The Systems & Integrative Biology (SIB) and Vision Training Grants are both long-standing predoctoral training programs at Penn, supported by the NIGMS (SIB) and NEI (Vision). Associated with these training programs is this Annual Retreat, which showcases the research progress by Current and Former (but still pre-PhD) Trainees. These programs also host an annual Visiting Scholar, who attends and speaks at the Annual Retreat, then remains in Residence for two additional days. During these additional days, the Visiting Scholar (1) meets individually with many Current and Former Trainees to discuss their Thesis Research and Career Goals, (2) gives a second seminar, for graduate students only, and (3) meets with a subset of faculty.

Each Visiting Scholar is identified by focusing on senior neuroscientists with international reputations who are also highly regarded for their (1) enthusiasm for interacting with graduate students, (2) breadth of interests, and (3) communication skills. The previous Visiting Scholars include:

- 2002 Michael Stryker, UCSF
- 2003 Carol Barnes, Univ. AZ, Tucson
- 2004 Holly Cline, Scripps Research Clinic, LaJolla, CA
- 2006 David Perkel, Univ WA, Seattle
- 2007 Carol Mason, Columbia Univ.
- 2008 Gina Turrigiano, Brandeis Univ.
- 2009 Leslie Griffith, Brandeis Univ.
- 2010 Michael Shadlen, Univ WA, Seattle
- 2011 Sascha du Lac, Salk Institute, CA
- 2012 Nick Spitzer, Kavli Brain-Mind Institute, UCSD
- 2013 Maria Feller, UC Berkeley
- 2014 Tom Otis, UCLA
- 2015 Rich Krauzlis, PhD, National Eye Institute, NIH

The 2016 Visiting Scholar is Cynthia F. Moss, PhD, of Johns Hopkins University. Cindy Moss and her research group investigate sensory processing, spatial perception, attention, learning and memory. The animal model of their research, the echolocating bat, coordinates the production of its sonar signals with flight maneuvers in response to dynamic echo information. Because the bat exhibits a rich set of natural sensory-guided behaviors, it is an excellent model for systems neuroscience research.

8:30 Coffee, Tea, Juice, Danish and Bagels (Barchi Library, 140 JMB)
9:00 Introduction: Joshua Gold, PhD, Co-PI, SIB TG
9:10 Marc Fuccillo, MD, PhD, Assistant Professor of Neuroscience
Mutations in the Neurexin-Neuroligin Network Perturb Reward-Oriented Behavioral Output
10:00 Sri Sritharan, Lucas Lab
Somatosensory encoding in the cuneate nucleus
10:30 Coffee Break
11:00 Jennifer Blackwell, Geffen Lab
Two types of cortical interneurons differentially modulate behavioral frequency discrimination acuity
11:30 Alon Hafri, Epstein Lab and Trueswell Lab
Cognitive and neural representations of interactive events
12:00 Lunch (Barchi Library, 140 JMB)
1:30 Greg Artiushin, Sehgal Lab
A Role for Glial Traffic in the Sleep of Drosophila
2:00 Chris Angelakos, Abel Lab
Hyperactivity and male-specific sleep deficits in the 16p11.2 deletion mouse model of autism
2:30 Preetika Gupta, Kalb Lab
A potential role for SAP97 in psychiatric disorders
3:00 Esteban Luna, Luk Lab
Differential vulnerability to α-synuclein pathology among neuronal subpopulation
3:30 Lindsey Goodman, Bonini Lab
Mechanisms of neuronal toxicity in a drosophila model for C9ALS/FTLD
4:00 Coffee Break
4:30 Visiting Scholar: Cynthia F. Moss, PhD, Johns Hopkins University
Representing Space through Sound: What the bat’s voice tells the bat’s brain
5:30 Wrap-up
6:00 Dinner, Faculty Lounge, 14th Floor BRB II/III