

## Program at a glance

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### MONDAY 19 July

- 8:00-10:00 REGISTRATION and WELCOME NOTES
- 10:30-15:30 **Session 1: Ecdysone biosynthesis and steroidogenic cells**  
Speakers 10:30-noon – Rewitz, Barrio, Yamanaka  
Speakers 14:00-15:30 – O'Connor, King-Jones, Niwa, Dauphin-Villemant
- 16:00-18:10 **Session 2: Neuroendocrine regulation**  
Speakers – Adams, Roller, Hiruma, Marin, Hainaut, Kim
- 19:00 **Conference dinner** (*Indian restaurant, 30-min walk*)
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### TUESDAY 20 July

- 8:30-15:20 **Session 3: Growth, insulin, and developmental timing**  
Speakers 8:30-10:00 – Stocker, Shingleton, Stern,  
Speakers 8:30-noon – Ueda, Koyama, Delanoue, Martín-Blanco  
Speakers 14:00-15:20 – Ono, Okamoto, Smith, Mirth
- 16:00-17:00 **THE KARLSON LECTURE 2010: Lynn Riddiford**
- 17:30-19:30 **Refreshments and Concert** (*Bobik Hall*)
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### WEDNESDAY 21 July

- 8:30-12:00 **Session 4: Reproduction and physiology**  
Speakers – Gilboa, Dobens, Flatt, Romani, Abrisqueta, Süren-Castillo,  
Gruntenko, Sakurai
- 14:00 **Excursion and dinner in Cesky Krumlov** (*estimated return: 11 pm*)
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### THURSDAY 22 July

- 8:30-11:40 **Session 5: Nuclear receptor signaling**  
Speakers – Hill, Andres, Bonneton, Krause, Manjón, Takaki
- 14:00-16:00 **Session 6: JH-ecdysone interaction**  
Speakers – Shinoda, Henrich, Raikhel, Elgendy, Li, Greb-Markiewicz
- 16:30-18:00 **Session 7: Non-insect ecdysteroids**  
Speakers – Wuttke, Delbecque, Lafont, Sláma
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### FRIDAY 23 July

- 8:30-11:10 **Session 8: Development and metamorphosis**  
Speakers – Truman, Hashimoto, Thomassin, Martín, Bellés, Jindra
- 11:10-11:30 CONCLUSION
- 12:30 **Departure of buses for Prague airport** (*estimated arrival 3:00 pm*)

**MONDAY 19 July**

- 8:00- 9:30 **REGISTRATION** (coffee and snacks)  
 9:30- 9:45 Welcome from the organizers (Marek Jindra)  
 9:45-10:00 **František Sehnal**: Welcome from the director of the Biology Center

**Session 1: Ecdysone biosynthesis and steroidogenic cells**

Session chairs: **Chantal Dauphin-Villemant, Ryusuke Niwa**

- 10:30-11:00 **Kim Rewitz**: Regulation of ecdysone signaling that controls developmental timing and metamorphosis in *Drosophila*  
 11:00-11:30 **Rosa Barrio**: The role of sumoylation in ecdysone synthesis  
 11:30-12:00 **Naoki Yamanaka**: Vesicle-mediated ecdysone secretion from the prothoracic gland of *Drosophila melanogaster*
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- 12:00-14:00 *Lunch and posters*
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- 14:00-14:30 **Michael O'Connor**: Activin/TGF- $\beta$  signaling regulates competence to respond to metamorphic signals  
 14:30-14:50 **Kirst King-Jones**: Nuclear receptor DHR4 and the dynamics of ring gland gene expression during larval development in *Drosophila*  
 14:50-15:10 **Ryusuke Niwa**: *Non-molting glossy/shroud* encodes a short-chain dehydrogenase/reductase that functions in the "Black Box" of the ecdysteroid biosynthesis pathway  
 15:10-15:30 **Chantal Dauphin-Villemant**: CYP18A1, a key enzyme of *Drosophila* steroid hormone inactivation, is essential for metamorphosis
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- 15:30-16:00 *Coffee break*

**Session 2: Neuroendocrine regulation**

Session chair: **Dušan Žitňan**

- 16:00-16:30 **Michael Adams**: Transcriptional regulation of peptidergic signaling molecules during the molt: ETH and ETH-receptors  
 16:30-16:50 **Ladislav Roller**: *Bombyx* orcokininins are brain-gut peptides involved in the neuronal stimulation of ecdysteroidogenesis  
 16:50-17:10 **Kiyoshi Hiruma**: Regulation of juvenile hormone synthesis by corpora allata  
 17:10-17:30 **Elisabeth Marin**: An extrinsic cue regulates neuronal temporal identity in the *Drosophila* mushroom body  
 17:30-17:50 **Matthieu Hainaut**: Role of the *Drosophila* histone acetyltransferase Chameau in neural development and neuroendocrine control  
 17:50-18:10 **Young-Joon Kim**: MIPs are ancestral ligands for the Sex peptide receptor
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- 19:00 *Get-together and walk to the city center for **Conference dinner** in Indian restaurant (30-min walk)*

**TUESDAY 20 July****Session 3: Growth, insulin, and developmental timing**Session chairs: **Christen Mirth, Michael O'Connor**8:30- 9:00 **Hugo Stocker:** Genetic dissection of insulin and TOR signaling in *Drosophila*9:00- 9:30 **Alex Shingleton:** Keeping things in proportion: The coordination of growth among organs in *Drosophila*9:30-10:00 **Michael Stern:** PI3K regulates growth within the prothoracic gland via GSK3 and cyclin D/CDK4

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*10:00-10:30 Coffee break*

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10:30-11:00 **Hitoshi Ueda:** Mechanism to determine pupation timing during prepupal period in *Drosophila*11:00-11:20 **Takashi Koyama:** Seeking a missing link: how does insulin signaling regulate ecdysone signaling?11:20-11:40 **Rénauld Delanoue:** The steroid hormone ecdysone controls systemic growth by repressing dMyc function in *Drosophila* fat cells11:40-12:10 **Enrique Martín-Blanco:** Expansion dynamics: histoblasts at work

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*12:10-14:00 Lunch and posters*

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14:00-14:20 **Hajime Ono:** Ecdysone, not just 20-hydroxyecdysone, is essential for molting and metamorphosis to occur with correct timing in *Drosophila melanogaster*14:20-14:40 **Naoki Okamoto:** A fat body-derived IGF-like peptide regulates post-feeding growth in *Drosophila*14:40-15:00 **Wendy Smith:** Changes in insulin signaling associated with nutritional deprivation in the prothoracic glands of *Manduca sexta*15:00-15:20 **Christen Mirth:** Ecdysone regulates a switch in larval burrowing behaviour at critical weight in *Drosophila*

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*15:30-16:00 Coffee break*

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16:00-16:15 **Kiyoshi Hiruma:** Introduction for the Karlson Speaker of 201016:15-17:00 **THE KARLSON LECTURE 2010****Lynn Riddiford:** The role of juvenile hormone in prepupal development of *Drosophila melanogaster*

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*17:30-19:30 Refreshments and drinks (at the Bobik Hall)*

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**Concert:** *Jiri Kotal, clarinet; Tomoko Asahina, piano; Masako Asahina, piano*

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**WEDNESDAY 21 July****Session 4: Reproduction and physiology**Session chairs: **Alexander Raikhel, Kiyoshi Hiruma**

- 8:30- 9:00 **Lilach Gilboa:** Hormonal coordination of niche formation with germ line stem cell establishment
- 9:00- 9:30 **Leonard Dobens:** *Drosophila* EcR/USP mediates a ligand-regulated gate directing stage- and tissue-specific chorion gene amplification in the ovarian follicle cells
- 9:30-10:00 **Thomas Flatt:** Endocrine regulation of aging in *Drosophila*
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- 10:00-10:20 *Coffee break*
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- 10:20-10:40 **Patrizia Romani:** Multiple functions of EcR-B2 during *Drosophila melanogaster* oogenesis
- 10:40-11:00 **Marc Abrisqueta:** Nutritional signals and reproduction: Role of the insulin receptor in *Blattella germanica*
- 11:00-11:20 **Songül Süren-Castillo:** FOXO transcription factor regulates vitellogenesis in *Blattella germanica*
- 11:20-11:40 **Nataly Gruntenko:** Age-specific interactions of dopamine, 20-hydroxyecdysone and juvenile hormone in *Drosophila*: molecular mechanisms
- 11:40-12:00 **Sho Sakurai:** Control of the timing of 20E-induced programmed cell death by a protein factor in *Bombyx* anterior silk gland
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- 12:00-14:00 *Lunch and posters*
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- 14:00 *Departure for excursion and dinner in Cesky Krumlov (estimated return: 11 pm)*

**THURSDAY 22 July****Session 5: Nuclear receptor signaling**Session chairs: **Ron Hill, Vincent Henrich**

- 8:30- 9:00 **Ron Hill:** Ecdysone receptors and target genes - the Ashburner model revisited
- 9:00- 9:30 **Andrew Andres:** The *Drosophila* larval salivary gland: More to do than just puffs and glue
- 9:30-10:00 **François Bonneton:** Evolution of nuclear receptors in insects

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*10:00-10:30 Coffee break*

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- 10:30-11:00 **Henry Krause:** Nitric oxide signaling controls development and metabolism via the nuclear receptor E75
- 11:00-11:20 **Cristina Manjón:** Role of ecdysone-dependent nuclear receptors in early embryogenesis of the short germ band insect, *Blattella germanica*
- 11:20-11:40 **Keiko Takaki:** Role of EcR and Usp in *Tribolium* oogenesis

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*11:40-14:00 Lunch and posters*

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**Session 6: JH-ecdysone interaction**Session chairs: **Tetsuro Shinoda, Sheng Li**

- 14:00-14:20 **Tetsuro Shinoda:** Identification of a juvenile hormone response element of *Krüppel homolog 1* and its interaction with *Methoprene-tolerant*
- 14:20-14:40 **Vincent Henrich:** Juvenile hormone modulates 20-hydroxyecdysone induced transcription in the larval salivary gland of *Drosophila melanogaster* via bHLH-PAS transcription factors
- 14:40-15:00 **Alexander Raikhel:** Transcriptomic and reverse-genetics analyses of juvenile-hormone dependent post-eclosion development in the mosquito *Aedes aegypti*
- 15:00-15:20 **Azza Elgendy:** Regulatory mechanism of vitellogenin genes in the American cockroach *Periplaneta americana*
- 15:20-15:40 **Sheng Li:** Crosstalk of hormonal and nutritional signals in the fat body during insect postembryonic development
- 15:40-16:00 **Beata Greb-Markiewicz:** Determining of NLSs and NESs sequences of *Drosophila* Met

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*16:00-16:30 Coffee break*

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**Session 7: Non-insect ecdysteroids**Session chairs: **Robert Hormann, Guy Smagghe**

- 16:30-17:00 **Wolfgang Wuttke:** The ovariectomized rat as a model for menopause: effects of ecdysone on lipids, bone and cartilage
- 17:00-17:20 **Jean-Paul Delbecque:** Control of aggressiveness by ecdysteroids in crayfish: do dominant animals lie to their subordinates during molts ?
- 17:20-17:40 **René Lafont:** Some news about the Phytoecdysteroid workshop (Syktyvkar)
- 17:40-18:00 **Karel Sláma:** What are ecdysteroids; insect hormones, growth factors in plants, animal vitamins or human medicine?

## FRIDAY 23 July

## Session 8: Development and metamorphosis

Session chairs: **Xavier Bellés, Marek Jindra**

8:30- 9:00	<b>James Truman:</b> Developing tools for examining nervous system metamorphosis
9:00- 9:20	<b>Yoshiko Hashimoto:</b> A small peptide gene, <i>polished rice</i> , participates in <i>Drosophila</i> ecdysone signal pathway
9:20- 9:40	<b>Hélène Thomassin:</b> miR-282: a miRNA essential to <i>Drosophila</i> metamorphosis
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9:40-10:00	<i>Coffee break</i>
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10:00-10:20	<b>David Martín:</b> Metamorphosis in hemimetabolous insects. Characterization of the ecdysone regulatory cascade in the cockroach <i>Blattella germanica</i>
10:20-10:50	<b>Xavier Bellés:</b> microRNAs, hormones and metamorphosis in the cockroach <i>Blattella germanica</i> (L.)
10:50-11:10	<b>Marek Jindra:</b> Holometaboly and hemimetaboly rely on a common core JH signaling pathway
11:10-11:30	<b>Concluding remarks and farewell</b> (organizers)
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11:30	<i>Lunch</i>
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12:30	<i>Departure of buses for Prague airport</i> <i>(estimated arrival 3:00 pm)</i>
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