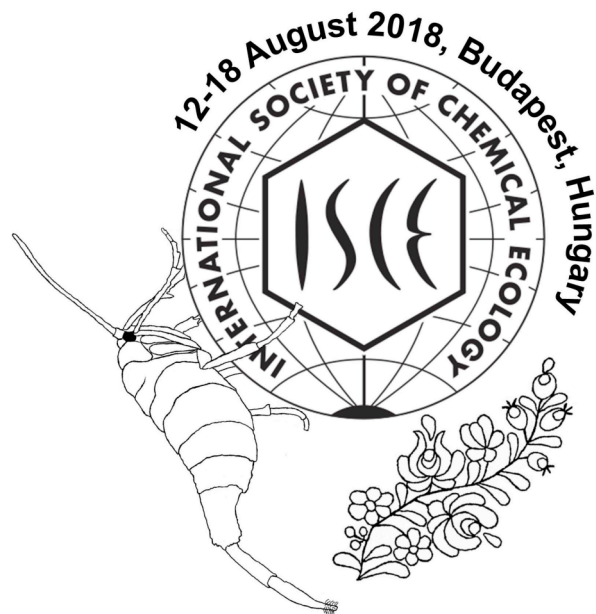


PROGRAM

(minor last-minute changes are possible)



Sunday, August 12

16:00	Executive meeting of ISCE (Lehár hall)	Registration starting
19:00	Welcome mixer (at the Gallery level of the Budapest Congress Center)	
21:00	End of service	

Monday, August 13

8:30	Registration continued
9:30	Pátria hall Opening ceremony Chair: ANNE-GENEVIÈVE BAGNÈRES Welcome addresses by: BALÁZS BARNA (Hungarian Academy of Sciences) GERGELY PAPP (Hungarian Chamber of Agriculture) MIKLÓS TÓTH (host of the meeting)
10:00	Chair: COBY SCHAL Silverstein-Simeone Award lecture ANURAG AGRAWAL: Evolution of two systems of plant defense: milkweed's latex and cardenolides
11:00	Plenary lecture CONSUELO DE MORAES: Olfactory information in ecology and disease diagnosis.
12:00	Lunch

	Bartók hall	Liszt hall	Lehár hall
13:00	<p>Session Interspecific Relationships, Symposium "Tibor Jermy's Legacy in insect-plant evolution" by Anurag Agrawal</p> <p>Chair: ANURAG AGRAVAL</p> <p>SZENTESI Á.: A local perspective on Tibor Jermy's contributions to insect-plant evolutionary interactions</p>	<p>Session Practical Applications, Symposium "Natural products for integrated pest management" by Jerry Zhu</p> <p>Chair: JERRY ZHU</p> <p>STEPHEN O. DUKE: Novel modes of action of natural phytotoxins can meet a growing herbicide resistance management needs</p>	<p>Session New Chemical Structures, Symposium "Omics in chemical ecology" by Aleš Svatoš and Emmanuel Gaquerel.</p> <p>Chair: Aleš Svatoš</p> <p>Aleš Svatoš: Omics in chemical ecology: a gateway to synthetic ecology?</p>
13:15	continued	continued	continued
13:30	<p>Keynote: MICHAEL C. SINGER: Tibor Jermy and host shifts: are those shifts easy or hard?</p>	<p>QING-HE ZHANG: Food-based fruit fly trap for the consumer market</p>	<p>MARINE VALLET, TIM BAUMEISTER, FILIP KAFTAN, ALEŠ SVATOŠ, GEORG POHNERT: Investigation of cellular heterogeneity in phytoplankton communities with comparative metabolomics and high resolution mass spectrometry imaging</p>
13:45	continued	<p>NICOLETTA FARAONE*, SAMANTHA MACPHERSON, VETT K. LLOYD, NEIL KIRK HILLIER: Olfactory basis of tick behavior and novel repellent development</p>	continued

14:00	JOHN L. MARON: Impact of herbivores on plant fitness and populations	DA SILVA M. FÁTIMA G.F.*, SOARES MÁRCIO S., SILVA DANIELLE F., AMARAL JÉSSICA C., SILVA MICHELLI M., FORIM MOACIR R., FERNANDES JOÃO B., SOUZA ALESSANDRA A., MACHADO ANA M., LOPES ADRIANA A.: The citrus defense strategy in response to phytopathogen <i>Xylella fastidiosa</i> and <i>Candidatus Liberibacter asiaticus</i> : quorum sensing signals used by <i>X. fastidiosa</i> and increased biosynthesis of coumarins	Victoria Moris*, Thomas Schmitt, Oliver Niehuis: Enzymes involved in cuticular hydrocarbon (CHC) diversity in insects: insights from an extraordinary case of intrasexual CHC profile dimorphism in a mason wasp
14:15	MARÍA-JOSÉ ENDARA*, JAMES A. NICHOLLS, PHYLLIS D. COLEY, DALE L. FORRISTER, GORDON C. YOUNKIN, KYLE G. DEXTER, CATHERINE A. KIDNER, R. TOBY PENNINGTON, GRAHAM N. STONE, THOMAS A. KURSAR: Tracking of host defences vs. tracking of host phylogeny during the radiation of neotropical Inga insect herbivores	PICKETT J.A.: Integrated management of pest and beneficial insects by manipulating natural products using companion crops, GM and synthetic biology	ALEXANDER WEINHOLD*, AINHOA MARTINEZ MEDINA, AND NICOLE M. VAN DAM: Shoot herbivory on tomato affects the root metabolome and resistance to root knot nematode
14:30	VOLF M*, SEGAR ST, MILLER SE, ISUA B, SISOL M, AUBONA G, ŠIMEK P, MOOS M, LAITILA J, KIM J, ROTA J, WEIBLEN GD, WOSSA S, SALMINEN JP, NOVOTNY V: Phylogenetic escalation and divergence of plant defense and their effects on insect herbivores	FANGZHOU LIU, BIN YANG*, AIHONG ZHANG, DERONG DING, GUIRONG WANG: Plant-mediated RNAi in controlling <i>Apolygus lucorum</i>	EMMANUEL GACQUEREL, AURA NAVARRO QUEZADA, THOMAS NAAKE, MONIKA KUPKE, DAPENG LI: Joining forces: – an integrative approach to decipher anti-herbivore defense innovations in <i>Nicotiana</i> allopolyploids
14:45	NIKLAS JANZ: A race or a chase? Revisiting Ehrlich and Raven in light of Tibor Jermy	JUNWEI JERRY ZHU: Discovery and development of natural products for managing blood-sucking insect vectors	Continued

15:00	EMMANUELLE JOUSSELIN: Phylogenetic approaches to study host-plant driven speciation in phytophagous insects : insights from fig wasps and aphids		JAMES M. MWENDWA, PAUL A. WESTON, INGE FOMSGAARD, WILLIAM B. BROWN, GREG REBETZKE, JEFFREY D. WEIDENHAMER , LESLIE A. WESTON*: Metabolic profiling of benzoxazinoids in weed suppressive and early vigour wheat genotypes.
15:15	FORISTER, M. L.: Evolution of insect host range		SAJID LATIF*, PAUL A. WESTON, SALIYA GURUSINGHE, JANE C. QUINN, LESLIE A. WESTON: Metabolic profiling of bioactive flavonoids in selected annual pasture legumes
15:30	coffee break	coffee break	coffee break
16:00	Session Interspecific Relationships, independent lectures Chair: TED TURLINGS ORTIZ, A. *, PÉREZ-ANDUEZA, G. AND SAUCEDO, C.: The curious case of black truffle beetle (<i>Leiodes cinnamomeus</i>) attractant based on host volatiles	Session Practical Applications, Independent lectures Chair: JÜRGEN GROSS MEINERS, T.: Chemical diversity in plant/beneficial arthropod interactions: Tool or obstacle?	Session New Chemical Structures, independent lectures Chair: STEFAN SCHULZ Keynote: WITTKO FRANCKE: Identification and synthesis of some new insect volatiles
16:15	ARCE C. *, MACHADO R., MAMIN M., RÖDER G, GLAUSER G., ERB M., ROBERT C., TURLINGS T.: <i>Diabrotica virgifera</i> females use maize plant benzoxazinoids to protect their eggs against predators	HAYES, R. ANDREW*; AMOS, BROGAN; RICE, STEVEN; MCGLASHAN, KATE; BAKER, DALTON; LEEMON, DIANA: An external attractant trap for the small hive beetle (<i>Aethina tumida</i>), a pest of European honeybees	continued

16:30	FÜRSTENAU B.*, AWATER S. D., HILKER M.: What is the key to host recognition by the larval ectoparasitoid <i>Holepyris sylvanidis</i> ?	ERALDO LIMA*, FERNANDA F. SOUSA, NATHALY DE LA PAVA, LAURA M. MACHUCA-MESA, NATÁLIA RIBAS, ELISEU J. G. PEREIRA, JEREMY MCNEIL: Are refuge areas effective as a Bt resistance management strategy when using transgenic plants? Pheromone ecology of <i>Spodoptera frugiperda</i> in Brazil.	STEFAN SCHULZ*, JAN BELLO, WITALI SCHMIDT, MICHEL STEINBISS, CHRISTIAN SCHLAWIS, MORITZ GERBAULET, HANS PETTER LEINAAS: The unique chemistry of springtails from a chemical ecology perspective
16:45	HERTAEG C.*, VORBURGER C., MESCHER M. C., DE MORAES C. M.: Identifying cuticular hydrocarbon signatures that mediate chemical mimicry of host aphids by <i>Lysiphlebus</i> parasitoids	JÜRGEN GROSS*, MARGIT RID, ANNA MARKHEISER, CHRISTOPH HOFFMANN: For development of an oviposition monitoring tool (M-Ovicard): unravelling the key factors for oviposition of grape berry moths	STEPHAN H. VON REUSS*, CÉLIA BERGAME, ROCÍO RIVERA SÁNCHEZ, CHUANFU DONG, FRANZISKA DOLKE: Exploring the molecular basis for species-specific ascarside signaling in Nematodes
17:00	DEANNA S BEATTY, JINU MATHEW VALAYIL, CODY S CLEMENTS, FRANK J STEWART, KIM B RITCHIE, MARK E HAY*: Coral anti-pathogen chemical defense: Does seaweed dominance suppress coral resistance?	CRAIG D. STEWART, RUSSELL A. BARROW*, SAJID LATIF, LESLIE A. WESTON: An allelopathic compound from <i>Festuca</i> spp. as a lead molecule for development of pre-emergent herbicides for weed management	BJÖRN BOHMAN*, GAVIN R FLEMATTI, RUSSELL A BARROW, RYAN D PHILLIPS, ALYSSA M WEINSTEIN AND ROD PEAKALL: 3,6-Dialkyldihydro-2H-pyran-2,4(3H)-diones: new pollinator attractants in Australian orchids
17:15	MICHEREFF MFF, GRYNBERG P, TOGAWA R, LAUMANN RA, JING-JIANG Z, SCHIMMELPFENG PHC, BORGES M, PICKETT JA, BIRKETT MA, BLASSIOLI-MORAES MC*: Maize herbivore-induced plant volatiles (HIPVs) elicited by <i>Spodoptera frugiperda</i> larvae prime neighboring plants for enhanced indirect defence	DANIEL MUTYAMBAI*, ZEYAUER KHAN, ANDRE KESSLER: Soil conditioning by a novel maize cropping system affects constitutive plant defences	Session Intraspecific Relationships, independent lectures ABITH VATTEKKATTE, WILHELM BOLAND*: Enhancing structural diversity in terpenoid biosynthesis: enzymes, substrates and cofactors

17:30	<p>SIMON SEGAR*, MARTIN VOLF, DANIEL SOUTO, JAN MICHALEK, BRUS ISUA, MENTAP SISOL, THOMAS KUYAIVA, GEORGE WEIBLEN, JUHA-PEKKA SALMINEN, MAGALI PROFFIT, CLIVE DARWELL, VOJTECH NOVOTNY: Friends and foes, elevational trends in plant defences and pollinator attractants mirror insect community structure and gene flow along a mountain gradient.</p>	<p>KIRK, W. D. J.: Thrips aggregation pheromones and their use in pest management</p>	<p>ABDULLAHI YUSUF*, FABIEN DEMARES, CHRISTIAN PIRK: Effect of brood pheromone on survival and nutrient intake of African honey bees (<i>Apis mellifera scutellata</i>) under controlled conditions</p>
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Tuesday, August 14

	Bartók hall	Liszt hall	Lehár hall
9:00	<p>Silver Medal Lecture Chair: WITTKO FRANCKE TETSU ANDO: Lepidopteran sex pheromones: wonderland for a natural product chemist</p>		
10:00	coffee break	coffee break	coffee break
10:30	<p>Session Interspecific Relationships, Symposium "Semiochemistry of aphidophagous insects" by Gunda Thöming and Sándor Koczor Chair: GUNDA THÖMING Keynote: PICKETT J.A.: The influence of aphid chemical ecology on the aphidophagous insects</p>	<p>Session Practical Applications, independent lectures. Chair: TOM BAKER Keynote: BAŽOK, R.*, TOTH, M., LEMIĆ, D., ČAČIJA, M., VIRIĆ GAŠPARIĆ, H., REŠIĆ, I., DRMIĆ, Z.: First area-wide pest control program carried out in Europe by the use of aggregation pheromones: lessons learnt</p>	<p>Session New Chemical Structures, Symposium "Invasions under the bark: chemical ecology of woodboring beetles" by Steven Seybold and Gábor Szócs Chair: STEVEN SEYBOLD Keynote: CHRISTOPHER M. RANGER*, PETER H. W. BIEDERMANN, VIPAPORN PHUNTUMART, GAYATHRI U. BELIGALA, SATYAKI GHOSH, ROBERT MUELLER, PETER B. SCHULTZ, MICHAEL E. REDING, AND J. PHILIPP BENZ: A new perspective on the affinity of fungus farming ambrosia beetles for ethanol</p>
10:45	continued	<p>Keynote: IVAN SIVČEV, LAZAR SIVČEV: Further results of research on <i>Bothynoderes punctiventris</i> aggregation attractant</p>	continued

11:00	THÖMING G. *, KNUDSEN G. K.: A semiochemical attractant for common green lacewings combined with floral buffer stripes to enhance biological control of aphids in barley	BJÖRN ERIKSSON*, ALEXANDER NILSSON, MATTIAS LARSSON: Pheromone-based sampling for conservation: determining the habitat requirements of <i>Tragosoma depsarium</i>	JOCELYN G. MILLAR*, WELITON D. SILVA, YUNFAN ZOU, JOSE MAURICIO S. BENTO, LAWRENCE M. HANKS: Chemical parsimony and chemical diversity in the pheromones of cerambycid beetles
11:15	BRUCE T.J.A.: The chemical world of aphids, their host plants and their enemies	MIKAEL A. MOLANDER*, BJÖRN ERIKSSON, MARCUS VESTLUND, YUNFAN ZOU, JOCELYN G. MILLAR, MATTIAS C. LARSSON: Quantifying the short-term effects of logging in oak dominated forests on threatened longhorn beetles (Cerambycidae) with a pheromone-based trapping system	ŽUNIČ KOSI A. *, STRITIH PELJHAN N., ZOU Y., MCELFRISH S. AND MILLAR J.: A male-produced pheromone of <i>Arhopalus rusticus</i> may be useful in managing this invasive longhorn beetle
11:30	HERMANN S. *, AND LANDIS D.: Flying into the face of Fear: Predator cues influence aphid development and behavior	THOMAS C. BAKER* AND ANDREW J. MYRICK: Feeding, mating, and flight dispersal behavior of the invasive pest species, <i>Lycorma delicatula</i> (Hemiptera: Fulgoridae)	Fredrik Schlyter: Host selection in <i>Ips typographus</i> : have we been barking up the wrong tree?
11:45	JOHN J SLOGGETT*, ZOWI OUDENDIJK: Intraspecific variation in ladybird beetle chemical defences: implications for theories of honest signalling	PAUDEL S., LIN P., RAJOTTE EG, AND FELTON GW: Facing the heat: how global warming might affect tomatoes and their interactions with insect pests?	C X WU1, FU LIU1, X B KONG, S F ZHANG, Z ZHANG*: Semiochemical regulation of interactions between <i>Tomicus minor</i> and <i>Tomicus yunnanensis</i> during the shoot-feeding
12:00	JEFFREY R. ALDRICH*, ELDA VITANOVIC, SHAUN L. WINTERTON, FRANK G. ZALOM: Green lacewing (Neuroptera: Chrysopidae: <i>Chrysoperla</i>) attraction to yeast		
12:15	Lunch	Lunch	Lunch

13:00	Poster session (uneven numbers): Poster Exhibition Rooms
14:30	coffee break
15:15	Poster session (even numbers): Poster Exhibition Rooms
19:00	Editorial Board Meeting of JCE (Janet Slobodian) Location: Larus Restaurant (ca 200 m from hotel, https://larusetterem.hu/)

Wednesday, August 15

	Bartók hall	Liszt hall	Lehár hall
9:00	<p>Chair: CHRISTER LÖFSTEDT</p> <p>Plenary lecture</p> <p>MONIKA HILKER: Early herbivore alert: plant chemical and molecular responses to insect eggs</p>		
10:00	coffee break	coffee break	coffee break
10:30	<p>Session Intraspecific Relationships, Symposium "Complementary or predominant role of non-chemical based communication and orientation of insects" by Zoltán Imrei</p> <p>Chair: ZOLTÁN IMREI</p> <p>Keynote: HORVÁTH G. Polarization-based (mis)orientation of insects: water detection, host finding, polarized photopollution and ecological traps</p>	<p>Session Interspecific Relationships, Symposium "Volatile-mediated microbe-plant interactions" by Birgit Piechulla</p> <p>Chair: BIRGIT PIECHULLA</p> <p>Keynote: CHOONG-MIN RYU: Sniffing bacterial volatiles for healthier plants</p>	<p>Session Interspecific Relationships, Symposium "Ecology and evolution of toxins in vertebrate animals" by Veronika Bókony and Bálint Üveges</p> <p>Chair: Veronika Bókony</p> <p>Keynote: Robert J Capon: Cane toad toxin chemical ecology: the untold story</p>
10:45	continued	continued	continued
11:00	continued	<p>MARIE CHANTAL LEMFACK*, NANCY MAGNUS, DAJANA DOMIK, TERESA WEISE, STEPHAN VON REUSS, BIRGIT PIECHULLA: Sodorifen - a key volatile organic compound (VOC) of <i>Serratia</i> species</p>	<p>BÁLINT ÜVEGES*, ANNIE BASSON, ÁGNES M. MÓRICZ, VERONIKA BÓKONY, ATTILA HETTYEY: Changes in the chemical defence of common toad (<i>Bufo bufo</i>) tadpoles experiencing complex environmental challenges</p>

11:15	Keynote: ANDREJ ČOKL: Talking through plants as part of multimodal communication in insects	OSSOWICKI A. *, JAFRA S., GARBEVA P: Plant protection from a distance	ZOLTÁN TÓTH*, ANIKÓ KURALI, ÁGNES M. MÓRICZ, ATTILA HETTYEY: Toxin replenishment following experimental depletion of toxin reserves in <i>Bufo bufo</i> tadpoles
11:30	Continued	MOUT DE VRIEZE, AURÉLIE GFELLER, DELPHINE CHINCHILLA, AURÉLIEN BAILLY, FLORIANE L'HARIDON, LAURE WEISSKOPF*: News from the volatile warfare between potato-associated <i>Pseudomonas</i> and the late blight causing agent <i>Phytophthora infestans</i>	VERONIKA BÓKONY*, BÁLINT ÜVEGES, ÁGNES M. MÓRICZ: Toxin composition of adult common toads (<i>Bufo bufo</i>) in natural, agricultural and urban habitats
11:45	STRITIH PELJHAN N.* AND ŽUNIČ KOSI A.: Olfactory signals of the cave cricket <i>Troglophilus neglectus</i> (Rhaphidophoridae; Orthoptera): a rare example of temporally modulated chemical threats	DINESHKUMAR KANDASAMY, JONATHAN GERSHENZON, ALMUTH HAMMERBACHER*: The sweet smell of decay: bark beetles are attracted to volatile by-products produced during detoxification of host defenses by their associated fungi	MARKUS MENKE*, KRISTINA MELNIK, PARDHA S. PERAM, IRIS STARNBERGER, WALTER HÖDL, MIGUEL VENCES, STEFAN SCHULZ: Identification, synthesis and determination of the absolute configuration of new compounds in scent glands of African frogs
12:00	SÁNDOR KOCZOR*, FERENC SZENTKIRÁLYI, MIKLÓS TÓTH: Combination of chemical and tactile stimuli results in locally increased oviposition in <i>Chrysoperla carnea</i> complex lacewings (Chrysopidae)	BAROJA-FERNÁNDEZ E, ALMAGRO G, BAHAJI A, SÁNCHEZ-LÓPEZ Á, GARCÍA-GÓMEZ P, DE DIEGO N, DOLEZAL K, MUÑOZ FJ, AMEZTOY K, RUBIO L, FERNÁNDEZ JA, POZUETA-ROMERO : Soil application of filtrates and distilled extracts from cultures of fungal phytopathogens enhance yield of pepper (<i>Capsicum annum</i> L.) plants	OLABIMPE Y. OLAIDE*, DAVID P. TCHOUASSI, ABDULLAHI A. YUSUF, CHRISTIAN W. PIRK, DANIEL K. MASIGA, BALDWIN TORTO, RAJINDER K. SAINI: Equids as potential sources of repellents for Savannah tsetse fly control

12:15	LITTLE C. M.*, CHAPMAN T. W., HILLIER N. K.: Role of fruit and leaf colour on susceptibility of highbush blueberries to infestation by <i>Drosophila suzukii</i>	HOCELAYNE PAULINO FERNANDES*, MARIA FÁTIMA DAS GRAÇAS FERNANDES DA SILVA, ROSANA GONÇALVES PEREIRA, GERALDO JOSÉ SILVA JUNIOR, JOÃO BATISTA FERNANDES, MOACIR ROSSI FORIM, RENATO LAJARIN CARNEIRO: Chemical profiling of volatile compounds of leaves citrus before and after inoculation of <i>Phyllosticta citricarpa</i> using headspace solid-phase microextraction	
12:30	Lunch	Lunch	Lunch
14:00	Excursion: Guided sightseeing tour in Budapest by bus Buses depart: at 14:00., from the bus park of the NOVOTEL City Hotel		
19:30	Cultural Event: CONCERT by Hungarian Virtuosi Chamber Orchestra Location: Szent Margit Gimnázium (Gymnasium St. Margaritae) 1114 Budapest, Villányi út 5-7		

Thursday, August 16

	Bartók hall	Liszt hall	Lehár hall
9:00	<p>Chair: RICHARD NEWCOMB Early Career Award Lecture MARTIN N. ANDERSSON: Insect olfaction: receptors, neurons and behavior</p>		
10:00	coffee break	coffee break	coffee break
10:30	<p>Session Interspecific Relationships, Symposium "Arthropod Chemoreceptors" by Rob Mitchell and Martin N. Andersson Chair: ROB MITCHELL Keynote: RICHARD NEWCOMB*, MELISSA JORDAN, MICHAEL THOMA, AMALI THRIMAWITHANA, SRIDEVI BHAMIDIPATI, CHRISTINE MISSBACH, EWALD GROSSE-WILDE, BILL HANSSON, THOMAS BUCKLEY: The origin of the odorant receptor gene family within the Hexapoda</p>	<p>Session Interspecific Relationships, Symposium "Metabolomics Approaches in the Brassicaceae" by Torsten Meiners and Caroline Müller Chair: TORSTEN MEINERS NADINE AUSTEL*, CHRISTOPH BÖTTCHER, TORSTEN MEINERS: Non-targeted metabolome profiling of green flower buds in oilseed rape: Screening for resistance against the pollen beetle</p>	<p>Session Interspecific Relationships, Symposium "Insect-microbe interactions" by Almuth Hammerbacher Chair: ALMUTH HAMERBACHER Keynote: JON CLARDY: Fungus-growimng ants, molecular diversity, and drug discovery</p>
10:45	continued	<p>NICOLE M. VAN DAM*, GALINI PAPADOPOULOU, BOB T. RAJMAKERS, AXEL TOUW, KATHARINA GROSSER, AINHOA MARTINEZ-MEDINA , TOMONORI TSUNODA: Defending a fortress under siege: Optimizing glucosinolate allocation upon root and shoot herbivory in <i>Brassica</i> species</p>	continued

11:00	JACQUIN-JOLY E.*, MESLIN C., DE FOUCHIER A., MAINET P., WALKER III W., HANSSON B., LARSSON M., MONTAGNÉ N.: Diversity of odorant and gustatory receptors in the moth <i>Spodoptera littoralis</i> : towards understanding what makes a polyphagous species a pest.	RUO SUN*, RIETA GOLS, JEFF HARVEY, MICHAEL REICHEL, DANIEL VASSÃO, JONATHAN GERSHENZON, SAGAR PANDIT: Metabolomics of Brassicaceae plants and their herbivores help explain the costs and benefits of glucosinolate detoxification	DINESHKUMAR KANDASAMY*, JONATHAN GERSHENZON, MARTIN N ANDERSSON, ALMUTH HAMMERBACHER: The attraction of the Eurasian spruce bark beetle (<i>Ips typographus</i>) to its fungal associates is mediated by their unique volatile bouquets
11:15	DAN-DAN ZHANG*, HONG-LEI WANG, XIAOQING HOU, ASTRID GROOT, JÜRGEN KRIEGER, CHRISTER LÖFSTEDT: Male hairpencil polyenes activate receptors located in sensilla housing receptors for female-produced sex pheromones in noctuid moths	CAROLINE MÜLLER*, RABEA SCHWEIGER, ANJA BONTE, JULIA VOELSEN, CAROLINE PONS, LUDGER BRÜHL, BERTRAND MATTHÄUS: Moist storage of <i>Brassica napus</i> seeds induces rapid changes in the metabolic profiles of stored material and the resulting oils	C. RIKARD UNELIUS, TAO ZHAO*, SURESH GANJI, CHRISTIAN SCHIEBE, BJÖRN BOHMAN, PAAL KROKENE, PHILIP WEINSTEIN, AND ANNA-KARIN BORG-KARLSON: Bark beetle pheromones are produced by their associated symbiotic fungi
11:30	ROBERT F. MITCHELL*, TROY M. SCHNEIDER, ADAM M. SCHWARTZ, MARTIN N. ANDERSSON, DUANE D. MCKENNA: Ten genomes reveal the gain and loss (and occasional persistence) of odorant receptor lineages across the Coleoptera	SEIMANDI CORDA G.*, RENAUD D., ESCANDE L., HECKY T., LARIEPE A., OLLIVIER J., FAURE S., CORTESERO AM.: Field identification of biochemical biomarkers for screening plant resistance to insects: an example from the pollen beetle – oilseed rape interaction	HUIJUAN GUO, RENÉ BENNDORF, ALEXANDER SCHMIDT, WILHELM DE BEER, CHRISTIANE WEIGEL, HANS-MARTIN DAHSE, MICHAEL POULSEN, CHRISTINE BEEMELMANN*: The chemical treasure of microbial communication associated with fungus growing termites
11:45	WILLIAM B. WALKER III*, PETER WITZGALL, STEPHEN F. GARCZYNSKI, WEE YEE: Expression of odorant receptors in the antennae of male and female <i>Rhagoletis</i> fruit flies.	STEFANO PAPAIZIAN*, ELIEZER KHALING, CHRISTELLE BONNET, STEVE LASSUEUR, PHILIPPE REYMOND, THOMAS MORITZ, JAMES D. BLANDE, AND BENEDICTE R. ALBRECHTSEN: Untangle complexity: Metabolomics of plant-insect interactions in black mustard under a multiple biotic and abiotic stress scenario	BAK A., PATTON M.F., MURIKI M., HENAO L.M.P., CASTEEL C.L.*: Ethylene signaling mediates Potyvirus spread by aphid vectors.
12:00		ROLAND MUMM, RIC C.H. DE VOS, ROBERT D. HALL: Metabolomics as tool to decipher the role of metabolites in trophic plant interactions	
12:15	Lunch	Lunch	Lunch

13:00	Chair: MARTIN N. ANDERSSON SEONG-IL EYUN, HO YOUNG SOH, MARIJAN POSAVI, STEPHEN RICHARDS, CAROL EUNMI LEE*: Evolutionary history of chemosensory-related gene families across the Arthropoda	Session Intraspecific Relationships, Symposium: "Chemical ecology of click beetles (Elateridae): practical applications and advances in the field" by Jacqueline Serrano and József Vuts Chair: JACQUELINE SERRANO Keynote: TOLASCH, T.: Click beetle pheromones - more than pest control	LAURA V. FLÓREZ*, KIRSTIN SCHERLACH, PAUL GAUBE, JÜRGEN WIERZ, CHRISTIAN HERTWECK, MARTIN KALTENPOTH: From hitchhiker to bodyguard: the evolution of defensive symbionts of beetles from plant-associated bacteria
13:15	ROBERTS RE*, POWELL D, WANG T, HALL MH, MOTTI CA, CUMMINS SF: Putative chemosensory receptors are differentially expressed in the sensory organs of male and female Crown-of-thorns starfish, <i>Acanthaster planci</i> .	continued	ROHLFS M.: Volatiles from mutualist yeast protect saprophagous insects against invasion by chemically defended mould fungi
13:30	CHRISTER LÖFSTEDT*, MARTIN N ANDERSSON, JACOB CORCORAN, JOTHI K YUVARAJ, DAN-DAN ZHANG, XIAOQING HOU, OLLE ANDERBRANT, RICHARD D NEWCOMB: Comparative studies of moth pheromone receptors using two complementary platforms	JACQUELINE M. SERRANO*, R. MAXWELL COLLIGNON, YUNFAN ZOU, JOCELYN G. MILLAR: Sex pheromones and sex attractants of North American click beetles in the genus <i>Cardiophorus</i>	CHING-WEN TAN*, MICHELLE PEIFFER, GARY FELTON: Symbiotic polydnavirus of a parasitoid manipulates caterpillar and plant immunity
13:45	BING WANG, WEI-CHAN CUI, MENG-BO GUO, YANG LIU, EMMANUELLE JACQUIN-JOLY, SHAN-CHUN YAN, GUI-RONG WANG*: A receptor-neuron correlate for the detection of attractive plant volatiles in <i>Helicoverpa assulta</i> (Lepidoptera: Noctuidae)	LARSSON MATTIAS C., SVENSSON, GLENN P., BURMAN JOE, WINDE INIS, NYABUGA FRANKLIN, MILBERG PER, BERGMAN KARL-OLOF, JANSSON NICKLAS, WESTERBERG LARS, PALTO HEIDI, OLEKSA, ANDRZEJ, HARVEY DEBORAH, KADEJ MARCIN, MOLANDER MIKAEL, ERIKSSON BJÖRN, ANDERSSON FREDRIK, HEDENSTRÖM ERIK: Pheromone monitoring turn cryptic click beetles into regional conservation indicators	TILOTTAMA MAZUMDAR*, BENG SOON TEH, AISHWARIYA MURALI, WILHELM BOLAND: Stress survival strategies of the dominating bacteria <i>Enterococcus mundtii</i> in the gut of <i>Spodoptera littoralis</i>

14:00	HILL S.R.*, ZASPEL J., IGNELL R.: What makes a blood sucker? Vampire moth, <i>Calyptra thalictri</i> , chemosensory receptor gene expression reflects blood-feeding phenotype	VUTS J.*, FURLAN L., BIRKETT M. A., TÓTH M.: Enhancement of click beetle surveillance using female attractants	FENGMING YAN*, JINGJING LI, DANYANG SONG, XUEFEI TANG, SHAOHUA LU: Chemical and behavioral ecology of virus-vector-plant interactions
14:15	ZAINULABEUDDIN SYED: Molecular and physiological correlates of peripheral olfactory modulation	VAN HERK W., VERNON B.: Development of a pheromone-based IPM program to manage <i>Agriotes</i> spp. click beetles in Canada	EBERL F., HAMMERBACHER A., GERSHENZON J., UNSICKER S.B.: Small size, big effects: how a plant pathogen influences tree-insect interactions
14:30	AMIR D., DAVID R., YAKIR E., BOHBOT J.D.*: The puzzling role of mosquito host attractants: The case of sulcatone	Keynote: LORENZO FURLAN*, FRANCESCA CHIARINI, BARBARA CONTIERO: How to use pheromone traps to implement effective IPM of wireworms (<i>Agriotes</i> spp.)	Session Interspecific Relationships, independent lectures Chair: JEREMY MCNEIL JEAN-MARC LASSANCE, GLENN P. SVENSSON, MIKHAIL V. KOZLOV, WITTKO FRANCKE, CHRISTER LÖFSTEDT*: Pheromones and barcoding delimit boundaries between cryptic species in the primitive moth genus <i>Eriocrania</i> (Lepidoptera: Eriocraniidae)
14:45	BINU ANTONY*, JIBIN JOHNY AND MOHAMMAD ALI ALSALEH: The narrowly tuned odorant receptor RferOR5519 and antenna-specific odorant binding protein RferOBP1768 are highly selective for ferrugineol, the major aggregation pheromone compound of red palm weevil	continued	JEREMY N. MCNEIL*, ZOE LINDO AND M. ISABEL RAMERIZ: The impact of monarch chemical defences on soil invertebrates.
15:00	coffee break	coffee break	coffee break

15:45	<p>Session Intraspecific Relationships, independent lectures</p> <p>Chair: PATRICIA NAGNAN-LE MEILLOUR</p> <p>Keynote: SANDRA STEIGER: The chemistry of mating: how pheromones help to spread and receive sperms</p>	<p>Chair: JÓZSEF VUTS</p> <p>TEODORA B. TOSHOVA*, MIKLÓS TÓTH, LORENZO FURLAN, JÓZSEF VUTS, DIMITAR I. VELCHEV, MITKO SUBCHEV: Detection and seasonal monitoring of <i>Agriotes</i> species (Coleoptera: Elateridae) in different vegetation habitats in Bulgaria by pheromone traps</p>	<p>LENSCHOW M., CORDEL M., POKORNY T., MAIR M.M., HOFFERBERTH J., RUTHER J.*:</p> <p>The biochemical and neuromodulatory mechanism underlying the plastic sex pheromone response in <i>Nasonia vitripennis</i></p>
16:00	continued	<p>LIVY WILLIAMS, III*, JACQUELINE M. SERRANO, JOCELYN G. MILLAR, PAUL J. JOHNSON: 13-tetradecenyl acetate, a female-produced sex pheromone component of <i>Melanotus communis</i> (Gyllenhal) (Coleoptera: Elateridae)</p>	<p>KEVIN FARNIER, DAVID MADGE, PAUL CUNNINGHAM*:</p> <p>Two stones, one bird: Are two distinct female-specific lures necessary to efficiently monitor and control Queensland fruit fly (<i>Bactrocera tryoni</i>) populations in orchards?</p>
16:15	<p>PATRICIA NAGNAN-LE MEILLOUR*, AMANDINE DESCAMPS, PERUTH IHIMBAZWE, CHRYSTELLE LE DANVIC, KEVIN POISSENOT, KELLER MATTHIEU: Chemical ecology of the water vole <i>Arvicola terrestris</i> (Cricetidae) for sustainable population control in Europe</p>	<p>VAN HERK W.*, VERNON B. Trap-based estimates of click beetle populations can vary depending on duration of trap placement</p>	<p>NANNA HJORT VIDKJAER*, PER KRYGER, INGE S. FOMSGAARD: Can nature's pharmacy influence the health of honey bees?.</p>

16:30	NJIHIA TERESIAH*, TORTO BALDWIN, MURUNGI LUCY, IRUNGU JANET, MWENDA DICKSON, BABIN RÉGIS: Methyl-2,4,6-decatrienoate identified as a potential male-produced aggregation pheromone of <i>Antestia</i> bug (Heteroptera: Pentatomidae: <i>Antestiopsis thunbergii</i>): a coffee pest native to Africa	Session Intraspecific Relationships, independent lectures Chair: ALVIN KAH-WEI HEE Ali, J.: Who's smelling who? Bi-directional signaling and implications for multi-trophic chemical ecology.	HILLARY K. KIRWA, LUCY K. MURUNGI, DANNY COYNE, JOHN J. BECK, AND BALDWIN TORTO: Responses of the root knot nematode <i>Meloidogyne incognita</i> to specific metabolites identified in the root exudate of <i>Solanum lycopersicum</i>
16:45	PATRICK GARVEY*, ROGER PECH, ALISTAIR GLEN, MICHAEL JACKSON, WAYNE LINKLATER, GRANT NORBURY: Fatal attraction: exploiting olfactory eavesdropping for wildlife conservation	JULIA BING*, DANNY KESSLER, IAN T. BALDWIN: Uncoupling pollinator attraction and post-pollination mate selection in <i>Nicotiana attenuata</i>	ARNAUD AMELINE*, QUENTIN CHESNAIS, GABRIELA CABALLERO VIDAL, FLORENT BOGAERT, PATRICIA CLAUDEL, ANAS CHERQUI A, AUDE COUTY, PHILIPPE HUGUENEY, ALESSANDRA MAIA-GRONDARD, VÉRONIQUE ZIEGLER-GRAFF, VÉRONIQUE BRAULT: Chemical ecology of plant- aphid vector-virus interactions: a case of manipulation?
17:00	CHRISTELLE LE DANVIC*, MARINA DILLENBOURG, MATTHIEU KELLER, LAURENT SCHIBLER, PATRICIA NAGNAN-LE MEILLOUR: The male effect: on the way to elucidating the male fragrance inducing ovulation in ewe and goat	ANNA CHUI-TING CHIENG, SUK-LING WEE, ALVIN KAH-WEI HEE*: Involvement of maxillary palp in detection of methyl eugenol by male oriental fruit fly, <i>Bactrocera dorsalis</i> (Diptera: Tephritidae)	ALYSSA M WEINSTEIN*, BJÖRN BOHMAN, RYAN D PHILLIPS, GAVIN R FLEMATTI, ROD PEAKALL: Chemical clues help resolve the Warty Hammer Orchid complex
17:15	Session Interspecific Relationships, independent lectures GEOFFREY JAFFUEL*, SRIBALA DURAIRAJ, RAQUEL CAMPOS-HERRERA AND TED TURLINGS: Identification of ant deterrents emitted by insect cadavers infected with entomopathogenic nematodes	MALKA O., SANTOS-GARCIA D., FELDMESSER E., SHARON E., VAN BRUNSCHOT S., SEAL S., COLVIN J., MORIN S.*: Species-complex evolution and host-plant associations in <i>Bemisia tabaci</i> : a plant-defense, detoxification perspective revealed by RNAseq analyses	MAGALI PROFFIT*, BENOIT LAPEYRE, BRUNO BUATOIS, PIERRE ARNAL, PAUL AUBIER, FLORA GOUZERH, MANON OPSOMMER, MICHAEL STAUDT, MARTINE HOSSAERT-MCKEY: Ozone pollution alters the olfaction and behavior of a specialized pollinator

17:30	SATYAJEET GUPTA*, ANUSHA L K KUMBLE, SATHISH DESIREDDY, JEAN-MARIE BESSIÈRE, RENEE M. BORGES: The scent of life: phoretic nematodes choose live over dead wasps as vehicles	MALKA O*, FELDMESSER E, SANTOS D, VAN BRUNSCHOT S, REICHEL T M., EASSON M, GERSHENZON J, VASSÃO DG, SEAL S, COLVIN J MORIN S: Metabolic responses to variable host plants play a key role in different degrees of polyphagy in the <i>Bemisia tabaci</i> species complex	FELIPE BORRERO-ECHEVERRY*, MARIE BENGTTSSON, PETER WITZGALL: Host plant odour is an integral part of sex pheromone communication in an insect herbivore
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Friday, August 17

	Bartók hall	Liszt hall	Lehár hall
9:00	<p>Session Practical Applications, Symposium "Comparison of semiochemical control methods of pest insects" by Anat Zada-Byers Chair: ANAT ZADA-BYERS Keynote: JAMES R. MILLER: Principles of pest management guiding determinations of appropriateness for semiochemical control tactics</p>	<p>Session Intraspecific Relationships, Symposium "Importance of multicomponent mixtures for chemical cues" by Brian Smith Chair: BRIAN SMITH DANIEL L. Kline: Attraction of Ceratopogonids to Plant and Animal Volatiles</p>	<p>Session Practical Applications. Symposium "Semiochemical application for invasive species" by Aijun Zhang and Jian Chen Chair: AIJUN ZHANG Keynote: Yin zhong Cui: Semiochemical application for invasive species in China</p>
9:15	continued	PAUL SZYSZKA*, ALEXANDER EGEA-WEISS, AARTI SEHDEV, YUNUSA MOHAMMED, ALPHA RENNEN: Odor source separation and rapid odor coding in insects	DONG H. CHA*, PETER J. LANDOLT, AND GREGORY M. LOEB: Discovery of attractants and repellents for managing <i>Drosophila suzukii</i>
9:30	JOHN A. BYERS: Modeling detection, mating disruption, mass trapping, and push-pull management strategies using semiochemicals	HETAN CHANG, YANG LIU, DONG AI, XINGCHUAN JIANG, SHUANGLIN DONG, GUIRONG WANG*: The antagonist Z11-16:OH emitted by females regulates optimal mating time in <i>Helicoverpa armigera</i>	AMALIN, D.M.*, TAVERA, M.A.A., ORMENITA, L.A.C., CARANDANG J.S.R., FLORES, M.J.C., LORENZANA, L.DJ., JANAIRÓ, G.C., AND JANAIRÓ, J.I.B.: Understanding Semiochemicals for Detection and Control of Major Insect Pests of Cacao in the Philippines
9:45	PICKETT J.A.*, KHAN Z.R. AND MIDEGA C.A.O.: The Push-Pull system for controlling lepidopterous pests in cereals: new developments in exploiting GM in delivering the Push-Pull strategy	ALLY HARARI*, VICTORIA SOROKER, ADREA GONZALEZ-KARLSSON, YFTACH GOLOV, RUSSELL JURENKA: Evidence for resistance to mating disruption technique in the pink bollworm a pest of cotton	MAN-QUN WANG: Structural Transformation Detection Contributes to Screening of Behaviorally Active Compounds: Dynamic Binding Process Analysis of DhelOBP21 from <i>Dastarcus helophoroides</i>

10:00	coffee break	coffee break	coffee break
10:30	CLARE SAMPSON: Mass trapping with pheromone incorporated sticky traps makes integrated thrips management programmes more robust	CHAN H. K., HERSPERGER F., MARACHLIAN E., SMITH B. H., LOCATELLI F., SZYSZKA P., NOWOTNY T.*: Mixtures are more robust stimuli in olfaction	Dong-Hwan Choe: Chemical ecology of Argentine ant and its implication for practical pest management
10:45	LARRY GUT* AND JAMES MILLER: Accelerating the adoption of mating disruption: matching technology with mechanism	APHRODITE KANTSA*, ROBERT A. RAGUSO, THEODORA PETANIDOU: Natural olfactory landscapes and pollination networks	Flore Mas*, Olivia Reynolds, Rachael Horner, Aimee Harper, Lee-Anne M. Manning, Terry Osborne, Andrew Kralicek, D.M. Suckling: Odorant-based detection of invasive species in fresh fruit
11:00	KSENIYA S. ONUFRIEVA*, ALEXEY ONUFRIEV, ANDREA D. HICKMAN, DONNA S. LEONARD, PATRICK C. TOBIN: Finding maximum gypsy moth population density controlled by mating disruption	PENGFEI LU*, MIN BAO: Mating behavior and attractiveness of male cuticle extracts based on electroantennogram and behavioral assay in <i>Sirex noctilio</i> Fabricius	Michael J. Domingue*, Scott W. Myers and Thomas W. Phillips: Larvae of <i>Trogoderma</i> respond behaviorally to whole body extracts
11:15	DAVID MAXWELL SUCKLING: Behavioural disruption for suppression presents different challenges in different insect orders	VANDER MEER R, JONES T., CHINTA S.: Chemicals produced by males and transferred to females during mating prevent multiple matings	ZHANG, AIJUN*, FENG, YAN: Activity evaluation of attractants for spotted wing drosophila <i>Drosophila suzukii</i> in the field
11:30	PETER S. MCGHEE*, LARRY J. GUT, JAMES R. MILLER, DONALD THOMSON: Optimizing pheromone dispensers for codling moth mating disruption	ALEŠ SVATOŠ*, RICHARD A. FANDINO, SYBILLE LORENZ, YVONNE HUPFER, ALEŠ BUČEK, IVA PICHOVÁ: <i>Manduca sexta</i> sex pheromone biosynthesis: desaturase point mutations and CRISPR/Cas8 genes editing	DONALD C. WEBER*, ANNA K. WALLINGFORD, WILLIAM R. MORRISON III, TRACY C. LESKEY, ASHOT KHRIMIAN: Invasive stink bugs: semiochemical patterns of field-based attraction, cross-attraction, synergy, and application

11:45	ANAT LEVI-ZADA*, AVRAHAM SADOWSKY, SVETLANA DOBRININ, TAMIR TICUCHINSKI, MAAYAN DAVID, DANIELA FEFER, EZRA DUNKELBLUM, JOHN A. BYERS: Control of lesser date moth <i>Batrachedra amydraula</i> by mass-trapping with pheromone	RUI-TING LI, CHAO NING, LING-QIAO HUANG, JUN-FENG DONG, XIANCHUN LI, CHEN-ZHU WANG*: The molecular bases of producing sex pheromones with the opposite component ratios in two <i>Helicoverpa</i> moth species	CHEN, J.*, FENG, Y., ZHANG, A., GRODOWITZ, M.J.: Utilization of naturally occurring compounds in controlling fire ants
12:00	Session Interspecific Relationships, independent lectures Chair: MIKLÓS TÓTH ADRIENNE L. GODSCHALX*, MARK A. SZENTECZKI, NADIR ALVAREZ, AND SERGIO RASMANN: Floral scent variation in smelling like poop	STOWERS L.: Circuit coding of innate olfactory behavior	RAY A. M.*, FRANCESE J. A., ZOU Y., WATSON K., CROOK D. C., MILLAR J. G.: Detection of velvet longhorned beetle populations using attractant baited traps
12:15	OMER NEVO*, DIARY RAZAFIMANDIMBY, JUAN ANTONIO JAMES JEFFREY, STEFAN SCHULZ, MANFRED AYASSE: Is fruit scent an adaptation to primate seed dispersal?	S. NOUSHIN EMAMI*, LISA C. RANFORD-CARTWRIGHT, HEATHER M. FERGUSON: Do transmission potential of infected mosquitoes alter by the type of vertebrate blood?	B.J. ALMARINEZ*, M. ARCELO, R. CENA, R. CASTILLO, J.I. JANAÍRO, A. ZHANG, AND D. AMALIN: Field bioassay of the synthetic sex pheromone of the cacao pod borer, <i>Conopomorpha cramerella</i> , at different height
12:30	COSTA A. *, MOOS M., ZAHRADNÍČKOVÁ H., ŠIMEK P., ZEMEK R.: The effect of wounding and <i>Spodoptera littoralis</i> herbivory on plant VOCs emissions in caraway <i>Carum carvi</i>	L.E. ROSCOE*, P. SILK, E.S. EVELEIGH, M. BROPHY, K. BURGESS: Identification of male hairpencil pheromone components in <i>Choristoneura fumiferana</i> Clemens (Lepidoptera: Tortricidae): chemistry and function	CESAR RODRIGUEZ-SAONA, FERNANDO SANCHEZ, MONICA GUISTI, YUCHENG ZHOU, BETTY BENREY: Effects of domestication of blueberries on the invasive vinegar fly <i>Drosophila suzukii</i>
12:45	Lunch	Lunch	Lunch

14:00	Business Meeting and Closing Remarks Obituary of Jerrold Meinwald Other matters
15:15	coffee break
19:00	Conference Banquette Location: Europa Ship Budapest 1013 Budapest, Budai alsó rkp. (The port is at the Szilágyi Dezső tér)