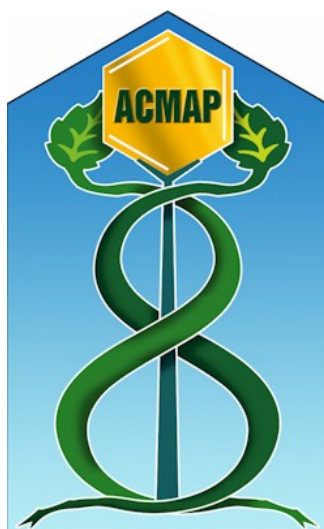


# 1<sup>st</sup> Annual Conference of the American Council for Medicinally Active Plants (ACMAP)

July 20-23, 2010. Cook Campus Center. George H. Cook Campus.

Rutgers, The State University of New Jersey. New Brunswick, NJ.

Hosted by ACPMAP and the New Use Agriculture and Natural Plant Products Program (NUANPP, Rutgers University).



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**Fort Valley State University**



## Tuesday, July 20: Welcome Reception, July 20: Rutgers Gardens

Time: 6:00-8:00pm

Location: The Log Cabin & Pavilion in the Rutgers Gardens

112 Ryders Lane; New Brunswick, NJ 08901-8519

<b>Day 1: Wednesday, July 21, 2010</b>	
<b>Wed, July 21</b>	<b>Location: Cook College Campus Center, School of Environmental &amp; Biological Sciences</b>
AM 8:15-8:45	Registration, Coffee and African Herbal Teas and Posters to be displayed
8:45-9:00	Welcome. <i>Multi-purpose Room C</i> Jim Simon, Rutgers, Program Chair, Director, New Use Agriculture & Natural Plant Products Program
9:00-9:20	Welcome to Rutgers. <i>Multi-purpose Room C</i> Dr. Bob Goodman, Executive Dean of Agriculture and Natural Resources, School of Environmental and Biological Sciences & Executive Director, New Jersey Agricultural Experiment Station School of Environmental and Biological Sciences
9:20-10:00	<b>Plenary session I: <i>Multi-purpose Room C</i></b> <b>Characterization of Grape-Derived Polyphenols in the Prevention of Alzheimer's Disease and Promotion of Healthy Aging</b> Giulio Maria Pasinetti, Geriatric Research, Education and Clinical Center, James J. Peters Veteran Affairs Medical Center, Bronx, NY, USA; Department of Neurology, Mount Sinai School of Medicine, New York, NY, USA
10:00-10:15	Networking
	<i>Multi-purpose Room C</i> <span style="float: right;"><i>Multi-purpose Room B</i></span>
Concurrent Sessions	<b>Human Health, Phytochemistry and Bioactives</b> Convener: Agnes Rimando, USDA-ARS
	<b>Controlled Environmental Horticulture and Propagation</b> Convener: Jeffrey Adelberg
10:15-10:45	Amy Howell, Rutgers University Cranberries and Blueberries: Functional food superstars!
	Gary Stutte, Dynamac Corp., Dynamac Corp., Titusville FL Increasing the concentration of bioactive constituents of medicinal and nutraceutical plants using controlled environments
10:45-11:05	Steven M. Lipson, St. Francis College Cranberry and Grape juices reduce rotavirus infectivity in cell culture, and viral protein capsid integrity in cell-Free Suspension
	Anand Yadav, Fort Valley State Univ., GA Using controlled environments to enhance medicinal and plant production and propagation
11:05-11:25	Slavko Komarnytsky, Rutgers University Development of simple and rapid bioassays for screening natural products against infection and inflammation
	Adolfina Koroch, Borough of Manhattan Community College, CUNY, NYC, NY In vitro culture of Medicinal and Aromatic Plants
11:25-11:45	Edward J. Kennelly, Lehman College, City University of New York, NYC Plant polyphenols for chronic obstructive pulmonary disease
	Jeffrey Adelberg, Clemson Univ., SC In vitro rhizomes of turmeric as a model for bioactive biomass
11:45-1:00pm	<b>Networking lunch</b> (Cold Buffet lunch open only to paid registrants) and <b>Posters to View</b>

	<i>Multi-purpose Room C</i>	<i>Multi-purpose Room B</i>
Concurrent Sessions	<b>Human Health, Phytochemistry and Bioactives</b> Convener: Agnes Rimando, USDA-ARS	<b>Production and Post-Harvest Processing</b> Convener: Lyle E. Craker, UMass-Amherst
PM 1:00-1:30	Gemma Casadesus, Case Western Reserve University, Cleveland, OH Modulation of cognition and stress/survival pathways by resveratrol and pterostilbene in the age-accelerated SAMP8 mouse	Jean Giblette, High Falls Foundation, Inc., Philmont NY Strategies in domestic production of Chinese medicinal plants
1:30-1:50	Lap Ho, Mt. Sinai School of Medicine, NYC, NY Development of brain-targeting grape-derived polyphenolics for Alzheimer's disease prevention and therapy	Zoe Gardener, UMass-Amherst Production of Chinese medicinal plants in the northeastern United States
1:50-2:10	Young-Cheul Kim, UMass-Amherst Effects of bioactive Isoflavone daidzein on adipocyte differentiation and insulin sensitivity	Robert Wick, UMass-Amherst Downy mildew of basil
2:10-2:40	Coffee, African Herbal Tea Break	
	<i>Multi-purpose Room C</i>	<i>Multi-purpose Room B</i>
Concurrent Sessions	<b>Human Health, Phytochemistry and Bioactives</b> Convener: Agnes Rimando, USDA-ARS	<b>Production and Post-Harvest Processing</b> Convener: Jorge Ferreira, USDA-ARS
2:40-3:00	Agnes M. Rimando, USDA-ARS Colon cancer preventive activity and bioavailability of pterostilbene analogs in severe combined immunodeficiency mice	Jorge Ferreira, USDA-ARS Pre- and post-harvesting procedures effects on <i>Artemisia annua</i> concentration of artemisinin and leaf antioxidant capacity
3:00-3:20	Prahlad Parajuli, Wayne State University, Detroit, MI <i>Scutellaria</i> : Anti-tumor efficacy and molecular mechanisms	Karina Knudsmark Jessing, University of Copenhagen Biomedicine production: Degradation and ecotoxicity of Artemisinin
3:20-3:40	Jay Xie, North Carolina Central University, Durham, NC Identification and characterization of Se-responsive genes in the selenium-hyperaccumulator <i>Astragalus racemosus</i>	Cedric Sims, Alabama A&M University, Normal, AL Optimum date of planting and phytochemical content of <i>Ocimum tenuiflorum</i> (Basil) in North Alabama
3:40-4:00	Devanand Luthria, USDA-ARS Significance of sample preparation for the assay of bioactive phytochemicals	Idrissa Moussa, Abdou Moumouni University in Niger Republic, Niger Antimalarial plants used in Niger Republic's Traditional Medicine
4:00-5:00	<b>Networking and Poster Session</b>	

Day 1 ends at 5:00pm. Dinner on Your Own

<b>Day 2: Thursday, July 22, 2010</b>		
<b>Thurs, July 22</b>	<b>Location: Cook College Campus Center, School of Environmental &amp; Biological Sciences</b>	
AM 7:00-8:30	<b>ACMAP Board Meeting- Breakfast</b>	
8:15-9:00	<b>Registration, Coffee and African Herbal Teas and Posters all on display</b>	
9:00-9:40	<b>Plenary session II: <i>Multi-purpose Room C</i></b> <b>Elucidating and manipulating alkaloid biosynthesis in the opium poppy</b> Toni M. Kutchan, Donald Danforth Plant Science Center, St. Louis, MO	
9:40-10:15	Networking	
	<i>Multi-purpose Room C</i>	<i>Multi-purpose Room B</i>
Concurrent sessions	<b>Commercialization</b> Convener: Peggy Breenan, Rutgers University	<b>Ethnobotany and Botanical Sourcing</b> Convener: Jim Simon, Rutgers University
10:15-10:45	Peter Gillies, Director, NJ Institute for Food, Nutrition and Health, Rutgers University  Alternative sourcing of omega-3 fatty acids: The role of biotechnology	Lena Struwe, Rutgers University  On the importance of being vouchered, identified, classified, and properly documented in botanical bioprospecting
10:45-11:05	Ilya Raskin, Rutgers University  Botanicals for metabolic syndrome and inflammation	Karen Reeds, University of Pennsylvania, Philadelphia, and Princeton Research Forum, Princeton NJ  <i>Hypericum perforata</i> L. (St. John's wort) in Renaissance herbal medicine: assessing the historical evidence for use of hypericum as an anti-depressant in early modern Europe
11:05-11:25	Rodolfo Juliani, Rutgers University, NJ  West African spices and medicinals from Grains of Paradise to Griffonia	Glenda Smith, Univ. of Alabama, Birmingham, AL  African American Use of Herbs in Health Care
11:25-11:45	Peggy Breenan, Rutgers University  Development of a food incubator for new product development	Frankie Hutton, Bowie State University  Rose lore: Essays in semiotics and cultural history
11:45 – 1:00	<b>Networking lunch</b> (Cold Buffet lunch open only to paid registrants) and <b>Posters to View</b>	
	<i>Multi-purpose Room C</i>	<i>Multi-purpose Room B</i>
Concurrent Sessions	<b>Sustainability and Economics</b> Convener: Rao Mentreddy, Alabama A&M University	<b>Biotechnology of Medicinally Active Plants</b> Convener: Fabricio Medina-Bolivar, Arkansas State University
PM 1:00-1:30	Jim Simon, Rutgers University  Enterprise development in rural areas: The case for natural products as sustainable income generating activities using a market-first science-driven model	Pam Weathers, Worcester Polytechnic Institute  Artemisinin: in planta production and therapeutic options
1:30-1:50	Edward Fletcher, Strategic Sourcing Inc., Banner Elk, NC  Sustainability and Economics	Gnana Viji, Fort Valley State University, GA  Molecular characterization of peach [ <i>Prunus persica</i> (L.) Batsch] germplasm in the United States using microsatellite markers
1:50-2:10	Mario Morales, Mountain State University, Beckley, WV  Amendment of low-fertility acidic soils for Fairywand	Rohan Patil, UMass-Amherst  Engineering taxol biosynthesis in <i>Taxus</i> suspension cell culture

	Culture in Appalachia	
2:10-2:30	Lorraine Cordeiro, Umass-Amherst The role of medicinal plants in food security and nutrition	Fabricio Medina-Bolivar, Arkansas State University Natural resveratrol analogs from root cultures: bioproduction, biotransformation and bioactivity
2:30-2:45	Break	
Concurrent Sessions	<b>Quality Control</b> Convener: Rodolfo Juliani, Rutgers University	<b>Ethnobotany and Plant Improvement for MAPs</b> Convener: Art Tucker, Delaware State
2:30-3:00	Rodolfo Juliani, Rutgers University Quality Assurance and Quality Control: Making it Relevant to Growers and Processors	Art Tucker, Delaware State, Dover, DE Genetics and biotechnology of the genus <i>Mentha</i> : a model for other polyploid species with essential oils and other plant constituents?
3:00-3:20	Qingli Wu, Rutgers University Using natural products chemistry for QC and botanical standardization	Jennifer Johnson-Cicalese, Rutgers University, NJ Breeding blueberries and cranberries for health and nutrition
3:20-3:40	Dennis Awang, White Rock, British Columbia, Canada Regulating herbal products: A North American perspective	Simon, Rutgers University, NJ Breeding for active principles in aromatic plants and herbs
3:40-5:00	<b>Poster Session and Networking. Poster Session closes at 5PM</b>	
6:00 PM	<b>Social Hour</b>	
7:00- 9:00 PM	<b>Banquet (Multi-purpose Room C, open only to paid registrants)</b>	

### DAY 3: Friday, July 23: Field Day

#### Departing at 7:00AM and estimated return time, 6:00 PM

NOTE: An additional registration fee required to cover transportation costs and packed lunch)

Tour lead by Jim Simon, Rutgers.

*Stop 1:* Travelling south from New Brunswick to Cumberland County in southern Jersey, our first stop is the **Rutgers Agricultural Research and Extension Center (RAREC)**, 121 Northville Road, Bridgeton, New Jersey 08302. Local Host: Dr. Andy Wyendant, Extension Specialist in Vegetable Pathology, Department of Plant Biology and Pathology. This research facility, with 305 acres, is located near the largest vegetable, herb and horticultural production in NJ, conducts research applicable to the production of high-quality vegetable crops, ornamentals, field crops, and tree and small fruits, with special emphasis on crop protection and integrated pest management. In this visit, you'll see some of the vegetable research that is ongoing including but not limited to the two studies on basil downy mildew including a trial on identifying possible control agents that will be effective and safe in the control of this new and devastating disease on sweet basil; and a varietal trial which is set-up to identify possible tolerant basil varieties to this new disease.

For more detailed information, directions and more: <http://njaes.rutgers.edu/centers/quickinfo.asp?RAREC>

*Stop 2:* We next head into the city of Bridgeton, NJ to tour the **Rutgers Food Innovation Center (RIC)**. This is a unique business incubation and economic development accelerator program, which provides business and technology expertise to small and mid-sized food companies in New Jersey, and utilizes its outreach capacity to reach food and agribusinesses throughout the nation. FIC provides assistance in business development, market research, product and process development, workforce development and training, regulations and compliance support, and quality assurance and food safety systems. This center is 23,000 sq. ft. business and functioning food product incubator facility and has been nationally recognized for its innovative work and new product development for our family farms. FIC also has a food safety lab and testing facilities for microbiological contamination with staff overseeing all facets of product development to

ensure cleanliness and food safety of the commercial and pilot products coming out of their food manufacturing facility which operates at a subsidized price for those seeking small scale toll manufacturing. Our local hosts will be Lou Copperhouse, Director of FIC and Peggy Brennan, Associate Director, New Jersey Agricultural Experiment Station Director of Economic Growth and Development, New Jersey Agricultural Experiment Station.

For detailed information/activities, driving directions and more see: <http://www.foodinnovation.rutgers.edu>

Stop 3: Travelling back northwest, the third stop will be at the **Philip E. Marucci Center for Blueberry and Cranberry Research and Extension** is a substation of the New Jersey Agricultural Experiment Station (NJAES) of Rutgers University located in Chatsworth, NJ (Burlington County). Local Hosts will be: Plant breeders Prof. Nick Vorsa and Dr. Jennifer Johnson-Cicalese. Several presentations during the conference will have focused on the health properties and bioactive compounds in blueberry and cranberry as well as current breeding strategies to improve the health and nutrition of cranberries. This stop provides a close-up on the breeding on these berries with a possible visit to a commercial cranberry bog.

For detailed information/activities, driving directions and more see: <http://pemaruccicenter.rutgers.edu/>

Stop 4: Continuing further northwest into Hunterdon County, our last stop will be at the **Clifford E. and Melda C. Snyder Research and Extension Farm**. Local Host: Ed Dager, Research Farm Manager. This is Rutgers' center for sustainable agriculture, promotes different agricultural systems (including organic) and initiates and disseminates research applicable to the production of a variety of food and fiber products, including grain crops, tree and small fruits, turfgrass, ornamentals, ethnic crops, culinary herbs, aromatic and medicinal plants. You'll see the medicinal and aromatic plant trials including studies with basil (for chilling injury, fusarium resistance, and downy mildew), new varietal development lines (*Artemisia annua*, oregano and catnip), culinary variety trials (basil, chives, and hot/specialty peppers); Chinese vegetables and medicinals, and specialized walk-in drier unit (converted older Powell Tobacco dryer).

For detailed information, driving directions and more see: <http://snyderfarm.rutgers.edu/index.html>

Afterwards, we will be returning to New Brunswick directly from the Snyder Farm, estimated time one hour and return each of you to your respective hotels.

### **Logistics:**

**For the Tuesday evening, July 20, the reception will be held at the Log Cabin and Pavilion at the Rutgers Garden.**

For detailed information, driving directions to the Rutgers Gardens see: <http://rutgersgardens.rutgers.edu/>

**(Transportation is on your own)**

**Meeting Location: All lectures, posters and discussion sessions on Wednesday and Thursday (July 21-22) including the evening banquet will be held in the first floor of the Cook College Campus Center (CCC; 59 Biel Road New Brunswick, NJ 08901).** The CCC is part of the School of Environmental and Biological Sciences, Cook College Campus (one of five campuses at Rutgers University). The CCC is across the street from the Recreation Center, and within a few minutes to the heart of the SEBS where the Department of Plant Biology and Plant Pathology is housed (59 Dudley Road), Food Science and much more.

From your hotel to the Cook Campus Center, transportation is on your own. Rutgers does have a free bus system which would operate effectively for those staying at the Heldrich, those at the Hyatt with a bit more walking to reach the bus stops, but not functional for those staying at the Ramada Inn. Please check the online schedule as the buses do not run frequently during the summer. For the Rutgers summer bus schedule see: <http://parktran.rutgers.edu/>

For detailed information, driving directions to the Cook Campus Center see:

<http://getinvolved.rutgers.edu/centers/center-listing/2>

**Parking at the Cook College Campus Center** (where all sessions will be held): If you are driving to the conference please let us know upon registering. We will then provide you with a parking permit. To do so, we need your license plate number and state; and type of vehicle. Parking without a permit will likely result in a parking ticket. We have arranged space for you to park in the parking lots 99C and 99D. These lots are both across the street from the Cook Campus Center, very close to the CCC, just past the recreation center and adjacent to a set of apartments. There is no additional cost for parking.

**ACMAP Board meetings:**

**Tuesday**, July 20, 2010 2:00- 5:00PM, Heldrich Hotel Lobby

**Thursday**, July 22, 2010, 7:00-8:30 AM Breakfast meeting, Heldrich Hotel

**Speaker Preparation room and ACPAP Board Room** in the Cook Campus Center (CCC): A room has been reserved throughout all day Wednesday and Thursday (8am- 6pm) that will be locked and used for private meetings (upon request and subject to availability) and ACPAP BOD and other official business. Stop and see the person at the registration table or another member of the Rutgers local host team for access.

**Computer and Wireless Access:** We have requested wireless access to everyone that has registered during the two days at the Cook Campus Center. If you need access, ask at the registration table.