

MOLLY JAHN

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<https://www.jahnresearchgroup.net>

Professor, Dept. of Agronomy, University of Wisconsin-Madison
 Faculty Affiliate, Nelson Institute Center for Sustainability and the Global Environment
 Faculty Affiliate, Global Health Institute
 Former Deputy and Acting Under Secretary, Research, Education and Economics, USDA
 12th Dean of the College of Agricultural and Life Sciences, University of Wisconsin-Madison
 and Director of the Wisconsin Experiment Station 2006-2011

Moore Hall, 1575 Linden Dr., Madison, WI 53706

EDUCATION

- 1988 Ph.D. Cornell University
 Plant Breeding with a minor in Plant Pathology
 Special Committee Co-chairs: M. H. Dickson and H. M. Munger
- 1983 M.S. Massachusetts Institute of Technology
 Course 7 Biology
 Thesis Supervisor: Frank Solomon
- 1980 B.A. Swarthmore College with Distinction in Biology

PROFESSIONAL EXPERIENCE

- 1/4/21-present Inter-Agency Personnel Agreement to serve as a Program Manager, Defense Sciences Office, Defense Advanced Research Projects Agency, US Department of Defense
- 1/1/2016-12/31/20 Special Government Employee, NASA HQ
- 11/1/17-10/31/19 Director of Strategic Outreach, NASA Harvest Consortium (25% time)
- 11/1-17-10/30/19 Guest Scientist, Los Alamos National Laboratory, Los Alamos, NM
- 10/16-10/17 Principal Investigator, UW-US National Geospatial Intelligence Agency Cooperative Research and Development Agreement
- 10/1/13-10/1/16 Discovery Fellow, Wisconsin Institutes of Discovery
- 6/1/12- 9/30/17 Joint Faculty subcontracted at 25% US Department of Energy Oak Ridge National Laboratory
- 2011-2014 Special Advisor to Provost Paul Deluca for Sustainability Sciences
- 2006-2011 Dean, College of Agricultural and Life Sciences, University of Wisconsin
 Director, Wisconsin State Agricultural Experiment Station
 Professor, Departments of Agronomy and Genetics, UW-Madison
- 1/1/10-5/31/2010 Acting Under Secretary, Research, Education and Economics, U.S. Department of Agriculture (Dean on leave)
- 11/9/09-5/31/2010 Deputy Under Secretary, Research, Education and Economics, U.S. Department of Agriculture (Dean on leave)
- 2003-2008 Professor, Departments of Plant Breeding & Genetics and Plant Biology, Cornell University, Ithaca, NY
- 2001-2003 Associate Professor, Departments of Plant Breeding and Plant Biology,

Cornell University. Member of the Graduate Fields of Plant
Breeding and Plant Biology

1997-2003 Associate Professor, Department of Plant Breeding, Cornell University
1991-1996 Assistant Professor, Department of Plant Breeding & Biometry, Cornell
University
1989-1990 Research Associate, Plant Molecular Biology Program, Boyce Thompson
Institute, Ithaca, NY. Principal Investigator: S.H. Howell
1988-1989 Postdoctoral Fellow, Department of Plant Pathology, University of
California-Berkeley. Principal Investigators: T.J. Morris and A.O. Jackson
1983-1988 Graduate Fellow, Department of Plant Breeding and Biometry, Cornell
University
1981-1983 Research Specialist, Center for Cancer Research, Biology Department,
M.I.T., Cambridge, MA. Supervisor: Dr. Phillip A. Sharp
1980-81, 1983 Graduate Fellow, Biology Department, M.I.T., Cambridge, MA
1979-80, summers Head Course Assistant in Physiology, Marine Biological Lab, Woods Hole,
MA. Supervisor: Dr. Kensal Van Holde
1980, summer Teacher, Woods Hole Children's School of Science
1977-1980 Research Assistant in Genetics, Swarthmore College, Swarthmore, PA

Selected HONORS AND AWARDS

2023 named Councilor at Large, Atlantic Council
2022 US Department of Defense Joint Meritorious Unit Award
2022 Non-Resident Fellow, US Naval War College
2020 Crop Science Society of America Fellow
2017 Milwaukee Public High School Excellence in Education Award
2017 All America Selections Winner 'Honeybaby F₁' Squash Variety
2017 All America Selections Winner 'Sugaretti F₁' Squash Variety
2016 University of Sydney Commencement Speaker
2015 named first Lilian Martin Fellow, University of Oxford
2015 Honorary Doctor of Science Degree, Swarthmore College
2014 Doctor of Science *Honoris Causa*, Anglia Ruskin University
2014 Saveur Award for 'Honeynut' Squash with Michael Mazourek
2013 Rothamsted Fellow, United Kingdom
2012 Fellow, Wisconsin Academy of Arts, Science and Letters
2012 USDA Secretary's Honor Award, the highest award conferred by the USDA
2011 Potato Association of America Outstanding Extension Award as part of Healthy Grown
Potato Project team
2011 Wisconsin Potato and Vegetable Growers Association Industry Appreciation Award
2011 Service to Industry Award, the highest honor accorded by the Wisconsin State Cranberry

Growers Association

2011 MGA Green Thumb Award 'Salt and Pepper' Cucumber

2011 Wisconsin Agricultural Research Station Award

2011 Friend of Agriculture Award, Association for Women in Agriculture

2011 UW Madison Department of Entomology Chair's Recognition Award

2009 Outstanding Scientist, Vegetable Breeding Award of Excellence, American Society of Horticultural Science

2008 Wisconsin Dairy Communicator of the Year, WI Dairy Business Association

2007 Outstanding Research Paper Award, Potato Association of America

2007 Named Madison Magazine "Eco Heroine," September Issue

2006 Fellow, American Association for the Advancement of Science

2002 National Garden Bureau Gold Medal, All America Selections, for a winter squash variety, Bush Delicata, licensed to Seminis Vegetable Seeds

1996 Young Faculty Teaching Excellence Award, College of Agriculture and Life Sciences, Cornell University

Selected NATIONAL/INTERNATIONAL PROFESSIONAL ACTIVITIES (EXCLUDING MOST FEDERAL SERVICE)

Guest Professor, U.S. Naval War College, teaching in Ethics of Emerging Military Technologies Certificate Program, Fall, 2019-present

Judge, Homegrown Competition, Weston Family Foundation, 2022-present

Jury Member, New Frontiers in Research Fund, Government of Canada

Panel Manager (invited, declined due to conflicting Government service) USDA NIFA Sustainable Agricultural Systems (2021).

Editorial Board Member, Agroecosystems, Ecosphere, Ecological Society of America 2020-2021.

Associate Editor, 2019-2021; Channel Editor, PLoS ONE *Plant Science, Food Security and Food Systems*, appointed as one of five global experts selected to open and curate scholarship in this space and provide active editorial leadership for the top open access trans-disciplinary research journal. 2019-2020.

Chapter Lead Author, "Unleashing Strategic Latency: Disruptive Technologies in a Revisionist Global Order and Implications for Special Operations Forces," SOCOM, Naval Postgraduate School and Global Center for Security Research, Lawrence Livermore Lab, 2019-2020.

Managing Director, Security Focus Area, Global Center for Climate Resilience 2019-2020
<http://www.globalccr.org/board-of-directors/>

Chair, Vice-Chair, National Oceanic and Atmospheric Administration Subcommittee on Data Archiving and Access Requirements Working Group (DAARWG), Subcommittee of the NOAA Scientific Advisory Board that provides guidance and recommendations across

NOAA on issues related to data curation, policies regarding access and use and software.
2019-2021

Member, NASA Grant Proposal Selection Panel, 2018-2019

Member, Advisory Board to the UN Assistant Secretary General and Special Representative to the Secretary General for Disaster Risk Reduction, The Honorable Mami Mizutori, Geneva, Switzerland 2018-present

Member, USDA Grant Proposal Selection Panel, Food and Agriculture Cyberinformatics Tools (FACT) Program, 2018-2019

Member, Expert Group for the Global Assessment Report on Disaster Risk for the UN International Strategy for Disaster Risk Reduction, Lead Author for Chapter on Systemic Risk, Global Assessment Report (GAR 19), Geneva Switzerland 2017-2019

Contractor, US NASA Earth Observations for Food Security and Agriculture Consortium, “Harvest,” and NASA HQ, November, 2017-2022

Chair, Review Panel commissioned by the University of Queensland of the Queensland Alliance for Agriculture and Food Innovation to lead the decadal review. October, 2019

Standing Member, National Centres of Excellence Selection Committee; Member, Monitoring Subcommittee 2018-2022, A joint initiative from Canada’s Research Funding Agencies, Government of Canada

Member, Selection Panel, Interdisciplinary Research Hubs to Address Intractable Challenges, Global Challenge Research Fund, Research Councils of the UK, United Kingdom, January, 2018

Advisory Board Member, Climate-KIC (European research funder), 2017-present

Scientific Advisory Board Member, Institute for Future Environments, Queensland University of Technology 2017-2019

Member and USG Special Government Employee, US NASA Applied Sciences Advisory Committee (ASAC) authorized by the Federal Advisory Committee Act 2016-present

Principal Investigator, US National Geospatial Intelligence Agency Cooperative Research and Development Agreement, Food Security, Food Systems and National Security Interests, 2016-2017

Trustee, International Life Sciences Institute Research Foundation Board of Trustees, 2016 - 2019

Member of the Board of the Consortium of the International Agricultural Research Centers, 2015-2016

Member, Thematic Group on Data for Sustainable Development, Sustainable Development Solutions Network, a global initiative for the United Nations, 2015- present

Science Advisory Board, Conservation International, 2014-2019

Science Board, Santa Fe Institute, 2014-2017

Member of the Steering Group and Lead Author, UK-US Taskforce on Extreme Weather and Global Food System Resilience, The Global Food Security Programme, 2014 – 2015

Australian Observer to the G20 Meeting of Agricultural Chief Scientists, Brisbane, Australia 19-20 June 2014

Scientific Advisory Committee, Qatar National Research Foundation, 2013-2015

Member, External Advisory Board of the USAID Feed the Future Innovation Lab for Collaborative Research on Sorghum and Millet, Kansas State University, 2013-2016

Member, Executive Advisory Board, Tom Lovejoy, Chair, Global Environment and Natural Resources Institute, George Mason University, 2013-2016

Member, Laboratory Director's Science Advisory Committee, Oak Ridge National Laboratory, 2014-2018

Chair, Scientific Advisory Committee, Energy and Environmental Sciences Directorates, Department of Energy Oak Ridge National Laboratory 2011-2018

Chair, Authorship Team, Germplasm Policy Brief for the Crop Science Society of America Science Policy Committee, 2012-2013

Steering Committee, Agricultural Modeling Intercomparison & Improvement Project 2012-present

Drafting Team, Report to the President on Agricultural Preparedness and The Agriculture Research Enterprise, Executive Office of the President Office of Science and Technology Policy, President's Council of Advisors on Science and Technology March-December, 2012

Advisor, First Green Partners, 2012-2014

Review Team Member, Australia National Sustainable Agriculture Flagship, CSIRO, Canberra, Australia, June, 2012

Member, Advisory Board, Iowa State University Plant Sciences Institute, 2012-2014

Rothamsted Research, UK Farm Platform Strategy Group, 2012-2015

UK Biomolecular and Biotechnology Scientific Research Council Crop Science Review Team December, 2012

U.S. Commissioner, Joint Commission on Sustainable Agriculture and Climate Change funded by the Climate Change, Agriculture and Food Security Program of the CGIAR, Sir John Beddington, Chair, February, 2011-March, 2012

Member, U.S. National Research Council/National Academies of Science Board on Agriculture and Natural Resources, 2011-present

Co-editor in chief, *BMC Agriculture and Food Security* an open source journal, 2012-2015

Member, National Issues Task Force, American Society for Horticultural Sciences, 2011-present

Member, Crop Science Society of America Science Policy Committee, 2011-2014

Technical Lead, Wisconsin Animal Agriculture Sustainability Initiative, 2011-2014

Review Board, Rothamsted, Research, Institute for UK BBSRC, Harpenden, UK, September, 2011

Judge, Sustainability Award Program, Innovation Center for U.S. Dairy, 2011-2015

Member of the Board, Charles Valentine Riley Memorial Foundation, 2010-2014

Member, External Advisory Board, NSF IGERT Food Systems and Poverty Reduction, Cornell University, 2009-2012

Panelist, USDA Specialty Crops Research Initiative Inaugural Panel, August, 2008

Member, National Advisory Council, Marshfield Clinic, Marshfield, WI, 2007-2013

Member *Ex Officio*, Board of Directors, World Dairy Expo, 2006-2011

Member, Board of Directors, Asian Vegetable Research and Development Center, Tainan, Taiwan, 2006-2009; Chair of the Nominating Committee; Member of the Executive Committee

USAID Scientific Liaison Officer, Asian Vegetable Research and Development Center, Taiwan, 2003-2006

The Plant Cell Editorial Board 2003-2006
Chair, Plant-Microbe Subcommittee, 2004-2006
Executive Advisory Committee, 2004-2006

WWF/Mars, Inc./NEPAD Neglected Crops of Africa, June, 2011-2012

Member, Science Review Panel for Sustainability, Mars, Inc. Science Advisory Council, 2010-2011

Member, Technical Advisory Committee, Global Knowledge Initiative, 2011

NRSP-6 Technical Committee, USDA Potato Germplasm Bank 2006-2010

Panel Member, Review of USDA-ARS NP301 Program in Plant Genetics and Genomics 5 year Accomplishment Report 2000-2005, September 15-16, 2005

McKnight Foundation, Minneapolis, MN. Oversight Committee, Collaborative Crop Research Program, 1993-2003

USDA Cucurbit Crop Germplasm Committee, 1993-2006

USDA *Capsicum* Crop Germplasm Committee, 1998-2006, Co-Chair 2000-2006

New York Statewide Integrated Pest Management Vegetable Group, 1997-2006

Genomics and Proteomics, Genome Quebec/FRSQ, Canada, Review Panel, January 10-11, 2005

National Science Foundation Plant Genome Program, 2003-4

USDA NRI Functional Genomics of Crop Plants Review Panel, October 4-5, 2004

Expert Panelist, USDA Office of the Secretary, Application of Plant Gene Discovery to Host-Pathogen Interactions, Washington, DC, August 2003

Harris-Moran Seed Co., November 2000

Institute of Vegetables and Flowers, Chinese Academy of Agricultural Sciences, Beijing China, September 2000

Agricultural Biotechnology for Sustainable Productivity Program, Cairo, Egypt, May 2000

Consultant, *Capsicum* Improvement, Kalsec, Inc., 2004-2006, Kalamazoo, MI

Expert Witness, Hale and Dorr, LLP, October, 2001-2002
Keygene, Wageningen, The Netherlands, October 1998
USAID Agricultural Biotechnology for Sustainable Productivity. Evaluation of cucurbit breeding collaboration and biosafety procedures. Ministry of Agriculture, Egypt October, 1997
Seminis Vegetable Seeds, Inc., Vegetable improvement strategies, September, 1997-2000
McKnight Foundation. Site Visits of Grantees, Zimbabwe and Ethiopia, Collaborative Crop Research Program, April, 1997, Minneapolis, MN
Member, Delegation to China, Interdisciplinary approaches to biological control of vegetable pests. USDA-CAAS, October, 1996
Agri-Technologies Inc., Strategies to limit commercial crop production losses to disease, Six Mile Run, NC, July, 1995-1999, 2001, 2004
Winrock International Institute for Agricultural Development, AR. Agribiotechnology in Indonesia: Review of the National Biotechnology Program on Virus Protection and Resistance. Jakarta, Bogor and Lembang, Indonesia, May, 1992
Steering Committee (1994-1997), USDA Solanaceae Genome Database (Solgenes)
Chair, National Squash Breeders Group, 1992, 1994

Selected consultancies

Weston Family Foundation
DARPA SME 3, LogX Program, Strategic Technologies Office
Booz Allen Hamilton
American Family Insurance
Special Operations Combatant Command
University of Illinois System
Kula Biosciences
Nature's Fynd
NASA Applied Sciences
UK Prudential Regulatory Authority
Chicago Council of Global Affairs
EU Climate KIC 2017-2021
Lloyd's of London
Porter Novelli, Copenhagen
Centra Technologies
Science Advisory Board Member, Hortigenetics (East-West Seed), 2014- present
Dannon

Summary of Accomplishments as the 12th Dean of the University of Wisconsin College of Agricultural and Life Sciences and Director of the Wisconsin Agricultural Experiment Station 2006-2011

As dean, Jahn oversaw 19 academic departments in the life sciences, agriculture and food, health, energy, and environmental sciences. During her tenure, extramural funding in the college nearly doubled, enrollments increased, donor support increased, and funding for several major college facilities was secured including the US DOE Great Lakes Bioenergy Research Center and Wisconsin Bioenergy Initiative (~\$165M from 2006-2011 with a renewal of \$125M in 2012 and further funding awarded in 2017). New facilities included the Arlington Integrated Dairy Research Center (\$5.1M), major renovations at the Marshfield Research Station, the Wisconsin Energy Institute for Sustainable and Renewable Energy Research (\$58M), a new Biochemistry building, and major renovations to the Food Science facility, and fund raising efforts initiated for the College Dairy Plant and Meat and Muscle Biology Lab. Jahn also founded the Wisconsin Bioenergy Initiative and obtained state support, launched the Rural Youth Scholarship Fund to address specific financial challenges faced by outstanding scholars with rural backgrounds in the State of Wisconsin, actively built strong relationships with the UW System comprehensive universities with strengths in agriculture and life sciences, developed strong relationships with the College of Menominee Nation and the Wisconsin Technical Colleges, and initiated a relationship with Vincent High School, an urban high school in Milwaukee with the intention to become an "Ag High." While serving as dean, Jahn undertook extensive outreach in the state with farm groups, Tribes and historically underserved populations, educators, business leaders and legislators. In addition, she held the first carbon neutral Big Ten football game (10/25/08) followed by a carbon neutral Big 10 Football Season (2009), and founded the Wisconsin Animal Agriculture Sustainability Initiative. Jahn initiated significant curricular and administrative improvements including partnerships that resulted in the launch of a cross-college Environmental Sciences major and reform of the college degrees to facilitate cross-college majors. She balanced the budget from nearly a \$1M structural deficit, leaving the college with a budget in the black and approximately 70 new faculty hires while building upon resources obtained for the university related to the DOE GLBRC award. From November, 2009-May, 2010, Jahn provided interim leadership as Deputy and Acting Under Secretary of Research, Education and Economics at the U.S. Department of Agriculture under an Interagency Personnel Agreement while on a brief formal leave from the deanship.

Founder and Director, National Prize for agricultural innovation in cooperation with the White House and USDA, supported by the Howard G. Buffett Foundation October, 2013-2014
\$215,000 in prizes

SELECTED FELLOWSHIPS, LECTURESHIPS, RESIDENCIES

Councilor at Large, Atlantic Council 2023-present

Non-resident Fellow, Ethics of Emerging Military Technologies, US Naval War College, 2021-present

Senior Fellow, Atlantic Council Geotech Center 2019-2022

Taliesin Food Artisan Immersion Program Science Advisor 2020, 2021

US National Academies Joint Science/Documentary Film Makers Retreat, Woods Hole, MA
October, 2017

Lillian Martin Fellowship, The Oxford Martin School, University of Oxford, January-May, 2015

Panelist “Cybersecurity, human behavior and terrorism” 29 August 2017 Los Alamos Nat Lab

Wisconsin Academy Fellows Forum, Wisconsin Academy of Sciences, Arts and Letters,
October, 16 2014

Weston Roundtable Lecture, Nelson Institute, University of Wisconsin-Madison, September,
2014

Tel Aviv University, Visiting Faculty, Food Security Course, Manna Institute, Tel Aviv
University, Tel Aviv, Israel, July, 2014

Fellow, Institute of Advanced Studies, University of Warwick, UK, March 3-7, 2014

Honors Examiner, Swarthmore College, Swarthmore, PA 2012

Adjunct Professor, Vegetable Breeding Center, Seoul National University, Seoul, Korea, 2011-
2012

M.E. John Lectureship in Rural Sociology, Penn State University, PA, April, 2011

Distinguished Lecture in Genetics, Swarthmore College, Swarthmore, PA, November, 2010

Frazier-Zaumeyer Distinguished Lectureship, Bean Improvement Cooperative, October 2007

Guest Lecturer, Szeged University, Szeged and the Central Food Institute, Agricultural
Biotechnology Center, Budapest, Hungary, May 2005

Faculty, “Use of Molecular Markers in Plant Breeding,” International Centre for Advanced
Mediterranean Agronomic Studies (CIHEAM)/IRTA, Cabrils, Spain, January, 2005

Bernard Lowenstein Lectureship, New Mexico State University, February, 2004

Lectureship, IVF/CAAS, Beijing and Department of Horticulture, Nanjing Agricultural
University, China, January 2004

Faculty, Wageningen University Autumn school, Wageningen, Netherlands, October, 2002

Swedish University of Agricultural Science, Opponent in Plant Molecular Biology/Plant
Virology, Uppsala, Sweden, November 1999

Nusbaum Lectureship, North Carolina State University, April, 1999

Life Sciences Research Foundation Postdoctoral Fellowship, 1988-91

Awarded N.S.F. Postdoctoral Fellowship in Plant Biology, 1988

American Women in Science Foundation Award, 1986

Margaret E. Werly Graduate Fellowship, 1986-87; H. S. Denison Graduate Fellowship, 1985-86;
A. D. White Supplemental Stipend, Cornell University, 1983-85

National Science Foundation Predoctoral Fellowship, 1980-81, 1983-85

Midwest Scholar, Swarthmore College, 1976-80

Selected MEETINGS AND WORKSHOPS ORGANIZED (last 10 years)

- Earth observations, agriculture, food systems and national security: A roadmap for US Federal Agencies.* Workshop co-organized with University of Illinois/NCSA/NASA/USDA NIFA/Thomson Reuters Special Services/Mitre; November 16, 2020
- Food Systems and National Security: The Science in Strategy* co-organized with the U.S. Army War College and the Woodrow Wilson Center, May 23, 2019
- Roundtable on food system vulnerability* co-organized with Michael Puma, Columbia University, in the Thomson Reuters Board Room, Times Square, January 30 - February 1, 2019
- Report Launch, *Is the U.S. Government at risk of failure?* Panel at the Senior Executives Association Summit for the Presidential Rank Awards December 15, 2018
- Navigating risk at the food/water/energy climate nexus* Trento, Italy supported by Climate-KIC July 6-12, 2018, approximately 60 people traveled to formalize a consortium on Knowledge Systems for Sustainability administered by the Joint Institute for Strategic Energy Analysis, US DOE National Renewable Energy Laboratory
- Report Launch, “Global Food System Stability and Risk: At the Nexus of Defense and Development.” Hosted by Thomson Reuters, April 18, 2018, Washington DC.
- DARPA Workshop *Food System Stability and Security*, co-organized with Hakim Weatherspoon, ISAT Study Group, March, 2018.
- Food system stability and national security*, USDA Economic Research Service, December, 2017
- US NASA/USDA Economic Research Service, NASA Food Security and Agriculture Consortium Initiation Workshop December, 2017
- Worldwide Human Geography Data Working Group Webinar *Global Mapping of Food Insecurity* July 19, 2017
- Predicting Multiple Breadbasket Failure* at the USDA Economic Research Service for the US National Geospatial Intelligence Agency, April 18, 2017
- Chair of the Adjudication Team for the Policy Decision-making Exercise *Food Chain Reaction: A Global Food Security Game*, developed by Cargill, Mars, the World Wildlife Fund, the Center for American Progress, and the CNA Corporation, November 2015
- Moderator, *Climate Change: An Investment Perspective on Risk and Mitigation*, a seminar with visiting guest Mr. Tom Steyer, Oxford Martin School, University of Oxford, May 21, 2015
- Multiple Breadbasket Failure Initiative Meeting*, The Frederick S. Pardee Center for the Study of Longer-Range Future, Boston University, Boston, MA November 5-6, 2014
- Member of the Steering Group for the *Taskforce on Resilience of the Global Food Supply Chain to Extreme Events*, UK Science and Innovation Network/Global Food Security Programme, Willis Tower, Chicago, October 20-23, 2014
- Coping with Monsoon Variability in the Agricultural Systems of South Asia: Project Design Workshop*, sponsored by CIMMYT and held at George Mason University, Fairfax, VA, October 15-16, 2014

Member of the Steering Committee, *2014 Future Earth Forum*, SUNY Global Center, New York, NY, September 24, 2014

Risk and Resilience: Shared Opportunities for Science and Capital, Rockefeller Bellagio Conference Center, August 25-29, 2014

CIMMYT – ORNL Summit, CIMMYT, Mexico, May 19-23, 2014

Organizer, Official Side Event, *Visualizing the World's Food Systems* held in conjunction with the Group on Earth Observations Xth Ministerial Plenary, sponsored by the United States of America and Australia & the Commonwealth Scientific and Industrial Research Organisation (CSIRO), The Open Geospatial Consortium and the GEOGLAM Community of Practice, 14 January 2014

Workshops, *Visualizing the World's Food Systems*, World Bank New York Office, New York City, October 31, 2013; Washington, DC March 12, 2014

Theory and Knowledge Systems for Sustainability, workshop for the Knowledge Systems for Sustainability Collaborative co-sponsored by the Santa Fe Institute and the International Institute for Applied Systems Analysis, Santa Fe, NM, October 22-24, 2013

Navigating New Risk Landscapes and Opportunities in Global Food Systems, Tällberg, Sweden, June 11-13, 2013

Knowledge Systems for Sustainability/Chesapeake Bay Program/Oak Ridge National Laboratory Summit, Annapolis, MD, May 2-3, 2013

Knowledge Systems for Sustainability Partnership Meeting, The Oak Ridge National Laboratory, Oak Ridge, TN, November 26-28 2012

Knowledge Systems for Sustainable Landscape Management, hosted by the International Food Policy Research Institute June 11, 2012; hosted by USAID, June 12-13, 2012

Sustainable agriculture and food security, under the auspices of Sir John Beddington to convene global donors for the CCAFS Commission recommendations, London, UK, March 28, 2012

National Initiative for Sustainable Agriculture, co-organized with UW colleagues, Denver, CO, March 15-16, 2012; Rosemont, IL, November 9-10, 2011

Sustainable Agriculture and Climate Change, a side event in conjunction with the Annual Agriculture and Rural Development Day, The World Bank, Washington, DC, February 23, 2012

Information Infrastructure for Sustainability Sciences, hosted at the Joint Institute for Global Change Research/DOE PNNL/UMD February 21-22, 2012; George Mason University, Fairfax, VA, March 21-22, 2011

Roundtable, AAAS/Charles V. Riley Memorial Foundation Roundtable: *Exemplary collaborations in agricultural research*, Washington, DC, March 15, 2011

Information Resources for Sustainability, National Council of Science and the Environment, Washington, DC, March 19, 2010

USDA Science Leadership Retreat at the National Agricultural Library, Beltsville, MD, January 25, 2010

Opportunities in Africa, Applied Sustainability Center, with colleagues at the University of Arkansas, Unilever HQ, Rogers, AR, July 17, 2009

Wisconsin Agricultural Outlook Forum in conjunction with the Wisconsin Farm Bureau, Madison, WI, January, 2008-11, 2009

The Role of Biotechnology in a Sustainable Food Supply, Agricultural Sustainability and Rural Prosperity Workshop Series, Rogers, AR, November 19, 2008

Molecular biology for agricultural research applications, Bamako, Mali with USAID and AVRDC, August 27-31, 2007

Organic Seed Partnership Project Meeting in conjunction with the Organic Seed Alliance National Meeting, Edgefield, OR, January 13, 2006

Organizing Committee and Plant-Microbe Interactions Chair, Plant Genetics, ASPB, Snowbird, UT, October, 2005

Organizing Committee, *Seeds and Breeds: A conference to reinvigorate public breeding seeds and animals for a healthy 21st century agriculture*, Ames, IA, September 11-14, 2005

Organizer, Solanaceae Workshop, Plant & Animal Genome VI-XI, San Diego, CA, 1997-2003, 2005

Chair, Resistance to pests and diseases of pepper, Xth Eucarpia Symposium on the Breeding of Eggplant and Pepper, Avignon, France September 7-12, 1998,

Capsicum Genome Mapping Workshop at Plant Genome IV, San Diego, CA, January, 1996

Cucumis Genome Mapping Workshop at Cucurbitaceae 94, South Padre Island, TX, November, 1994

Squash Breeders' National Working Group Meeting at Cucurbitaceae 94, South Padre Island, TX, November, 1994

Squash Breeders' National Working Group Meeting, Raleigh, NC, September, 1992

Symposium on Genetics and Breeding for Resistance to Viral Diseases, Ithaca, NY, March, 1989

SELECTED INVITED ACADEMIC AND OUTREACH PRESENTATIONS (since 2006 excluding federal events and assignments)

Keynote, Plant and Animal Genome, January 2025

Keynote, American Geographical Society, November 15, 2022

Presidential Panel, Weather, climate and global food security. American Meteorological Society January 23-27, 2022

Keynote Cyber risk and cyber security in agriculture. 3rd IEEE Conference on Trust, Privacy and Security in Intelligent Systems and Applications (IEEE TPS 2021) December 13-15, 2021

The future of agriculture. Keynote. Visions III. Iowa State University, Ames, IA November 3, 2021

Keynote, Cybersecurity and Agriculture, Texas Rural Challenge, UT San Antonio July 14, 2021

Discover DSO Day www.darpa.mil June 23, 2021

Zocalo Public Square with Dan Sarewitz March 16, 2021
<https://www.zocalopublicsquare.org/event/what-does-food-security-really-mean/>

Keynote, Cybersecurity in agrifood supply chains; Food Agility (virtual) Summit, Queensland University of Technology, 15 March 2021

2020-2021 Student-invited Synapsis Seminar, Cornell University, February 16, 2021

Inaugural Seminar, Dept of Agronomy, Iowa State University, January 27, 2021

Panelist, Climate change implications for Security: Human Impacts, Global Security Directorate, Lawrence Livermore National Laboratory, January 6, 2021

Keynote, Virtual Foro Global Agroalimentario 2020, November 26, 2020

Keynote, CIMMYT International Launch for Agri-Food Systems Initiative, June 22, 2020

Keynote, “Artificial Intelligence and the Future of Agriculture” at Visions III: Stargazing into the Future of Animal Genetics and Genomics, Iowa State University 20 Nov 4, 2021

Keynote, “Artificial Intelligence and the Future of Agriculture” at the 3rd Annual Prepare.ai Conference, 20-21 April, St. Louis, MO (cancelled)

Inaugural seminar for the 2020 Soil and Crop Science Seminar Series, Texas A&M University, College Station, TX, January 21, 2020

Lecture of Opportunity, “Food security, food systems and national security” at the U.S. Naval War College, Newport, RI

Panelist, “Dealing with Surprise in Complex Systems” at the 12th Annual Conference of the Strategic Multilayer Assessment: The evolving anatomy of conflict in a dynamically changing world, Joint Base Andrews, 21-22 May 2019

Panelist, Are declines in U.S. federal workforce capabilities putting out government at risk of failure? Senior Executive Association Annual Presidential Rank Award Summit, Washington, DC, December 12, 2018

Speaker, Wisconsin Science Festival, Madison, WI, October 13, 2018

Distinguished Lecture, Queensland University of Technology, Brisbane, Australia, June 11, 2018

Keynote Speaker, Global food system stability and risk: a report sponsored by Thomson Reuters and NASA, April 18, 2018

The NDAA 18 study (Title X, Subtitle F, Section 1075). Workshop on food security for the Defense Advanced Research Projects Agency, Arlington, VA, March 12, 2018

Keynote, Genome Editing in Agriculture, The World Bank Annual Meeting, Tyson’s Corners, VA, March 5, 2018

Food security, risks and resilience in global food systems, Annual Meeting of the International Society for Disease Surveillance Workshop, Orlando, FL, January 30, 2018

Closing plenary address, 3rd International Conference on Global Food Security, Cape Town, South Africa, December 2017

Keynote, National New Zealand Complexity Institute Annual Meeting, University of Auckland, October 26, 2017

Distinguished Lecture: Queensland University of Technology, November 2017

Distinguished Lecture: Frontiers in Geoscience, Los Alamos National Lab, August 28, 2017

Panelist “Cybersecurity, human behavior and terrorism” Los Alamos National Laboratory, 29 August 2017

Panelist, Geneva Association/SCOR Association, Paris, March 8-9, 2017

Keynote Public Lecture, Society of Industrial and Applied Mathematics (SIAM) Conference on Mathematics of Planet Earth, September 30 – October 2, 2016

Plenary Keynote Speaker, European Society of Agronomy Congress, Edinburgh, Scotland September 2016

Grand Challenge Lecture, Institute for Future Environments, Queensland University of Technology, Brisbane, Australia, October 23, 2015

Keynote Speaker, Global and Local Impacts of Climate Change on Agriculture, Door County Climate Change Forum, Stone Harbor, WI, May 9, 2015

Speaker and Organizer, National Academy of Sciences’ Roundtable on Public Interfaces of the Life Sciences, Washington, DC, May 5, 2015

Speaker, University of Warwick workshop on Evidence Based Decision Support for Food Security, Coventry, UK, April 17, 2015

Speaker, Food Security Roundtables, Lloyd’s of London, January and March, 2015

Keynote, Food for Tomorrow, a New York Times Conference, Pocantico, NY, November 12, 2014

Speaker, MIT Technology Review EmTech Conference, Cambridge, MA, September 23, 2014

Keynote, Forum on Food4Growth, Brisbane, Australia, June 17, 2014

RD Watt Lecture, Charles Perkins Centre, University of Sydney, Australia, April 16, 2014

Lecture, DC Smith Distinguished Lecture Series, University of Wisconsin-Madison, March 12, 2014

Plenary keynote, 16th Annual Farmer Cooperative Conference, Minneapolis, MN November 7-8, 2013

Opening keynote, Smarter Agriculture: A Dialogue on Critical Data for Agriculture, Purdue meeting in Potomac, MD October 10-11, 2013

Opening plenary keynote, Agriculture Research Toward Sustainable Development Goals, Uppsala, Sweden September 25-26, 2013

Opening plenary keynote, Monsanto Scientific Fellows Colloquium, St. Louis, MO June 20, 2013

Pioneer Plant Breeding Symposium Lecture, University of California Davis, April 12, 2013

American Museum of Natural History Event for the opening of the exhibit The Global Kitchen

January 10, 2013

Concluding Panel, Soils Week, Institute of Advanced Sustainability Studies, Potsdam, November 18-22, 2012

Opening keynote, 11th Annual Quivira Coalition meeting, Albuquerque, NM November, 2012

Distinguished Lecture George Bush Presidential Library, Texas A&M University November 12-13, 2012

Baker Lecture in Plant Breeding, Iowa State University June 28, 2012

Keynote, Environmental Working Group, International Association of Actuaries, LA, CA May, 2012

Kansas State University, April 11, 2012

Workshop Lead Speaker USAID Feed the Future, CSSA-SSSA-ASA Annual Meeting, San Antonio, TX October 16-20, 2011

Keynote, Workshop on Crop Breeding and Management of Agricultural Environment for Coping with Climate Change, Taiwan Agricultural Research Institute, Taichung, Taiwan, hosted by TARI and National Taiwan University, August 31, 2011

Speaker, Mad (Food) Symposium, Copenhagen, Denmark August 27, 2011

Keynote, Korean Breeding Society July 7, 2011 Muju, Korea

Keynote Plenary and Workshop Speaker, Sustainable Food Lab Summit June 29, 2011

Keynote Plenary, University of Leeds Africa College June 24, 2011

Panel Moderator, U.S. Dairy Sustainability Council, Innovation Center for U.S. Dairy, Chicago, IL, May, 2011

Speaker, Organic Agriculture and Organic Production Systems, Economic Research Service/USDA, Washington, DC March 17, 2011

Keynote, DOE Great Lakes Bioenergy Research Center Retreat, Sustainability Research Area, Kellogg Biological Station, Hickory Corners, MI February 7, 2011

Speaker, Inaugural seminar in series at the Woodrow Wilson Center for International Scholars and George Mason University on Managing the Planet, Washington, DC January 19, 2011

Speaker, Feed the Future Research Workshop, USAID, BIFAD, USDA, Purdue University, January 11-13, 2011

Briefing, Participatory Plant Breeding, USDA National Institute for Food and Agriculture, Washington, DC, January 5, 2011

Colloquium Speaker, Crop Science Society of America, Long Beach, CA, Oct. 31, 2010

Plenary Speaker, University Industry Consortium St. Louis, MO, Oct. 19, 2010

Keynote, University of Nebraska Life Sciences Faculty Retreat, Lincoln, NE, Sept. 24, 2010.

Panelist, Dairy Sustainability and the Fluid Milk LCA, DMI Board Meeting, Chicago, IL, Sept. 20, 2010

Keynote, Association for the Improvement of Industrial Crops, Ft. Collins, CO, Sept. 19, 2010

Keynote, The future of agriculture, Biannual national meeting of the National Agricultural Statistical Service, Milwaukee, WI Sept. 17, 2010

Keynote, Corn and Beans Field Day, Arlington Ag Research Station, August 25, 2010

Commencement Address, Chicago High School for Agricultural Sciences, June, 2010

Panelist, View from the Top, Association of University Technology Managers, Madison, WI, July 28, 2009

Keynote Speaker, Sustainability and Sustainable Agriculture, Tomato Breeders Roundtable, Sacramento, CA June 29, 2009

Keynote, Seed Biotechnologies: Filling the Gap between the Public and Private Sector, Sacramento, CA, May 11-12, 2009

Seminar, USDA, Sustainability and Science for Sustainable Agriculture, Washington, DC, March 3, 2009

Keynote Speaker, Family Dairies USA Cooperative Annual Meeting, Madison, WI, February 14, 2009

Speaker, ASTA/ASRF/NCCPB Seed Summit, Chicago, IL, September 25-26, 2008

Speaker, Small Business Economic Development Breakfast, Madison, WI, May, 2008

Speaker, Columbia County Economic Development Corporation, Lodi, WI, May, 2008

Keynote Speaker, Organic Farming Research Foundation Benefit, Natural Products Expo, Anaheim, CA, March, 2008

Keynote, Federation of Environmental Technologists Environment Conference, Milwaukee, WI, March, 2008

Speaker, Governor's Conference on Economic Development, Madison, WI, February, 2008

Speaker, Wisconsin University-Industry Potato Educational Meeting, Stevens Point, WI, February, 2008

Speaker, Wisconsin Arborists Association Conference, Middleton, WI, February, 2008

Presenter, Conversations in Science Series, Madison, WI, January, 2008

Keynote, Local Food Summit and Midwest Value-Added Conference, Eau Claire, WI, January, 2008

Plenary Speaker, 4th Solanaceae Congress, September, 2007, Jeju Island, Korea

Keynote, Wisconsin Cranberry School, Stevens Point, WI, January, 2007

Keynote, VitaPlus Dairy Summit, Waukesha, WI, December, 2007

Keynote, Wisconsin Farm Bureau Annual Meeting, Middleton, WI, Dec., 2007

Speaker, Grow Wisconsin Livestock Meeting, Madison, WI, December, 2007

Keynote, Federation of Co-Ops Annual Meeting, Minneapolis, MN, November, 2007

Presenter, University of Wisconsin-Madison, Wednesday Night at the Lab, Madison, WI,

November, 2007

Speaker, Solanaceae Genome Workshop, Jeju, Korea, September, 2007

Keynote, Investing in Agriculture, Pewaukee, WI August, 2007

Colloquium Speaker, Organic Seed Partnership, American Society for Horticultural Science, July, 2007

Invited Speaker, Virus resistant tomatoes for West Africa, American Society for Horticultural Science, July, 2007

Plant Biology, Michigan State University, January, 2007

Keynote, International Pepper Meeting, Palm Springs, CA, May, 2006

Invited Speaker, Iowa State Plant Breeding Symposium, Ames, IA, May, 2006

Speaker, University-Industry Relations in Agricultural Biotechnology National Conference, Washington, DC, May 1, 2006

Seminar and visiting scientist, Max Planck Institute for Plant Breeding Research, Cologne, Germany, January, 2006

Postdoctoral and Senior Research Associates

Buddhika Jayahama (2017-2019) currently faculty at the US Air Force Academy

Travis Andrews (2016-2018)

Sarah Collier (2011-2017), currently faculty at U Washington

David Zaks (2011-2016)

Chad Kramer (2007-2009) currently Breeder, Seminis Seeds

Shanna Moore Fellman (2003-2008) currently Research Scientist, Cornell University

Kede Liu (2000-2003)

Han Suk Kim (2002)

Byoung Cheorl Kang (1999-2006) currently faculty at Seoul National University

Laurie Landry (1999-2002)

Tim Porch (2001) currently Research Scientist, USDA

Kevin Livingstone (1999-2000) currently faculty at Trinity University

Rebecca Grube (1999-2000) currently faculty at University of New Hampshire

Elaine Radwanski (1995-1997) currently faculty at Carthage College

William Wintermantel (1994) currently Research Scientist, USDA

Marcia Fisher Marston (1994) currently faculty at Roger Williams University

John F. Murphy (1991-1994) faculty emeritus at Clemson University

Raj Nagarajan (1993-1994)

James Prince (1991-1992) currently faculty at Chico State University

International Visiting Scholars, Honorary Fellows and Sabbatical Guests

Bill Oemichen, Former chief, WI State Disaster Preparedness, Honorary Fellow

Eva Wieltzien, ICRISAT Bamako (ret), Honorary Fellow

Fred Rattunde, ICRISAT Bamako (ret), Honorary Fellow

Maryam Golnaroghi, Geneva Association, Honorary Fellow

Stanley Wood, BM Gates Foundation, Honorary Fellow

COL Mike Gremillion, US Air Force, Honorary Fellow

Jon Meiman, MD, Honorary Fellow
 LT COL Max Brosig, Wisconsin Army National Guard, Honorary Fellow
 Jin-Feng Chen- Tang Fellow, Nanjing Agricultural University
 Felix Guzman, CIAT/IPGRI, Cali, Colombia
 Ana Garces, IRTA, Zaragoza, Spain
 Hanxia Li, Huazhong Agricultural University 2002-4
 Suhyoung Park, Korea, 2004
 KT Kim, Korean Rural Development Authority, 2003-4
 Nurit Katzir, Volcani Institute, Israel, sabbatical leave 2001-2
 Mahmoud Lofti, University of Tehran, Iran 2001-2002
 Ilan Paran, Volcani Institute, Israel, sabbatical leave 1999-2000
 Marisol Arnedo, IRTA, Spain
 Eun Young Yoo, Seoul National University
 Syed Monowar Hossain, Ministry of Agriculture, Bangladesh
 Baojian Huang, Nanjing Agricultural University
 Qingzhong Xue, Zheijiang Agricultural University

Graduate Students for Whom I Served as Major Advisor

| | |
|-------------------------|------------------|
| Sarah Collier | PhD, May, 2011 |
| Jason Cavatorta | PhD, May, 2010 |
| Kari Perez | PhD August, 2009 |
| Jeff Gordon | PhD August, 2009 |
| Guilia Stellari | PhD August, 2009 |
| Michael Mazourek | PhD May, 2008 |
| Charles Stewart | PhD August, 2006 |
| Inhwa Yeam | PhD August, 2006 |
| Winnie Liu | MS August, 2006 |
| Molly Cadle-Davidson | PhD August, 2005 |
| James Frantz | PhD May 2003 |
| Tim Porch | PhD August 2001 |
| Troy Thorup | PhD August 2000 |
| Rebecca Grube | PhD August 1999 |
| Kevin Livingstone | PhD May 1999 |
| Yiping Zhang | PhD January 1997 |
| Marcie Fisher (Marston) | PhD May 1995 |
| James Blauth | PhD August 1994 |
| Paul Zamudia | MS May, 2011 |
| Alfredo Bolanos | MS January 1994 |
| Raphael Gilbert | MS August 1992 |

Graduate Minors

| | |
|---------------|-------------------------------------|
| Marlie Lukach | PhD, third year, Cornell University |
| Jeff Fabrizio | PhD, third year, Cornell University |
| Tim Lindstrom | PhD 2020 |
| Tyler Lark | PhD 2017 |
| Erica Arcebal | MS 2016 |

| | |
|-------------------------|-------------|
| Yong Fei Zhang | PhD 2007 |
| Ling Bai | PhD 2007 |
| Anjali Inyer | PhD 2006 |
| Jennifer Lewis | PhD 2005 |
| Gilda Rauscher | PhD 2005 |
| Katy Martin Rainey | MS-PhD 2005 |
| Ahmed Wally | PhD 2004 |
| Chun Suk Jung | PhD 2004 |
| Shanna Moore | PhD 2004 |
| Carlos Mauricio La Rota | PhD 2004 |
| Min-Jea Kim | PhD 2003 |
| Antonio Alfonso | PhD 2003 |
| Chih-Wei Tung | MS 2002 |
| Clint Nesbitt | PhD 2002 |
| Han Suk Kim | PhD 2002 |
| Nicole Donofrio | PhD 2002 |
| Gustavo Fermin-Munoz | PhD 2002 |
| Fevziye Celebi | PhD 2001 |
| Nathaniel Mitkowski | MS-PhD 2001 |
| Tito Zuniga | PhD 2000 |
| Aigars Brant | PhD 1999 |
| Abdou Mbaye | PhD 1999 |
| Jianping Ren | PhD 1999 |
| Lara Palevitz | PhD 1999 |
| Anton Callaway | PhD 1998 |
| Joanne Conner | PhD 1997 |
| Chad Williams | MS 1997 |
| Suzanne Emery | MS 1997 |
| Patrick Conner | PhD 1996 |
| Yourha Kang | PhD 1999 |
| Ali Alan | MS/PhD 1995 |
| Richard Nyankanya | MS 1995 |
| Zhengqiang Ma | PhD 1994 |
| Tim Metz | PhD 1994 |
| Winthrop Phippen | MS 1994 |
| Darlene Hagens | MS 1992 |

External Advisor

| | |
|----------------------|---------|
| David Feltman, USNWC | MS 2021 |
|----------------------|---------|

REVIEW PANELS

National Frontiers in Research Fund Jury 2021, 2022

USDA Inaugural Food and Agriculture Cyberinformatics and Tools Panel, 2019

NASA/USAID Panel 2019

Swedish Agricultural University, SLU, Quality and Impact Assessment Panel May, 2017

UK Joint Research Council Panel: Grand Challenges, 2017
 Specialty Crops Research Initiative Panel, USDA
 NSF Plant Genome, Integrative Biology Program
 USDA NRI/CGP Plant Genome, Genetic Mechanisms, Plant Pathology, Managed Ecosystems
 USDA Special Grants Program for Tropical and Subtropical Agriculture, Pacific Basin
 Administrative Group
 USDA/ARS South Atlantic Area Regional Program
 USDA Crop Germplasm Committee/National Plant Germplasm System
 The Consortium for Plant Biotechnology Research, Inc.
 Bush Foundation, St. Paul, MN
 Levehulm Trust, UK
 The John T. and Catherine D. MacArthur Foundation, Chicago, IL
 External and Internal Hatch Reviewer
 Natural Science and Engineering Research Council of Canada
 U.S.-Israel Binational Agricultural Research and Development Program
 Israeli Ministry of Agriculture
 The Israel Science Foundation

Journals

| | |
|---|-----------------------------|
| PLoS ONE Channel Editor, ‘Crop Science, Food Security and Food Systems’ | |
| The Plant Cell | PNAS |
| Genetics | Genome |
| Journal of the American Society for Horticultural Science | Phytopathology |
| Molecular Plant-Microbe Interactions | Plant Disease |
| Crop Protection | Euphytica |
| Genetic Resources and Crop Evolution | Plant Journal |
| HortScience | BBA |
| Theoretical and Applied Genetics | Crop Science |
| Molecular Breeding | J. Experimental Botany |
| Molecular Genetics and Genomics | Briefings in Bioinformatics |

PROFESSIONAL ASSOCIATIONS AND SOCIETIES

| | |
|--|------------------------------------|
| AAAS | Sigma Xi |
| American Phytopathological Society | American Society for Plant Biology |
| Crop Science Society of America | |
| American Society for Horticultural Science | |

TEACHING AND TRAINING

Courses Taught (excluding independent study)

| | |
|----------------|---|
| Agron 365 | Systems Thinking (upon return to UW Madison) |
| Agron 375 | Systems Thinking Fall 2018, 2019 |
| Agron 375 | Nelson Institute Capstone ‘A Systems View of Life’ Fall, 2017 |
| Guest Lecturer | Environmental Health, Entomology 200, Spring, Fall 2017 |
| Agron 375 | A Systems View of Life Fall 2016 |
| Agron 299/699 | Independent Study/ Special problems in support of Agricultural Innovation Prize Spring 2014 |

| | |
|----------------|---|
| Gen/Hort/Ag957 | Plant Breeding for 21 st century Agricultural Systems 2012, 2013 |
| Guest Lecturer | Global Health Spring, 2011, Fall, 2012, Fall, 2013 |
| PIBr 606 | Advanced Plant Genetics 3 credits Spring, 1992-99, 2000, 2004-5 |
| PIBr 225 | Plant Genetics 2 credits Spring 2002-3 |
| PIBr 201 | Plants, Genes and Global Agriculture Spring 2001 |
| BioPl 744 | Lab Rotation course Fall 2000-2003 |
| BioPL 743 | Journal Club 1 credit; Spring 2003 Current Developments in Plant Secondary Metabolism |

PUBLICATIONS

Peer Reviewed Publications

ORCID ID 0000-0003-0181-0374

- Govaerts,* B., C. Negra,* T.C. Camacho Villa, X.C. Suarez, A.D. Espinosa, S. Fonteyne, A. Gardeazabal, G. Gonzalez, R. Gopal Singh, V. Kommerell, W. Kropff, V.L. Saavedra, G.M. Lopez, S. Odjo, N. Palacios Rojas, J. Ramirez-Villegas, J. Van Loon, D. Vega, N. Verhulst, L. Woltering, M.M. **Jahn*** and M. Kropff. 2021. One CGIAR and the Integrated Agri-food System Initiative: From short-termism to transformation of the world's food systems. PLoS One 16(6):e0252832. Published: June 4, 2021
<https://doi.org/10.1371/journal.pone.0252832>
- Zhao, Q., Y. Meng, P. Wang, X. Qin, C. Cheng, J. Zhou, X. Yu, J. Li, Q. Lou, M.M. **Jahn*** and J. Chen*. 2021. Reconstruction of an ancestral karyotype illuminates chromosome evolution in the genus, *Cucumis*. Plant Journal 107(4): <https://doi.org/10.1111/tpj.15381>.
- Jahn**, M.M. 2021. How 'multiple breadbasket failure' became a policy issue. Issues in Science and Technology 37(2):80-86.
- Tian, Z., M. **Jahn**, X. Qin, Y. Zhai, H.O. Obel, F. Yang, J. Li and J. Chen. 2021. Genetic and transcriptomic analysis reveal the molecular basis of photoperiod-regulated flowering in Xishuangbanna cucumber (*Cucumis sativus* L. var xishuangbannensis Qi et Yuan). Genes 12(7):1064 <https://doi.org/10.3390/genes12071064>.
- Ziemke, J. B. Jayamaha and M.M. **Jahn**. 2021. Crisis-Mapping and crowdsourcing in complex emergencies. In: Encyclopedia of Crisis Analysis. Oxford University Press.
<https://doi.org/10.1093/acrefore/9780190228637.013.1580>.
- Yu, X., P. Wang, J. Li, Q. Zhao, C. Ji, Z. Zhu, Y. Zhai, X. Qin, J. Zhou, H. Yu, X. Cheng, S. Isshiki, M. **Jahn**, J.J. Doyle, C. Ottosen, Y. Bai, Q. Cai, C. Cheng, Q. Lou, S. Huang and J. Chen. 2021. Whole genome sequence of synthesized allopolyploids in *Cucumis* reveals insights into genome evolution of allopolyploidization. Advanced Science DOI: 10.1002/advs.202004222
- Gardeazabal, A., T. Lunt, M.M. **Jahn**, N. Verhulst, J. Hellin and B. Govaerts. 2021. Knowledge management for innovation in agrifood and health systems: A conceptual framework. Knowledge Management Research and Practice DOI: 10.1080/14778238.2021.1884010
- Collier, S.M., S.M. Green, A. Inman, T. Bearder, D.W. Hopkins, H. Kendall, M.M. **Jahn** and J.A.J. Dungait. 2020. Effect of farm management on soil organic carbon and aggregate stability in water: Case study from Southwest England. Soil Use and Management 00:1-14. DOI: 10.1111/sum.12658

- Cheng, C., Q. Li, X. Wang, Y. Li, C. Qian, J. Li, Q. Lou, M.M. **Jahn*** and J. Chen.* 2020. Identification and expression analysis of the *CsMYB* gene family in root knot nematode-resistant and susceptible cucumbers. *Frontiers in Genetics* 11:550677 doi: 10.3389/fgene.2020.550677 * co-corresponding authorship.
- Gutierrez Sanchez, P.A., L. Babujee, H. Jaramillo Mesa, E. Arcibal, M. Gannon, D. Halterman, M.M. **Jahn**, J. Jiang and A.M. Rakontondrafara. 2020. Overexpression of a modified eIF4E regulates Potato virus Y resistance at the transcriptional level in potato. *BMC Genomics* 21(18). DOI: 10.1186/s12864-019-6423-5
- Guzmán, F.A., S. Moore, M.C. de Vicenti and M.M. **Jahn**. 2020. Microsatellites to enhance characterization, conservation and breeding value of *Capsicum* germplasm. *Genetic Resources and Crop Evolution*. 67(3):569-585. Published online 4 July 2019. DOI: 10.1007/s10722-019-00801-w.
- Egan, A., Fellman, S.M., G.M. Stellari, B.-C. Kang and M.M. **Jahn**. 2019. Tandem gene duplication and recombination at the *AT3* locus in the Solanaceae, a gene essential for capsaicinoid biosynthesis in *Capsicum*. *PLoS ONE* 14(1): e0210510. DOI: 10.1371/journal.pone.0210510.
- Paustian*, K, S.M. Collier, J. Baldock, R. Burgess, J. Creque, M. DeLonge, J. Dungait, B. Ellert, S. Frank, T. Goddard, B. Govaerts, M. Grundy, M. Henning, C. Izuaralde, M. Madaras, B. McConkey, E. Porzig, C. Rice, R. Searle, N. Seavy, R. Skalsky, W. Mulhern and M.M. **Jahn***. 2019. Quantifying soil carbon measurement for agricultural soils management: From the present status to a global soil information system. *Carbon Management*. Published online 3 September 2019. DOI: 10.1080/17583004.2019.1633231.
- Jayamaha, B., K. Petit, J. Matisek, W. Reno, M. Rose, and M.M. **Jahn**. 2019. The Great Saudi-Iranian Proxy Game. *Middle East Quarterly* 26(4):1-10.
- Jayamaha, B., J. Matisek, W. Reno, M.M. **Jahn**. 2018. Changing weather patterns, climate change and civil war dynamics: Institutions and conflicts in the Sahel. *J. Diplomacy and International Relations* 20(1):70-87.
- Venkatesh, J., J. An, W.-H. Kang, M.M. **Jahn**, B.-C. Kang. 2018. Fine mapping of the dominant potyvirus resistance gene, *Pvr7* reveals a relationship with *Pvr 4* in *Capsicum annuum*. *Phytopathology* 108(1):142-148. DOI: 10.1094/PHYTO-07-17-0231-R.
- Perez, K., J.S. Froikin-Gordon, I.K. Adbourhamane, V. Levasseur, A.A. Alfari, M. Armel, O. Bonsu, B. Habsatou, F. Assogba-Komlan, A.A. Mbaye, M. Noussourou, L.C. Otoïdobia, L. Ouedraogo, T. Kon, M. Rojas, K.T. Gamby, R.L. Gilbertson, F. Shotkoski, and M. M. **Jahn**. 2017. Connecting smallholder vegetable producers to improved seed in West Africa. *Agriculture and Food Security* 6:42-56. DOI: 10.1186/s40066-017-0118-4.
- Lal, R., R.H. Mohtar, A.T. Assi, R. Ray, H. Baybil and M.M. **Jahn**. 2017. Soils at the center of the food-energy-water nexus. *Curr Sustainable/Renewable Energy Repts* 4(3):117-129. DOI: 10.1007/s40518-017-0082-4.
- Lunt, T., A.W. Jones, W.S. Mulhern, D.P.M. LeZaks, M.M. **Jahn**. 2016. Vulnerabilities to agricultural production shocks: An extreme, plausible scenario for assessment of risk for the insurance sector. *Climate Risk Management*. 13:1-9. DOI: 10.1016/j.crm.2016.05.001
- Holdsworth, W.L., K.E. LaPlant, D.C. Bell, M.M. **Jahn** and M. Mazourek. 2016. Cultivar-based introgression mapping reveals wild species-derived *Pm-0*, the major powdery mildew resistance locus in squash. *PLoS ONE* 11(12): e0167715. DOI: 10.1371/journal.pone.0167715.
- Venkatesh, J., M.M. **Jahn**, B.-C. Kang. 2016. Genome-wide analysis and evolution of the Pto-

- like protein kinase (PLPK) gene family in pepper. PLoS ONE 11(8):e0161545. DOI: 10.1371/journal.pone.0161545.
- LaPlant, K.E., L.E. Wyatt, G. Moriarty, M. Fink-Brodnick, M.M. **Jahn** and M. Mazourek. 2016. Powdery Mildew Resistant pumpkin inbred lines. HortScience 51(10):1297-1300. DOI: 10.21273/HORTSCI10866-16.
- Rakotondrafara, A.M., E. Arcibal, K.M. Gold, S. Flaherty, J. Jiang, M. M. **Jahn**. 2015. A mutant eIF4E confers differential resistance to Potato virus Y strains and is inherited in a dominant manner in the potato varieties ‘Atlantic’ and ‘Russet Norkotah’. American Journal of Potato Research. 93(1):64-71. DOI 10.1007/s12230-015-9489-x.
- Moffor, R.O., J. Nelson, M. **Jahn** and J. Nelson. 2015. Findings from the Caring International Research Collaborative: Using caring science to assess and support food sustainability systems for women living with HIV/AIDS in a village in Cameroon. Interdisciplinary J. of Partnership Studies. 1(1). DOI: 10.24926/ijps.v1i1.94.
- Liu, W.Y., J.H. Kang, H.S. Jeong, H.J. Choi, H.B. Yang, K.T. Kim, D. Choi, G.J. Choi, M.M. **Jahn**, B.C. Kang. 2014. Combined use of bulked segregant analysis and microarrays reveals SNP markers pinpointing a major QTL for resistance to *Phytophthora capsici* in pepper. Theor. Appl. Genet. 127(11):2503-13. DOI: 10.1007/s00122-014-2394-8.
- Park, S.W., J.K. Jung, E.A. Choi, J.K. Kwon, J.H. Kang, M.M. **Jahn** and B.C. Kang. 2014. An EST-based linkage map reveals chromosomal translocation in *Capsicum*. Molecular Breeding. 34(3):963-975. DOI: 10.1007/s11032-014-0089-0.
- Neufeldt, H., M.M. **Jahn** (co-first authors), B.M. Campbell, J.R. Beddington, F. DeClerck, J. Gullledge, J. Hellin, M. Herrero, A. Jarvis, D. LeZaks, H. Meinke, T. Rosenstock, M. Scholes, R. Scholes, S. Vermeulen, E. Wollenberg and R. Zougmore. 2013. Beyond climate-smart agriculture: toward safe operating spaces for global food systems. Agriculture & Food Security. 2:12-18. DOI: 10.1186/2048-7010-2-12.
- Lee, J.M., I. Yeam and M.M. **Jahn**. 2013. Allelic relationships at the *pvr1* locus in *Capsicum*. Euphytica. 194(3):147-424. DOI: 10.1007/s10681-013-0967-2.
- Wyatt, L.E., A.R. Dunn, M. Falise, S. Reiners, M.M. **Jahn**, C.D. Smart and M. Mazourek. 2013. Red harvest yield and fruit characteristics of *Phytophthora capsici*-resistant bell pepper inbred lines in New York. HortTechnology 23:356-363. DOI: 10.21273/HORTTECH.23.3.356.
- J. R. Beddington, M. Asaduzzaman, M. E. Clark, A. Fernandez Bremauntz, M. D. Guillou, M. M. **Jahn**, E. Lin, T. Mamo, C. Negra, C. A. Nobre, R. J. Scholes, R. Sharma, N. Van Bo, J. Wakhungu. 2012. The role for scientists in tackling food insecurity and climate change. Agriculture & Food Security, 1:10. DOI: 10.1186/2048-7010-1-10.
- Perez, K., I. Yeam, B.C. Kang, D.R. Ripoll, J. Kim, J.F. Murphy, M.M. **Jahn**. 2012. *Tobacco etch virus* infectivity in *Capsicum* spp. is determined by a maximum of three amino acids in the viral avirulence determinant VPg. Molecular Plant-Microbe Interactions 25:1562-1573. DOI: 10.1094/MPMI-04-12-0091-R.
- Beddington J. R, M. Asaduzzaman, M. E. Clark, A. Fernandez Bremauntz, M. D. Guillou, D. J. B. Howlett, M. M. **Jahn**, E. Lin, T. Mamo, C. Negra, C. A. Nobre, R. J. Scholes, N. Van Bo, J. Wakhungu. 2012. What Next for Agriculture After Durban? Science 335:6066, 289–290. DOI: 10.1126/science.1217941.
- Cavatorta, J., G. Moriarty, M. Glos, M. Henning, M. Kreitinger, M. Mazourek, H. Munger, M. M. **Jahn**. 2012. “Salt and Pepper”: A disease-resistant cucumber inbred, HortScience 47, 427–428. DOI: 10.21273/HORTSCI.47.3.427.

- Cavatorta, J., K.W. Perez, S.M. Gray, J. Van Eck, I. Yeam and M.M. **Jahn**. 2011. Engineering resistance to plant viral disease using a modified potato gene. *Plant Biotechnology Journal* 9(9):1014-1021. DOI: 10.1111/j.1467-7652.2011.00622.x. Epub 2011 Jun 12.
- Miller, J.K., E.M. Herman, M.M. **Jahn** and K.J. Bradford. 2010. Strategic research, education and policy goals for seed science and crop improvement. *Plant Science* 179:645-652. DOI: 10.1016/j.plantsci.2010.08.006.
- Stellari, G.M., M. Mazourek and M. M. **Jahn**. 2010. Contrasting modes for loss of pungency between cultivated and wild species of *Capsicum*. *Heredity* 104:460-471. DOI: 10.1038/hdy.2009.131.
- Mazourek, M., A. Pujar, Y. Borovsky, I. Paran, L. Mueller and M. M. **Jahn**. 2009. A dynamic interface for capsaicinoid systems biology. *Plant Physiology* 150:1806-1821. DOI: 10.1104/pp.109.136549.
- Mazourek, M., E.T. Cirulli, S. M. Collier, L. G. Landry, B-C. Kang, E. A. Quirin, J. M. Bradeen, P. Moffett and M. M. **Jahn**. 2009. The fractionated orthology of *Bs2* and *Rx/Gpa2* supports shared synteny of disease resistance in the Solanaceae. *Genetics* 182:1351-1364 www.genetics.org/cgi/rapidpdf/genetics.109.101022v1.pdf.
- Mazourek, M., G. Moriarty, M. Glos, M. Fink, M. Kreitinger, E. Henderson, G. Palmer, A. Chikering, D. Rumore, D. Kean, J. Myers, J. Murphy, C. Kramer and M.M. **Jahn**. 2009. Peacework: a cucumber mosaic virus-resistant early red bell pepper for organic systems. *HortScience* 44:1464-1467. DOI: 10.21273/HORTSCI.44.5.1464.
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Soil Organic Carbon Quantification Initiative Website

Our research group with support from the TomKat Educational Foundation led a community effort to assess the status of research and its relevance for carbon management in agricultural soils. Eleven white papers were produced and are maintained on our website as open white papers.

<https://jahnresearchgroup.cals.wisc.edu/research-2/soils-initiative/>

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Op-ed

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Selected Peer-Reviewed Reports

- Jahn**, M.M. 2020. Public Investment in Agricultural Research. Policy Brief, Chicago Council for Global Affairs.
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- “Evolving risks in global food supply” Prepared for Lloyd’s of London by a research team led by Duncan Swift and Molly **Jahn**. Lloyd’s Emerging Risks Report 2019: Understanding Risk.

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- Astorino-Courtois, A. "Types and Locations of Challenges to US Interests, 2019-2029." 2019. (M.M. **Jahn**, Expert Contributor).
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- Jahn**, M.M., G.F. Treverton, D.A. Bray, B. Jayamaha, W. Valdes, B. Carnes, W. Hutchison, W.S. Mulhern. 2018. "Are declines in U.S. federal workforce capabilities putting our government at risk of failure?" Senior Executive Association (Washington, DC) occasional paper.
- Jahn**, M.M., B. Jayamaha, W.S. Mulhern, D.E. Ross, M.A. Rose, G.F. Treverton. 2018. "Global Food System Stability and Risk: At the Nexus of Defense and Development." Thomson Reuters Research Report.
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- "Counting on the World: Building Modern Data Systems for Sustainable Development." Prepared by the Sustainable Development Solutions Network's Thematic Research Network on Data and Statistics (SDSN TReNDS), 17 September 2017. (M. **Jahn**, working group member).
- Janetos, A., Justice, C., **Jahn**, M., Obersteiner, M., Glauber, J., Mulhern, W. "The Risks of Multiple Breadbasket Failures in the 21st Century: A Science Research Agenda." 2017. Pardee Center Research Report, The Frederick S. Pardee Center for the Study of the Longer-Range Future, Boston University.
- "Food System Shock: The Insurance Impacts of Acute Disruption to the Global Food Supply." 2015. Emerging Risk Report, Lloyd's of London. (Prepared for Lloyd's by a research team led by Aled Jones and Molly **Jahn**).
- "Extreme weather and resilience of the global food system." 2015. Final Project Report from the UK-US Taskforce on Extreme Weather and Global Food System Resilience. The Global Food Security Programme. (M. **Jahn**, one of the lead authors).
- "Solutions for Sustainable Agriculture and Food Systems." Technical Report for the Post-2015 Development Agenda. Sustainable Development Solutions Network, a global initiative for the United Nations. Prepared by the Thematic Group on Sustainable Agriculture and Food Systems of the Sustainable Development Solutions Network, 18 September 2013. (M. **Jahn**, working group member).
- "UN Global Compact Sustainable Agriculture Business Principles." Sustainable Agriculture Team, United Nations Global Compact Office. July 2013. (M. **Jahn**, working group member).

member).

“Report to the President on Agricultural Preparedness & the Agriculture Research Enterprise.” by the President’s Council of Advisors on Science and Technology. 2012. (M. Jahn, working group member).

Beddington J, Asaduzzaman M, Clark M, Fernández A, Guillou M, Jahn M, Erda L, Mamo T, Van Bo N, Nobre CA, Scholes R, Sharma R, Wakhungu J. 2012. “Achieving food security in the face of climate change.” Final report from the Commission on Sustainable Agriculture and Climate Change. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Copenhagen, Denmark.

Selected Recent Podcasts and Films

Sourcing Matters episode 65 Aaron Niederhelman, host, Risks of Volatility

<https://open.spotify.com/episode/6hHZnSWkiV5rcvtuZ6dRyz>

BBC World News, October 2020, <https://jahnresearchgroup.net/2020/09/molly-jahn-interviewed-for-bbc-world-news-program/>

Zocalo Public Square March 16, 2021

[Mhttps://www.zocalopublicsquare.org/2021/03/16/agricultural-scientist-molly-jahn-darpa-delicata-squash/personalities/in-the-green-room/](https://www.zocalopublicsquare.org/2021/03/16/agricultural-scientist-molly-jahn-darpa-delicata-squash/personalities/in-the-green-room/)

<https://www.zocalopublicsquare.org/event/what-does-food-security-really-mean/>

Voices of DARPA Episode 56 The Future of Food May 26, 2021

<https://www.youtube.com/watch?v=9om-s4ISFMY>

Heartland Stories hosted by Theresa Marquez June 7, 2022

<https://heartlandstories.libsyn.com/molly-jahn-the-real-risks-in-the-food-system>

Financial Times Film October 5, 2022

<https://www.ft.com/video/21b95eed-77b6-49b1-afea-1f022946d77b>

Toronto Film Festival documentary premiere by Gabriela Cowperthwaite September 8, 2022

The Grab <https://tiff.net/events/the-grab>

Double Exposure Film Festival Washington, DC Opening Night October 13, 2022

<https://dxfest.com/films/the-grab/>

Whole Grain Podcast Grain Elevator and Processing Association Episode 7, November 14, 2022, James Lenz, host

<https://www.geaps.com/news-publications/whole-grain-podcast/cyber-attacks-how-should-the-grain-industry-respond/>

Carnegie Endowment for International Peace, December 14, 2022.

<https://carnegieendowment.org/2022/12/14/how-climate-change-helps-violent-nonstate-actors-pub-88637>

PLANT VARIETY PROTECTION CERTIFICATES

Bugle, powdery mildew resistant Butternut squash awarded September, 2001. Molly Jahn and George Moriarty

Cornell’s Bush Delicata, powdery mildew resistant winter *Cucurbita pepo* awarded May, 2002. Molly Jahn and George Moriarty

MAJOR VARIETIES RELEASED AND LICENSED

>60 total licenses currently in force

Cornell Open-Pollinated and Hybrid Squash Varieties
Cucurbita pepo

Tetra (2020)
Sugaretti F1 with Seeds by Design (2017)
Honeybaby F1 with Seeds by Design (2017)
Sweet REBA winter squash (acorn type) (2005)
Romulus PM Zucchini (2005)
Success PM (2004)
Celebration F1 (2004)
Cornell's Bush Delicata (2002) All America Selection
Harlequin F1 (2002)
3 inbred PMR pumpkin parent lines used in 3 hybrid pumpkin varieties
One parent of three commercial hybrid summer squash varieties

Cucurbita moschata

Parents of two leading commercial hybrids
Oro Verde NY07-131C-N (2009)
Little John NY-05-130 (2009)
Bright Eyes (NY07-140A) (2009)
Bugle (2002)
Honeynut (NY07-134A)

Melon Varieties

Farmer's Daughter (2009)
PMR Delicious 51 (2005)
Hannah's Choice F1 (2005)

Cucumber Varieties

Silver Slicer (2009)
Salt and Pepper NY08-7107 (2009)
Platinum NY06-873 (2008)
Greenfinger NY 08-143 (2006)
Poinsett 2000 with Henry Munger
Marketmore 97 with Henry Munger
Poinsett 97 with Henry Munger

Pepper Varieties

Phytophthora-resistant inbreds--multiple types (2013)
King Crimson (2009)
CU Early NY06-368 (2008)
Peacework (2007)

MAJOR PROJECT-COVID RESPONSE

www.foodsourceusa.com

U.S. PATENTS

Patent No. 8,933,298 “Mutated eIF4E sequences from potato which impart resistance to *Potato Virus Y.*” (Jan. 13, 2015; Margaret Jahn, Jason Cavatorta, Inhwa Yeam, inventors).

Patent No. 7,772,462 "Recessive plant viral resistance results from mutations in translation initiation factor eIF4E." (Aug 10, 2010; Margaret Jahn, inventor).

Canadian Patent No. 2,741,285 issued December 12, 2017.

Past/present selected MAJOR EXTERNAL GRANT AWARDS

NASA Contract and Grant for work on the role of civil earth observations in assessments of food security and the condition of food systems in the context of US and global security to Jahn Consulting LLC DBA Jahn Research Group, 2020-2021

Director of Strategic Outreach for the NASA Harvest Consortium as a subcontractor from the University of Maryland Dept. of Geography or NASA HQ \$15M 10/1/17-9/30/20

My research program is currently or has recently been supported by grants, contracts, cooperative agreements and/or gifts from the U.S. Department of Agriculture, NASA, Oak Ridge National Laboratory, National Geospatial Intelligence Agency, Skoll Global Threats Fund, CIMMYT, TomKat Foundation, Australia CSIRO, Thomson Reuters, Bayer, and anonymous individuals.

Co-Project Director USDA-AFRI CAP \$10 million 2/15/13-2/14/19
Climate Change Mitigation and Adaptation in Dairy Production Systems of the Great Lakes Region,

U Wisconsin Administrative Lead, US Dept of Energy Bioenergy Research Center, Great Lakes Bioenergy Research Center, renewed in 2011 for \$125M \$125 million 2006-2011

USDA IFAFS Plant Genome \$2.25 million 9/01-9/05
Harnessing investments in model systems for crop improvement-Project Director
Subcontracts to USDA ARS, NOFA-NY, Oregon Tilth, Alcorn State U., Cal State Fresno

NSF Plant Genome as CoPI, \$360k 9/02-9/06
Potato functional genomics, Barbara Baker, PI

USAID
Agricultural Biotechnology Support Project 1-PI on subcontract \$1 million 9/93-2/04
Agricultural Biotechnology Support Project 2-PI on subcontract about \$800k 7/04-7/08

USDA Organic Research and Education Initiative \$894,000 10/04-9/08
The Organic Seed Partnership-Project Director
Subcontracts to USDA ARS, NOFA-NY, Oregon State, UC Davis, NMSU, Alcorn State U., West Virginia State U.,

NSF Metabolic Biochemistry \$550,000 8/05-7/08
AT3, a putative acyltransferase essential for capsaicin biosynthesis

Selected scholarly and popular publications about our work

Deppe, C. 2021. Freelance plant breeding. *Plant Breeding Reviews* in press pp. 134-136.
https://en.wikipedia.org/wiki/Delicata_squash

Goldman, I. 2011. *Dedication*. *Plant Breeding Reviews*.

Peters, Scott J. 2010. *Democracy and higher education*. Michigan State University Press.

Mendum, R. M. 2009. *The Scientific Seed: Collaborative plant breeding and the enhancement of biodiversity*. A PhD Dissertation in Rural Sociology and Women's Studies. Pennsylvania State University.

Mendum, R. and Glenna, LL. 2010. Socioeconomic obstacles to establishing a participatory plant breeding program for organic growers in the United States. *Sustainability* 2:73-91.

Ervin, DE, LL Glenna and RA Jussaume Jr. 2010. Are biotechnology and sustainable agriculture compatible? *Renewable Agriculture and Food Systems*. 25: 143–157