Detailed Program

All events are in the Assembly Hall / Skelton Conference Center, except as noted (see map on page 9 for locations of Latham Foyer, Ballrooms, and Drillfield Room at The Inn)

All times are in North America Eastern Standard Time (Toronto / New York / Cancún)

<table>
<thead>
<tr>
<th>July 24 (Sunday)</th>
<th>CONFERENCE OPENING</th>
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<tbody>
<tr>
<td>Noon – 5 pm</td>
<td>Conference registration - Latham Foyer, The Inn at Virginia Tech</td>
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<tr>
<td>3:00 – 5:00 pm</td>
<td>Covid testing option – Latham Foyer facility (look for signage)</td>
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<tr>
<td>2:00 – 8:00 pm</td>
<td>Poster hanging and preview – Latham CDEF</td>
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<tr>
<td>5:00 - 5:30 pm</td>
<td>Opening Remarks – Assembly Hall</td>
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<tr>
<td>1. Dorothea Tholl (PSNA President and Chair, PSNA 2022 Conference) and Brenda Winkel (Co-Chair, PSNA 2022 Conference)</td>
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<td>2. Dennis Dean (VT Fralin Life Sciences Institute)</td>
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<td>3. Guillaume Pilot (VT Translational Plant Sciences Center)</td>
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<tr>
<td>5:30 - 6:30 pm</td>
<td>Plenary talk: Jonathan Gershenzon (Max Planck Institute for Chemical Ecology, Germany)</td>
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<td>The phytochemistry of glucosinolates: phyto-protection and insects that fight back</td>
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<tr>
<td>6:30 - 8:00 pm</td>
<td>Reception – Latham Foyer and Latham CDEF</td>
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<td>8:00 pm</td>
<td>Student Pizza Night – VT Visitors Center (meet at The Inn Front Lobby)</td>
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<tr>
<th>July 25 (Monday)</th>
<th>SYMPOSIA I-III, POSTER SESSION I</th>
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<tbody>
<tr>
<td>7:00 am – 1:00 pm</td>
<td>Conference registration – Latham Foyer</td>
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<tr>
<td>8:00 – 11:30 am</td>
<td>Covid testing option – Latham Foyer facility (look for signage)</td>
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<tr>
<td>7:30 - 8:15 am</td>
<td>Refreshments – Expanded continental breakfast outside Assembly Hall</td>
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<tr>
<td>8:15 - 8:20 am</td>
<td>Announcements – Assembly Hall</td>
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<tr>
<td>Symposia I: Phytochemical/specialized metabolism: Gene discovery, evolution &amp; regulation</td>
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<tr>
<td>8:20 - 9:00 am</td>
<td>Symposium Chair: Sangeeta Dhaubhadel (Agriculture and Agri-food Canada, Canada)</td>
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<td>8:20 - 9:00 am</td>
<td>Keynote: Bjoern Hamberger (Michigan State University, USA)</td>
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<td>Building new chemical spaces: the power of promiscuity and localization in plant terpenoid metabolism</td>
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<td>9:00 - 9:25 am</td>
<td>Arthur Neish Award presentation: Nik Kovinich (York University, Canada)</td>
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<td>GmJAZ1 proteins bind GmNAC42s and suppress the activation of glyceollin phytoalexin biosynthesis in soybean</td>
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<td></td>
<td>Coffee break (20 min)</td>
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<tr>
<td>9:45 - 10:00 am</td>
<td>Short presentation 1: Yann-Ru Lou (University of California, Davis, USA)</td>
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<td>It happened again: convergent evolution of acylglucoses in black nightshade and wild tomato</td>
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<tr>
<td>10:00 - 10:15 am</td>
<td>Short presentation 2: Kiyoul Park (University of Nebraska-Lincoln, USA)</td>
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<td>Divergent evolution of extreme production of variant plant monounsaturated fatty acids</td>
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<td>10:15 - 10:30 am</td>
<td>Short presentation 3: Matilde Florean (Max-Planck Institute for Chemical Ecology, Germany)</td>
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<td>Reinventing pathways: convergent evolution of specialized metabolites in flowering plants</td>
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</table>
10:30 - 10:45 am  
**Short presentation 4:** Toshiaki Umezawa (Kyoto University, Japan)  
Two O-methyltransferases from phylogenetically unrelated *Anthriscus sylvestris* and *Thujopsis dolabrata var. hondae* as a signature of lineage-specific evolution in aryltetralin lignan biosynthesis

10:45 – 11:00 am  
**Short presentation 5 (Poster 1):** Kaan Koper (University of Wisconsin-Madison, USA)  
Comprehensive characterization of multi-substrate specificity of aminotransferase family enzymes  
Break (10 min)

11:10 – 11:35 am  
**TPJ-PSNA Award presentation:** Mehran Dastmalchi (McGill University, Canada)  
A metabolic shift brought on by a lesion-mimic phenotype

11:35 - 11:40 am  
**Flash talk 1 (Poster 2):** Hannah M. Parks (Michigan State University, USA)  
Redirecting tropane alkaloid metabolism reveals pyrrolidine alkaloid diversity in *Atropa belladonna*

11:40 - 11:45 am  
**Flash talk 2 (Poster 3):** Matthew E. Bergman (University of Toronto, Canada)  
Pelargonium uses distinct subcellular compartments for the biosynthesis of cyclic and acyclic oxygenated monoterpenes

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**Symposium II: Phytochemistry at the junction of “primary” and “secondary” metabolism**

**Symposium Chair:** Nik Kovinich (York University, Canada)

11:45 am - 12:25 pm  
**Keynote talk:** Hiroshi Maeda (University of Wisconsin, USA)  
Deregulating aromatic amino acid biosynthesis in plants

12:25 - 12:40 pm  
**Short presentation 1:** Joseph H. Lynch (West Virginia University, USA)  
New evidence for an old idea: revisiting the Dual Pathway Hypothesis of aromatic amino acid biosynthesis in plants

12:40 – 12:55 pm  
**Short presentation 2:** Craig A. Schenck (University of Missouri, USA)  
Duplication and co-option of fatty acid biosynthesis leads to structurally diverse specialized metabolites in the Solanaceae

12:55 – 1:00 pm  
**Group Photo** – outside Assembly Hall

1:00 - 2:30 pm  
**Lunch** – Latham Ballroom B

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**Symposium III: Emerging approaches and applications**

**Symposium Chair:** Mark Lange (Washington State University, USA)

2:30 – 3:10 pm  
**Keynote talk:** Aleksandra Skirycz (Boyce Thompson Institute, USA)  
Functional characterization of metabolomes by identification of protein-metabolite interactions

3:10 – 3:35 pm  
**Arthur Neish Award presentation:** Monica Borghi (Utah State University, USA)  
High-energy level metabolism and transport occur at the transition from closed to open flowers  
Coffee break (20 min)

3:55 – 4:10 pm  
**Short presentation 1:** Gaurav D. Moghe (Cornell University, USA)  
Improving the interpretability of LC-MS data using computational metabolomic approaches

4:10 – 4:25 pm  
**Short presentation 2 (Poster 25):** John Cort (Pacific Northwest National Laboratory, USA)  
NP-MRD: The Natural Products Magnetic Resonance Database  
Break (10 min)

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**Symposium I (cont.): Phytochemical/specialized metabolism: Gene discovery, evolution & regulation**

**Symposium Chair:** Lucas Busta (University of Minnesota, Duluth, USA)

4:35 – 5:00 pm  
**TPJ-PSNA Award presentation:** Narayanan Srividya (Washington State University, USA)  
Outcome of catalysis by monoterpene synthases correlates with electrostatic stabilization of specific carbocation intermediates
5:00 – 5:15 pm  
**Short presentation 6:** Xing-Qi Huang *(Purdue University, USA)*  
Benzaldehyde is synthesized by a peroxisomal heterodimeric enzyme in plants

5:15 – 5:30 pm  
**Short presentation 7:** Ryan Nett *(Stanford University, USA)*  
Accelerated discovery and engineering of biosynthetic pathways for medicinal plant alkaloids

5:30 – 5:45 pm  
**Short presentation 8:** Trine Andersen *(Michigan State University, USA)*  
Modulating sorghum root microbiome via terpenoids

5:45 – 6:00 pm  
**Short presentation 9:** Nishat S. Islam *(London Research and Development Center, University of Western Ontario, Canada)*  
Old gene P with a new function: Psd, proanthocyanidin accumulation and postharvest seed coat darkening in pinto bean  
Break (10 min)

6:10 – 6:15 pm  
**Flash talk 3 (Poster 4):** Lucas Busta *(University of Minnesota, USA)*  
Preserved plant specimens as tools for exploring the evolution of biosynthetic pathways to fatty acid-derived natural products

6:15 – 6:20 pm  
**Flash talk 4:** Radin Sadre *(Michigan State University, USA)*  
Unravelling the diversity and biosynthesis of bioactive flavonoid C-glycosides in maize for crop improvement

6:20 – 6:25 pm  
**Flash talk 5 (Poster 5):** Doosan Shin *(University of Florida, USA)*  
Functional characterization of tomato flavonoid 3-O-glycosyltransferases

6:25 – 6:30 pm  
**Flash talk 6 (Poster 6):** Qingyan Meng *(Washington State University, USA)*  
Dirigent protein subfamily members as gateways to isoflavene and pterocarpan plant defenses

**Pre-recorded invited presentations in Symposium I (accessible via Guidebook):**

- **Short presentation V1:** Zhen Q. Wang *(State University of New York, Buffalo, USA)*  
Elucidating the biosynthetic pathway of digoxin in foxglove plants as essential medicines for heart disorders

- **Flash talk V1:** Praveen Khatri *(Agriculture and Agri-Food Canada, Canada)*  
Cytochrome P450 CYP81 family: ISOFLAVONE HYDROXYLASES and disease resistance in soybean

- **Flash talk V2 (Poster V1):** Kyra Dougherty *(York University, Canada)*  
Phylogeny and domain architecture of plant ribosome inactivating proteins

- **Flash talk V3 (Poster V4):** Yang Qu *(University of New Brunswick, Canada)*  
An unusual, redox-neutral reaction by a Fe(II)/α-ketoglutarate-dependent dioxygenase contributes to monoterpenoid indole alkaloid diversification in *Catharanthus roseus*

### Poster Session I and reception

6:40 – 9:00 pm  
**Poster Session I: odd numbers** - Latham CDEF  
Reception *(drinks and hors d’oeuvres)* – Latham Foyer

8:00 – 9:00 pm  
**PSNA executive committee meeting** – Draper’s Meadow room

8:30 pm  
**Early Career Trivia Night** – Macado’s, 922 University City Blvd.

### July 26 (Tuesday)

7:30 - 8:15 am  
**Breakfast** – Expanded continental breakfast outside Assembly Hall

8:15 - 8:20 am  
**Announcements**

### Symposium IV: Synthetic biology and metabolic engineering

**Symposium Chair:** Thuy Dang *(University of British Columbia, Canada)*

8:20 - 9:00 am  
**Keynote:** Alison Smith *(University of Cambridge, UK)*  
Developing microalgal platforms for production of high value compounds via synthetic biology approaches
9:00 - 9:25 am  **TPJ-PSNA Award presentation:** Zhi-Yan (Rock) Du  *(University of Hawaii at Manoa, USA)*  
Co-production of high-value biomaterials using algae-fungi symbiotic systems

Coffee break (20 min)

9:45 – 10:00 am  **Short presentation 1:** Laurence Davin  *(Washington State University, USA)*  
Realistically addressing the global biofuels/bioproducts quest from plant and algal renewables: An assessment

10:00 - 10:15 am  **Short presentation 2:** Hyojin Kim  *(University of Nebraska-Lincoln, USA)*  
Metabolic engineering of *Camelina sativa* for the sustainable astaxanthin production

10:15 – 10:30 am  **Short presentation 3:** Michael Gutensohn  *(West Virginia University, USA)*  
Epidermis-specific metabolic engineering of sesquiterpene formation in tomato affects the performance of potato aphid (* Macrosiphum euphorbiae*)

10:30 – 10:35 am  **Flash talk 1 (Poster 27):** Aaron Birchfield  *(East Tennessee State University, USA)*  
Preparation of a unique flavonol glucosyltransferase Cp3GT for crystallization

**Pre-recorded invited presentations in Symposium IV (accessible via Guidebook):**

**Short presentation V2:** Lars H. Kruse  *(University of British Columbia, Canada)*  
A bioengineered plant production system for the anti-diabetes metabolite Montbretin A

**Short presentation V3:** Soheil S. Mahmoud  *(University of British Columbia, Canada)*  
Enhancing plant essential oil production through metabolic engineering

Break (15 min)

### Symposium V: Phytochemical signaling (including growth regulation)

**Symposium Chair:** Dhirendra Kumar  *(East Tennessee State University, USA)*

10:50 – 11:30 am  **Keynote:** Gloria Muday  *(Wake Forest University, USA)*  
Flavonol antioxidants modulate reactive oxygen species signaling to control development and modulate stress responses

11:30 – 11:55 am  **Arthur Neish Award presentation:** Alexandra Jazz Dickinson  *(University of California, San Diego, USA)*  
The chemistry of development: uncovering small molecule regulators of root patterning

11:55 am – 12:10 pm  **Short presentation 1 (Poster 30):** Fabiola Muro-Villanueva  *(Purdue University, USA)*  
Pinoresinol and related dimers rescue the shoot and root growth phenotypes of phenylpropanoid mutants overexpressing FERULATE 5-HYDROXYLASE

12:10 – 12:25 pm  **Short presentation 2:** Jeongim Kim  *(University of Florida, USA)*  
Altered methionine metabolism impacts phenylpropanoid production and plant development in *Arabidopsis thaliana*

12:25 – 12:40 pm  **Short presentation 3:** Eric Brenya  *(University of Tennessee, USA)*  
Mechanisms for growth enhancement of *Arabidopsis thaliana* during recovery from ethylene treatment

12:40 – 12:45 pm  **Flash talk 1 (Poster 31):** Christina M. Jochimsen  *(Martin Luther University of Halle-Wittenberg, Germany)*  
Identification and functional characterization of the C4-ketone products of homoterpene biosynthesis in *Zea mays*

1:00 - 2:30 pm  **Lunch** (pack-your-own boxes available) – Latham Foyer  
**Early Career Workshop** – Latham B. With Ryan Anderson  *(Syngenta)*, Monica Borghi  *(Utah State University)*, Peter Bowerman  *(BASF)*, Kiel Henderson  *(Chromadex)*, Melissa Ramirez  *(North Carolina State University)*, and Martha Vaughan  *(USDA-ARS Peoria)*.

**FREE TIME** for a **hike at Mountain Lake**, a **local farm and brewery tour**, or visits to the **VT Mass Spectrometry Incubator**, the **Hahn Horticulture Garden**, **Smithfield Plantation**, the **VT American Indian and Indigenous Community Center**, or the **VT Black Cultural Center**.
### Poster Session II and reception

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>6:30 – 9:00 pm</td>
<td><strong>Poster Session II: even numbers</strong> - Latham CDEF</td>
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<td>Reception (drinks and hors d’oeuvres) – Latham Foyer</td>
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### July 27 (Wednesday)

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<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>7:30 - 8:25 am</td>
<td><strong>Breakfast</strong> – Expanded continental breakfast outside Assembly Hall</td>
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<tr>
<td></td>
<td><strong>Women’s Breakfast</strong> – Latham B</td>
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<tr>
<td>8:25 - 8:30 am</td>
<td>Announcements</td>
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### SYMPOSIA VI-VIII

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>8:30 - 9:10 am</td>
<td><strong>Symposium Chair:</strong> Georg Jander <em>(Boyce Thompson Institute, USA)</em></td>
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<td>8:30 - 9:10 am</td>
<td><strong>Keynote:</strong> Diego Salazar Amoretti <em>(Florida International University, USA)</em></td>
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<tr>
<td>9:10 - 9:25 am</td>
<td><strong>Short presentation 1:</strong> Susan R. Whitehead <em>(Virginia Tech, USA)</em></td>
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<td>9:25 – 9:40 am</td>
<td><strong>Short presentation 2:</strong> Anne F. Murray <em>(University of Tennessee, USA)</em></td>
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<td>10:00 - 10:15 am</td>
<td><strong>Short presentation 3:</strong> Fiona Goggin <em>(University of Arkansas, USA)</em></td>
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<td>10:15 – 10:30 am</td>
<td><strong>Short presentation 4:</strong> Dimitre Ivanov <em>(University of Western Ontario, Canada)</em></td>
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<tr>
<td>10:30 –10:45 am</td>
<td><strong>Short presentation 5:</strong> William Hay <em>(USDA ARS, USA)</em></td>
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**Pre-recorded invited presentations in Symposium VI (accessible via Guidebook):**

- **Short presentation V4:** Xingxing Li *(Michigan State University, USA)*
  - Documentation of saponin diversity and antifungal activity in the biofuel crop switchgrass *(Panicum virgatum)* using metabolomics
- **Short presentation V5:** Mariana Gelambi *(Virginia Tech, USA)*
  - Nutrients and fruit secondary metabolites affect bat foraging behavior and physiology
- **Flash talk V4:** Brian Ruether *(Virginia Tech, USA)*
  - Assessing the effects of volatile repellents on the invasive spotted lanternfly, *Lycorma delicatula* (White)
- **Flash talk V5 (Poster V10):** Tene Tayo Paul Martial *(University of Yaoundé I, Cameroon)*
  - Formulation of biostimulant from *Thevertia peruviana* and *Tithonia diversifolia*: evaluation its antimicrobial activities against *Phytophthora infestans*, the causal agent of late blight disease on tomato

### Symposium VI: Phytochemical diversity in plant-organismal interactions

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<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>11:15 – 11:55 am</td>
<td><strong>Symposium Chair:</strong> Martha Vaughn <em>(USDA-ARS, Peoria)</em></td>
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<td>11:15 – 11:55 am</td>
<td><strong>Keynote:</strong> Tom Sharkey <em>(Michigan State University, USA)</em></td>
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<tr>
<td>11:55 am – 12:20 pm</td>
<td><strong>Arthur Neish Award presentation:</strong> Kira Tiedge <em>(University of Groningen, The Netherlands)</em></td>
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<td>Identification of novel diterpenoids for sustainable agriculture and increased drought tolerance of switchgrass <em>(Panicum virgatum)</em></td>
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</table>
12:20 – 12:35 pm  **Short presentation 1:** Norman G. Lewis  *(Washington State University, USA)*
Integrated multi-omics analyses of lignin-reduced Arabidopsis lines on the International Space Station

12:35 – 12:50 pm  **Short presentation 2:** Boaz Negin  *(Weizmann Institute of Science, Israel)*
Cuticular wax composition is essential for plant recovery following drought with little effect under optimal conditions

12:50 – 1:05 pm  **Short presentation 3:** Cherryl Quiñones  *(Arkansas State University, USA)*
Assessing the role of ascorbate of a Rice Diversity Panel to high night temperature stress tolerance

1:05 – 1:10 pm  **Flash talk 1 (Poster 44):** Kharla Mendez  *(Arkansas State University, USA)*
Carbohydrates reserve: A promising phenotypic marker for high night temperature stress tolerance in rice

**Pre-recorded invited presentations in Symposium VII (accessible via Guidebook):**

**Short presentation V6:** Peter Knut Lundquist  *(Michigan State University, USA)*
A novel protein family regulates drought tolerance and flowering time through effects on lipid metabolism

1:15 - 2:30 pm  **Lunch** (Latham B) / **Graduate student workshop** - Drillfield Room, The Inn second floor. With Lucas Busta  *(University of Minnesota, Duluth)*, Inga Haugen  *(Virginia Tech)*, Susan Whitehead  *(Virginia Tech)*, Alyssa Rametta  *(Virginia Tech)*, and Philipp Zerbe  *(University of California, Davis)*

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**Symposium VIII: Phytochemistry of functional foods and bioactive natural compounds**

**Symposium Chair:** Argelia Lorence  *(Arkansas State University, USA)*

2:30 – 3:10 pm  **Keynote speaker:** Jessica Cooperstone  *(Ohio State University, USA)*
Understanding and modifying crop phytochemical profiles to enhance human health

3:10 – 3:35 pm  **TPJ-PSNA Award speaker:** Thu Thuy Dang  *(University of British Columbia, Canada)*
Plant-based anticancer drugs - from discovery to final products

Coffee break (20 min)

3:55 – 4:10 pm  **Short presentation 1:** Jan Frederik Stevens  *(Oregon State University, USA)*
Targeting the gut-liver-brain axis with hop-derived flavonoids improves lipid metabolism and cognitive performance in mice

4:10 – 4:25 pm  **Short presentation 2:** Lisard Iglesias-Carres  *(North Carolina State University, USA)*
Whole artichokes and their polyphenol extracts inhibit trimethylamine formation in an *ex vivo-in vitro* colonic model

4:25 – 4:40 pm  **Short presentation 3:** Bernd Markus Lange  *(Washington State University, USA)*
Beyond the high – Recent progress with bringing cannabis to the research mainstream

4:40 – 4:55 pm  **Short presentation 4:** Kiel Henderson  *(Chromadex, USA)*
Reference standards and considerations for research and development projects

Break (5 min)

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**Business Meeting / Reception / Banquet / Awards Ceremony**

5:00 – 5:45 pm  **PSNA Business Meeting**

6:30 - 7:30 pm  **Reception** with **Bluegrass Duo, Watkins & Small** – Latham Foyer; **posters remain up for discussion until 7:30 pm** – Latham CDEF

7:30 – 9:00 pm  **Conference Banquet** - Latham AB

**2020 PSNA Phytochemical Pioneer Award Presentation:** Daneel Feirrera  *(University of Mississippi, USA)*

Award Ceremony (Pioneer, Life Membership, Neish, TPJ/PSNA, Travel, and Flash talk/Poster Presentation Awards)

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**July 28 (Thursday)**  **SYMPOSIA VIII (continued) & IX**
7:30 - 8:25 am  **Breakfast** – Expanded continental breakfast outside Assembly Hall
8:25 - 8:30 am  **Announcements**

### Symposium VIII (cont.): Phytochemistry of functional foods and bioactive natural compounds

**Symposium Chair:** Bjoern Hamberger *(Michigan State University, USA)*

8:30 – 8:45 am  **Short presentation 5:** Jyoti Behera *(East Tennessee State University, USA)*
Synthesizing heart-healthy oil in plants utilizing oil biosynthesis machinery in avocado

8:45 – 9:00 am  **Short presentation 6:** Yewseok Kevin Suh *(High Point University, USA)*
Dietary phytochemical erucin induces apoptosis through suppression of mTOR signaling pathway in cervical cancer cells

9:00 – 9:15 am  **Short presentation 7:** Bao-Hua Song *(University of North Carolina, Charlotte, USA)*
Unravelling the genetic basis of glyceollin induction in wild soybean

9:15 – 9:30 am  **Short presentation 8:** Daniel Owens *(University of Hawai‘i at Manoa, USA)*
Biosynthesis and utilization of plant natural products

**Pre-recorded invited presentations in Symposium VIII (accessible via Guidebook):**

**Short presentation V7:** De-Yu Xie *(North Carolina State University, USA)*
Plant flavonoids are a potential answer to interfere COVID-19: Green tea flavonoids, a powerful example

**Short presentation V8:** Li Tian *(University of California, Davis, USA)*
Dissecting carotenoid metabolism in wheat using a suite of TILLING mutants and mutant combinations

**Flash talk V6 (poster V11):** Salvador Cruz Matus *(North Carolina State University, USA)*
The effect of different photosynthetic photon flux densities on CBDA production in Cannabis sativa

Coffee break (20 min)

### Symposium IX: Beyond plants: Specialized metabolism in microbes and animals

**Symposium Chair:** Dorothea Tholl *(Virginia Tech, USA)*

9:50 - 10:30 am  **Keynote speaker:** Paolina Garbeva *(Netherlands Institute of Ecology)*
The role of volatile compounds in belowground microbial interactions

10:30 – 10:45 am  **Short presentation 1:** Immo Burkhardt *(Scripps Institution of Oceanography, USA)*
Biosynthetic origin of octocoral terpenoids

Break (15 min)

11:00 – 11:15 am  **Short presentation 2:** Feng Chen *(University of Tennessee, USA)*
Biosynthesis and function of volatile terpenoids in the social amoeba Dictyostelium

11:15 – 11:30 am  **Short presentation 3:** Zarley Rebholz *(Virginia Tech, USA)*
Learning old tricks from a new bug: the ancient origins of terpene synthases in the invasive stink bug, Halymorpha halys and other hemipteran insects

11:30 – 11:45 am  **Short presentation 4:** Anne Jones *(Virginia Tech, USA)*
The effect of caterpillar oral secretions on green leaf volatile (GLV) emission

11:45 am – 12:00 pm  Break (15 min)

12:00 pm  Announcement of best oral presentation awards (students & postdocs)

12:15 pm  Closing remarks (virtual) and Adjourn

Li Tian *(University of California, Davis, USA)*
*Incoming President, Phytochemical Society of North America*