

**LECTURE AND SEMINAR SCHEDULE FOR THE FIFTH  
BANGALORE BENNY SHILO COURSE IN DEVELOPMENTAL BIOLOGY  
DEC 27, 2010- JAN 6, 2011**

Day and Time	Speaker	Title
<b>Day 1 Mon (27 Dec `10)</b>		
8.30 AM - 9.00 AM	Registration	For course participants only
9.00 AM - 10.30 AM	K. VijayRaghavan	Introduction to <i>Drosophila</i> genetics, methods and questions
10.30 AM - 11.00 AM	Tea break	
11.00 AM - 12.45 PM	Benny Shilo	Developmental biology- what have we learned, and what lies ahead.
12.45 PM - 2.00 PM	Lunch	
2.00 PM - 3.0 PM	Amos Arieli	IN SEARCH OF THE REAL: Some Observations on the Lack of Objectivity of Sensory Perception (special lecture)
3.30 PM - 4.00 PM	Tea break	
4.0 PM - 5.30 PM		NCBS Annual work seminars (AWS)
5.30 PM- 6.30 PM	Benny Shilo	Regulation of EGFR signaling by ligand trafficking
6.30 PM- 7.30 PM		Q & A session with Benny and Vijay
7.30 PM onwards	-	Dinner followed by (A) Brief introduction of Weizmann Institute (B) Presentation on the concept of short research grants to be prepared by students (§)
<b>Day 2 Tue (28 Dec `10)</b>		
9.00 - 10.30 AM	Benny Shilo	Computational approaches to morphogen patterning
10.30 - 11.0 AM	Tea break	
11.0 AM -12.45 PM	Eyal Schejter	Actin nucleation and muscle cell fusion
12.45 - 2.00 PM	Lunch	
2.00 - 3.30 PM	Benny Shilo	Regulation of secretion by actin nucleation
3.30- 4.00 PM	Tea break	
4.00-6.00 PM	-	Paper preparation (*)
6.00 – 7.30 PM	-	Paper Discussion with Benny [Yogev, Schejter and Shilo, PLoS Biology 2010]
7.30 PM onwards	-	Dinner followed by paper preparations

<b>Day 3 Wed (29 Dec `10)</b>		
9.00-10.30 AM	Eyal Schejter	Oogenesis and the cytoskeleton
10.30 - 11.00 AM	Tea break	
11.00 AM -12.45 PM	-	Beginning of grant project preparation
12.45 - 2.00 PM	Lunch	
2.00 - 3.30 PM	Ze'ev Paroush	Generating the AP axis in the <i>Drosophila</i> embryo
3.30 - 4.00 PM	Tea break	
4.00 – 6.0 PM		Paper preparation
6.00 – 7.30 PM		Paper Discussion with Eyal [Rajan et al (2009) Nat Cell Bio.]
7.30 PM onwards	-	Q&A with Eyal and Ze'ev
<b>Day 4 Thu (30 Dec `10)</b>		
9.00 - 10.30 AM	Ze'ev Paroush	Transcriptional activators and repressors
10.30 - 11.00 AM	Tea break	
11.00 AM -12.45 PM	Eyal Schejter	The interface between protein trafficking and developmental signaling
12.45 - 2.00 PM	Lunch	
2.00 - 3.30 PM	-	Grant project preparation
3.30-4.00 PM	Tea break	
4.0-6.0 PM		Paper preparation
6.00 – 7.30 PM		Paper Discussion with Ze'ev [Swanson et al (2010) Structural rules and complex regulatory circuitry constrain expression of a Notch- and EGFR-regulated eye enhancer. Dev. Cell , along with a second paper that will serve as an obligatory basis for the group discussion: Flores et al (2000) Combinatorial signaling in the specification of unique cell fates, Cell]
7.30 PM onwards		Dinner and paper preparations in groups

<b>Day 5 Fri (31 Dec `10)</b>		
9.00 - 10.30 A.M	Andrea Brand	Nervous system development in <i>Drosophila</i>
10.30 - 11.00 AM	Tea break	
11.00 AM-12.45PM	Thomas Lecuit	Mechanics of tissue morphogenesis: adhesion and tension
12.45 - 2.00 PM	Lunch	
2.00 – 3.30 PM	Andrea Brand	Stem cells to synapses: regulation of self-renewal and differentiation in the nervous system
4.0-4.30 PM	Tea	
4.30-6.0 PM		Paper preparation
6.0-7.30 PM		Paper discussion with Andrea (with paper chosen by Andrea)
7.30 PM onwards		Dinner
<b>Day 6 Sat (1 Jan `11)</b>	FREE	
<b>Day 7 Sun (2 Jan `11)</b>	FREE	
<b>Day 8 Mon (3 Jan `11)</b>		
9.00 - 10.30 AM	Thomas Lecuit	Orchestrating size (growth) and shape during morphogenesis
10.30 - 11.00AM	Tea break	
11.00 AM -12.45 PM	Erez Raz	Specification, fate maintenance and behavior of zebrafish germ cells
12.45 - 2.00 PM	Lunch	
2.00 - 3.30 PM	Satyajit Mayor	Hedgehog signaling
3.30 - 4.0 PM	Tea	
4.0- 5.30 PM	-	NCBS Annual Work Seminars (AWS)
5.30 PM- 6.30 PM		Paper preparation
6.30 – 7.45 PM PM	Thomas Lecuit and Jitu Mayor	Paper discussion with Thomas and Jitu (Rauzi, Lenni and Lecuit (2010) Planar polarized actomyosin contractile flows control epithelial junction remodeling, Nature (Advance Pub 11 Nov 2010)
7.45 PM onwards		Dinner followed by Q&A with Thomas and Jitu

<b>Day 9 Tue (4 Jan `11)</b>		
9.00 - 10.30 AM	Erez Raz	Motility and directed migration of zebrafish germ cells
10.30 - 11.00AM	Tea break	
11.0 AM- 12.45 PM	Beni Podbilewicz	<i>Caenorhabditis elegans</i> : A model organism for cell biology
12.45 - 2.00 PM	Lunch	
2.00 – 4.0 PM		Grant project preparation
4.0 PM-4.30 PM	Tea	
4.30PM - 6.0PM		Paper preparation
6.00 – 7.30 PM		Paper discusssion with Erez [Boldajipour et al (2008) Control of Chemokine-Guided Cell Migration by Ligand Sequestration , Cell]
7.30 PM onwards		Dinner followed by Q&A with Erez
<b>Day 10 Wed (5 Jan `11)</b>		
9.00 - 10.30 AM	Beni Podbilewicz	Cell fusion controls sculpting of epithelia, muscles and neurons
10.30 - 11.00AM	Tea break	
11.0A-12.45 PM	Heinrich Reichert	Development and evolution of the brain: mechanistic insights from insects
12.45-2.0 PM	Lunch	
2.0-4.0 PM		Grant project preparation
4.0-4.30 PM	Tea	
4.30- 6.0PM		Paper preparation
6.0-7.30 PM		Paper discussion with Beni [Rasmussen et al ( 2008) Notch signaling and morphogenesis of single-cell tubes in the <i>C. elegans</i> digestive tract, Developmental Cell]
7.30 PM		Dinner followed by Q&A with Beni

<b>Day 11 Thu (6 Jan `11)</b>		
9.0 AM- 10.30 AM	Heinrich Reichert	From neural stem cell to neural circuits amplification of proliferation through intermediate progenitors
10.30 AM- 11.0 AM	Tea	
11.00 – 12.30 AM	Heinrich Reichert	Paper preparation
12.30 - 2.00 PM	Lunch	
2.0 -4.0 PM	Heinrich Reichert	Paper discussion with Heinrich [Weng KL, Lee CY (2010) dFzef/Earmuff maintains the restricted developmental potential of intermediate neural progenitors in <i>Drosophila</i> . Dev Cell 18:126-135] with a suggested review Weng M, Lee CY (2010) Keeping neural progenitors on a short leash during <i>Drosophila</i> neurogenesis. Curr Opin Neurobiol 21:1-7
4.0-4.30 PM	Tea	
4.30-5.30 PM	K. VijayRaghavan	Summary, evaluation, grant project submission and closing etc

(\*) Paper preparation is equivalent to journal club and this is complemented by the paper discussion.

(‡) The grant projects will not be presented orally, but will be submitted as written material to the respective scientists who gave the project. The students are encouraged to discuss the grants while they write it with the speakers on an informal basis. The students should choose one project, and use this information as a starting point to write a document of 4-5 pages describing the background, aims and methods they would use to address these issues experimentally.