

# Rajnish Khanna, Ph.D.

Agricultural Bioscience And Outreach Specialist  
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## PROFESSIONAL BACKGROUND

Food and agricultural biotechnology industry professional, education consultant, plant and soil health scientist.

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## CURRICULUM VITAE

## EDUCATION

<b>Ph.D., Purdue University, Indianapolis, IN.</b>	<b>1994-1998</b>
<b>Biological Sciences (Plant Molecular Biology)</b>	
Thesis Advisor: Dr. John C. Watson	
Thesis Topic: Light-regulated protein kinases from plants	
<b>M.S., Delhi University, Delhi, India.</b>	<b>1988-1990</b>
<b>Plant Molecular Biology</b>	
Thesis Advisor: Dr. Jitendra P. Khurana	
Thesis Topic: Studies on phytochrome in light-grown wheat seedlings	
<b>B.S. (Honors), Delhi University, Delhi, India.</b>	<b>1985-1988</b>
<b>Botany</b>	

**PROFESSIONAL EXPERIENCE****\*\*Indicates Teaching Experience****CARNEGIE INSTITUTION FOR SCIENCE at Stanford University** **2018-Present****Outreach Coordinator, Department of Plant Biology, Carnegie Institution for Science, 260 Panama Street, Stanford, CA-94305**

Translation of Carnegie research into education and industry outreach.

- Create opportunities to share Carnegie Plant Biology research with the Bay Area community
- Publish quarterly newsletter for Carnegie Plant Biology
- Social media outreach
- Develop and maintain industry relationships for technology transfer
- Engage local schools to transfer new content into curriculum building
- Fund raising for Carnegie Plant Biology

**CITY OF TRACY, CA** **2018-Present****Commission Member, Transportation Advisory Commission, City of Tracy, CA**

Advise the City Council on transportation matters.

- Address public transportation issues, including rules and procedures and allocation of funds
- Advise the Council on citywide public transportation matters
- Recommend and promote marketing strategies and community outreach programs

**i-CULTIVER, Inc.** **2015-Present****Founder & CEO, 404 Clipper Cove Way, San Francisco, CA-94310**

Technology transfer and product development for agriculture and food nutrition

- [i-cultiver.com](http://i-cultiver.com)
- Consortium of multi-disciplinary expertise for applications in agriculture, soil science, food science, nutrition and ecology
- Cooperative development of naturally beneficial biological treatments
- Consultation and analytical services

**GLOBAL FOOD SCHOLAR, Inc.** **2013-Present****Founder & CEO, 404 Clipper Cove Way, San Francisco, CA-94310**

Discover Food Less Traveled®

- [terrelocal.com](http://terrelocal.com)
- TerreLocal is “soon to come” online marketplace for local food growers and producers
- Creating value for locally produced good food through transparency
- Online platform disrupting current food systems to connect local food demand with local food availability and significantly reduce food waste
- [TEDx talk](#), 2015

**CARNEGIE INSTITUTION FOR SCIENCE at Stanford University** **2012-2019****Carnegie Fellow Scientist with Winslow Briggs, Director Emeritus, Department of Plant Biology, Carnegie Institution for Science, 260 Panama Street, Stanford, CA-94305**

- Commercial development of a novel rhizobium product for legume agriculture
- Interdisciplinary study of cellular mechanisms regulating stomatal function in plant responses to environmental signals

**\*\*EDUCATION CONSULTANT FOR HIGHER AND MIDDLE SCHOOL PROGRAMS** **2010-Present****1. Contra Costa College, 2600 Mission Bell Dr., San Pablo, CA-94806** (2010-Present)

- **Member of Curriculum Advisory Board**
- Biotechnology curriculum and coursework development
- Course coordinated by Dr. Katherine Krolkowski, *Contra Costa College*

**2. Children's Day School, 601 Dolores Street, San Francisco, CA-94110** (2015-2018)

- [Video: Food and Agricultural Sciences Program](#)
  - Developing a hands-on, interactive Food and Agricultural STEM Education Program
  - Working with school teachers to develop new courses integrating advanced knowledge in food and agricultural sciences
  - Bringing academic and industry experts from agricultural, plant, culinary and nutritional sciences as guest lecturers
3. **St. Bernard's Catholic School, 165 W. Eaton Ave, Tracy, CA-95376** (2018-Present)
- Creating new content for 7th and 8th grade curriculum
  - Developing interactive learning modules to modernize curriculum content
4. **Las Positas College, 3000 Campus Hill Drive Livermore CA-94551** (2016-2017)
- Identified local food and agricultural industry needs to develop new programs and curriculum for the Community College
  - Community based Workforce Development and Economic Development
5. **Livermore Valley Charter School, 3142 Constitution Dr, Livermore, CA-94551** (2013)
- Fascination of Plants Day 2013 in Livermore in association with Livermore Art Association
  - [Video: Fascination of Plants Day 2013](#). Charter-school students presenting clever intertwining of bike wheels, plants, and creative thinking.

**MENDEL BIOTECHNOLOGY, Inc.****2006-2012****Senior Scientist II, 3935 Point Eden Way, Hayward, CA-94545**

(2009-2012)

- **Project Leader:** In charge of the industry's first soybean intrinsic yield gene, *BBX32*
- Led several scientists and field specialists to link *BBX32* molecular function to crop yield
- Worked with Monsanto scientists to develop Regulatory Portfolios for the anticipated launch of *BBX32* soybean product
- Designed parallel studies for model species (*Arabidopsis*) and field-grown crop species to compare developmental, morphological and physiological phenotypes linked to *BBX32*
- Successfully illustrated translation of knowledge to field applications through multidisciplinary approaches confirming conservation of gene function between *Arabidopsis* and crop plants
- Identified and nominated new gene technologies to improve plant performance and yield in major commercial crops, including corn, soy, canola, cotton grown in the field under optimal and suboptimal (abiotic stress) conditions
- Created intellectual property
- Led the research group and managed collaborations with other industry stakeholders, which included frequent presentations and discussions to interpret current data and to design future experiments both in the lab and in the field
- Established new academic collaborations within the US and abroad
- Collaborated with Prof. Andrew J. Millar (Univ. of Edinburgh) on mathematical modeling of protein behavior (see Publications)
- Worked with mathematicians and computational biologists to develop a systems biology program
- Published several manuscripts in an industry environment as the lead scientist guiding and responding to reviews from industry stakeholders for IP protection and journal peer reviews (see articles published from Mendel Biotechnology)
- Wrote detailed manuscript style technical reports to share methods, results and interpretation of experimental data with external industry partners
- Advised Berthold Technologies (Bad WildBad, Germany) in manufacturing new CCD imaging systems called NightShade

**Senior Scientist I, 3935 Point Eden Way, Hayward, CA 94545**

(2007-2009)

- **Project Leader:** In charge of company's top gene technology, *BBX32*
- **Principal Investigator:** Led academic-style basic research program to investigate molecular function of the lead transcription factor in the model plant *Arabidopsis*

- Created new protocols and established new technical platforms to conduct focused experiments for advancing our understanding of the basic function of the lead gene in plant growth and development
- Used biochemical, molecular and plant physiology tools to support basic research and developed gene regulatory networks
- Led the research group (scientists and technicians) and managed collaborations with other industry stakeholders, which included frequent presentations and discussions to interpret current data and to design future experiments both in the lab and in the field
- Created intellectual property

**Research Scientist II, 3935 Point Eden Way, Hayward, CA 94545** (2006-2007)

- Directed and managed the lead gene focused program and the collaboration with a major biotech industry partner, Monsanto
- Created new research facility for use in my research, including “light-safe” environments and established new equipment protocols, e.g. use of NightOWL CCD camera for multiple applications

**UNIVERSITY OF CALIFORNIA, Berkeley, CA** **2000-2006**

**Assistant Specialist with Dr. Peter H. Quail, Plant Gene Expression Center, Department of Plant & Microbial Biology, University of California, Berkeley, CA** (2003-2006)

- Identified Active Phytochrome Binding (APB) motif present in PHYTOCHROME INTERACTING FACTORS (PIFs)
- Showed that PIF5 functions to regulate ethylene levels in the dark and phyB protein levels in light (collaborated with Prof. Dr. Eberhard Schaefer, Univ. of Freiburg)
- Functional profiling of over 30 mutants in genes regulated by light
- Worked with E. Kikis, a Ph.D. student to show EARLY FLOWERING 4 is involved in a negative feedback loop involving central clock components, *CCA1* and *TOC1*
- Mentored Ph.D. students and supervised new post-doctoral researchers

**Post-doctoral Associate with Dr. Peter H. Quail, Plant Gene Expression Center, Department of Plant & Microbial Biology, University of California, Berkeley, CA** (2000-2003)

- Identified PIF5 and systematically tested a subclass of bHLH proteins for interaction with phytochromes and found two new PIFs: PIF6 and PIF7
- Worked on ELF4 and its role in phytochrome signaling

**OHIO STATE UNIVERSITY, Columbus, OH** **1999-2000**

**Post-doctoral Associate with Dr. Berl R. Oakley, Department of Molecular Genetics, Ohio State University, Columbus, OH**

- Worked on purifying gamma-tubulin complexes from Arabidopsis

**INDIANA UNIVERSITY - PURDUE UNIVERSITY at INDIANAPOLIS, Indianapolis, IN** **1994-1998**

**\*\*Assistant Instructor, Human Anatomy, Department of Biology, Indiana University-Purdue University at Indianapolis, Indianapolis, IN** (1997-1998)

- Taught a laboratory course in Human Anatomy
- Created a web-based resource for Human Anatomy students

**Research Assistant with Dr. John C. Watson, Department of Biology, Indiana University-Purdue University at Indianapolis (IUPUI), Indianapolis, IN** (1994-1997)

- Worked on *Pisum sativum* PROTEIN KINASE 3 and 5 (PsPK3 and 5) function in light signaling
- Collaborated with Dr. John Christie and Prof. Winslow R. Briggs (Carnegie Institute) to develop light-induced autophosphorylation assays
- PsPK4 and PsPK5 were later identified as pea phototropins

**UNIVERSITY OF MARYLAND at College Park, College Park, MD** **1991-1994**

**Research Assistant with Dr. John C. Watson, Department of Botany, University of Maryland at College Park, College Park, MD** (1992-1994)

- Isolated *PROTEIN KINASE 3* from pea (*PsPK3*) and Arabidopsis (*PK3At*)

**\*\*Teaching Assistant, Introductory Botany, Department of Botany, University of Maryland at College Park, College Park, MD** (1991-1992)

- Taught laboratory courses in Introductory Botany

**DELHI UNIVERSITY, Delhi, India** 1990-1991

**GATE (Graduate Aptitude Test in Engineering) Scholar, Research Scholarship, Department of Plant Molecular Biology, Delhi University, Delhi, India**

- Awarded GATE Scholarship

**\*\*ADDITIONAL TEACHING EXPERIENCE**

**UNIVERSITY OF CALIFORNIA, Berkeley, CA** 2016

**Course PMB 290, Phytobiomes, Metagenomics, and the 'Biologicals' Revolution**

- Guest Lecture: State of the Biologicals Industry
- Course coordinated by Dr. Devin Coleman-Derr, *Plant & Microbial Biology, University of California, Berkeley* and Dr. John Vogel, *Joint Genome Institute*

**LAS POSITAS COLLEGE, Livermore, CA** 2015

**Course, Energy and Sustainability**

- Guest Lecture: Beneficial Biologicals for Agriculture and Food
- Course coordinated by Eric Harpell, Physics Faculty, *Las Positas College*

**SANTA CLARA UNIVERSITY, Santa Clara, CA** 2013

**Course BIO21, Introduction to Physiology**

- Guest Lecture: Abiotic stress tolerance
- Course coordinated by Dr. Jessica Lucas, *Department of Biology, Santa Clara University, Santa Clara*

**UNIVERSITY OF CALIFORNIA, Berkeley, CA** 2012

**Course PMB 170, Modern Applications of Plant Biotechnology**

- Lectures: (1) Abiotic stress tolerance, (2) Improving plant yield/performance. *Department of Plant & Microbial Biology, University of California, Berkeley.*
- Course coordinated by Dr. Barbara Baker, *Plant & Microbial Biology, University of California, Berkeley*

**STANFORD UNIVERSITY** 2010

**Plant Biology Students hosted at Mendel Biotechnology**

- Organized lectures and Industry tour for students from the *Department of Plant Biology, Carnegie Institution for Science, Stanford University*
- Course coordinated by Dr. Zhiyong Wang, *Carnegie Institution for Science*

**HANDS ON BIOTECHNOLOGY CENTER** 2006

**Hands on Biotechnology for gifted and high performing students**

- Developed and taught an interactive course using novel teaching methods, *Baywood Learning Center, Oakland, CA.*

**Co-Founded Hands on Biotechnology (HOB) Center, Richmond, CA** (2006)

- [www.handsonbiotech.org/index.html](http://www.handsonbiotech.org/index.html)

**UNIVERSITY OF CALIFORNIA, Berkeley, CA****Course PMB 290, Signaling in Plant and Microbial Biology** 2002

- Lecture: Signaling in Plant and Microbial Biology, *Department of Plant & Microbial Biology, University of California, Berkeley*
- For post-graduate students, coordinated and taught by post-doctoral associates.

**BOARD MEMBERSHIPS****CONTRA COSTA COLLEGE, San Pablo, CA**

2010-Present

**Curriculum Advisory Board Member**

- Curriculum and course development. *Contra Costa College, San Pablo, CA*
- Course coordinated by Dr. Katherine Krolikowski ([katie.krolikowski@gmail.com](mailto:katie.krolikowski@gmail.com))

**LIVERMORE CULTURAL ARTS COUNCIL, Livermore, CA 94551-0216**

2013-2014

**Board Member, Marketing and Promotion Committee for Performing and Visual Arts**

- Advisor for social media marketing and promotion of the arts
- Integrative art and science programs for middle and high school students
- Organized Fascination of Plants Day 2013 in Livermore
  - Watch a short video (<http://youtu.be/1zrpF8OH-AA>) of charter-school students presenting clever intertwining of bike wheels, plants, and creative thinking.

**LIVERMORE ART ASSOCIATION (LAA), P.O. Box 216, Livermore, CA 94551-0216**

2012-2014

**Treasurer and Board Member of a non-profit art association**

- Manage and control budget
- Organize events and promote art and education
- LAA website: <http://www.livermoreartassociation.org/contact/contact.html>
- Walter Davies, President of LAA ([wdaviesster@gmail.com](mailto:wdaviesster@gmail.com))

**INDEPENDENT CONSULTANT EXPERIENCE****SECOND GENOME, 349 Allerton Ave, South San Francisco, CA 94080****Scientific Advisor**

2014

- Assisted with soil microbiome profiling and crop performance analysis
- Serve as an expert to listen to clients, review the field experimental plan for test plots and recommend the best sampling protocol in order to answer the microbiome-related questions. Provide expert opinion on how to best assess changes near the roots caused by application of various commercial agricultural prebiotic-probiotic blends
- Participation in planning calls with team, experimental plan review and to propose a microbiome sampling plan potential conference call, phone calls and live meetings with client to discuss soil study design, review of microbiome analysis and addition of comments and insights in final report, participation in the report presentation and review with client

**BERTHOLD TECHNOLOGIES, Bad WildBad, Germany****Scientific Advisor**

2010-2013

- New whole plant quantitative imaging chambers, called NightShade
- Simulated environment chambers with monochromatic LED sources and automated controls for multi-day fluorescence and luminescence measurements

## SCHOLARSHIPS

- Post-Graduate Scholarship (1990), GATE (Graduate Aptitude Test in Engineering), All-India Examination conducted by the five Indian Institutes of Technology and the Indian Institute of Science, Bangalore. Department of Education, Ministry of Human Resource Development, Government of India

## HONORS AND AWARDS

1. Awarded a full stipend (2013) to attend the 2013 QB3/UCSF course in light microscopy, UCSF, March 24-30.
2. Educational Exhibit Award (2006) American Society of Plant Biologists Education Booth Exhibitor Competition, Boston, Massachusetts, Aug 5-9. "Expression of life", How Gene Expression Molds Plant Development. A Hands-On Experience.
3. Travel Award, International Conference *Arabidopsis* XV (2004) The North American *Arabidopsis* Steering Committee (NAASC), July 11-14.
4. Teaching Excellence Recognition Award (1998) School of Science, Indiana University-Purdue University at Indianapolis, Indiana.
5. Award For Outstanding Research (1997) Graduate Student Research Symposium. Graduate Student Council, School of Science, Indiana University-Purdue University at Indianapolis, Indiana.
6. Best Oral Presentation in Cell Biology Section (1997) Indiana Academy of Science 113th Annual Meeting. Saint Joseph's College, Rensselaer, Indiana.
7. Awarded Certificate of Merit (1988) B.M Johri Rolling Shield Paper Presentation Contest. Delhi University Botanical Society, University of Delhi, Delhi, India.
8. Awarded Certificate of Merit (1986) First Position in College in Botany, Department of Botany, Deshbandhu College, New Delhi, India.

## NATIONAL RESEARCH GRANT APPLICATIONS

- **NIH-SBIR (2016)** Bacteriophage based products for food safety. i-Cultiver, Rajnish Khanna, PI.
- **NSF-MCB (2013)** Regulation of guard cell function by COP1 and the cytoskeleton. Dr. Winslow Briggs as PI and Dr. David Ehrhardt as co-PI.
- **NSF-IOS (2013)** Role of microtubule rearrangements in plant responses to light and ABA. Dr. David Ehrhardt as PI and Dr. Winslow Briggs as co-PI.
- **NSF-MCB (2013)** Investigations of the Plant and Bacterial LOV domain Photoreceptor Flavoproteins". Drs. Zhiyong Wang (Carnegie) and Roberto A Bogomolni (UC Santa Cruz) as PIs, and Dr. Winslow Briggs as co-PI.

## PAST AND PRESENT MEMBERSHIPS IN SCIENTIFIC SOCIETIES AND GROUPS

- American Society for Cell Biology
- American Society of Plant Biologists
- American Association for the Advancement of Science
- Arabidopsis bionet
- Global Renewable Energy Network (GReEN)
- Plant Biotechnology
- Plant Breeding & Genetics AND Agri Genomics
- PlantStress

**SELECTED INVITED SEMINARS / LECTURES / WEBINARS**

1. Lectures by Rajnish Khanna. (October 16-28) Minding the scientific gaps in understanding the only one plausible explanation unifying the physical and the biological universe. [Research Centre for the study of psychointegrator plants, Brazil.](#)
2. Keynote Address at 2nd Annual Biology Department Student Research Symposium (September 27, 2019) California State University East Bay, Hayward, CA.
3. Workshop on Psychedelics with Dennis McKenna (September 21, 2019), California Institute of Integral Studies, San Francisco, CA.
4. Challenges and opportunities in improving soil health in modern agriculture (May, 2019). Azomite Mountain Summit, Utah.
5. How AZOMITE® volcanic ash fertilizer can impact specialty crop yield, quality, and your bottom Line (February, 2019). [Azomite educational webinar.](#)
6. Beneficial biologicals for agriculture and other adventures (May, 2016) Host: Dr. Jitendra Khurana. Department of Plant Molecular Biology, University of Delhi, Delhi, India.
7. Beneficial biologicals for agriculture and food (October, 2015) Host: Dr. Devin Coleman-Derr, Plant Gene Expression Center / USDA, Albany, CA.
8. The value of food, a vehicle for positive change (June, 2015) Host: Institute For The Future, Palo Alto, CA.
9. The value of food, a vehicle for positive change (February, 2015) Host: California Academy of Sciences, San Francisco, CA.
10. [TEDx talk](#) (Jan, 2015)
11. On Food and Technology (September, 2014) Host: TEDx Livermore, Las Positas College, Livermore, CA.
12. Mind the Gap - in translational biology and between guard cells (October, 2012) Host: Steve Kay, University of California, San Diego, CA.
13. How an Arabidopsis gene can be used to improve soybean yield (November, 2011) Host: Peter H. Quail, USDA/Plant Gene Expression Center, University of California, Berkeley, CA.
14. How an Arabidopsis gene can be used to improve soybean yield (October, 2011) Host: Julie Gray, Department of Molecular Biology and Biotechnology, University of Sheffield, Sheffield, UK.
15. How an Arabidopsis gene can be used to improve soybean yield (September, 2011) Host: Zhiyong Wang, Department of Plant Biology, Carnegie Institute for Science, Stanford, CA.
16. Plant science: applications and technologies (June, 2010) Host: Burnd Hutter, Berthold Technologies, Bad WildBad, Germany.
17. Phytochrome caught in the act (Feb, 2010) Host: Prof. Jitendra P. Khurana, Department of Plant Molecular Biology, University of Delhi, Delhi, India.
18. Approaches to enhance crop yield and stress tolerance (Sept., 2008) Host: Prof. Andrew J. Millar, University of Edinburgh, Edinburgh, Scotland, UK.
19. Phytochrome caught in the act (Feb, 2010) Host: Prof. Jitendra P. Khurana, Department of Plant Molecular Biology, University of Delhi, Delhi, India.
20. Approaches to enhance crop yield and stress tolerance (Sept., 2008) Host: Prof. Andrew J. Millar, University of Edinburgh, Edinburgh, Scotland, UK.
21. Phytochrome caught in the act (May, 2008) Host: Dr. Michele Engel, Department of Integrative Biology, University of Colorado, Denver, CO.
22. PIF5: a possible node for crosstalk between ethylene and early light signaling pathways (2006) American Society of Plant Biologists Conference, Boston, Massachusetts.
23. Phytochrome caught in the act (June 27, 2005) Host: Dr. John C. Watson, Department of Biology, Indiana University-Purdue University at Indianapolis, Indiana.
24. A novel molecular recognition motif necessary for targeting photoactivated phytochrome signaling (July 16, 2004) Host: Prof. Dr. Eberhard Schäfer, Biology II/Institut für Botanik, University of Freiburg, Freiburg, Germany.



25. Early phytochrome signaling and regulation of transcriptional networks (July, 2003) American Society of Plant Biologists Conference, Honolulu, Hawaii.
26. Photoregulated protein kinases in pea seedlings (Nov 11, 1998) Host: Dr. Gerald F. Deitzer, Department of Botany, University of Maryland at College Park, College Park, MD.
27. Photoregulated expression of protein kinases from the garden pea (May 27-30, 1998) Midwest Developmental Biology Meeting. Indiana University-Purdue University at Indianapolis, Indiana.
28. Light-regulated protein kinases from the garden pea (Nov 7, 1997) Graduate Student Research Symposium. Graduate Student Council, School of Science, Indiana University-Purdue University at Indianapolis, Indiana.
29. Light-regulated protein kinase genes from the garden pea (May 28-31, 1997) Midwest Developmental Biology Meeting. Indiana University-Purdue University at Indianapolis, Indiana.

### SELECTED ABSTRACTS / POSTER PRESENTATIONS / CONFERENCES

1. **Khanna, R.** and Thetis Sammons. [Organic Grower Summit](#). December 4-5, 2019.
2. **Khanna, R.**, Jon Ferrel, and James Phillips. [American Vegetable Grower and Western Fruit Grower – Connect West](#). November 19-22, 2019.
3. **Khanna, R.**, Mehta, P., Morella, N., Mehlferber, E., Mahn, R., Bogomolni, R., McCue, K.F., and Koskella, B. (2019) Increased fruit quantity and quality of tomato (*Solanum lycopersicum*) in response to Azomite® volcanic ash fertilizer and foliar inoculations with natural tomato leaf microbes. Plant Biology 2019, San Jose, CA.
4. Clowez, S., **Khanna, R.**, Tseng, T-S, Bogomoln, R., and Briggs, W.R. (2019) Increased seed yield of pea (*Pisum sativum* L.) in response to inoculation with photoactivated *Rhizobium leguminosarum*. Plant Biology 2019, San Jose, CA.
5. McCue, K.F., Mehta, P., Morella, N., Lazo, G., Koskella, B., and **Khanna, R.** (2019) Response of potato (*Solanum tuberosum*) microbiome to seasonal development and fertilizer treatment on commercial farmlands. Plant Biology 2019, San Jose, CA.
6. Tseng, T-S., **Khanna, R.**, Bogomolni, R., Briggs, W.R. (2018) Increased seed yield of fava bean (*Vicia faba* L.) in response to photoactivated *Rhizobium leguminosarum*. Plant Biology 2018, Montréal, Canada.
7. **Khanna, R.** (2016) Workforce Development Institute (WDI) and American Association of Community Colleges (AACC). Orchestrating Opportunities 2016, New Orleans, LA.
8. **Khanna, R.**, Cartwright, H., Tseng, T-S., Schroeder, J., Ehrhardt, D. and Briggs, W.R. (2016) SLAC1, S-type anion channel is relocated from plasma membrane to cytosol in guard cells during stomatal closure. Plant Biology 2016, Austin, Texas.
9. **Khanna, R.**, Cartwright, H., Dijkema, J., Coleman-Derr, D., and Wally, S. (2015). Beneficial soil microbes reduce plant disease, with implicated improvements in fruit flavor profiles, nutritional value and human health. Second Wageningen Conference on Applied Soil Science, Wageningen, The Netherlands.
10. **Khanna, R.**, Li, J., Tseng, T-S., Schroeder, J., Ehrhardt, D. and Briggs, W.R. (2014) COP1 jointly regulates cytoskeletal processes and electrophysiological responses required for stomatal closure. Plant Biology 2014, Portland, OR.
11. **Khanna, R.**, Muller, R., Monica, L., Allen, J., Briggs, W.R. (2014) Global Marketing Software Connecting Local Foods Socially. Plant Biology 2014, Portland, OR.
12. **Khanna, R.**, Li, J., Tseng, T-S. Schroeder, J., Ehrhardt, D., Briggs, W.R. (2013) COP1-mediated degradation of microtubules is required for stomatal function. Plant Biology 2013, Providence, RI.
13. **Khanna, R.**, Tseng, T-S., Eisinger, W.R., Ehrhardt, D., Briggs, W.R. (2013) Mind the gap-between guard cells. International Symposium on Plant Photobiology 2013, Edinburgh, UK.

14. Chen, Li-Q., **Khanna, R.**, Yang, B., White, F.F., Olive, R., Cruz, C.V., Frommer, W.B. (2013) Universal crop protection technology: securing the global food supply by crop immunization. Bill and Melinda Gates Foundation.
15. Eisinger, W.R., Briggs, W.R., **Khanna, R.**, Tseng, T-S., Cartwright, H., Ehrhardt, D. (2012) Microtubule dynamics are required for guard cell function in Arabidopsis. *Plant Biology* 2012, Austin, Texas.
16. **Khanna, R.**, Shen, Y., Marion, C.M., Carle, C.M., Schaefer, E. and Quail, P.H. (2006) PIF5: a possible node for crosstalk between ethylene and early light signaling pathways. American Society of Plant Biologists Conference, Boston, Massachusetts.
17. **Khanna, R.**, Shen, Y. and Quail, P.H. (2005) Functional profiling of genes involved in early phytochrome signaling. *Arabidopsis XVI*, Madison, Wisconsin.
18. **Khanna, R.**, Lanzatella, C. and Quail, P.H. (2004) Exploring early signaling pathways in phytochrome B-regulated seedling de-etiolation. *Arabidopsis XV*, Berlin, Germany.
19. Al-Sady, B., Monte, E., **Khanna, R.**, Tepperman, J.M., Huq, E., and Quail, P.H. (2004) Functional requirements for PIF3 in the de-etiolation process. *Arabidopsis XV*, Berlin, Germany.
20. **Khanna, R.**, Lanzatella, C., Toledo-Ortiz, G., Huq, E., Tepperman, J.M. and Quail, P.H. (2003) Early phytochrome signaling and regulation of transcriptional networks. American Society of Plant Biologists Conference, Honolulu, Hawaii. Abstract for invited talk.
21. **Khanna, R.**, Tepperman, J.M. and Quail, P.H. (2003) Probing early phytochrome signaling and transcriptional networks. American Society of Plant Biologists Conference, Honolulu, Hawaii.
22. **Khanna, R.**, Ovechkina, Y., Horio, T., Oakley, B. R. (2000) Characterization and immunolocalization of  $\gamma$ -tubulin complexes in *Arabidopsis thaliana*. American Society of Cell Biologists, San Francisco.
23. **Khanna, R.**, Watson, J.C. (1998) Catalytic activity and photoregulated expression of PsPK3 and PsPK5 from *Pisum sativum*. Gordon Research Conferences, Gravitational Effect on Living Systems, Colby-Sawer College, NH.
24. **Khanna, R.**, Watson, J.C. (1998) Catalytic activity and photoregulated expression of PsPK3 and PsPK5 from *Pisum sativum*. The Annual meeting of the American Society of Plant Physiologists, Madison, Wisconsin. Abstract: *Plant Physiol.* S-93 pp. 44.
25. **Khanna, R.** and Watson, J. C. (1996) Light-regulated protein kinase genes in peas. *Plant Molecular Biology and Biotechnology Symposium*. The Ohio State University, Columbus, Ohio.
26. Ma, J., Fukasawa-Akada, T., **Khanna, R.**, Deitzer, G.F. and Watson, J.C. (1995) Molecular cloning of an *Arabidopsis* homolog of the PsPK3 protein kinase gene from *Pisum sativum* L. Abstract: *Plant Physiol.* 108: S-142.
27. **Khanna, R.**, Lin, X. and Watson, J.C. (1994) Photoregulated expression of protein kinase genes in peas. Abstract: *Plant Physiol.* 105: S-90.

#### SELECTED ONLINE PUBLISHED INDUSTRY REPORTS FROM I-CULTIVER

1. **Khanna, R.**, Campfield, M. (2018). [AZOMITE® increased tomato yield and fruit quality.](#)
2. **Khanna, R.**, Coleman-Derr, D. (2016). [Microbial communities in strawberry fields.](#)
3. **Khanna, R.**, Raab, T. (2016). [Nutrient flux between soil and strawberry plants on commercial fields.](#)

## SELECTED PUBLICATIONS

**In Preparation:**

1. **Khanna, R.** and Kutschera, U. (2020) Auxin action at the organ level 150 years after Sachs 1870 and the night-time signal. *Plant Signal Behav.* *Submitted (under revision)*.
2. **Khanna, R.**, Mehlberger, E., Morilla, N., Mehta, P., Mahn, R., Bogomolni, R., Lazo, G., McCue, K. and Koskella, B. (2020) Tomato yield increases in response to treatment with Azomite minerals and selected microbial community. *In Prep.*

**Published:**

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