF-Induced  
Angiogenesis*

Irene Wu  
*Regulation of Baff-mediated Autoimmunity by ICOSL*

Sharon Zhang  
*Involvement of Shp2 in The Regulation of Pancreatic  $\beta$ -cell  
Function and Glucose Homeostasis*

## *Publications*

*Human inhibitor of apoptosis proteins: why XIAP is the black sheep of the family*

**Brendan P. Eckelman**, Guy S. Salvesen, Fiona L. Scott.  
EMBO reports VOL 7 | NO 10 | 2006

*Caspase-3 attenuates XIAP-mediated inhibition of caspase-9*

Jean-Bernard Denault, **Brendan P. Eckelman**, Hwain Shin, Cristina Pop, and Guy S. Salvesen.

Biochemical Journal Immediate Publication. 16 Apr 2007

*Behavioral improvement in a primate Parkinson's model is associated with multiple homeostatic effects of human neural stem cells*

Eugene Redmond, Jr. , Kimberly B. Bjugstad, Yang D. Teng, Vaclav Ourednik, Jitka Ourednik, Dustin R. Wakeman, Xuejun H. Parsons, **Rodolfo Gonzalez**, Barbara C. Blanchard, Seung U. Kim, Zezong Gu, Stuart A. Lipton, Eleni Markakis, Robert H. Roth, John D. Elsworth, John R. Sladek, Jr. Richard L. Sidman, Evan Y. Snyder.  
*Proc. Natl. Acad. Sci. USA*, Research Report

*Is There A Pre-RC Checkpoint That Cancer Cells Lack?*

**Eric Lau** and Wei Jiang

Cell Cycle 5:15, 1602-1606, 1 August 2006

*Group B Streptococcal Pilus Proteins Contribute to Adherence to and Invasion of Brain Microvascular Endothelial Cells\_*

**Heather C. Maisey**, Mary Hensler, Victor Nizet, Kelly Doran.

Journal of Bacteriology, Feb. 2007

*PTPome-wide functional RNA interference screening methods*

**Amanda M. Opaluch**, Pedro Aza-Blanc, Torkel Vang, Scott Williams, Lutz Tautz, Loribelle Milan, Tomas Mustelin  
Methods (2007), doi:10.1016/j.ymeth

*Engineered Hybrid Dimers: Tracking the Activation Pathway of Caspase-7*

Jean-Bernard Denault, **Miklos Bekes**, Fiona L. Scott, Kelly M.B. Sexton, Matthew Bogoyo, and Guy S. Salvesen.

Molecular Cell 23, 523–533, August 18, 2006

*Caspase substrates*

**John C Timmer** and Guy S Salvesen

Cell Death and Differentiation (2007) 14, 66–72

*An Experimentally Derived Database of Candidate Ras-Interacting Proteins*

Lawrence E. Goldfinger, Celeste Ptak, Erin D. Jeffery, Jeffrey Shabanowitz, Jaewon Han, **Jacob R. Haling**, Nicholas E. Sherman, Jay W. Fox, Donald F. Hunt, and Mark H. Ginsberg.  
Journal of Proteome Research Web 04/17/2007

*Hypoxia-Inducible Factor-1A Is a Key Regulator of Metastasis in a Transgenic Model of Cancer Initiation and Progression*

**Debbie Liao**, Courtney Corle, Tiffany N. Seagroves, and Randall S. Johnson  
Cancer Res 2007; 67: (2). January 15, 2007

*Serum opacity factor promotes group A streptococcal epithelial cell invasion and virulence*

**Anjuli M. Timmer**, Sascha A. Kristian, Vivekanand Datta, Arthur Jeng, Christine M. Gillen, Mark J. Walker, Bernard Beall and Victor Nizet  
Molecular Microbiology (2006) 62(1), 15–25

*Impairment of innate immune killing mechanisms by bacteriostatic antibiotics*

Sascha A. Kristian, **Anjuli M. Timmer**, George Y. Liu, Xavier Lauth Neta Sal-Man, Yosef Rosenfeld, Yechiel Shai, Richard L. Gallo, and Victor Nizet.  
The FASEB Journal Express article fj.06-6802com. Published online January 10, 2007

*Publications Review Committee*

**Chair:** Meifan Amy Chen  
Mandy Janssen  
Irene Wu  
Anokhi Kapasi

**4:15-5:00**

*Awards Ceremony / Ice Cream Reception*

Categories:	Awards:
Best Presentation	\$80
Best Poster	\$80
Most Significant: 1st Author Paper	\$50
Most Significant: 2nd Author Paper	\$50
Most Novel Approach used in the Paper	\$50
Clearest Figures in the Paper	\$50
Most Well-written Paper	\$50

## *Acknowledgments*

Thank you to Dr. Mark Kamps for his advice and guidance.

A special thank you to Robin Lester, Brendan Eckelman and Paula Campos-Soto for their leadership as session chairs.

We greatly appreciate the help of the publication review committee for reading all of our publications and for continuing the tradition of our awards ceremony – especially Amy Chen for heading the committee.

We hope that all of you have enjoyed the day sharing and learning about the exciting research with your fellow “Mol Pathers”.

Eric and Eliot

