

Detailed Workshop Program

Sunday, August 23, 2009

12:00-18:00	Registration and room assignment
18:00-20:30	Welcome reception and dinner

Monday August 24, 2009

07:00	Breakfast
08:15	Introductory remarks by organizers and welcome by Dr. Konstantinos S. KENANIDIS, Director General of the OAC
08:30-13:00	Session 1: Whole genome sequencing, EST and linkage mapping projects (Session Coordinators: D. Heckel, K. Mita, J. Marcus)
08:30	1.1 The genome of a lepidopteran model insect, the silkworm <i>Bombyx mori</i> Q. Xia and Kazuei MITA
09:00	1.2 Sequencing the genome of the major pest, the cotton bollworm, <i>Helicoverpa armigera</i> : a model for the evolution of complex ecological traits Karl GORDON, J. Oakeshott, P. Batterham, S. Richards, R. Gibb, J. Miller, T. Tay, P. East, O. Edwards, R. Good, C. Robin, D. Heckel, H. Vogel, R. Feyereisen, E. D'Alencon, H. Sezutsu, F. Legeai, H. Quesneville, C. Gagneur, S. Gimenez, A.-N. Volkoff, P. Fournier, A. Brun-Barale, S. Suraporn, M. Shimomura, K. Mita, S. Scherer, C. Qu, K. Worley
09:30	1.3 Synteny conservation and genome rearrangements between the silkworm <i>Bombyx mori</i> and the noctuid pests <i>Helicoverpa armigera</i> and <i>Spodoptera frugiperda</i> Emmanuelle d'ALENÇON, H. Sezutsu, F. Legeai, E. Permal, S. Bernard-Samain, S. Gimenez, C. Gagneur, F. Cousserans, M. Shimomura, A. Brun-Barale, T. Flûtre, A. Couloux, K. Gordon, K. Mita, H. Quesneville, P. Fournier and R. Feyereisen
10:00	1.4 Lepido-DB, a new bioinformatic resource for the annotation and cross-comparisons of lepidopteran genomes Fabrice LEGEAI, E. d'Alençon, F. Cousserans, H. Sezutsu, E. Permal, K. Gordon, H. Quesneville, R. Feyereisen and P. Fournier
10:30-11:00	Coffee break
11:00	1.5 Syntheny and Chromosome Evolution in the Lepidoptera. Interspecies Cross Mapping between <i>Papilio polytes</i> and <i>P. alphenor</i> M. Obara, M. Furukawa, T. Murayama and Hiroshi HORI
11:30	1.6 Relative utility of DNA markers for delimiting Lepidoptera species, with particular reference to spruce budworms (<i>Choristoneura fumiferana</i> complex) Felix A.H. SPERLING, L.M. Lumley
12:00	1.7 The feature of <i>Cecropia</i> -ITR-MLE in BmTNML locus of <i>B. mandarina</i> distribute in Japan, China, Korea, and Taiwan Y. Kawanishi, Y. Kamauchi, Y. Banno, S.K. Nho, Y-F. Hsu, K. Ueda, M. Yago, K. Odagiri, H. Maekawa, Yumiko NAKAJIMA
12:30	1.8 Tracking Sex Chromosome Evolution In Lepidoptera Frantisek MAREC, M. Vitkova, M. Dalikova, J. Sichova, M. Sykorova, P. Nguyen, K. Sahara, W. Traut

13:00-13:15 Minute-long poster previews – Posters #1-14

13:30 Lunch

16:30-18:00 Poster Session 1 (with continuous coffee and tidbits)

18:00-19:00 Session 1 (cont): Whole genome sequencing, EST and linkage mapping projects

18:00 1.9 Linkage map of the peppered moth, *Biston betularia* (Geometridae), including localization of the carbonaria morph switch and melanisation pathway genes
A. van't Hof, N. Edmonds, F. Marec & Ilik SACCHERI

18:30 1.10 Establishment of the segregation models for *Bt* toxins and the linkage analysis of resistant genes in the silkworm, *Bombyx mori*
Osamu NINAGI, T. Takiguchi, M. Awaji, T. Yokoyama, T. Shimada, K. Yamamoto, and K. Miyamoto

19:00-20:45 Session 2: Comparative genomics, evolution and phylogeny (Session Coordinators: K. Gordon, M. Goldsmith, F. Sperling)

19:00 2.1 Genes underlying aposematic colour patterns in *Heliconius* butterflies
Simon W. BAXTER, C. Salazar, L. Maroja and C.D. Jiggins

19:30-19:45 Break

19:45 2.2 Molecular evolution of a mimicry supergene by chromosomal rearrangements in *Heliconius* butterflies
Matthieu JORON, L. Ferguson, N. Chamberlain, C. Jiggins, R. H. ffrench-Constant

20:15 2.3 Phylogenomic approaches to color pattern evolution and development
Jeffrey M. MARCUS

21:00 Dinner

Tuesday August 25, 2009

07:00	Breakfast
08:30-10:00	Session 2 (cont.): Comparative genomics, evolution and phylogeny
08:30	2.4 Comparative sequence signatures, host plant shifts and birth-death dynamics of a coevolutionary key innovation in a plant-insect interaction Heiko VOGEL, H.M. Heidel-Fischer, D.G. Heckel, and C.W. Wheat
09:00	2.5 Enzymatic adaptation of mulberry specialists to toxic sugar-mimic alkaloids in mulberry latex Takaaki DAIMON, Y. Meng, T. Yoshinaga, S. Katsuma, and T. Shimada
09:30	2.6 Genome-wide Annotation and Evolution of Insect Neuropeptide GPCRs and Their Ligands Cornelis J. P. GRIMMELIKHUIZEN, E. Stafflinger, K.K. Hansen, M. Schneider, G. Cazzamali, M. Williamson, F. Hauser.
10:00-13:00	Session 3: Gene families and transcriptomics (Coordinators: K. Hiruma, L. Swevers)
10:00	3.1 <i>Manduca</i> midgut transcriptomics Yannick PAUCHET, A. Papanicolaou, H. Vogel, D.G. Heckel, R.H. ffrench-Constant
10:30	3.2 Gastric and pancreatic lipases in the larval midgut of <i>Epiphyas postvittana</i> (Tortricidae): their roles in lipid digestion based on phylogenetic and gene expression studies. John T. CHRISTELLER, N.P. Markwick, J. Poulton and R.M. Simpson
11:00-11:30	Coffee break and group picture taking
11:30	3.3 Analysis of gene expression patterns in <i>Lymantria</i> spp. larvae feeding on different food sources – a cDNA-AFLP approach Kirsten EVERETZ, H. Vogel, D.G. Heckel, A. Reineke
12:00	3.4 The Caspase gene family Juliette COURTIADE, Y. Pauchet, H. Vogel and D.G. Heckel
12:30	3.5 Development of a microarray platform for studying ecdysone-controlled gene expression in the spruce budworm (<i>Choristoneura fumiferana</i>) Daniel DOUCET, D. Zhang, S. Bowman, T. Ladd and P.J. Krell
13:00-13:15	Minute-long poster previews – Posters #15-28
13:30	Lunch
16:30-18:00	Poster Session 2 (with continuous coffee and tidbits)
18:00-21:00	Session 4: Development and Differentiation (Session Coordinators: R. Lecanidou, J. Nagaraju, F. Marec)
18:00	4.1 Lifespan differences among the strains of the silkworm Satoshi MURAKAMI, T. Iwamatsu, Y. Kitazawa, M. Katada, W. Hara, H. Kojima, K. Takahashi, T. Yokoyama, O. Ninagi
18:30	4.2 Transcriptional activity of the W chromosome Walther TRAUT, F. Marec and K. Sahara
19:00	4.3 Two functional Doublesex proteins are produced in the female silkworms and are essential for sexual differentiation J. N. Shukla and Javaregowda NAGARAJU

20:00 4.4 *wnt1* plays a crucial role in the spot marking formation on larval segment of Lepidoptera
Junichi YAMAGUCHI, K. Yamamoto, J. Narukawa, Y. Banno, K. Mita, and H. Fujiwara

20:30 4.5 Proneural genes and the regulation of olfactory sensilla phenotypes
Richard VOGT and R. Campbell

21:15 Dinner

Wednesday August 26, 2009

07:00	Breakfast
08:30-11:00	Session 4 (cont.): Development and Differentiation
08:30	4.6 Cloning and Characterization of a <i>Gasp</i> Homolog From the Spruce Budworm, <i>Choristoneura fumiferana</i> , and Its Putative Role in Cuticle Formation A. Nisole, D. Stewart, S. Bowman, D. Zhang, D. Doucet, Michel CUSSON
09:00	4.7 The three musketeers and the control of <i>Bombyx mori</i> chorion gene expression A. Papantonis, S. Tsatsarounos and R. LE CANIDOU
09:30	4.8 Expression of <i>Hsp</i> genes in response to diapause and thermal stress in <i>Sesamia nonagrioides</i> (Lepidoptera: Noctuidae) A. Kourti, T. Gkouvitsas and Dimitrios KONTOGIANNATOS
10:00	4.9 Carotenoid Cocoon Coloration is Controlled by a Combination of a CD36/SR-BI-related Transmembrane Receptor and a Cytosolic START Lipid-binding Protein in the Silkworm <i>Bombyx mori</i> Takashi SAKUDO, T. Iizuka, J. Narukawa, H. Sezutsu, S. Kuwazaki, Y. Banno, N. Takada, H. Fujimoto, K. Kadono-Okuda, K. Mita, T. Tamura, K. Yamamoto, K. Tsuchida
10:30	4.10 Acetylcholinesterase genes in the Glanville fritillary butterfly (<i>Melitaea cinxia</i> ; Lepidoptera: Nymphalidae). Shiqi LUO, C. Shu, R.J. Wang, C.R. Xu
11:00-11:30	Coffee break
11:30-13:00	Session 5: Endocrinology and hormonal control of development (Session Coordinators: R. Hormann, R. Palli, G. Smagghe)
11:30	5.1 Relationship between Halloween gene expression and ecdysteroids biosynthesis in cotton leafworm, <i>Spodoptera littoralis</i> Masatoshi IGA and G. Smagghe
12:00	5.2 The potential roles of the Receptor for Activated C Kinase 1 in spruce budworm, <i>Choristoneura fumiferana</i> Guoxing QUAN, D. Doucet, T. ladd, P.J. Krell and B.M. Arif
12:30	5.3 Regulation of juvenile hormone biosynthesis by 20-hydroxyecdysone and peptide hormones Kiyoshi HIRUMA, Y. Kaneko, T. Kinjoh, and M. Kiuchi
13:30	Lunch box and bus boarding for excursion (dinner on site)
21:00	Return to the Academy

Thursday August 27, 2009

07:00	Breakfast
08:30-12:00	Session 5 (cont.): Endocrinology and hormonal control of development
08:30	5.4 Differential action of juvenile hormone analog methoprene in moths and mosquitoes Subba R. PALLI, R. Parthasarathy and H. Bai
09:00	5.5 Molecular characterization of juvenile hormone network genes in the silkworm, <i>Bombyx mori</i> Tetsuro SHINODA, T. Kayukawa, C. Minakuchi [#] , T. Togawa, Y. Shimizu, M. Yoshiyama, M. Murata, I. Kobayashi, T. Tamura, and K. Mita
09:30	5.6 Effects of juvenile hormone analogue, fenoxy carb, on remodeling of <i>Bombyx mori</i> midgut during larval-pupal metamorphosis Ebru GONCU, O. Parlak
10:00	5.7 Characterization and Functional Analysis of Juvenile Hormone Esterase-Related Genes in Silkworm, <i>Bombyx mori</i> Takuya TSUBOTA, M. Shimomura, T. Ogura, A. Seino, T. Nakakura, K. Mita, T. Shinoda, T. Shiotsuki
10:30-11:00	Coffee break
11:00	5.8 RNA interference as a tool to analyze effects of allatotropins and allatostatins in the fall armyworm, <i>Spodoptera frugiperda</i> Klaus H. HOFFMANN, M. Griebler, M. Meyering-Vos
11:30	5.9 Physiological consequences of ETH-receptor expression in <i>Bombyx mori</i> Dušan ŽITŇAN, I. Daubnerová, L. Roller and M.E. Adams
12:00-13:00	Session 6: Biochemistry – protein structure-function relationships (Session Coordinators: S. Hamodrakas, R. Hill)
12:00	6.1 The silkworm mutant <i>lemon</i> (<i>lemon lethal</i>) is a potential insect model for human Sepiapterin reductase deficiency Yan MENG, S. Katsuma, T. Daimon, Y. Banno, K. Uchino, H. Sezutsu, T. Tamura, K. Mita, and T. Shimada
12:30	6.2 Recent Insights into the Structure of the <i>Mamestra configurata</i> Type I Peritrophic Matrix Dwayne D. HEGEDUS, M.A. Erlandson, U. Toprak, C. Gillott and S. Karcz
13:15	Lunch
16:30-18:00	Outbreak Session on “Lepidoptera and miRNAs” (coordinated by K. Gordon) (with continuous coffee and tidbits)
18:00-19:30	Session 6 (cont.): Biochemistry – protein structure-function relationships
18:00	6.3 The PK/PBAN family of insect neuropeptides: progress toward the design of novel insect control agents M. ALTSTEIN, M. Davidovitch, O. Ben-Aziz and A. Hariton
18:30	6.4 Ecdysone Receptor Function and Structure Graham LD, Hannan GN, Pawlak A, Noyce L, Tohidi-Esfahani D, Pollard M, Howell L, Fernley R, Lovrecz G, Lu L, Phan T, Carmichael J, Pilling P, Johnson WM, Bliese M, Turner K, Streltsov V, Peat T, O'Meara T, Winkler D, Lawrence MC and Ronald J HILL
19:00	6.5 Silkworm Chorion Proteins: A Protective Role For Amyloid V.A. Iconomidou and Stavros J. HAMODRAKAS

19:30-19:45	Break
19:45-21:15	Session 7: Immunity (Session Coordinators: M. Yamakawa, S. Herrero, O. Terenius)
19:45	7.1 <i>Spodoptera frugiperda</i> X-Tox protein, an immune related defensin rosary, has lost the function of ancestral defensins D. Destoumieux-Garzón, M. Brehelin, P. Bulet, Y. Boublík, P.-A. Girard, S. Baghdiguian, R. Zumbühl, Jean-Michel ESCOUBAS
20:15	7.2 Recent studies on immune-related hemolymph protein Scolexin, described as a serine proteinase homolog, in the tobacco hornworm, <i>Manduca sexta</i> Fırat GÖKÇEN, Tina Trenczek
20:45	7.3 The role of Ankyrin-repeat proteins of the polydnavirus CcBV on lepidopteran immunity signaling pathways. Christiana MAGKRIOTI, K. Iatrou and V. Labropoulou
21:30	Dinner

Friday August 28, 2009

07:00	Breakfast
08:30-10:30	Session 7 (cont.): Immunity
08:30	7.4 Endocytotic capabilities of <i>Manduca sexta</i> hemocytes Anke MÜLLER, T. Trenczek
09:00	7.5 Superfamily-dependency of Hemolin involvement in viral defence Olle TERENIUS, H.J.R. Popham, M.H. Beck, M. Strand and K.S. Shelby
09:30	7.6 Danger signals in lepidopteran innate immunity Andreas VILCINSKAS and B. Altincicek
10:00	7.7 Dietary-dependent trans-generational priming of immunity in an insect herbivore, <i>Trichoplusia ni</i> Dalial FREITAK, D.G. Heckel, H. Vogel, A. Vilcinskas
10:30-11:00	Coffee break
11:00-13:00	Session 8: Neurobiology and behavior (Session Coordinators: R. Vogt, H. Vogel)
11:00	8.1 Olfactory receptors of the tobacco hornworm, <i>Manduca sexta</i> Ewald GROSSE-WILDE, R. Stieber, B.S. Hannson and D. Wicher
11:30	8.2 An Expressed Sequence Tag collection from the male antennae of the Noctuid moth <i>Spodoptera littoralis</i> : a resource for olfactory and pheromone detection research S. Malpel, F. Legeai, F. Cousseran, C. Merlin, M.-C. François, C. Monsempes, M. Maïbèche-Coisné, F. Gavory, P. Wincker, Emmanuelle JACQUIN-JOLY ¹
12:00	8.3 Molecular elements of pheromone reception in moths Jürgen KRIEGER, M. Forstner, E. Grosse-Wilde, T. Gohl, E. Bouché, I. Gondesen, H. Breer
12:30	8.4 Genetic analysis of the sex pheromone communication system in <i>Ostrinia nubilalis</i> A. Groot, S. Olssen, Z. Karpati, T. Dekker, J.-M. Lassance, C. Löfstedt, B. Hansson, and David G. HECKEL
13:00	8.5 Host plant products enhance the responses of the codling moth and other fruit crop tortricids to their sex pheromone Patrick M. GUERIN, D. Schmera, D. Schmidt-Büsser, M. von Arx and P. G. Becher
13:45	Lunch
16:30-17:30	Outbreak Session on "Lep genome annotation and bioinformatics solutions" (coordinated by M. Goldsmith, Alexie Papanicolaou and Fabrice Legeai) (with continuous coffee and tidbits)
17:30-20:30	Session 9: Functional Genomics - post-genomic tools and applications (Session Coordinators: M. Bergoin, K. Iatrou)
17:30	9.1 Construction of enhancer trap system and Bombyx Trap DataBase for the analysis of gene function in silkworm <i>Bombyx mori</i> Hideki SEZUTSU, K. Uchino, T. Daimon, J. Sato, M. Shimomura, H. Minami, Y. Miyashita, C. Sato, I. Kobayashi, K.-I. Tatematsu, T. Iizuka, N. Yonemura, T. Shimada, K. Mita, T. Tamura
18:00	9.2 Construction of a binary gene expression system for the production of recombinant protein in the middle silk gland of the silkworm <i>Bombyx mori</i> Ken-ichiro TATEMATSU, I. Kobayashi, K. Uchino, H. Sezutsu, T. Iizuka, N. Yonemura, T. Tamura

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18:30	9.3 Baculovirus engineering for development of safer gene therapy vectors and improved protein expression in mammalian cells Luc SWEVERS, R. Efrose, K. Iatrou
18:30-19:00	Break
19:00	9.4 Baculoviruses associated with <i>Mamestra configurata</i> (Bertha Armyworm): Role of viral enhancing factor (VEF) in the infection process Martin A. ERLANDSON, M. Links, S. Ethier, U. Toprak, D.D. Hegedus, D.A Theilmann
19:30	9.5 Improving Baculovirus by Host Gene Manipulation A. Jakubowska, S. Caccia, K. Gordon, J. Ferre, Salvador HERRERO
20:00	9.6 Isolation and unique post-translational modification of a novel antiviral protein against nucleopolyhedrovirus in the silkworm, <i>Bombyx mori</i> Jun ISHIBASHI, A. Sagisaka, T. Sunagawa, E. Kotani, H. Tanaka, H. Mori, M. Yamakawa
21:30	Dinner and Cretan Night – Farewell Reception

Saturday August 29, 2009

08:00	Breakfast
09:30-11:00	Closing remarks and planning of the next Workshop (K. Iatrou and K. Gordon)
12:00	Lunch and Departures