



**The American Association of Professional Apiculturists’  
and  
The Canadian Association of Professional Apiculturists’**

## **2017 American Bee Research Conference**

12 and 13 January 2017

Galveston Island Convention Center, Galveston, TX—Grand Ballroom C

### **General Meeting Agenda**

<b>Time</b>	<b>Thursday, 12 January 2017</b>
7:15 am – 8:00 am	Registration, upload presentations (bring flash drive w/talk)
8:00 am – 8:10 am	Welcome remarks
8:10 am – 9:00 am	<b>Keynote presentation:</b> <b>Dr. Jeff Pettis. Institute of Bee Health, University of Bern</b>
9:00 am – 10:15 am	Student paper competition, Session I
10:15 am – 10:30 am	Morning break, refreshments
10:15 am – 11:45 pm	Student paper competition, Session II
11:45 pm – 1:00 pm	Lunch break (on your own)
1:00 pm – 3:00 pm	Scientific presentations, Session I (Pesticides & Bee Management I)
3:00 pm – 3:30 pm	Afternoon break, refreshments sponsored at the NABC break
3:30 pm – 5:00 pm	Student paper competition, Session III
5:00 pm	Adjourn afternoon session, break on your own
5:00 pm – 6:30 pm	Project NC1173 meeting
6:30 pm – 8:00 pm	<b>Poster session and Social sponsored by Veto-pharma®</b> <b>Located in the Conferee Lounge</b> <b>(**San Luis Hotel &amp; Conference Center, 2<sup>nd</sup> floor**)</b>

\*See full schedule for presenters/titles

Time	Friday, 13 January 2017
8:00 am – 8:10 am	Announcements and student award presentation
8:10 am – 9:00 am	<b>Keynote presentation:</b> <b>Dr. Steve Pernal. Agriculture and Agri-Food Canada</b> <b>“Progress in marker-assisted selection for honey bee breeding”</b>
9:00 am – 10:15 am	Scientific presentations, Session II (Bee Management)
10:15 am – 10:30 am	Morning break, refreshments
10:30 am – 12:00 pm	Scientific presentations, Session III (Parasites & Pathogens)
12:00 pm – 1:30 pm	Lunch break AAPA Business meeting: Schooner Room (1 <sup>st</sup> Floor) (Catered lunch for AAPA members who RSVP'd. All from AAPA are welcome)
1:30 pm – 3:10 pm	Scientific presentations, Session IV (Pesticides & Foraging)
3:10 pm – 3:30 pm	Afternoon break, refreshments sponsored at the NABC break
3:30 pm – 5:00 pm	Scientific presentations, Session V (Physiology & Queens)
5:00 pm – 5:30 pm	AIA – AAPA – CAPA Panel Discussion
5:30 pm	Conference adjourned. Safe travels everyone!

**Agenda\* for the Multi-State Project NC1173, "Sustainable Solutions to Problems Affecting Bee Health" Business Meeting. Marc Linit, Project Director  
Thursday, 12 January 2016, 5:00pm – 6:30pm  
Grand Ballroom C, Galveston Island Convention Center**

1. Call to order
2. Roll call
3. Chair's report on current membership (Juliana Rangel)
4. Project Director's report (Marc)
5. Open discussion on progress report, challenges and plans for 2017 for all member institutions and their representatives
6. Location of 2018 NC1173 meeting
7. Other business
8. Concluding remarks
9. Adjourn

\*Subject to change

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**Agenda\* for the 2017 AAPA Business Meeting  
Friday 13 January 2016, 12:00pm – 1:30pm  
Schooner Room, 1<sup>st</sup> Floor Convention Center**

- A. Call to order.
- B. Preview of agenda for additions, deletions, and/or modifications.
- C. Reports of Officers (including a financial report by the Secretary-Treasurer).
- D. Reports of Committees.
- E. Unfinished business.
- F. New business.
- G. Communication and bills.
- H. Nomination and election of new officers, when necessary.
- H. Resolutions formulated to be voted on by mail ballots.
- I. Adjournment.

\*Subject to change

# Area and Conference Center(s) Guide

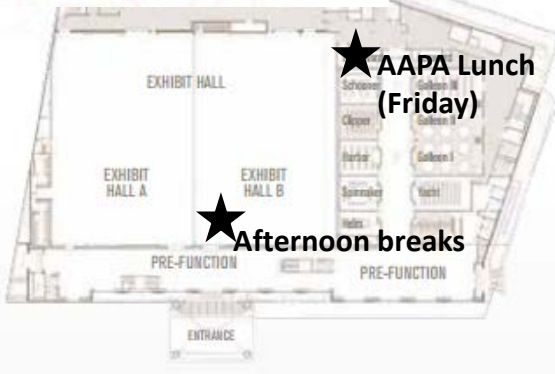


## GALVESTON ISLAND CONVENTION CENTER

### AT THE SAN LUIS RESORT

#### LEVEL ONE

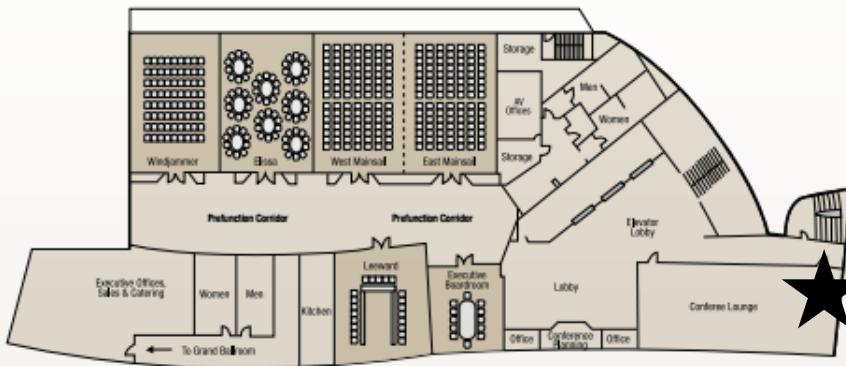
#### LEVEL TWO



Poster Session and Social (Thursday)

## THE SAN LUIS Hotel

SPA & CONFERENCE CENTER  
CONFERENCE CENTER - Second Floor



**ABRC Presentation/Activity Schedule, Thursday, 12 January 2017**  
**Grand Ballroom C, Galveston Island Convention Center**

\* Student paper competitor

Time	Author(s)	Speaker Affiliation	Title
7:15 – 8:00am	<b>Conference Registration</b>		
8:00 – 8:10am	<b>Welcome Remarks, Dr. Elina Niño, President of AAPA., Dr. Mike Simone-Finstrom, Vice-President of AAPA and ABRC Program Organizer</b>		
8:10am–9:00am	<b>Dr. Jeff Pettis</b> Keynote Speaker	Institute of Bee Health University of Bern, Switzerland	""
9:00am-9:12am	<b>Andrea Wade*</b> , Reed Johnson	Department of Entomology The Ohio State University, Wooster, OH	"Combined toxicity of chlorantraniliprole and propiconazole due to P450 inhibition in honey bees "
9:12am–9:24am	<b>Adrian Fisher II*</b> , Juliana Rangel	Department of Entomology Texas A&M University, College Station, TX	" The negative effects of in-hive pesticides on honey bee ( <i>Apis mellifera</i> ) drone sperm viability "
9:24am–9:36am	<b>Elizabeth M Walsh*</b> , Juliana Rangel	Department of Entomology, Texas A&M University, College Station, TX	"The effects of pesticides on honey bee ( <i>Apis mellifera</i> ) queen reproductive physiology and behavior "
9:36am–9:48am	<b>Mehmet Ali Doke*</b> , Christina M Grozinger	Department of Entomology, The Center for Pollinator Research, The Pennsylvania State University	"Pheromonal control of overwintering in honey bee colonies "
9:48am–10:00am	<b>Rodney T. Richardson*</b> , Megan Ballinger, Feng Qian, John Christman, Reed Johnson	Department of Entomology The Ohio State University, Wooster, OH	"Morphological and functional characterization of honey bee hemocytes "
10:00am–10:12am	<b>Alexandria Payne*</b> , Juliana Rangel	Department of Entomology Texas A&M University, College Station, TX	"The effects of honey bee ( <i>Apis mellifera</i> ) queen insemination volume on colony growth "
<b>10:15am–10:30am</b>	<b>Morning break, refreshments</b>		
10:30am–10:42am	<b>Cameron Jack*</b> , Jamie Ellis	Department of Entomology and Nematology University of Florida, Gainesville, FL	" The efficacy of artificial brood interruption and oxalic acid in controlling the honey bee pest <i>Varroa destructor</i> "
10:42am–10:54am	<b>Kelly Kulhanek*</b> , N. Steinhauer, D. Reynolds, R. Fahey, A. Nearman, Dennis vanEngelsdorp	Department of Entomology University of Maryland, College Park	"The sentinel apiary program: Collaborating with beekeepers to improve colony health and management"
10:54am–11:06am	<b>Meghan E. McConnell*</b> , Dennis vanEngelsdorp	Department of Entomology University of Maryland, College Park	"Mechanical disturbance as a non-chemical control of varroa mites in honey bee colonies"
11:06am–11:18am	<b>Nathalie Steinhauer*</b> , M.E. Wilson, C. Saegerman, D. vanEngelsdorp	Department of Entomology University of Maryland, College Park	"Expert-based best management practices for US beekeepers"
11:18am–11:30am	<b>Natalia Riusech*</b>	Department of Entomology The Ohio State University, Wooster, OH	"Factors that influence treatment practices used by beekeepers to control for Varroa mites"
11:30am–11:45am	<b>Samuel D. Ramsey*</b> , Dennis vanEngelsdorp	Department of Entomology University of Maryland, College Park	" <i>Varroa destructor</i> feed primarily on honey bee fat body not hemolymph "
<b>11:45am-1:00pm</b>	<b>Lunch break (on your own)</b>		

Time	Author(s)	Speaker Affiliation	Title
1:00pm–1:12pm	Kirsten S. Traynor, J.S. Pettis, D.R. Tarpy, C.A. Mullin, J.L. Frazier, M. Frazier, D. vanEngelsdorp	Department of Entomology University of Maryland, College Park	"Re-evaluating pesticide risk by mode of action"
1:12pm–1:24pm	Geoff Williams	Department of Entomology & Plant Pathology Auburn University	"Do neonicotinoid pesticides serve as inadvertent insect contraceptives? Effects on male honey bees"
1:24pm–1:36pm	William Meikle	USDA-Agricultural Research Service Tucson, AZ	"Can we measure colony-level effects in cages? Monitoring effects of sublethal neonicotinoid exposure"
1:36pm–1:48pm	Kristen Healy, J. Ottea, T. Walker, F. Rinkevich, J. Margotta, V. Pokhrel, R. Vaeth, C. Hoffman, B. Fritz, R. Danka	Department of Entomology Louisiana State University	"Evaluating the effects of mosquito control adulticides on honey bees"
1:48pm–2:00pm	Frank Rinkevich, Robert Danka, Kristen Healy	USDA-Agricultural Research Service Baton Rouge, LA	"Influence of <i>Varroa destructor</i> infestation levels and management practices on insecticide sensitivity in the honey bee ( <i>Apis mellifera</i> )"
2:00pm–2:12pm	Andony Melathopoulos, Ramesh Sagili	Department of Horticulture Oregon State University	"Pollinator protection in Oregon: Getting beyond best management practices?"
2:12pm–2:24pm	Bernardo D. Niño, Patricia Bohls, Elina L. Niño	Department of Entomology University of California, Davis	"Efficacy of novel bio-pesticides on varroa mites in honey bee colonies"
2:24pm–2:36pm	Richard E.L. Rogers	Bee Care Center Bayer Crop Sciences	"The Healthy Colony Checklist: A system to quickly assess, record, understand, and plan management of honey bee colony health"
2:36pm–2:48pm	Rassol Bahreini, Medhat Nasr	Alberta Agriculture and Forestry	"Evaluation of synthetic miticides efficacy in Varroa mites control"
2:48pm–3:00pm	Brandon K. Hopkins, Walter S. Sheppard	Department of Entomology Washington State University	"Overwintering strategies and their effects on honey bee nutrition"
<b>3:00–3:30pm</b>	<b>Afternoon break, refreshments sponsored at the NABC break</b>		
3:30pm–3:42pm	Megan J. Colwell*, Robert W. Currie, and Stephen F. Pernal	Department of Entomology University of Manitoba, Canada	"Viruses in unexpected places: new transmission routes of European honey bee ( <i>Apis mellifera</i> ) viruses"
3:42pm–3:54pm	Laura M. Brutscher*, Michelle Flenniken	Plant Sciences and Plant Pathology Montana State University	"Honey Bee Transcriptional Response to Virus Infection"
3:54pm–4:06pm	Courtney MacInnis*, B.A. Keddie, S.F. Pernal	University of Alberta Agriculture and Agri-Food Canada	" <i>Nosema ceranae</i> : A sweet surprise? Investigating the viability and infectivity of <i>N. ceranae</i> spores"
4:06pm–4:18pm	Morgan K. Carr-Markell*, R.S. Cornman, D. Iwanowicz, M. Spivak	Department of Entomology University of Minnesota, Twin Cities	"Do honey bees near reconstructed prairies collect significant amounts of food from native prairie flowers?"
4:18pm–4:30pm	Cora M. Demler*, M.K. Carr-Markell, M. Couvillon, R. Schuerch, M. Spivak	Department of Entomology University of Minnesota, Twin Cities	"Determining relative attractiveness of reconstructed native prairies to honey bee foragers"
4:30pm–4:42pm	Pierre Lau*, J. Rangel, V. Bryant, D. Schmehl, J. Sullivan, Z. Huang, J. Ellis, A. Cabrera	Department of Entomology Texas A&M University, College Station, TX	"Palynological analysis of pollen collected by honey bees ( <i>Apis mellifera</i> ) in developed areas in four regions of the United States"
4:42pm–4:54pm	James Wolfin*, Ian Lane, M. Spivak	Department of Entomology University of Minnesota, Twin Cities	"Enhancing turf lawns to benefit honey bees and other pollinators"

5:00pm–6:30pm NC1173 Business meeting (separate agenda), located in the Grand Ballroom C

Dinner (on your own)

6:30pm-8:00pm Poster Session and Social Sponsored by Veto-pharma \*\*\*Located in the Conferee Lounge (San Luis Hotel & Conference Center, 2<sup>nd</sup> floor)\*\*\*

Posters

Hailey Curtis, R. Richardson, C.-H. Lin, R. Johnson	Department of Entomology The Ohio State University, Wooster, OH	"Molecular investigation of honey bee foraging on soybean, Glycine max, in Ohio, USA"
Joseph Cazier	Center for Analytics Research and Education Appalachian State University, Boone, NC	"Data standardization: The first step to building an intelligent hive management system"
Maxcy P. Nolan IV, Keith S. Delaplane	Department of Entomology University of Georgia	"Dispersal risk tolerance is mediated by reproductive value in <i>Varroa destructor</i> "
Lilia I. de Guzman, Amanda M. Frake, Michael Simone-Finstrom	USDA-Agricultural Research Service Baton Rouge, LA	"Comparative flight activities of varroa-infested and uninfested bees using RFID technology"
David De Jong, Aline Patty Turcatto, Joyce Mayra Volpini de Almeida, Elisa Cimitan Mendes	Genetics Department University of São Paulo, Brazil	"Honey bees in Brazil do not require treatment for <i>Varroa</i> infestations"
Alejandra N. Gonzalez Rojas, Juliana Rangel Posada	Department of Entomology Texas A&M University, College Station, TX	"Antioxidative enzymes expression in honey bee ( <i>Apis mellifera</i> ) queens as an assessment of reproductive quality"
Shelley Hoover	Alberta Agriculture and Forestry	"Pollen collection, honey production, and paid pollination services"
Robert Heyduck, Melanie Kirby, Todd Bates	Department of Plant and Environmental Sciences New Mexico State University	"Assessing <i>Monarada fistulosa</i> var. <i>mentifolia</i> for possible honeybee health and habitat enhancement"
Jianghong Li, Wenfeng Li, Yahzou Zhou, Jay D Evans, Yanping Chen	USDA-ARS, Beltsville, MD College of Bee Science Fujian Agriculture and Forestry University, China	"The new evidence that gut microbes comprehensively regulate honeybee immunity"
Martin A. Matisoff, Susan Kivikko, Steve Kivikko, Thomas C. Webster	College of Agriculture Kentucky State University	"Teaching the teachers: A hands-on approach to learning honey bee anatomy and pathology"
Andrée Rousseau, Pierre Giovenazzo	Centre de recherche en sciences animales de Deschambault	"Optimizing drone fertility with nutritional supplements to honey bee colonies during spring"
Sreelakshmi Suresh, Chia-Hua Lin, Emma Matcham, Douglas Sponsler, Reed Johnson	Department of Entomology The Ohio State University, Wooster, OH	"Soybean as a major Nectar Source for Honey Bees"
Kaira Wagoner, Olav Rueppell	Department of Biology University of North Carolina at Greensboro	"Hygienic response to natural and synthetic brood chemicals associated with common honey bee stressors"
Meng Yue, Shudong Luo	Institute of Apicultural Research Chinese Academy of Agricultural Sciences	" <i>Apis cerana</i> is less sensitive to most pesticides, despite of their smaller size"



**ABRC Presentation/Activity Schedule, Friday, 13 January 2017**  
**Grand Ballroom C, Galveston Island Convention Center**

<b>Time</b>	<b>Author(s)</b>	<b>Speaker Affiliation</b>	<b>Title</b>
<b>8:00 – 8:10am</b>	<b>Announcements and Student Award Winners</b>		
8:10am–9:00am	<b>Dr. Steve Pernal</b> <b>Keynote Speaker</b>	Agriculture and Agri-Food Canada	"Progress in marker-assisted selection for honey bee breeding"
9:00am-9:12am	B. Emsen, P. Unger, L.G. Espinoza-Montano, T. Petukhova, M.M. Hamiduzzaman, G.J. Hunt, <b>Ernesto Guzman-Novoa</b>	School of Environmental Sciences University of Guelph	"Intensity of grooming behavior and resistance to <i>Varroa</i> in honey bees"
9:12am–9:24am	Nicolas Derome, Stephen F. Pernal, <b>Pierre Giovenazzo</b>	Département de biologie Université Laval, Quebec	"BeeProbio: Sustaining honeybee health with probiotics"
9:24am–9:36am	<b>Christina Mogren</b> , Jim Ottea, and Kristen Healy	Department of Entomology Louisiana State University	"Sublethal effects associated with supplemental feeding and other stressors in honey bees"
9:36am–9:48am	Xianbing Xie, Shudong Luo, <b>Zachary Y. Huang</b>	Department of Entomology Michigan State University	"Cost of relocating honey bee colonies"
9:48am–10:00am	<b>Carlos Castillo</b>	National Bee Diagnostic Centre Beaverlodge, Alberta, Canada	"Canadian National Honey Bee Health Survey"
10:00am–10:12am	<b>Renata S. Borba</b> , K. Baylis, M. Bixby, R. Currie, N. Derome, V. Fournier, P. Giovenazzo, M. Guarna, S. Hoover, S. Pernal, A. Zayed, L.J. Foster	University of British Columbia Agriculture and Agri-Food Canada	"Sustaining and securing Canada's honey bees using 'omics approaches"
<b>10:15am–10:30am</b>	<b>Morning break, refreshments</b>		
10:30am–10:42am	<b>David A. Galbraith</b> , D. Annoscia, E.L. Niño, F. Nazzi, X. Yang, S.V. Yi, V. Zanni, C.M. Grozinger	Department of Entomology, The Center for Pollinator Research, The Pennsylvania State University	"Genomic analyses of viruses in global bee populations"
10:42am–10:54am	<b>Daniel R. Schmehl</b> , Kim Huntzinger, and Dick Rogers	Bayer Crop Science	"The temporal and spatial distribution of the honey bee pest <i>Nosema spp.</i> in the United States"
10:54am–11:06am	<b>Esmaeil Amiri</b> , Gregory Seddon, Wendy Zuluaga Patricio, Micheline Strand, David Tarpy, Olav Rueppell	Department of Biology University of North Carolina at Greensboro	"Israeli acute bee paralysis virus and the health of honey bee queens"
11:06am–11:18am	<b>Martine Bernier</b> , Julie Arsenault, Pierre-Luc Mercier, Pierre Giovenazzo	Centre de recherche en sciences animales de Deschambault	"Detection of small hive beetle in naturally infested hives via DNA analysis of hive debris and scraps"
11:18am–11:30am	<b>Ramesh Sagili</b> , Cameron Jack, Hannah Lucas, Tom Webster, Sai Sree Uppala	Department of Horticulture Oregon State University	"New insights into <i>Nosema ceranae</i> infection: Colony level infection dynamics and effects of pollen nutrition"
11:30am–11:42am	<b>Wenfeng Li</b> , J.D. Evans, Q. Huang, C. Rodriguez-García, J. Liu, M. Hamilton, C.M. Grozinger, Thomas Webster, S. Suf, Y.P. Chen	USDA-Agricultural Research Service Beltsville, MD	"RNA interference (RNAi) as a novel treatment for <i>Nosema ceranae</i> infection in European honey bees <i>Apis mellifera</i> "
11:42am–11:54am	<b>Rob Currie</b> , Graham Parsons, Zoe Rempel	Department of Entomology University of Manitoba, Canada	"Manipulating varroa mite and virus levels on a colony scale to quantify their impact on colony winter survival"
<b>12:00-1:30pm</b>	<b>Lunch break</b> <b>AAPA Business meeting (catered lunch for AAPA members that RSVP'd. All AAPA welcome). Schooner Room 1<sup>st</sup> floor, Convention Center.</b>		



Time	Author(s)	Speaker Affiliation	Title
1:30pm–1:42pm	Reed M. Johnson, Andrea Wade, Bridget Gross, Ashley Cordle and Chia-Hua Lin	Department of Entomology The Ohio State University, Wooster, OH	“Effect of pesticide combinations applied to almonds during bloom on honey bee workers and queens”
1:42pm–1:54pm	Brian D. Eitzer, Kimberly A. Stoner and Richard S. Cowles	Connecticut Agricultural Experiment Station	“Evaluating the risk pesticide use at ornamental nurseries pose to honey bees”
1:54pm–2:06pm	Stephanie Darnell	Bayer Crop Science	“Detection of imidacloprid residues in pollen and nectar collected from annual and perennial bedding plants purchased from selected retail garden stores”
2:06pm–2:18pm	Allen W. Olmstead	Bayer Crop Science	“The chronic toxicity of clothianidin supplied via nectar substitute to honey bee colonies ”
2:18pm–2:30pm	Mark J. Carroll, Nicholas Brown, and Zachary Ruetz	USDA-Agricultural Research Service Tucson, AZ	“Effects of imidacloprid-contaminated sugar stores on overwintering honey bee colonies”
2:30pm–2:42pm	Georges Martin, Pierre Giovenazzo	Centre de recherche en sciences animales de Deschambault	“Feeding strategies to shift honey bee foraging behavior during cranberry pollination and the impact on colony development”
2:42pm–2:54pm	Margaret J. Couvillon	Department of Entomology Virginia Tech	“Environmental Consultancy: dancing bees bioindicate the landscape’s profitability for pollinators”
2:54pm–3:06pm	Roger Schuerch	Department of Entomology Virginia Tech	“Noisy dancers: information and individuality in honey bee waggle dance communications”
<b>3:10–3:30pm</b>	<b>Afternoon break, refreshments sponsored at the NABC break</b>		
3:30pm–3:42pm	Steve Cook	USDA-Agricultural Research Service Beltsville, MD	“The energetics of phoretic and foundress Varroa mites”
3:42pm–3:54pm	Stephanie Gage, Catherine Kramer, Samantha Calle, Mark Carroll, Michael Heien, Gloria DeGrandi-Hoffman	USDA-Agricultural Research Service Tucson, AZ	“Beyond the Gut: <i>Nosema</i> parasitism in honey bees impacts neurochemistry and olfactory learning and memory”
3:54pm–4:06pm	Margarita M. Lopez-Urbe, Michael Simone-Finstrom	Department of Entomology, The Pennsylvania State University	“Glucose oxidase production after colony infection: Testing its role in honey bee social immunity ”
4:06pm–4:18pm	Rong Ma, Gabriel Villar, Christina M. Grozinger, Juliana Rangel	Department of Integrative Biology University of Texas at Austin	“Behavioral and molecular mechanisms of pheromone transmission in honey bees ( <i>Apis mellifera</i> )”
4:18pm–4:30pm	Elina L. Niño, W. Cameron Jasper, Christina M. Grozinger	Department of Entomology University of California, Davis	“New insights into seminal fluid regulation of post-mating changes in honey bee queens”
4:30pm–4:42pm	Marta Guarna, Katie Joselow, Jeffery Pettis, Steve Pernal	Agriculture and Agri-food Canada	“Exposing queens to high temperature affects their performance”
4:42pm–4:54pm	Greg J. Hunt, Miguel Arechavaleta-Velasco, Joshua Given, Jennifer Tsuruda, Miguel Arechavaleta-Velasco	Department of Entomology Purdue University	“An update on parental effects on aggression and gene expression in African-European hybrid honey bees”
5:00pm–5:30pm	AIA / AAPA / CAPA Panel Discussion		
5:30pm	Conference Adjourned. Safe travels!		

