

12th Annual ACMAP Conference 2023
Scientific Program (October 18 - 21, 2023)

Times are in Eastern Standard Time (EST)

Day 1: October 18, 2023 (Wednesday)

West Virginia State University Campus

Registration and plenary talk: Davis Fine Arts (Building 8 on the map)

Reception: Wilson Student Union (Building 5 on the map)

Shuttle vans will run every 10-15 minutes from the assigned Wyndham and Holiday Inn hotels to the university between 3:30 pm and 5 pm. Return from the university to the hotels will be between 7:30 pm and 8:30 pm.

2:00 PM – 6:00 PM		Registration
4:30 PM – 5:00 PM	Welcome	Host , West Virginia State University, Micheal Fultz President , West Virginia State University President , ACMAP, Nirmal Joshee Executive Director , ACMAP, Fabricio Medina-Bolivar Chair & Co-chair of ACMAP Conference 2023 Umesh Reddy and Sun-Ok Lee
5:00 PM – 6:00 PM	Plenary	Cassandra L. Quave Department of Dermatology: School of Medicine Center for the Study of Human Health: Emory College of Arts and Sciences Emory University Herbarium Emory University, USA O1. Ethnobotany as a Tool for Targeted Discovery of Bioactive Natural Products
6:15 PM – 7:30 PM	Reception	Cultural event and dinner
7:30 PM – 8:00 PM	Meeting	ACMAP Board Meeting

Day 2: October 19, 2023 (Thursday)

West Virginia State University Campus

Registration and sessions I-IV: Davis Fine Arts (Building 8 on the map)

Lunch: Wilson Student Union (Building 5 on the map)

Poster session and book signing: Wilson Student Union (Building 5 on the map)

Shuttle vans will run every 10-15 minutes from the assigned Wyndham and Holiday Inn hotels to the university between 7:30 am and 8:30 am. Return from the university to the hotels will be between 6:30 pm and 7:30 pm.

8:00 AM – 8:30 AM	Registration	
	Session I	Ethnobotany, Bioprospecting, and Production
	Chair	Rebecca Linger University of Charleston, USA
	Co-chair	Emily Merchant Rutgers University, USA
8:30 AM – 9:00 AM	Keynote	Srinivasa Rao Mentreddy Alabama A&M University, USA

		O2. Developing Turmeric as a High-Value Medicinal Crop in Alabama
9:00 AM – 9:20 AM	Invited I	Rebecca Linger University of Charleston, USA O3. The Pharmacognostical History of the Appalachian May Apple
9:20 AM – 9:40 AM	Invited II	Nirmal Joshee Fort Valley State University, USA O4. Efforts in Bioprospecting <i>Scutellaria</i>: A Little Known Genus of about 400 Species
9:40 AM – 9:55 AM	Oral I	Chhandak Basu California State University, USA O5. Molecular Physiological Analyses of Turmeric (<i>Curcuma longa</i>) under Various Environmental Stresses
9:55 AM – 10:10 AM	Oral II	Savannah G. Anez Pennsylvania State University, USA O6. Phytochemical and Ethnobotanical Investigations of Ghost Pipe (<i>Monotropa uniflora</i>), a North American Medicinal Plant
10:10 AM – 10:30 AM	Coffee Break	
	Session II	Chemistry of Medical Plants
	Chair	Micheal Fultz West Virginia State University, USA
	Co-chair	Joshua Kellogg Pennsylvania State University, USA
10:30 AM – 11:00 AM	Keynote	Liva Rakotondraibe Ohio State University, USA O7. Exploring Californian Lichens and Their Mycobionts for Bioactive Compounds
11:00 AM – 11:20 AM	Invited I	Warren Vidar University of North Carolina at Greensboro, USA O8. New Strategies for Natural Product Discovery with Interaction Metabolomics
11:20 AM – 11:40 AM	Invited II	Gregory Dudley West Virginia University, USA O9. Synthetic Analogues of Illudalic Acid from the Eastern Jack O' Lantern Mushroom
11:40 AM – 12:00 PM	Invited III	Prabodh Satyal Aromatic Plant Center, USA O10. Everything about Methyl Salicylate
12:00 PM – 12:15 PM	Oral	Xiaoling Chen Pennsylvania State University, USA O11. Unlocking Novel Ligand-Receptor Associations from Medicinal Plants and Fungi Using Untargeted Metabolomics, Molecular Networking, Docking and Data Mining
12:15 PM – 1:10 PM	Lunch (Cafeteria – Wilson Student Union)	

	Session III	Production Strategies for Medicinal Biomass and Bioactive Compounds
	Chair	Nirmal Joshee Fort Valley State University, USA
	Co-chair	Barbara Liedl West Virginia State University, USA
1:10 PM – 1:40 PM	Keynote	Gary W. Stutte SyNRGE, LLC, USA O12. Plants in Space: Enabling Health on Earth
1:40 PM – 2:00 PM	Invited I	Fabricio Medina-Bolivar Arkansas State University O13. Hairy Root Culture: A Sustainable Approach for High-Level Production of Bioactive Compounds
2:00 PM – 2:20 PM	Invited II	Bipul Biswas Fort Valley State University, USA O14. Enhancing Health Benefits: Investigating Brix% of Specialty Crops
2:20 PM – 2:35 PM	Oral I	Poonam Khatri Fort Valley State University, USA O15. Silicon Priming and <i>in vitro</i> Morphology Improvement of Three Medicinal <i>Scutellaria</i> spp.
2:35 PM – 2:50 PM	Oral II	Sramika Rijal Timilsina Fort Valley State University, USA O16. Sterilization, Explant Selection, and Media Optimization for the Micropropagation of Highly Nutraceutical <i>Aronia</i> spp.
2:50 PM – 3:10 PM	Coffee Break	
	Session IV	Hemp and Medical Cannabis
	Chair	Diana Roopchand Rutgers University, USA
	Co-chair	Aruna Weerasooriya Prairie View A&M University, USA
3:10 PM – 3:40 PM	Keynote	Wesley M. Raup-Konsavage Penn State University, USA O17. Antinociceptive Effects of Cannabichromene in Animal Pain Models
3:40 PM – 4:00 PM	Invited I	Abdul Khan University of Houston, USA O18. Microbiome Diversity of Industrial Hemp CBD and Fiber Genotypes
4:00 PM – 4:20 PM	Invited II	Michael Gutensohn West Virginia University, USA O19. Regulation of the Cannabinoid and Terpene Metabolic Network in Industrial Hemp (<i>Cannabis sativa</i>)
4:20 PM – 4:35 PM	Invited III	Manohar Chakrabarti University of Texas Rio Grande Valley, USA O20. Early Sex-Determination in Hemp using Transcriptomic Analysis

4:35 PM – 4:50 PM	Oral I	Tomiwa Oyedukun Rutgers University, USA O21. Untargeted Lipidomics of Liver Tissues from CBD-treated Estrogen Deficient and Sufficient Mice
5:00 PM – 7:00 PM	Poster Presentation & Dr. Cassandra Quave (Book Signing)	

Day 3: October 20, 2023 (Friday)

West Virginia State University Campus

Registration and sessions V-VIII: Davis Fine Arts (Building 8 on the map)

Lunch: Wilson Student Union (Building 5 on the map)

Gala Dinner: Wilson Student Union (Building 5 on the map)

Shuttle vans will run every 10-15 minutes from the assigned Wyndham and Holiday Inn hotels to the university between 7:30 am and 8:30 am. Return from the university to the hotels will be between 5:30 pm and 6:30 pm and after the Gala Dinner between 8 pm and 8:30 pm.

8:00 AM – 8:30 AM	Registration	
	Session V	Bioactive Compounds of Plants and Their Roles in Human Health I – Cancer
	Chair	Gerald Hankins West Virginia State University, USA
	Co-chair	Anait S. Levenson Long Island University, USA
8:30 AM – 9:00 AM	Keynote	Gary O. Rankin Marshall University, USA O22. Searching Nature for the Cure
9:00 AM – 9:20 AM	Invited I	Yuanyuan (Rose) Li University of Maryland, USA O23. Soy Isoflavone Genistein Reboots Targeted Therapy Sensitivity in Triple Negative Breast Cancer
9:20 AM – 9:40 AM	Invited II	Anait S. Levenson Long Island University, USA O24. Current Advances of Dietary Stilbenes as Targeted Anticancer Agents for Cancer Prevention and Therapy
9:40 AM – 9:55 AM	Oral I	Yi Charlie Chen West Virginia Wesleyan College, USA O25. The Bioactive Natural Compound, Theaflavin and Cancer
9:55 AM – 10:10 AM	Oral II	Tamer E. Fandy University of Charleston O26. TET Enzymes are Novel Epigenetic Target for Curcuminoids in Leukemia Cells
10:10 AM – 10:30 AM	Coffee Break	

	Session VI	Bioactive Compounds of Plants and Their Roles in Human Health II – Inflammatory Diseases and Beyond (IV)
	Chair	Andrea Doseff Michigan State University, USA
	Co-chair	Jeremy Johnson University of Illinois at Chicago, USA
10:30 AM – 11:00 AM	Keynote	Jan Claesen Cleveland Clinic Lerner College of Medicine, USA O27. Gut Microbial Metabolism of Dietary Polyphenols in Health and Disease
11:00 AM – 11:20 AM	Invited I	Chendil Damondaran Texas A&M University, USA O28. Dietary Intervention of Castration-resistant Prostate Cancer
11:20 AM – 11:40 AM	Invited II	Andrea Doseff Michigan State University, USA O29. Flavone Apigenin Triggers Transcriptome Reprogramming Reducing Inflammation through Its Association with Novel Protein Target
11:40 AM – 11:55 AM	Oral I	Samantha D. Belcher West Virginia State University, USA O30. Dietary Curcumin Intake and Its Effects on the Transcriptome and Metabolome of <i>Drosophila melanogaster</i>
11:55 AM – 12:10 PM	Oral II	Jeffrey Douyere Rutgers University, USA O31. Human-derived <i>Lactobacillus</i> Strains may Deconjugate Estrogens
12:10 PM – 1:00 PM	Panel Discussion (USDA) Dr. Venu (Kal) Kalavacharla (USDA-NIFA)	
1:00 PM – 2:00 PM	Lunch (Cafeteria – Wilson Student Union)	
	Session VII	Plant and Algae Derived Cosmeceuticals and Nutraceuticals
	Chair	Alok Arun Interamerican University of Puerto Rico – Barranquitas, Puerto Rico
	Co-chair	Eyas Mahmoud West Virginia State University, USA
2:00 PM – 2:35 PM	Keynote	Ira "Ike" Levine Algae Foundation, University of Southern Maine, USA O32. Take a Deep Breath and Thank the Algae
2:35 PM – 3:00 PM	Invited I	Umesh Reddy West Virginia State University, USA O33. Exploration into Natural Variation Associated with Nutraceuticals and Cosmeceuticals in <i>Capsicum chinense</i>
3:00 PM – 3:25 PM	Invited II	Thomas H Terrill Fort Valley State University O34. Research on Nutraceutical Properties on Sericea Lespedeza by the American Consortium for Small Ruminant Parasite Control

3:25 PM – 3:40 PM	Oral I	Gaurav Gajurel Arkansas State University, USA O35. Production of a Prenylated Stilbene-Rich Extract from Elicited Hairy Root Cultures of Peanut and Assessment of its Bioactivities for Human Health Applications
3:40 PM – 4:00 PM	Coffee Break	
	Session VIII	Plant-based Antimicrobials
	Chair	Srinivasa Rao Mentreddy Alabama A&M University, USA
	Co-chair	Padma Nimmakayala West Virginia State University, USA
4:00 PM – 4:30 PM	Keynote	Kadiatou Keita Yale University, USA O36. Bioactive Components of Medicinal Plants and their Effects on Antibiotic-resistant Human Pathogenic Bacteria
4:30 PM – 4:50 PM	Invited I	Vagner A. Benedito West Virginia University, USA O37. The Biosynthesis and Regulation of the Anti-malarial Artemisinin in <i>Artemisia annua</i> (Asteraceae)
4:50 PM – 5:10 PM	Invited II	Amita Kaundal Utah State University, USA O38. Antimicrobial Activities of the Crude Extract of Leaf, Flower, and Twig of <i>Artemisia tridentata</i>
5:10 PM – 5:25 PM	Oral I	Srinivasa Rao Mentreddy Alabama A&M University, USA O39. Variation among <i>Ocimum</i> Species for Antimicrobial Activity against <i>Escherichia coli</i> and <i>Streptococcus pyogenes</i>
5:25 PM – 6:30 PM		<i>Networking time</i>
6:30 PM – 8:00 PM	Closing Ceremony (Gala Dinner) and Awards	
	History of ACMAP, Anand Yadav President, ACMAP Executive Editor, JMAP Executive Director Awards	

Day 4: October 21, 2023 (Saturday)

	Tour
9:00 AM – 10:30 AM	The Medicinal Plants of Kanawha State Forest (Pre-registration required) Pick up time at hotel - 8:30 am

Poster Presentations
Wilson Student Union (Building 5 on the map)

P1. Quantifying the Synergistic Impact of Low-Temperature Plasma (LTP) Treated Seed and Treated Water on Seed Germination, Seedling Growth and Yield of Microgreens

Pravanshu Kumar-Sanathanam, Trang-Pham, Suresh Kumar-Thakur, Boateng-Judith, Bhagirath-Ghimire, Gabriel-Xu, and Srinivasa Rao-Mentreddy

P2. Natural Variation in Watermelon Lines for Selenium (Se) Tolerance to Identify the Candidate Genes by Genome-wide Association Study.

Prapooja Somagattu, Karthik Chinnannan, Hyndavi Yammanuru, Umesh K Reddy, and Padma Nimmakayala

P3. Column Chromatography and Semi-preparative HPLC Purification of Arachidin-1 and Arachidin-3 from Elicited Hairy Root Cultures of Peanut (*Arachis hypogaea* L.)

Amit Raj Sharma, Gaurav Gajurel, Izzeldin Ahmed, Krystian Roedel, and Fabricio Medina-Bolivar

P4. Cannabidiol May Alter Intestinal Inflammation Activity in an E2-dependent Manner

Hayley Palmer, Tomiwa Oyedokun, Yusra Shaikh, Rocio Duran, Diana Roopchand

P5. Potential of Producing Bioproducts from Hemp Hurd using a Combination of Ammonia Pretreatment and Carbohydrate Active Enzymes.

Venkatesh Balan

P6. Investigating the Impact of Cyanide Ions (CN⁻) Derived from Cassava (*Manihot esculenta* Crantz) on A549 (Alveolar Epithelial) Cells

Joseph T., Sreejith S., Joseph X., Sangeetha V., Prajitha N., Vandana U., Jayaprakas C.A., and Mohanan P.V.

P7. Flavone Apigenin Reprograms Transcriptome-wide Alternative Splicing through hnRNPA2 to Inhibit Therapeutic Resistance in Triple-Negative Breast Cancer

Meenakshi Sudhakaran, Leidy Tatiana Garcia Navarrete, Erich Grotewold, and Andrea I. Doseff

P8. Evaluation of the Anticancer Potential of Cassava-Cyanide Extract (CCE) Against Human Glioblastoma (LN229) Cell Line

Sreejith S, Joseph Tom, V. Sangeetha, U. Vandana, Joseph Xavier, C.A. Jayaprakas, and P.V. Mohanan

P9. Anticancer Potential of Cyanide Ion (CN⁻) Extract Derived from Cassava (*Manihot esculenta* Crantz) on Human Glioblastoma (LN229) and Alveolar Epithelial Cells (A549 Cells)

C.A. Jayaprakas, Joseph Tom, S. Sreejith, V. Sangeetha, Joseph Xavier, and P.V.Mohanan

P10. Evaluating the Antiproliferative Capacity of Extracts from *Syringodium filiforme* in Colorectal Cancer Cell Line

Anibal José Nieves Martínez, Angel Nuñez Marrero, Rosalinda Aybar Batista, and Alok Arun

P11. Gene Expression Changes Elicited by *Nigella sativa* Compounds in Glioblastoma Cells.

Rachana Pandey, Purushothaman Natarajan, Umesh Reddy, Wei Du, Cristian Sirbu, Moussa Sissoko, and Gerald R. Hankins

P12. Effects of Capsaicin Supplemented Diet in the Neuronal Response of *Drosophila melanogaster*

Juan Gerardo Flores-Iga, Carlos Lopez-Ortiz, Celeste Gracia-Rodriguez, Purushothaman Natarajan, Padma Nimmakayala, and Umesh K. Reddy

P13. Unlocking Novel Ligand-Receptor Associations from Medicinal Plants and Fungi Using Untargeted Metabolomics, Molecular Networking, Docking and Data Mining

Xiaoling Chen, Andrew Patterson, Gary Perdue, and Josh Kellogg

P14. Effect of Bacterial-derived Polyphenol Metabolites on Mammalian Cell Inflammation

Yue Wu, Rocio M. Duran, and Diana E. Roopchand

P15. Investigating Inhibitors of Autoinducing Peptides in Methicillin-resistant *Staphylococcus aureus* (MRSA) from Pennsylvania Native Plants and Fungi

Amelia Hanson, Teal Jordan, and Joshua J. Kellogg

P16. Evaluation of Anti-tuberculosis Phytochemicals from *Artemisia* spp.

Joshua J. Kellogg, Teal Jordan, Maria Natalia Alonso, Melissa Towler, Pamela Weathers, and Scarlet Shell

P17. Screening North American Native Plants for α -Glucosidase Inhibitory Activity

Ryan A. Opferman, Teal Jordan, and Joshua J. Kellogg

P18. Plant and Fungi Inhibitors of Autoinducing Peptides in Methicillin-resistant *Staphylococcus aureus* (MRSA)

Amelia Hanson, Teal Jordan, and Joshua J. Kellogg

P19. Bioprospecting of Early-evolving Land Plants for Antimicrobial Activities

Yariellys Enid Cruz Pérez, Rosalinda Aybar Batista, Juan Negron Berrios, and Alok Arun

P20. Antibacterial Effects of Some Common Medicinal Plants Extracts on Food-borne Bacteria

Mojetoluwa Afolabi, Trang Pham, and Qunying Yuan

P21. Identification and Analysis of Antibacterial Compounds from Model Mosses *Physcomitrium patens* and *Ceratodon purpureus*

Ashley L. Dague, Lia R. Valeeva, Natalie M. McCann, Lydia M. Bogomolnaya, and Eugene V. Shakirov

P22. Microstructural Variability and Histochemical Differences in the Nutritional Peanut Cultivars Grown in Georgia

Birat Sapkota and Nirmal Joshee

P23. Micromorphological Structures in Medicinally Important *Scutellaria* Species

Thejaswini Alavalapati, Samantha H. Sherman, Alok Arun, and Nirmal Joshee

P24. A Comprehensive Evaluation of Heavy Metal Contaminations in Agricultural Soil and Vegetables and its Implication in Human Health Risk Assessment

Karthik Chinnannan, Padma Nimmakayala, and Umesh K Reddy

P25. Identifying Genes Involved in Metabolite Biosynthesis in *Capsicum* spp.: Integrating Metabolome and Genome Approaches to Improve Organoleptic and Nutritional Features of Pepper

Talavera-Caro, C. Lopez-Ortiz, P. Natarajan, P. Nimmakayala, and U. K. Reddy

P26. Natural Variation in Watermelon Lines for Selenium (Se) Tolerance to identify the Candidate Genes by Genome-wide Association Study

Prapooja Somagattu, Karthik Chinnannan, Hyndavi Yammanuru, Umesh K Reddy, and Padma Nimmakayala

P27. Effect of Pepper Different Rootstocks as a Sustainable Alternative to Improve Yield and Nutritional Parameters of Watermelon

Hyndavi Yammanuru, Padma Nimmakayala, and Umesh K Reddy

P28. Exploring the Medicinal Properties of Underutilized Crop *Arracacia xanthorrhiza*

Myrna Rodriguez Gonzalez, Jacobo Morales Mendez, Sun-Ok Lee, Rosalinda Aybar Batista, and Alok Arun

P29. Effect of Watermelon Rind Extract on Cell Proliferation, Apoptosis, Senescence, and Universal Transcriptomic Profile in Human Renal Adenocarcinoma Cells

Chinreddy Subramanyam Reddy, Purushothaman Natarajan, Padma Nimmakayala, Gerald Hankins, Ramesh Bandada, Umesh. K Reddy.

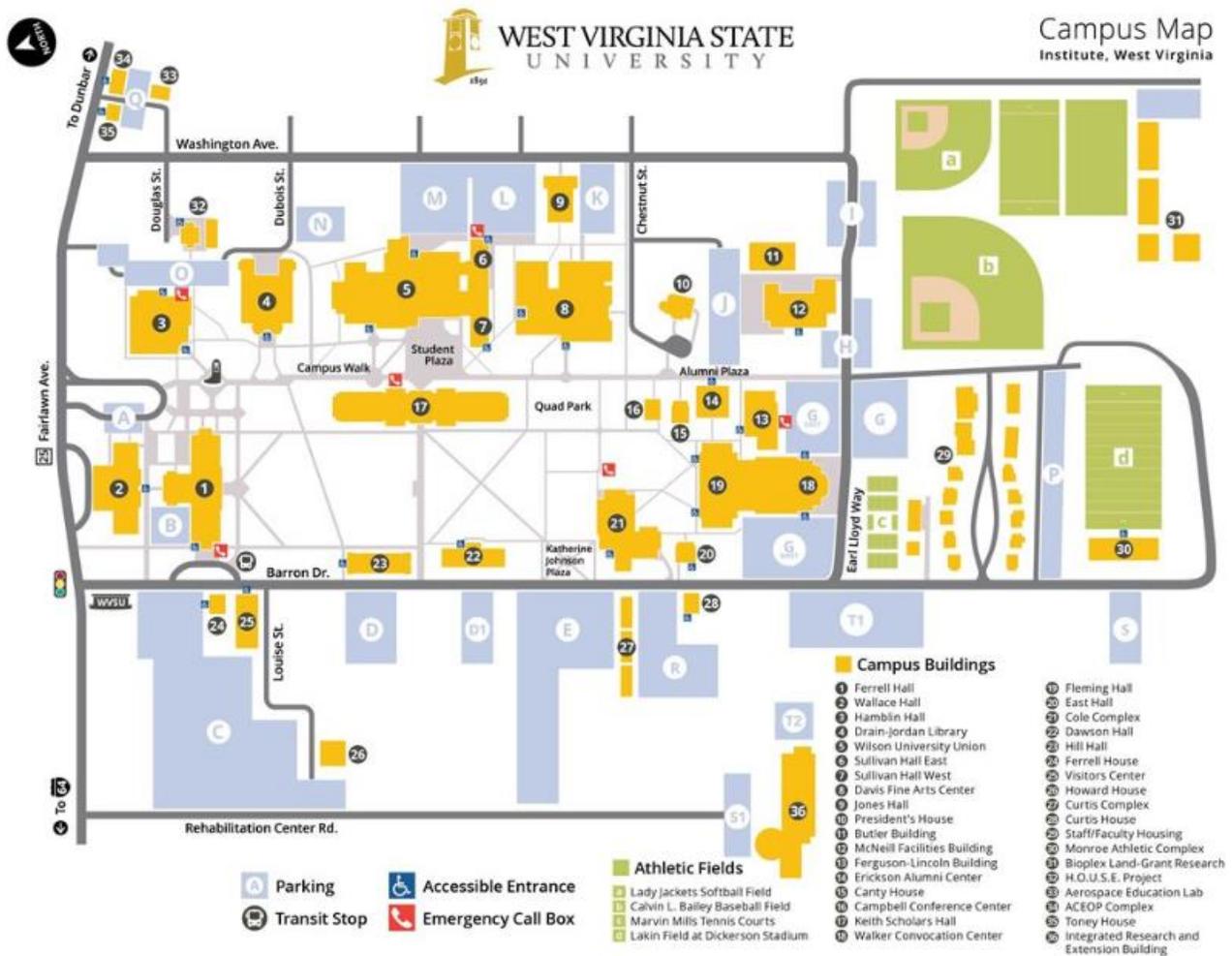
P30. Assessing the Effects of *Thalassia* sp. Extracts in Metastatic Colorectal Cancer Cell Line

Abner Colón Colón, Rosalinda Aybar Batista, Angel Nuñez Marrero & Alok Arun.

West Virginia State University Campus Map

<https://www.wvstateu.edu/about/campus-map.aspx>

Parking is available in lots K, L, M, and N during the conference. A parking pass is not required.



Click on map image to enlarge.