

**American Council for Medicinally Active Plants  
(ACMAP)  
Clemson University, Clemson, SC**

**Program**

<b>Tuesday - June 20, 2017</b>		
<b>1:00 pm - 4:00 pm</b>	<b>Southern Appalachian Herbal Medicine Preparation Hands-on Workshop (Additional Fee)</b> Phyllis Light (Appalachian Center for Natural Health)	<b>South Carolina Botanical Garden Hayden Center</b>
<b>2:00 pm – 5:00pm</b>	<b>Registration</b>	<b>Madren Center Connector (Madren Inn Side)</b>
<b>4:45 pm – 5:45 pm</b>	<b>Board of Directors Meeting</b>	<b>South Carolina Botanical Garden Discovery Center Upstairs Executive Conference Suite</b>
<b>6:00 pm - 7:00 pm</b>	<b>Registration and Reception</b> Heavy hors d'oeuvres will be served	<b>South Carolina Botanical Garden Discovery Center</b>
<b>7:00 pm</b>	<b>An Evening with Patrick McMillan, Ph.D.</b> Director South Carolina Botanical Garden, Producer, host, writer, director and co-editor of the Emmy award-winning television program "Expeditions with Patrick McMillan" aired on PBS	<b>South Carolina Botanical Garden Discovery Center</b>
<b>Wednesday – June 21 Madren Conference Center</b>		
<b>7:30 am – 10:30 am</b>	<b>Registration</b> <b>Exhibitors Table Set-Up (Room 132)</b> <b>Set Up Posters</b> <b>Professionals (Room 132)</b> <b>Graduate Students (North Lobby)</b> <b>Undergraduates (Auditorium Lobby)</b>	<b>Auditorium Lobby</b>
<b>8:30 am</b>	<b>Opening</b>	<b>Auditorium</b>
<b>9:00 am</b>	<b>Plenary: James Simon, Ph.D. (Rutgers University)</b> <b>Out of Africa</b>	<b>Auditorium</b>
<b>10:00 am</b>	<b>Break</b> <b>Graduate Student Poster Competition</b> <b>Erika Pambianchi (North Carolina State University)</b> <b>Niroshan Siva (Clemson University)</b>	<b>Room 132 Seminar Room II (Room 130)</b>

<b>Wednesday – June 21 Madren Conference Center</b>	
<b>10:30 am</b>	<p><b>Session 1 – Joint Session</b> <span style="float: right;"><b>Auditorium</b></span>  <b>Chairs:</b> Rao Mentreddy, Ph.D. (Alabama A &amp; M)  Jeanine Davis, Ph.D. (North Carolina State University)</p> <p><b>10:30 Merle Zimmerman</b> (American Herbal Products Association)  <b>State of the Industry: An overview of medicinal plants, their consumers, and the United States’ marketplace</b></p> <p><b>11:15 Mark Blumenthal</b> (Founder and Executive Director, American Botanical Council, Editor-in-Chief, <i>HerbalGram &amp; HerbClip</i>)  <b>Adulteration of Botanicals and Their Extracts: A Status Report on the ABC-AHP-NCNPR Botanical Adulterants Program</b></p>
<b>12:00 Noon</b>	<p><b>Lunch</b> <span style="float: right;"><b>Madren Ballroom</b></span>  <b>Speaker:</b> David Newman, D. Phil. (Former Director of Natural Products Section, National Cancer Institute)  <b>Endophytes as the “true source” of important medicinal plant products</b></p>
<b>1:15 pm</b>	<p><b>Session 2a – Growing the Crops</b> <span style="float: right;"><b>Auditorium</b></span>  <b>Chair:</b> Jeanine Davis, Ph.D. (North Carolina State University)</p> <p><b>1:15 Ronald Ross</b> (Garnay Inc.)  <b>Garnay Inc. – Ginkgo biloba production in Sumter, SC.</b></p> <p><b>1:35 Randy Beavers</b> (OrganiPharm)  <b>Goldenseal: One Plant’s Journey from Endangered Species to Botanical Drug</b></p> <p><b>1:55 Jim Hamilton, Ph.D.</b> (North Carolina State Extension, NC State University)  <b>Spreading the ginseng gospel: case study in production and landowner education</b></p> <p><b>2:15 Jeanine Davis, Ph.D.</b> (North Carolina State University)  <b>Growing a Hop Industry in the Southeast</b></p>
<b>1:15 pm</b>	<p><b>Session 2b - Food Biotechnology</b> <span style="float: right;"><b>Seminar Room II (Room 130)</b></span>  <b>Chair:</b> Kalidas Shetty, Ph.D. (North Dakota State University)</p> <p><b>1:15 Kalidas Shetty, Ph.D.</b> (North Dakota State University)  <b>Metabolic Innovations for Food Microbiome to Advance Global Food Security and Health</b></p> <p><b>1:35 Fabricio Medina-Bolivar, Ph.D.</b> (Arkansas State University)  <b>Biosynthesis and Enhanced Production of Functional Ingredients in Hairy Root Cultures of Peanut</b></p> <p><b>1:55 Dipayan Sarkar, Ph.D.</b> (North Dakota State University)  <b>Climate Resilient Metabolic Strategies for Improving Medicinally Active Food Plants</b></p> <p><b>2:15 Xiaoyan Chen, Ph.D.</b> (College of Pharmacy, Medical University of South Carolina)  <b>Drug Leads from the Human Microbiome and the Impact of Plant Secondary Metabolites their Production</b></p>
<b>2:45 pm</b>	<p><b>Break</b> <span style="float: right;"><b>Room 132</b></span>  <b>Graduate and Undergraduate Student Poster Competition</b> <span style="float: right;"><b>Seminar Room II (Room 130)</b></span>  <b>Lindsay Caesar</b> (University of North Carolina - Greensboro)  <b>Victoria Willis</b> (Clemson University)  <b>Justin Stempin</b> (University of North Carolina - Greensboro - Undergraduate)</p>

<b>Wednesday – June 21 Madren Conference Center</b>		
<b>3:15 pm</b>	<b>Session 3a - Processing, Quality, Sourcing</b> <b>Chair: Jeanine Davis, Ph.D. (North Carolina State University)</b>  <b>3:15 Ed Fletcher (Herbal Ingenuity, Director of Quality and Sustainability)</b> <b>Global Botanical Sourcing: Social, Quality and Regulatory Changes Through the Years...</b> <b>3:45 Bill Chioffi (Gaia Herbs, Vice President of Global Sourcing)</b> <b>Vertical Integration of Raw Material Sourcing and Herbal Medicine Manufacturing</b> <b>4:15 Kurt Young (Nutra Manufacturing/GNC)</b> <b>Quality Testing/Assurance of Botanicals in Dietary Supplements: An Industry Perspective</b>	<b>Auditorium</b>
<b>3:15 pm</b>	<b>Session 3b - Cosmeceutical, Wound Healing, Dermatologic</b> <b>Chair: Mary Ann Lila, Ph.D. (North Carolina State University)</b>  <b>3:15 Stefano Manfredini, Ph.D. (University of Ferrara, Italy)</b> <b>Botanical photo-protection alternatives to synthetic UV filters</b> <b>3:45 Charles Gray (EnDev Labs / EI Pharmaceuticals)</b> <b>Regulatory Considerations for Therapeutic Cosmetic Products</b> <b>4:00 Alessandra Pecorelli, Ph.D. (North Carolina State University)</b> <b>Evaluation of protective effects of topical vitamin C compound mixtures against ozone-induced damage in different cutaneous models</b> <b>4:15 Mary Ann Lila, Ph.D. (North Carolina State University)</b> <b>Skin repair/healing properties of arctic berries</b>	<b>Seminar Room II (Room 130)</b>
<b>4:45 pm</b>	<b>Pictures and Break</b>	<b>Madren Courtyard Garden</b>
<b>5:15 pm</b>	<b>Tours: Poole, Life Sciences, Biotechnology Research Complex and Greenhouses (Load buses by the Auditorium Lobby)</b>	
<b>6:30 pm</b>	<b>Dinner: On your own - Downtown or Sole on the Green (Restaurant in the Madren Center)</b>	
<b>Thursday, June 22 Madren Conference Center</b>		
<b>8:00 am – 10:00 am</b>	<b>Registration</b>	<b>North Lobby</b>
<b>8:30 am</b>	<b>Session 4a – Functional Foods</b> <b>Chair: Bhimu Patil, Ph.D. (Texas A&amp;M University)</b>  <b>8:30 Bhimu Patil, Ph.D. (Texas A&amp;M University)</b> <b>Healthy Functional Foods: Effects of Processing and Storage on Health-Promoting Molecules</b> <b>9:10 Dilrukshi Thavarajah, Ph.D. (Clemson University)</b> <b>Pulses as Whole Food Solution to Global Health Challenges</b> <b>9:35 Sun-Ok Lee, Ph.D. (University of Arkansas-Fayetteville)</b> <b>Health effects of grain sorghum</b>	<b>Auditorium</b>

<b>Thursday, June 22 Madren Conference Center</b>	
<b>8:30 am</b>	<p style="text-align: center;"><b>Session 4b – Environments for High Value Plants and Fungi</b> <span style="float: right;"><b>Seminar Room II (Room 130)</b></span>  <b>Chair: Gary Stutte, Ph.D. (SyNRGE LLC)</b></p> <p><b>8:30 Gary Stutte, Ph.D. (SyNRGE LLC)</b>  <b>Increasing Production of Phytochemicals in Controlled Environments</b></p> <p><b>9:00 Byoung Ryong Jeong, Ph.D. (Institute of Agriculture and Life Science, Gyeongsang National University, Korea)</b>  <b>Evaluation and Elicitation of Secondary Metabolites by Light Quality in Micropropagated Clones of <i>Scrophularia kakudensis</i></b></p> <p><b>9:20 Tradd Cotter (Mushroom Mountain Research Facility)</b>  <b>Environmental Influence on Medicinal Fungi: Research Focus at Mushroom Mountain LLC</b></p> <p><b>9:40 Rabia El-Hawaz, Ph.D. (Clemson University)</b>  <b>In vitro mineral nutrition of turmeric rhizomes effects subsequent essential oil production in the greenhouse</b></p>
<b>10:00 am</b>	<p style="text-align: center;"><b>Break</b> <span style="float: right;"><b>Room 132</b></span>  <b>Undergraduate Student Poster Competition</b> <span style="float: right;"><b>Seminar Room II (Room 130)</b></span>  <b>Nolan Barrett (Medical University of South Carolina)</b>  <b>Katlynn Murphy (Clemson University)</b>  <b>Emily Wallace (University of North Carolina - Greensboro)</b></p>
<b>10:30 am</b>	<p style="text-align: center;"><b>Session 5a - Transforming Traditional Botanical Medicine into Precision Medicines</b> <span style="float: right;"><b>Auditorium</b></span>  <b>Chair: Mark Hamann, Ph.D. (College of Pharmacy, Medical University of South Carolina)</b></p> <p><b>10:30 Susan Mooberry, Ph.D. (Greehey Distinguished Chair of Targeted Molecular Therapeutics, UT Health San Antonio)</b>  <b>New Microtubule Stabilizers with Anticancer Potential from Higher Plants</b></p> <p><b>10:55 Yuewei Guo, Ph.D. (Professor at the Shanghai Institute of Materia Medica, Chinese Academy of Sciences)</b>  <b>Exploring for bioactive natural products from Chinese mangroves</b></p> <p><b>11:20 Shan He, Ph.D. (Drug Development, Ningbo University, China)</b>  <b>Discovery and Development of the Karlotoxin Class in Precision Oncology</b></p> <p><b>11:45 Ivett Pina, Ph.D. (College of Pharmacy, Medical University of South Carolina)</b>  <b>Natural Products from the Endangered Plant <i>Microbiome Echinoscactus grusonii</i></b></p>
<b>10:30 am</b>	<p style="text-align: center;"><b>Session 5b – Anti-inflammatory, Anti-oxidant, Anti-cancer</b> <span style="float: right;"><b>Seminar Room II (Room 130)</b></span>  <b>Chairs: Feng Chen, Ph.D. (Clemson University)</b>  <b>Kevin Zhou, Ph.D. (Wayne State University)</b></p> <p><b>10:30 Kevin Zhou, Ph.D. (Wayne State University)</b>  <b>Development of grape skin components for diabetes management by targeting postprandial hyperglycemia</b></p> <p><b>11:00 Anait S. Levenson, M.D., Ph.D. (Long Island University)</b>  <b>miRNA-mediated cancer chemoprevention and therapy by dietary stilbenes</b></p> <p><b>11:20 Mary H. Grace, Ph.D. (North Carolina State University)</b>  <b>One-step isolation of carnosic acid and carnosol from rosemary by centrifugal partition chromatography</b></p> <p><b>11:40 Haihui Xie, Ph.D. (South China Botanical Garden, Chinese Academy of Sciences)</b>  <b>Bioactive compounds from strawberry and star fruit</b></p>

<b>Thursday, June 22 Madren Conference Center</b>	
<b>12:00 Noon 1:00 pm</b>	<b>Lunch Poster Session (Authors to be present with their posters)</b>  <b>Madren Pavilion</b>
<b>2:00 pm</b>	<b>Session 6a – Breeding, Germplasm and Genomic Tools</b> <b>Chair: Jeff Adelberg, Ph.D. (Clemson University)</b>  <b>2:00 Toni Kutchan, Ph.D. (Donald Danforth Center)</b> <b>Production of terpenes in <i>Camelina sativa</i> oilseed</b> <b>2:30 Massimo Iorizzo, Ph.D. (North Carolina State University)</b> <b>Genetic and genomic approaches to link anthocyanin genetics and nutrigenomics in specialty crops</b> <b>2:50 Joe-Ann McCoy, Ph.D. (North Carolina State Arboretum)</b> <b>Utilizing Germplasm Repositories for Collaborative Research</b> <b>3:10 James Simon, Ph.D. (Rutgers University)</b> <b>Breeding Basil</b>  <b>Auditorium</b>
<b>2:00 pm</b>	<b>Session 6b – Antibiotic, Antimicrobials</b> <b>Chair: Anthony Pometto Ph.D. (Clemson University)</b>  <b>2:00 Jeremy Tzeng, Ph.D. (Clemson University)</b> <b>Antimicrobial and Anti-Efflux Properties of Goldenseal (<i>Hydrastis canadensis</i>)</b> <b>2:30 Armitra Jackson-Davis, Ph.D. (Alabama A&amp;M University)</b> <b>Use of Natural Antimicrobials in the Food Industry</b> <b>2:50 Anthony Pometto Ph.D. (Clemson University)</b> <b>Rapid Screening of Natural Plant Extracts with Calcium Diacetate for Differential Effects Against Foodborne Pathogens and a Probiotic Bacterium</b> <b>3:10 Oleg Maksimov, Ph.D. (American College of Healthcare Sciences)</b> <b>Essential Oils as Natural Preservatives – Future of Food Industry?</b>  <b>Seminar Room II (Room 130)</b>
<b>3:30 pm</b>	<b>Break</b>  <b>Room 132</b>
<b>4:00 pm</b>	<b>Session 7a - Ethnobotanic Healers</b> <b>Chairs: Rao Mentreddy, Ph.D. (Alabama, A&amp;M)</b> <b>Jeanine Davis, Ph.D. (North Carolina State University)</b> <b>Jeff Adelberg, Ph.D. (Clemson University)</b>  <b>4:00 Nomi Gallo (Ayurvedic Center for Healing Life and Longevity)</b> <b>Ayurvedic Herbal Practice</b> <b>4:30 Phyllis Light (Appalachian Center for Natural Health)</b> <b>Southern and Appalachian Folk Medicine</b> <b>5:00 Hong Zhang (Greenville Health System)</b> <b>Traditional Chinese Medicine and Acupuncture</b>  <b>Auditorium</b>

<b>Thursday, June 22 Madren Conference Center</b>	
<b>4:00 pm</b>	<p><b>Session 7b - Validation of Activity of a Single Compound vs. Multi-compound in an Extract</b> <span style="float: right;"><b>Seminar Room II (Room 130)</b></span>  <b>Chairs: Agnes Rimando, Ph.D. (USDA)</b>  <b>Fabricio Medina-Bolivar, Ph.D. (Arkansas State University)</b></p> <p><b>4:00: Chun-Tao Che, Ph.D. (University of Illinois at Chicago)</b>  <b>Metabolite profiling: Applications in quality assessment and bioactivity evaluation of herbal extracts</b></p> <p><b>4:30: Bill Gurley, Ph.D. (University of Arkansas for Medical Sciences)</b>  <b>Emerging Technologies for Improving Phytochemical Bioavailability: Benefits and Risks</b></p> <p><b>5:00: Joshua Kellogg, Ph.D. (University of North Carolina-Greensboro)</b>  <b>Complex mixture, complimentary activities: Multi-target bacterial inhibition by the medicinal lichen <i>Usnea barbata</i></b></p>
<b>5:30 pm</b>	<p><b>Break</b> <span style="float: right;"><b>Room 132</b></span></p>
<b>5:30 pm</b>	<p><b>Board Meeting</b> <span style="float: right;"><b>Seminar Room II (Room 130)</b></span>  <b>Judges get together</b></p>
<b>7:00 pm</b>	<p><b>Business, Bluegrass, Banquet and Awards</b> <span style="float: right;"><b>Madren Pavilion</b></span></p>
<b>Friday – June 23</b>	
<b>8:00 am – 5:30 pm</b>	<p><b>Bus Tour: (Load buses by the Auditorium Lobby) (Additional Fee)</b>  <b>9:30 - 11:30 Gaia</b>  <b>12:00 - 2:30 Lunch and North Carolina Arboretum</b>  <b>4:00 - 5:15 Mushroom Mountain</b>  <b>5:30 - Arrive Back at Clemson</b></p> <p><b>*If requested there will be a drop at the Asheville airport at 3:00 pm or the Greenville – Spartanburg Airport at 4:00 pm.</b></p>