Thursday, June 17, 2010
(8:45 - 9:30 a.m.  Set-up for all posters in Clothier Memorial Hall)

**Session I**
Lecture Hall 101, Science Center
*Discussion Leader:* P. Leslie Dutton, Ph.D.
(9:15 – 9:45 a.m.  Coffee & Refreshments)

9:45 - 10:15 a.m.  **Rahul M. Kohli, M.D., Ph.D.**
Assistant Professor of Medicine
“*Mutator enzymes: friend and foe*”

10:15 - 10:35 a.m.  **Cinque S. Soto, Ph.D.**
Postdoctoral Fellow (laboratory of William F. DeGrado, Ph.D.)
“A photonless approach to structure determination”

10:35 - 11:05 a.m.  **James Shorter, Ph.D.**
Assistant Professor of Biochemistry & Biophysics
“Redirecting amyloidogenic trajectories”

11:05 - 11:20 a.m.  **Break**

11:20 - 11:50 a.m.  **Yair Argon, Ph.D.**
Professor of Pathology & Laboratory Medicine
“How do molecular chaperones work in the endoplasmic reticulum?”

11:50 a.m. - 12:10 p.m.  **Sarah Chobot Hokanson, Ph.D.**
Former graduate student (laboratory of P. Leslie Dutton, Ph.D.)
“Deconvoluting the engineering and assembly instructions for Complex III activity”
Thursday, June 17, 2010 (continued)

12:10 - 12:25 p.m.  **Kathryn M. Ferguson, Ph.D.**  
Associate Professor of Physiology  
Chair, Graduate Group in Biochemistry & Molecular Biophysics  
“The BMB Graduate Group - current and future directions”

12:25 - 12:45 p.m.  **P. Leslie Dutton Award Talk:**  
Harry (Trey) W. Schroeder III  
Graduate student (laboratories of Yale E. Goldman, M.D., Ph.D. and Erika L.F. Holzbaur, Ph.D.)  
“Motor number controls cargo switching at actin-microtubule intersections in vitro”

12:45 - 2:15 p.m.  **POSTER SESSION I** (Posters #1-1 to #1-24)  
& **LUNCH** (Clothier Memorial Hall)

**Session II**  
Lecture Hall 101, Science Center  
**Discussion Leader:** Ben E. Black, Ph.D.

2:15 - 2:45 p.m.  **Doron C. Greenbaum, Ph.D.**  
Assistant Professor of Pharmacology  
“A chemical biology approach to understand protease function in the malaria parasite”

2:45 - 3:15 p.m.  **A. Joshua Wand, Ph.D.**  
Benjamin Rush Professor of Biochemistry & Biophysics  
“The dark energy of proteins comes to light”

3:15 – 3:30 p.m.  **BREAK**

3:30 – 3:50 p.m.  **Emily A. Bassett**  
Graduate student (laboratory of Ben E. Black, Ph.D.)  
“Epigenetic centromere specification directs Aurora B accumulations but is insufficient to efficiently correct mitotic errors”

3:50 – 4:20 p.m.  **Joseph A. Baur, Ph.D.**  
Assistant Professor of Physiology  
“Molecular mechanisms of caloric restriction”

4:20 - 4:40 p.m.  **Renee S. Martin**  
Graduate student (laboratory of Gregory D. Van Duyne, Ph.D.)  
“Biochemical characterization of the oligomerization domain of the SMN protein”
Thursday, June 17, 2010 (continued)

4:40 - 6:10 p.m.  **POSTER SESSION II** (Posters #II-25 to #II-49)
Beer/Wine/Hors D’oeuvre (Clothier Memorial Hall)

---

**Friday, June 18, 2010**

**SESSION III**
Lecture Hall 101, Science Center
Discussion Leader: Kristen W. Lynch, Ph.D.

9:00 - 10:30 a.m.  **POSTER SESSION III** (Posters #III-50 to #III-74)
Coffee & Refreshments (Clothier Memorial Hall)

10:30 - 10:45 a.m.  **BREAKDOWN OF POSTER & EASELS**

11:00 - 11:30 a.m.  **Gideon Dreyfuss, Ph.D.**
Isaac Norris Professor of Biochemistry & Biophysics
“RNP: instruments of global transcriptome regulation”

11:30 - 11:50 a.m.  **Nikolina Sekulic, Ph.D.**
Postdoctoral Fellow (laboratory of Ben E. Black, Ph.D.)
“Implications for epigenetic centromere marking form the structure of the CENP-A/histone H4 heterotetramer”

11:50 a.m. - 12:10 p.m.  **Jennifer L. Greene**
Graduate student (laboratory of Harry Ischiopoulos, Ph.D.)
“Uncovering the structural determinants of S-nitrosylation specificity using global proteomic approaches”

12:10 - 12:15 p.m.  **PRESENTATION OF POSTER AWARDS**

12:15 - 12:30 p.m.  **BREAK**

12:30 - 1:30 p.m.  **KEYNOTE SPEAKER:**
**Arthur L. Caplan, Ph.D.**
Emanuel & Robert Hart Professor of Bioethics
Department of Bioethics, University of Pennsylvania
“Ethics of health reform”

1:45 – 2:00 p.m.  **GROUP PHOTOGRAPH**
(steps outside Clothier Memorial Hall)

2:00 p.m. - ??  **PICNIC & SOFTBALL GAME**
(lawn by Sharples Dining Hall)


# I-3 Samish, Ilan, Chaim A. Schramm, Jason E. Donald, Jeffery G. Saven and William F. DeGrado. *Asymmetric E2, a potential for assessing the energies and positions of protein sequences or structures in and on the membrane.*

# I-4 Zelent, Bogumił, Stella Odili, Carol W. Buettger, Pan Chen, Charles A. Stanley, Joseph Grimsby, Jane M. Vanderkooi and Franz M. Matschinsky. *Biophysical studies of the glucokinase glucose sensor in pancreatic islets.*


# I-6 Milk, Leslie K. and Mitchell Lewis. *From structure to genetics and back.*


# I-8 Artim, Stephen C. and Mark A. Lemmon. *Characterization of the Trk neurotrophin receptors.*


# I-10 Barendt, Pamela A. and Casim A. Sarkar. *Exhaustive sampling of ribosome binding sites for fast translation by ribosome display.*

# I-11 Knight, M. Noelle, Kathleen S. Molnar and James Shorter. *Testing models of Sup35 prion structure.*

# I-12 Chen, Qing (Helen), Karla F. Leavens and Morris J. Birnbaum. *Hepatic lipid metabolism.*

# I-13 Chen, Chunlai, Benjamin Stevens, Jaskiran Kaur, Diana Cabral, Zeev Smilansky, Barry S. Cooperman and Yale E. Goldman. *Spontaneous versus allosteric dissociation of E-site tRNA during polypeptide elongation.*

# I-14 Chiu, Ni-ting and Kristen W. Lynch. *Mechanism of CD45 exon 4 ESS1 in repressing the spliceosome assembly.*


# I-17 DeSantis, Morgan E. and James Shorter. *Inter-subunit collaboration in a AAA+ hexamer.*


# I-19 Doliha, Nicolai M., Wei Qin, Chengyang Liu, Habiba Najafi, Sergei A. Vinogradov, Changhong Li, David F. Wilson, Ali Naji, Joseph Grimsby and Franz M. Matschinsky. *Piraglaxatin, an allosteric activator of glucokinase, increases glucose-induced respiration and insulin release of pancreatic islets from Type 2 diabetics.*

# I-20 Farid, Tammer A., Goutham Kodali, Bruce R. Lichtenstein, Christopher C. Moser and P. Leslie Dutton. *Control of biological function and oxidoreductase properties in a synthetic 4-helix bundle protein.*

# I-21 Diaz, Zamia, Zhuhui Sun, Aaron D. Gitler and James Shorter. *Determining the aggregation mechanism of an hnRNP involved in ALS.*

# I-22 Fenty, Matthew, Victor B. Kassey, George Dodge, Arijitt Borthakur and Ravinder Reddy. *Quantification of age dependent molecular changes in guinea pig OA model using T1p MRI.*

# I-26 Nucci, Nathaniel V., Maxim Pometun, John M. Gledhill and A. Joshua Wand. Enabling site-resolved measurement of hydration water-protein interactions by solution NMR.
# I-28 Sun, Yujie, Osamu Sato, Felix Ruhnow, Mark E. Arsenault, Mitsuo Ikebe and Yale E. Goldman. Myosin structural flexibility and the relevance to their cellular functions.
# I-29 Gay-Antaki, Carlos and John H. Wolfe. Adeno-associated virus and tetanus toxin fragment C based vectors for gene therapy in the CNS.
# I-30 Go, Michelle S., Elizabeth A. Sweeney and James Shorter. Exploring the function of the amino-terminal domain of Hsp104.
# I-32 Martinez, Nicole M. and James Shorter. TDP-43: rescuing aggregation.
# I-33 Ninan, Nisha S. and Gregory D. Van Duyne. Understanding ligand binding of the Tudor domain of SMN.
# I-34 Tang, Yong, Marc A. Holbert, Neda Delgoshaie, Hugo Wurtele, Katrina Meeth, Hua Yuan, Paul Drogaris, Pierre Thibault, Alain Verreault, Philip A. Cole and Ronen Marmorstein. Structure of the Rtt109-Vps75 complex and implications for chaperone-mediated histone acetylation.
# I-36 Grigoryan, Gevorg and William F. DeGrado. Thermodynamic insight from accurate calculation of configuration integrals.
# I-37 Heyd, Florian and Kristen W. Lynch. GSK3-mediated phosphorylation of PSF controls CD45 activation induced exon skipping.
# I-40 La Porte, Nathan T., Laura M. Castellano, Chan Chung, Martin L. Duenwald and James Shorter. A small molecule cocktail stimulates formation and elimination of Sup35 prions.
# I-41 Mani, Tomoyasu and Sergei A. Vinogradov. Sensitization of Ln(III) emission by energy transfer from the triplet state of pπ-extended porphyrin.
# I-46 Moore, Jason O., Wayne A. Hendrickson and Mark A. Lemmon. Structural biology of signaling in the Tor1-Tor5 histidine kinase receptor complex.
# I-49 Bessman, Nicholas J. and Mark A. Lemmon. Complex ligand binding in ErbB receptor signaling.
This Retreat is open to the public. Therefore, posters or presentations given at this event are public disclosures and may negatively impact the University of Pennsylvania’s ability to protect the work under intellectual property law. If you feel the work may be of commercial interest or plan to disclose it to Penn’s Center for Technology Transfer in the future, CTT encourages you to disclose it to their office at least one month prior to this event.