

Dr. Channapatna S. Prakash
Professor, Plant Molecular Genetics
Tuskegee University, Alabama, USA

Dr. C. S. Prakash, Professor in Plant Molecular Genetics and the Director of Center for Plant Biotechnology Research at **Tuskegee University**, oversees the research on food crops of importance to developing countries and training of scientists and students in plant biotechnology. Dr. Prakash has also been actively involved in enhancing the societal awareness of food biotechnology issues around the world. His Internet website www.agbioworld.org has become an important portal disseminating information and promoting discussion on this subject among stakeholders such as scientists, policy makers, activists and journalists. He has earlier served on the USDA's Agricultural Biotechnology Advisory Committee and the Advisory Committee for the Department of Biotechnology for the government of India.

His outreach activities include writing commentaries, delivering public lectures, providing media interviews, and moderating daily Internet discussion group and newsletter '*AgBioView*' which is read by more than 5000 experts in 65 countries. The *AgBioView* is widely recognized as a premier news outlet on agbiotech issues because of its broad focus on technical, societal and ethical issues. Dr. Prakash, through his efforts has been

successful in impacting decision makers, the media and consumers in creating awareness of agbiotech issues especially on technology development and biosafety issues. He been instrumental in catalyzing the scientific community in many countries to be more proactive in the biotechnology debate.

Dr. Prakash has actively worked to promote biotechnology research and policy in developing countries of Asia and Africa through training of students and scholars, research collaboration and lectures. See his website <http://www.africabiotech.com>

Dr. Prakash's contribution to agricultural biotechnology outreach was recognized by the magazine *Progressive Farmer* who awarded him the 'Man of the Year' award 'in service to Alabama Agriculture'. He was recently named as one of a dozen 'pioneers, visionaries and innovators behind the progress and promise of plant biotechnology' by the Council for Biotechnology Information.

Dr. Prakash has a bachelor's degree in agriculture and a masters in genetics from India, and obtained his Ph.D. in forestry/genetics from the Australian National University, Canberra. His research interests include studies on transgenic plants, gene expression, tissue culture and plant genomics. Dr. Prakash's group at TU has led the development of transgenic sweetpotato plants, identification of DNA markers in peanut and the

development of a genetic map of cultivated peanut. Recently they enhanced the protein content of crops through genetic modification. He has received funding for his research from the United States Department of Agriculture, National Science Foundation, National Aeronautics and Space Administration, Agency for International Development and UNESCO. Recently, he served as the principal investigator of a USAID funded project to promote biotechnology awareness in Africa and improve the biosafety infrastructure in this region. He has more than fifty scientific publications in refereed journals and has presented more than 100 papers. He teaches two courses in plant biotechnology at TU.

Dr. Prakash is the founder of AgBioWorld Foundation that aims to provide science-based information on agbiotech issues to various stakeholders across the world. Its website <http://www.agbioworld.org> has received endorsements from over 3500 scientists from across the world. His 'declaration in support of agricultural biotechnology' including 25 Nobel Laureates such as Dr. Norman Borlaug, Dr. James Watson, Dr. Arthur Kornberg, Dr. Marshall Nirenberg, Dr. Peter Doherty, Dr. Paul Berg, Mr. Oscar Arias and Dr. John Boyer. Under the AgBioWorld banner, Dr. Prakash has sent petitions and press releases to various fora on emerging issues related to biotechnology such as the gene flow into Mexican corn landraces, rejection of food aid to Zambia, and the relevance of Golden Rice. Success of AgBioWorld has been widely recognized by

the media as over hundreds of newspapers and magazines including *New York Times*, *Washington Post*, *International Herald Tribune*, *Financial Times*, *Chicago Tribune*, *Chronicle of Higher Education*, *The Scientist*, *Science*, *Nature*, and *Nature Biotechnology* and *South China Morning Post* have reported on this initiative. Governor Tom Vilsack of Iowa praised AgBioWorld during a governors' conference while Dr. Norman Borlaug has frequently commended Dr. Prakash's efforts in his writings and lectures. Senator Christopher Bond (R, MO) also has acknowledged Dr. Prakash's initiatives in biotechnology during a senate floor discussion and placed his op-ed column from the *Atlanta Journal Constitution* 'Foes of Biotechnology Ignore Global Hunger' as a congressional record.

Dr. Prakash has spoken at dozens of institutions across the world in various continents. He has also met with policy makers, media, scientists and other stakeholders to relay information on scientific issues related to bioengineered crops. Among his speaking venues include United Nations, Vatican, and US Congress; He is widely sought as a speaker in international gatherings. He is an active writer and has written dozens of commentaries in national and international papers including *Washington Times*, *San Francisco Chronicle*, *Atlanta Journal Constitution*, *San Diego Union Tribune*, *The Telegraph* and *Financial Express*. Dr. Prakash's views have appeared in various media including *Time*, *New York Times*, *Chicago Tribune*, *National Public*

Radio, BBC Radio, Science, Wall Street Journal, Technology Review, Focus (Germany), MSNBC.Com, Canadian Broadcasting Corporation, Village Voice, and several overseas newspapers and radio stations. He has also been interviewed by TV Stations in many countries including Spain, New Zealand, South Africa, Australia, Jamaica, England, Thailand and India

Dr. Prakash serves on the scientific advisory board of American Council on Science and Health (NY), BioScience Policy Institute (New Zealand), Norman Borlaug Institute of Plant Sciences (UK), and Policy Network (UK). He also serves on the editorial board of AgBiotechNet (www.agbiotech.net) AgBioForum (www.agbioforum.org), the Journal of New Seeds, Indian Journal of Biotechnology, Food Biotechnology, and the Journal of Plant Biochemistry and Biotechnology.

C. S. Prakash, Ph. D.
Professor, Plant Molecular Genetics & Director, Center for Plant Biotechnology Research, College of Agricultural, Environmental and Natural Sciences, Milbank Hall,
Tuskegee University, Tuskegee, AL 36088, USA

Prakash@tuskegee.edu

<http://www.agbioworld.org>

Phone (334) 727 8023; Cell (334) 444-7884

Fax (334) 727 8067

Recent Publications by C. S. Prakash on agricultural biotechnology

Book Chapters

Channapatna S. Prakash, "Genetically modified crops," McGraw Hill 2005 Yearbook of Science and Technology (New York: McGraw Hill, 2005)

Channapatna S. Prakash and Gregory Conko, "Caught Between the War of Giants: How Can Less Developed Countries Benefit from Ag-Biotech?" in 'Let Them Eat Precaution,' John Entin, Ed. (Washington, D.C.: American Enterprise Institute, 2005).

Channapatna S. Prakash and Gregory Conko, "Looking at GM Crops from a Historical Perspective," 50 Years of DNA: 1953-2003 (London: Business Weekly April 2003. p60-62. with Wellcome Trust, 2003). <http://www.businessweekly.co.uk>

Gregory Conko and C.S. Prakash, "The Attack on Agricultural Biotechnology," in Global Warming and Other Eco-Myths, Ronald Bailey, Ed. (New York: Prima-Random House, 2002). 'Chapter 7; ISBN 0-7615-3660-4

Popular and Scholarly Articles

RV Sairam and CS Prakash, "Can agricultural biotechnology contribute to global food security?" In Vitro Cellular & Developmental Biology - Plant (2005; in press) <http://www.sivb.org/>

Channapatna. S. Prakash, "Modified Crops and Hunger in Africa," This Day, Nigeria, May 3, 2004 <http://allafrica.com/stories/200405030900.html>

Channapatna S. Prakash and Gregory Conko, "Poor farmers need the benefits of GM crops." Humanitarian Affairs Review (Summer 2004). <http://www.humanitarian-review.org/>

Channapatna S. Prakash. "GM deserves our support," The Guardian (UK). May 11, 2004 <http://www.guardian.co.uk/letters/story/0,3604,1213709,00.html>

Channapatna S. Prakash, "India: The Possibilities of Biotechnology," Deccan Herald (India). Dec 14, 2004 <http://www.deccanherald.com/deccanherald/dec132004/edst.asp>

Channapatna S. Prakash and Gregory Conko, "Technology That Will Save Billions From Starvation," The American Enterprise (March 2004). <http://www.taemag.com>

Gregory Conko and C.S. Prakash, Can GM Crops Play A Role In Developing Countries? in the PBI Bulletin, "Biotechnology and Developing Countries: The potential and the challenge" 2004 Issue 2 <http://www.pbi-ibp.nrc-cnrc.gc.ca/en/bulletin/2004issue2/page4.htm>

Channapatna S. Prakash and Martina Newell-McGloughlin, "Listen to Sound Science on Agricultural Technology," San Francisco Chronicle, June 20, 2003 <http://www.sfgate.com/cgi-bin/article.cgi?file=/chronicle/archive/2003/06/20/ED177402.DTL>

Channapatna S. Prakash and Gregory Conko, "Biotechnologia e Agricoltura: fatti e opinioni a confronto," Dialogo Vol. 1, No. 6 (2003) pp. 36-41.

Channapatna S. Prakash and Gregory Conko, "Are GM Crops Relevant to Developing Countries?" Cumberland Law Review (Fall, 2004) <http://www.samford.edu>

Gregory Conko, "Rethinking the Regulation of Bioengineered Crops: Why European and American Biotechnology Rules are Bad for Less Developed Countries," presented to the U.S. State Department conference, "Agricultural Biotechnology and Developing Countries," Arlington, VA (May 23, 2003).

Gregory Conko and C.S. Prakash, "Time for the GM Moratorium to Go," The Wall Street Journal Europe (May 13, 2003).

**Channapatna S. Prakash. "GM Crops in India," *The Hindu Survey of Indian Agriculture - 2003.*
<http://www.thehindu.com>**

**Andrew Apel and C. S. Prakash. "The Promise of Sacramento " *TechCentral Station, June 23,2003*
<http://www.techcentralstation.com/1051/techwrapper.jsp?PID=1051-250&CID=1051-062303E>**

**Channapatna S. Prakash and Gregory Conko. *Genetically Modified Foods Are Nothing New. Betterhumans, Monday, October 06, 2003*
<http://www.betterhumans.com/Print/article.aspx?articleID=2003-10-06-2>**

Gregory Conko and C.S. Prakash, "Food Security in the Developing World," *Biotechnology Developments Africa, Vol. 1, No. 1 (January 2003) pp. 22-25.*

Andrew Apel, Gregory Conko, Roberto Defez, Davide Ederle, Drew Kershen, Piero Morandini, Wayne Parrott, and Channapatna S. Prakash, *To Die or Not To Die, This is the Problem: Comments on the Kasisi Agricultural Training Centre and Jesuit Centre For Theological Reflection Study, What is the Impact of GMOs on Sustainable Agriculture in Zambia? (Auburn, Ala.: AgBioWorld Foundation, October 2002).*

**Andrew Apel and C. S. Prakash, "The Dead Hand," *Tech Central Station, November 11, 2002*
<http://www.techcentralstation.be/2051/wrapper.jsp?PID=2051-100&CID=2051-111102A>**

Gregory Conko, C. S. Prakash & Sheila Anderson. March 2003. Planting the Seeds of Business Growth in Florida. Florida Property Tax Appeals. <http://www.floridapropertytaxappeals.com/article16.html>

Gregory Conko and C.S. Prakash *Battling Hunger With Biotechnology Economic Perspectives. An Electronic Journal of the U.S. Department of State, Vol. 7, No. 2, May 2002*
<http://usinfo.state.gov/journals/ites/0502/ijee/conko.htm>

Gregory Conko and CS Prakash *GM in Perspective; Spiked Online, September 16, 2002*
<http://www.spiked-online.com/articles/00000006DA08.htm>

Gregory Conko, C. S. Prakash June 25, 2002, Blessed Are The Poor With Spirit. www.techcentralstation.com

Andrew Apel and C. S. Prakash The Dead Hand. TechCentral Station, November 11, 2002
<http://www.techcentralstation.be/>

Gregory Conko and C. S. Prakash, Report of Transgenes in Mexican Corn Called Into Question, ISB News Report, March 2002; http://www.isb.vt.edu/news/2002/news02_mar.html#mar0202

C. S. Prakash Why Agricultural Biotechnology for Africa? Traders, Journal of Southern African Region, April – June 2001. Issue 6. pp 67-68

C. S. Prakash A Gene Revolution. Asia Week. July 20, 2001. p 17

C. S. Prakash The Irony of Illegal Bt cotton, The Hindu (India). November 07, 2001

C. S. Prakash he Biotech Miracle, Indian Express, Nov 5, 2001

C. S. Prakash Bioterror and biosafety, The Hindu, November 01, 2001

C. S. Prakash and Andrew Apel, Genmat sakrare an vatten"; Translated from Swedish- Genetically Modified Food is Safer than Water, Dagens Nyheter (Stockholm, Sweden),

C. S. Prakash GM: past, present and future, Sp!ked, August 16, 2001

C. S. Prakash Genetically modified crop debate in the context of agricultural evolution. (Invited Editor's Choice article). Plant Physiology 2001; 126: 8-15

C. S. Prakash We Can Win the War Against Hunger, Wall Street Journal January 2, 2001

- C. S. Prakash Cooperation Can Stop Starvation. *Successful Farming* January 2001.
- C. S. Prakash Biotechnology: The Answer to Global Food Security. *Tuskegee Horizons*. Spring/Summer 2000. p 18
- C. S. Prakash Hungry for Biotech. *Technology Review*. MIT Press. July/August 2000. p32.
- F C. S. Prakash ear Of Technology Becomes Britain's Biggest Export. *Bridge News*. June 6, 2000.
- C. S. Prakash Use of Genetically Engineered Foods, Nutrition in Complementary Care Newsletter, 2000 vol 3, issue 1, p 7-9
- C. S. Prakash Sound science and foods from biotechnology (with Christine Bruhn). *San Diego Union Tribune*. June 14, 2000
- C. S. Prakash Can Genetically Engineered Crops Feed a Hungry World? *Institute of Public Affairs Reviews* (Australia). July 2000. p 25-26.
- C. S. Prakash Genetically Engineered Crops Can Feed the World! *21st Century Science and Technology*. Summer 2000. p10-12,15.
- C. S. Prakash Trust emotions or facts on biotechnology? *Birmingham News*. May 17, 2000
- C. S. Prakash Biotech Oversight Checkpoints. *The Washington Times*. May 1, 2000
- C. S. Prakash Keeping Up with "Genetically Modified" News. *ISB News Report* <http://www.isb.vt.edu> April 2000.
- C. S. Prakash Greens Means Genes. *The Telegraph* (Calcutta, India). March 31, 2000.
- C. S. Prakash We Must Tap Biotech's Potential. *San Francisco Chronicle*. March 30, 2000.
- C. S. Prakash Some tough questions for biotech opponents. *Telegram and Gazette* (Worcester, MA). March 24, 2000
- C. S. Prakash Gene Revolution and Food Security . *Observer of Business and Politics* (Delhi, India). March 2, 2000
- C. S. Prakash Can India Benefit from Biotechnology? *Asia-Pacific Biotech News*. Vol. 4 (4). February 21, 2000. p76-78.
- C. S. Prakash Feeding a World of Six Billion. *AgBioForum*, 2(3&4), 223-225. www.agbioforum.org, January 2000
- C. S. Prakash Foes of Biotechnology Ignore Global Hunger. *Atlanta Journal Constitution*. December 5, 1999.
- C. S. Prakash Searching in Agricultural Biotechnology, *ISB News Report* <http://www.isb.vt.edu> July, 1999
- C. S. Prakash Bio Illogical: Plant Breeds No Threat to Third World . *The Statesman* (Calcutta, India). July 5, 1999
- C. S. Prakash Biotechnology and Agricultural Research. *The Hindu* (Chennai, India). June 10, 1999
- C. S. Prakash Biotechnology, A Boon to Indian Farmers. *Newstime*, Hyderabad. June 19, 2000.
- C. S. Prakash Huge Potential of Genetically Improved Plants Outweighs Hypothetical Risks. *Financial Express* (India). May 31, 1999

C. S. Prakash Plant Biotechnology: Need to Foster Responsible Debate and Dialogue . *The Hindu* (Bangalore, India). May 6, 1999

Letters to the Editor:

Altered Food, Passion All Around . *The New York Times*. March 20, 2000.

Good Enough to Eat. *Elle*. October 2000.

Anti-Biotech Luddites Sow Fear. *Wall Street Journal*. October 25, 2000.

Media Interviews:

Interviews with me and articles mentioning my biotech activities have appeared in more than 100 newspapers , magazines, radio and TV stations across the world in the past two years including *The New York Times*, *Time*, *Forbes*, *AP*, *Reuters*, BBC (five interviews), *National Public Radio*, *Chronicle of Higher Education*, *Black Issues in Higher Education*, *The Scientist*, *Today's Dietitian*, *Focus* (Germany), *Investor's Business Daily*, and *Times of India*.

Few examples:

NPR Talk of the Nation: Genetically Engineered Organisms March 5, 2004: NPR Science Friday (2-3 EST)
http://www.sciencefriday.com/pages/2004/Mar/hour1_030504.html

CBC Radio One (Canada), Radical Solutions for World Hunger. Nov. 27, 2003
<http://www.cbc.ca/thecurrent/2003/200311/20031127.html> (Scroll down to 'Solutions to Hunger Panel')

NPR Panel Discussion. June 23, 2003 -- 9:00am Global Food Security Forum discusses global food security, biotechnology, and other issues on the agenda at this week's Ministerial Conference on Agricultural Science and Technology in Sacramento.

The Biotech Debate - Dipesh Satapathy, Span (India), Nov-Dec 2002. p 49.
<http://usembassy.state.gov/delhi.html/www19.html>

Food Aid: Zambia Rejects GM Corn On Scientists' Advice - John Bohannon, *Science*, Vol. 298, No. 5596, pp. 1153-1154. Nov 6, 2002

Harvesting a bounty in biotech - Winter Casey, *The Washington Times*, August 19, 2002
<http://www.washtimes.com/world/20020819-260465.htm>

Seeds of Doubt - Farmers embrace genetics, despite fears. Jeff Wilson *The Wall Street Journal* Monday -- February 4, 2002

Seeds of Discord: The battle over golden rice KITTA MacPHERSON STAR-LEDGER January, 2002
<http://www.nj.com/specialprojects/index.ssf?/specialprojects/rice/main.html>

Speaking Activities:

Dr. Prakash has delivered more than one hundred public lectures in the past three years on the issue of agricultural biotechnology at nearly two dozen countries. This includes an invited presentation at the United Nations committee on sustainable development, testimony for the U.S. Congressional Committee on Science, testimony for the Philippine Senate Committee on Health, lecture at a seminar during WTO meeting in Seattle, televised debate with activists opposed to biotechnology for London Weekend Television, televised debate with Dr. Vandana Shiva on Indian TV program 'Cross Fire' on *DoorDarshan*, speaker at the congressional forum on world hunger at the U.S. Capitol, keynote lecture at the inaugural meeting of AfricaBio in Pretoria and Biotech2000 conference in New Delhi, invited speaker at the University of Georgia's Plant Science Center retreat, E. T. York

Distinguished Lecturer at Auburn University, panel discussant at the USDA workshop on risk communication, hosting a media forum for journalists in New Delhi, Julian Simon Lecture at Liberty Institute, lecture at a congressional briefing in U.S. Congress, panel discussion in the 'International Economic Strategy Conference' in Washington DC hosted by Ambassador Clyde Prestowitz and a lecture tour across Australia and New Zealand; keynote addresses at the annual meeting of agriculture research and development at Trinidad; Pacific Rim Biotechnology Conference in Vancouver, British Columbia; Luncheon Addresses at the Georgetown University Starlink Summit and Eloise Coffey Forum on Family at North Carolina State University; Invited lecture at the Oregon State University and M.S. Swaminathan Foundation. He was also invited to speak at the annual meetings of three scientific societies: Agronomy Society of America, American Society of Plant Physiologists and Society for In Vitro Biology. He also met with the Pontifical Academy of Science at the Vatican to discuss bioethical issues in agriculture.

CHANNAPATNA S. PRAKASH

Professor, Plant Molecular Genetics
 Director, Center for Plant Biotechnology Research
 Tuskegee University
 College of Agricultural, Environmental and Natural Sci
 Tuskegee, Alabama 36088

Phone # (334) 727-8023
 Fax # (334) 727-8067
 E-Mail: Prakash@Tusk.Edu

Ph. D. Forestry 1985; The Australian National University, Canberra, Australia. (Towards Ph.D.: Plant Breeding & Genetics 1979-1982; Univ. of Agricultural Sciences, Bangalore, India. Completed 100 credit hours.)

M. S. Genetics, Agriculture 1979; University of Agric. Sciences, Bangalore, India.

B. S. Agriculture 1977; University of Agricultural Sciences, Bangalore, India.

Professional Experience

Current: **Professor** (faculty since 1989), Plant Molecular Genetics; and Director, Center for Plant Biotechnology Research and Multimedia Center for Interactive Learning, Tuskegee University. Research and teaching in plant molecular and cellular genetics; Developed a state-of-the-art molecular genetics lab primarily with external grant support. Principal investigator for competitively funded research on molecular genetic research on sweetpotato and peanut (AID, NSF, USDA, DOD and NASA). Research focus on development of transgenic plants for improved productivity and plant genomics. Developed and teaching two new courses in plant biotechnology. Currently, supervisor for two scientists, two visiting scientists, many graduate and undergraduate students in the lab. Providing training to scientists from developing countries, minority undergraduates and high school students in genetic engineering and plant tissue culture. Commentator on agricultural biotechnology research and issues through newsletters and Internet.

1996: **Visiting Scientist**, Indian Institute of Science and University of Agricultural Sciences, India.

1985-1988 : **Post Doctoral Research Associate**; University of Kentucky. Conducted research on the molecular and classical genetics of leaf rust disease in poplars with Dr. Bart Thielges. Co-PI for 2 research projects (USDA). Received training in molecular genetic techniques.

1982-1985: **Research Scholar and Ph.D. Candidate**; Australian National University, Canberra. Genetics of poplar-leaf rust interaction. Advisor: Dr. W. A. Heather. Developed some novel approaches to overcome constraints for genetics studies with trees and a biotrophic pathogen lacking a sexual cycle.

1979 - 1982 : **Research Fellow and Ph.D. Candidate** at University of Agricultural Sciences (UAS), Bangalore, India. Research on virus disease resistance in legumes.

1977- 1979 : **Thesis work for M. S.** at UAS, India. Genetics of resistance to bacterial blight disease in cowpea. Screened 250 cultivars of cowpea and, by six-generation mean analysis, characterized the genetic interaction for blight resistance. (Collaborated with Dr. R. J. Williams of ICRISAT)

Service and Committee Assignments

USDA Agricultural Biotechnology Advisory Committee
 Government of India Dept of Biotechnology Special Overseas Advisory committee
 Executive Committee and Chair of Minority Affairs Comm, American Soc of Plant Physiologists (1998-2000).
 Commission on Biotechnology, International Society for Horticultural Science (since 1999)
 Science and Technology Exhibit Committee, Intl Assoc. of Plant Tissue Culture and Biotechnology (since 1999)
 Member, US Sweetpotato Crop Advisory Committee (since 1994).;
 Chairperson; Biotechnology, Sweetpotato Collaborators Group 1994 and 1995.
 Moderator for working Group on 'Role of Biotechnology in Developing Countries', Student Pugwash Conference, Stanford University, CA 1987.
 Associate Member of the Graduate Faculty, Auburn University, AL since 1993
 Contributing Writer, Information Systems in Biotechnology-News Report (since 1996)
 TU Committees: Bioethics Center, Library Advisory; Patents and Copyright; Biosafety
 Advisory Committee, NIH Research Centers in Minority Institutions (RCMI) Program at Tuskegee University
 Hosted and Trained four UNESCO and three IAEA research Fellows from developing countries
 -Presented more than 50 lectures at various institutions around the world.

My interview, quotes or research profile have appeared in over a hundred national and overseas media including Science, Time, New York Times, Wall Street Journal, The Scientist, PBS TV, Discovery Channel, Technology Review, Focus (Germany), Atlanta Journal-Constitution, MSNBC.Com, Village Voice, Reuters, Bangkok Post, Philippine Enquirer, Singapore Public Radio, South African TV.

Paper Peer Review and Grant Review Assignments

Panel Manager, Biotech Risk Assessment, USDA/CSREES/NRI Grants Program. FY 2000.
 Member, Review Panel, Higher Education, USDA/CSREES/NRI Grants Program. FY1999.
 Member, Review Panel, Plant Genome Section, USDA/CSREES/NRI Grants Program. FY1998
 Reviewing Editor, *In Vitro-Plant Dev. Biol*, Society of In Vitro Biology (1998-200)
 Editorial Board: Journal of New Seeds; Journal of Plant Biochemistry and Biotechnology
 External Review Committee, Center for Engineering Plants for Resistance against Pathogens (an NSF Center), University of California, Davis (Since 1998).
 Advising Editor, AgBioForum (<http://www.agbioforum.missouri.edu/>) (Since 1999)
 programming advisory board of AgBiotechNet (<http://www.agbiotech.net>);
Ad Hoc Reviewer: USDA/NRI grants program, DOE BioFuels Program, and Consortium for Plant Biotechnology Research, Univ. of Hawaii Pacific Adm. Group, Swedish International Development Agency, NIH-MBRS
 Reviewer for many journals including Plant Cell Reports, Biotechniques, Plant Cell, Tissue and Organ Culture, In Vitro Dev. Biol.

International Experience

Research experience in India and Australia; Visited International Potato Center (CIP), Lima, Peru (September 1991) to initiate collaboration with scientists on sweetpotato biotechnology; Visited Sokoine University of Agriculture, Tanzania and International Institute of Insect Center and Physiology (ICIPE), Nairobi, Kenya (May 1992) to develop research proposals on sweetpotato integrated pest management. Visited International Crops Research Institute for Semi-Arid Tropics (ICRISAT), India to develop an USDA/OICD proposal on DNA amplification fingerprinting in peanut germplasm; Collaborated also with scientists from International Institute of Tropical Agriculture(Nigeria), University of Agricultural Sciences (India), Indian Institute of Science, University of Ghana, National Museum of Kenya, Makerere University (Uganda), CENARGEN/EMBRAPA at Brazil, ARC-Roodeplaat Institute, Pretoria (South Africa) and Institute of Biotechnology (Hanoi, Vietnam). Visiting Professor: Univ. Agri. Sciences and Indian Institute of Science, Bangalore, India (June-Sept. 1996). Visited and lectured at over 30 countries.

Awards and Honors

Faculty Achievement Award 1996; Voted by peers as the most productive faculty member.
 USDA Group Award for NASA Space Research
 Russell W. Brown Award, Sigma Xi, The Scientific Research Society - TU Chapter, 1995
 Gold Medal for Academic Excellence (M.S program) 1979
 Listed in *American Men & Women of Science and Marquis Who's Who In America, Men of Achievement, Who's Who Among America's Teachers*
 Outstanding Faculty Performance Award for Research, Tuskegee University, 1990.

Meetings Hosted/Coordinated

Forum on Intellectual property right issues in Biotechnology. World Food Prize Symposium. Des Moines, Iowa. October 13, 2000.
 Bioinformatics Tools on the Internet, Tuskegee University, November 20-21, 1998
 Molecular Biology's Role in Agricultural Productivity, March 15-16, 1999, Amsterdam (Chief Scientific Advisor; Session Chair)
 Workshop on Transgenic Plants-Biology and Applications. Tuskegee University. April 21-22, 1996 (25 internationally recognized speakers and 400+ participants)
 Plant Response to Stress, Tuskegee University, September 1991
 Workshop on Tuber and Root Crops. REDBIO'95-II Latin American Meeting on Plant Biotechnology. June 4-9, 1995. Iguazu Falls, Argentina

Invited Seminars

Have delivered 100+ invited seminars and nearly a dozen plenary lectures at scientific meeting and at various institutions around the world including: University of California, Berkeley; Stanford University; Purdue University; Auburn University; University of California, Davis; University of Nebraska; Monsanto Co (St. Louis); US Southwest Pacific Forest Experiment Station (Albany, CA); University of London, University of Melbourne, Oregon State University, Gajamada University in Indonesia, Univeristy of Makati in Philippines, Alabama A & M University, University of Illinois - Urbana; Thomas Jefferson University; Iowa State University; Int. Potato Center (CIP, Peru); ICRISAT, India; EMBRAPA, Brazil; ARC Roodeplaat Institute (Pretoria, South Africa); IRRI and University of Los Banos, Philippines; Monsanto, Mycogen and Dow Agrociences.

Advancing the Cause of Agricultural Biotechnology

To promote responsible use of agricultural biotechnology and to foster improved perception of genetically modified foods among public and policy makers, I have pursued various activities: hosting an Internet newsgroup, writing newspaper articles, talking to journalists, delivering public lectures, addressing industry groups, submitting written testimony to the Congress subcommittee, testifying before the subcommittee on health in the Philippines, and providing expert advice to the media on biotech issues .

Teaching

Developed and Teaching two new courses. (1) Introduction to Agricultural Biotechnology (PLSS 300) and (2) Plant Molecular Genetics (PLSS 530).

Ph.D. Thesis Supervised

1. Dr. Jiayu Wang, 1997. Overcoming interspecific incompatibility in section Batatas and genetic diversity in sweetpotato. Beijing Agricultural University (Co-Advisor with Dr. Lu Shuyun).

Masters Thesis Supervised

Matand Kanyand 1993. In vitro culture and genetic transformation of peanut. Completed Ph. D now..
 Gosukonda R. Murthy 1994. In vitro morphogenesis of sweetpotato explants. Completed Ph. D now.
 Korsi Dumenyo 1994. In vitro culture and genetic transformation of sweetpotato. Completed Now.
 Qi Zheng 1994. Somatic embryos and transgenic plant development in sweetpotato. Completed Ph. D now.
 Adalgisa Mora 1995. Effect of antibiotics on the in vitro morphogenesis of peanut.
 Agnes Kilonzo. 1996. Production of oral vaccines in transgenic sweetpotato,. Now a Ph. D. student
 Martis Watts. 1997. Genetic diversity of peanut germplasm using DNA markers.
 Ragonva Walls. 1997. Introduction of chitinase and glucanase genes into sweetpotato for fungal resistance.
 Xiaoping Zhu. Producing edible vaccine against rabies transgenic sweetpotato plants.
 Jingyang Li. Molecular map of cowpea. Now a Ph. D. student
 James Lewis. Engineering peanut for improved protein quality
 Kelly George. Testing transgenic plants for immnogenicity against rabies. Now a Ph. D. student
 Athertina McKenzie. Engineering sweetpotato with a LT-B gene for cholera oral vaccin. Now a Ph. D. student
 Michon Walker. Molecular analysis of high protein sweetpotato transgenics

Jacquelyn Jackson. Developing transgenic sweetpotato plants for cholera vaccine production.
 .Marvin Autry. Molecular analysis of transgenic plants producing edible vaccine for rabies. - incomplete
 Mgavi Braithwaite, Bioinformatic studies on high protein sweetpotato – now at NIH
 Chantal Daniels, In vitro regeneration and transformation of South African sweetpotatoes – back in South Africa

Postdoctoral Scientists Supervised

Dr. Andrezj Kononowicz 1998
 Dr. Guohao He 1993 - Current
 Dr. Marceline Egnin 1993 - Current
 Dr. Ramanjini Gowda 1995 - 96
 Dr. David L. Scott, Jr. 1995- 1997
 Dr. Ananta Porobo Dessai 1991 - 1994
 Dr. G. S. Varadarajan 1990-1991

Visiting Scientists Hosted/Trained

Dr. Sankara Rao, Indian Institute of Science, Bangalore, India (1990)
 Dr. Essie Blay, University of Ghana, Africa (1991 to 1992)
 Dr. A. K. Singh, ICRISAT, India (1994)
 Dr. Qihan Xue, Jiangsu Academy of Agricultural Science, China.
 Mr. Wang Jiayu, Beijing Agri. University (1996 to 1997)
 Dr. Ene-Obong, Federal University of Nigeria (1997).
 Mr. Aswaldi Anwar, Andalas University, Padang, Indonesia (1997).
 Dr. Partha Sarathy, Indian Council of Ag. Research (1997).
 Dr. H. L. Sreenath, Coffee Research Station, India (1997).
 Ms. Netty Surya, Andalas University, Padang, Indonesia (1997).
 Dr. Channabyre Gowda, Univ of Ag Sciences, India (1997).
 Mr. Martin Steinau, University of Hannover, Germany (1998-)
 Dr. V. Ngaraju, Indian Council of Agricultural Research (1998)
 Ms. Agnes Alajo, Uganda's National Ag. Res. Organization (1998)
 Mr. Tarek Radwan, Assiut University, Egypt (1999).
 Ms. Dinh Thi Phong, Institute of Biotechnology, Vietnam (1999)
 Ms. Pham Bich Ngoc, Institute of Biotechnology, Vietnam (1999)

Recent projects

'Development, Nutritional Evaluation and Biosafety Testing of High Protein Sweetpotato'. \$161,700. USDA. 1999-2002.
 'High Resolution Mapping and Cloning of Disease Resistance Loci in Peanut'. \$236,139. USDA. 1999-2002.
 'Enhancing Food Security in Africa: Developing Weevil Resistant Sweetpotato'. \$250,000. USAID. 1998-2001.
 'Edible Vaccine against Rabies through Transgenic Plants' \$247,770. USDA/CSRS. 1996-99.
 = 'Instrumentation for enhanced discovery and learning in biotechnology' \$400,00. 1998. U. S. Dept of Defense.

Professional Affiliations

International Society for Plant Molecular Biology, American Phytopathology Society, International Society for Environmental Biotechnology, American Society of Plant Physiologists, Sweetpotato Collaborators Group, American Association for Advancement of Science, Sigma Chi, American Society for Horticultural Science, Southern Association of Agricultural Scientists, American Peanut Research and Education Society, Society for Applied Learning Technology, Association for Advancement of Computing in Education, Student Pugwash and Toastmasters International.

Scientific Publications

Egnin, M., M. Walker, C. S. Prakash, and J Jaynes. 2003. Variability of Storage Root-Specific Gene Expression In Transgenic 'High Protein'

Sweetpotatoes (*Ipomoea batatas* L., PI 318846-3) Engineered with An Artificial Storage gene (*asp-1*). Bioastronautics Proceedings, In Press.

Egnin, M. A. Sema, L. Crawford, A. Williams. 2003. Development of an *In Vitro* Tuberization System for the Developmental Studies of Sweetpotato (*Ipomoea Batatas* L.) Micro-Storage Root Formation. Abstract Submitted In *In Vitro Cell. Dev. Biol.-Plant*.

Shireen, K., R. Pace, M. Egnin, and C. Prakash. 2002. Bioavailability of Calcium From Transgenic sweetpotato and Soy Flour Supplemented Diets In Hamsters. *J. Env. Sci & Health. B37 (6): 637-645*.

Egnin, M., M. Walker, C. S. Prakash, and J. Jaynes. 2002. Transgenic 'High Protein' Sweetpotatoes (*Ipomoea batatas* L., PI 318846-3) Engineered with An Artificial Storage Protein Gene (*asp-1*) Alter The Temporal Distribution / Accumulation of Sporamin and β -amylase. *In Vitro Cell and Dev. Biol. 38 (4): 56A*.

Shireen, K., R. Pace, M. Egnin, and C. Prakash. 2001. Effects of Different Dietary Proteins and Trypsin Inhibitor on Growth and Lipid Metabolism in Hamsters. *Malaysian Journal of Nutrition. 1-14 (1& 2): 1-13*.

Egnin, M., C. S. Prakash, L. Urban, T. Zimmerman, S. Crossman, and J. Jaynes. 2001. Field Performance Of Transgenic High Protein and Essential Amino Acids Sweetpotatoes (*Ipomoea batatas* L., PI 318846-3) Containing a Synthetic Storage Protein *asp-1* Gene Show No Yield/Phenotypic Cost of an Extra Gene. *In Vitro Cell and Dev. Biol. 37 (3): 36-37A*.

M. Egnin, R. P. Chée, C.S. Prakash. (2003) Influence of Different Concentrations of 2,4-D and Tiba, in a Two stage Callus Production Media, on the Somatic Embryogenesis and Plant development From Leaf Explants of Sweetpotato cultivars Jewel, Beauregard, Rojo Blanco and AC87. Submitted.

Egnin, M., M. Walker, C. S. Prakash, and J. Jaynes. 2003. Variability of Storage Root-Specific Gene Expression In Transgenic 'High Protein' Sweetpotatoes (*Ipomoea batatas* L., PI 318846-3) Engineered with An Artificial Storage gene (*asp-1*). Bioastronautics Proceedings, In Press.

Egnin, M. L. Crawford. A. Sema. 2003. Development of an *In Vitro* Tuberization System for the Developmental Studies of Sweetpotato (*Ipomoea Batatas* L.) Micro-storage Root Formation. Submitted In *In Vitro Cell. Dev. Biol.-Plant*.

Shireen, K., R. Pace, M. Egnin, and C. Prakash. 2002. Bioavailability of Calcium From Transgenic sweetpotato and Soy Flour Supplemented Diets In Hamsters. *J. Env. Sci & Health. B37 (6): 637-645*.

Egnin, M., M. Walker, C. S. Prakash, and J. Jaynes. 2002. Transgenic 'High Protein' Sweetpotatoes (*Ipomoea batatas* L., PI 318846-3) Engineered with An Artificial Storage Protein Gene (*asp-1*) Alter The Temporal Distribution / Accumulation of Sporamin and β -amylase. *In Vitro Cell and Dev. Biol. 38 (4): 56A*.

Prakash, C. S. 2001. Genetically modified crop debate in the context of agricultural evolution. (Invited Editor's Choice article). *Plant Physiology 126: 8-15*

Shireen, K., R. Pace, M. Egnin, and C. Prakash. 2001. Effects of Different Dietary Proteins and Trypsin Inhibitor on Growth and Lipid Metabolism in Hamsters. *Malaysian Journal of Nutrition. 1-14 (1& 2): 1-13*.

Egnin, M., C. S. Prakash, L. Urban, T. Zimmerman, S. Crossman, and J. Jaynes. 2001. Field Performance Of Transgenic High Protein and Essential Amino Acids Sweetpotatoes (*Ipomoea batatas* L., PI 318846-3) Containing a Synthetic Storage Protein *asp-1* Gene Show No Yield/Phenotypic Cost of an Extra Gene. *In Vitro Cell and Dev. Biol. 37 (3): 36-37A*

He, G. and C. S. Prakash. 2001. Evaluation of genetic relationships among botanical varieties of cultivated peanut using AFLP markers. *Genetic Resources and Crop Evaluation 48: 347-352*

- Sreenath, H, C. S. Prakash and G. He. 1999. Procedure for generating silver stained AFLP-markers in Coffee. J. Coffee Research 29 (2) : 67-77.
- Scott, D, C. W. Clark, K. L. Deahl and C. S. Prakash. 1998. Isolation of functional RNA from periderm tissue of potato tubers and sweetpotato storage roots. Plant Molecular Biology Reporter 16:3-8
- Egnin, M., Mora, A., and C. S. Prakash 1998. Factors influencing peanut transformation with *Agrobacterium tumefaciens*. In Vitro Dev. Bio., Plant 34:310-318.
- Scott, D, M. D. Walker, C. W. Clark, C. S. Prakash and K. L. Deahl. 1998. Rapid assessment of primer combinations and recovery of AFLP products using ethidium bromide staining. Plant Molecular Biology Reporter. 16:41-47.
- Jiaxu, W., G. He, C. S. Prakash and S. Lu 1998. Analysis of genetic diversity in Chinese sweetpotato germplasm using DNA markers. FAO Plant Genetic Resources Newsletter 113: 13-16.
- Gowda, P. H. R. and C. S. Prakash. 1998. Herbicide glyphosate at sublethal concentrations enhances somatic embryo development in sweetpotato. Current Science 75:508-510.
- Prakash, C. S., M. Egnin, G. He and D. Scott 1997. Molecular insights into the biology of sweetpotato. In: Ed. H. Flores (Ed.) Radical Biology. American Society of Plant Physiology, Rockville, MD. p 307-319.
- Kanyand, M, C. M. Peterson and C. S. PRAKASH. 1997. The differentiation of emergences into adventitious shoots in peanut (*Arachis hypogaea*). Plant Science 126: 87-95.
- He, G. and C. S. PRAKASH 1997. Identification of polymorphic DNA markers in cultivated peanut. Euphytica 97:143-149.
- He, G., A. K. Singh, C. S. PRAKASH 1997. Accession-specific profiles developed in *Arachis stenosperma* and *A. duranensis* using DNA amplification fingerprinting. Plant Genetic Resources Newsletter 111:25-28.
- He, G., M. Watts and C. S. Prakash 1997. An optimized protocol for detecting DNA variation in peanut. Tuskegee Horizons 7: 19
- Egnin, M., Mora, A., and C. S. Prakash 1997. Transformation of peanut and expression of *gusA*, *nptII* and *asp-1* genes in transgenic regenerants. Tuskegee Horizons 7:20.
- C. S. Prakash. 1996. Edible vaccines and antibody producing plants. Biotechnology and Development Monitor. 27:11-13. Reprinted in: Australasian Biotechnology. 7:38-38.
- C. S. Prakash, He, G. and R. Jarret. 1996. DNA marker-based study of genetic relatedness in United States sweetpotato cultivars. J. Amer. Soc. Hort. Soc 121:1059-1082.
- C. S. Prakash and A. Zipf. 1996. Report of Meeting: Workshop on Transgenic Plants: Biology and Applications. Plant Molecular Biology Reporter. 14: 184-189.
- C. S. Prakash and A. Zipf. 1996. Workshop on Transgenic Plants: Biology and Applications. April 20-22, 1996. Plant Tissue Culture and Biotechnology. 2: 159-180.
- Gowda, R., He, G., Knight, N., and C. S. Prakash. 1996. An evaluation of gel matrices for the separation of PCR-amplified DNA fragments. Molecular Biotechnology 5: 83-85.
- He, G., C. S. Prakash, S. Tuzun, and J. Qiu. 1996. Optimizing conditions for DNA amplification fingerprinting of sweetpotato. African J. Root and Tuber Crops 1:33-37.
- Zheng, Q., Porobo-Dessai, A., and C. S. Prakash. 1996. Rapid and repetitive plant regeneration in sweetpotato via somatic embryogenesis. Plant Cell Reports. 15: 381-385
- C. S. Prakash. 1996. Enhancing minority participation in horticultural biotechnology research—Tuskegee Univ. experience. HortScience 31: 312-314 (Cover Page Feature).

- He, G., C. S. Prakash, R. Jarret 1995. Analysis of genetic diversity in a sweetpotato germplasm collection using DNA amplification fingerprinting. *Genome* 38:938-945.
- Gosukonda, R. M., Porobo-Dessai, A., E. Blay, and C. S. Prakash. 1995. Plant regeneration from a broad spectrum of genotypes and multiple shoot production per explant in sweetpotato. *HortScience* 30:1074-1077.
- Gosukonda, R. M., Porobo-Dessai, A., E. Blay, and C. S. Prakash. 1995. Thidiazuron mediated adventitious regeneration of plants from sweetpotato *in vitro*. *In Vitro - Plant Cellular and Developmental Biology*. 31: 85-71.
- Daniell, H. D., Porobo-Dessai, A., Prakash, C. S., and Moar, W. 1994. Engineering plants for stress tolerance via organelle genomes. *In: Biochemical and Cellular Mechanisms of Stress Tolerance in Plants*. (Ed. Joe H. Cherry) pp 589-604. NATO-ASI Biology Series. Vol. H 86. Springer-Verlag, New York.
- Matand, K., A. Porobo-Dessai, A., and C. S. Prakash. 1994. Thidiazuron promotes high frequency regeneration of peanut plants *in vitro*. *Plant Cell Reports* 14: 1-5.
- Porobo Dessai, A., R. M. Gosukonda, E. Blay, C. Korsi Dumenyo, F. Medina and C.S. Prakash. 1994. Plant regeneration of sweetpotato explants *in vitro* using a two-stage protocol. *Scientia Horticulturae* 82: 217-224.
- He, G., C. S. Prakash, R. Jarret, S. Tuzun and J. Qiu. 1994. Comparison of gel matrices for resolving DNA amplification fingerprint profiles. *PCR Methods and Applications* 4: 50-51.
- Prakash, C. S. 1994. Sweetpotato Biotechnology: Progress and Potential. *Biotechnology and Development Monitor* no. 18, p 18-19, 22.
- Prakash, C. S. 1994. Biotechnological Approaches to Sweetpotato Improvement at Tuskegee University. *BioLink* 2 (1): 5-7.
- Prakash, C. S. and U. Varadarajan. 1992. Genetic transformation of sweetpotato by Particle bombardment. *Plant Cell Reports* 11:53-57
- Prakash, C. S. and U. Varadarajan. 1992. Optimizing gene transfer systems for sweetpotato. *In: Sweetpotato Technology for the 21st Century*. Editors W. A. Hill, C. K. Bonsi and P. A. Loretan. Tuskegee, Tuskegee, AL. p 27-37.
- Varadarajan, G. S., N. K. Sinha, and C. S. Prakash. 1992. Analysis of genomic variation in sweet potato and related species through DNA fingerprinting and RFLPs. *In: Sweetpotato Technology for the 21st Century*. Editors W. A. Hill, C. K. Bonsi and P. A. Loretan. Tuskegee University, Tuskegee, AL. p 92-97.
- Varadarajan, G. S. and C. S. Prakash. 1992. Evolutionary biology of the sweetpotato: current knowledge and future research directions. *In: Sweetpotato Technology for the 21st Century*. Editors W. A. Hill, C. K. Bonsi and P. A. Loretan. Tuskegee University, Tuskegee, AL. p 87-91
- Varadarajan, G. S. and C. S. Prakash. 1991. A rapid and efficient method for the extraction of total DNA from the sweetpotato and its related species. *Plant Molecular Biology Reporter* 9: 8 -12.
- Prakash, C. S. and B. A. Thielges. 1989. Somaclonal variation in eastern cottonwood for race-specific partial resistance to leaf rust disease. *Phytopathology* 79:805-808.
- Prakash, C. S. and B. A. Thielges. 1989. Interaction of geographic isolates of *Melampsora medusae* and *Populus*: Effect of temperature. *Canadian J Botany* 87:488-490.
- Prakash, C. S. and W. A. Heather. 1989. Inheritance of partial resistance to races of leaf rust in *Populus deltoides*. *Silvae Genetica* 38:90-94.

- Prakash, C. S. and B. A. Thielges. 1987. Pathogenic variation in *Melampsora medusae* leaf rust of poplars. *Euphytica* 38:583-570.
- Prakash, C. S. and W. A. Heather. 1988. Adaptations to increasing temperature and light intensities by a race of *M. medusae* on *P. deltoides*. *Can. J. Bot.* 84: 834-881.
- Prakash, C. S. and W. A. Heather. 1988. Response to gamma irradiation and induced virulent mutation in *M. medusae* of poplars. *J. Phytopathology* 115: 89-98.
- Prakash, C. S. and W. A. Heather. 1988. Relationship between increased virulence and aggressiveness traits of *M. medusae*. *Phytopathology* 78: 288-289.
- Prakash, C. S. and W. A. Heather. 1985. Reaction of cultivars of *Populus* spp. to radiation induced virulent mutants of *M. Medusae*. *Euphytica* 34: 309-315.
- Prakash, C. S. and W. A. Heather. 1985. Induction of rapid and synchronous germination of urediniospores of *M. medusae*. *European J. Forest Pathology* 15:128-128.
- Prakash, C. S. and W. A. Heather. 1985. A leaf replica technique to isolate avirulent biotypes in leaf rust. *Transactions of the British Mycological Society* 84: 754-755.
- Prakash, C. S. and W. A. Heather. 1984. Effect of gamma irradiation on germination and infection potential of urediniospores of *M. medusae*. *Australian Pl. Path.* 4: 80-82.
- Prakash, C. S. and G. Shivashankar. 1984. Genetics of resistance to bacterial blight in cowpea. *Genetica Agraria* 38: 1-10.
- Prakash, C. S. and G. Shivashankar. 1982. Evaluation of cowpea genotypes for resistance to bacterial blight. *Tropical Pest Management* 28: 131-138.

Select Feature and Review Articles

Following is a select list of many articles published by me in the **ISB News Report**. All articles can be read on the World Wide Web at <http://www.nbiap.vt.edu> or on our CAENS, TU website <http://agriculture.tusk.edu>. Many of my articles are routinely reprinted in other newsletters and journals such as Australasian Biotechnology, Rice Biotechnology Quarterly, AgBiotech News, Weeds World and AgBiotech News and Information, Plant Molecular Biology Reporter and also posted on Internet newsgroups. I have also published dozens of articles on biotechnology in newspapers.

December 1999	Teaching Plants to cope with Salt
November 1999	International notes in Biotechnology
September 1999	Fixing Plant's Own Genes
September 1999	Look Mom! No Antibiotic Marker Genes!
July 1999	Job Searching in Agricultural Biotechnology on the Internet
June 1999	Super Rice Bioengineered at the Int Rice Research Institute
April 1999	Activists Oppose Transgenic Plants in India
April 1999	Teaching Plants to Face the Heat
March 1999	A Plant-Based Vaccine Against Cancer
January 1999	Antibodies Produced In Plants Confer Protection Against Human Diseases
January 1999	Nutritional Genomics: Increasing Vitamin E Content In Plants
October 1998	Sugar beets engineered to produce healthier sugar
September 1998	Powerful plant gene confers resistance to nematodes and aphids
August 1998	A new Insecticidal gene to challenge Bt monopoly?
August 1998	The farm as a factory: Industrial products from engineered crops
July 1998	Designing a nutritive alfalfa to lower pollution
June 1998	Regulatory gene confers resistance to multiple diseases
June 1998	Seedless tomatoes on the way
May 1998	Engineering cold tolerance takes a major step forward
May 1998	A first step towards engineering improved phosphorous uptake
April 1998	A Plant-Based Edible Vaccine Against Cholera

March 1998	Alcohol -induced Expression in Transgenic Plants
March 1998	Engineered Plants Show Promise as Edible Vaccine for Diabetes
March 1998	Largest Segment of Plant DNA Sequenced To Date
February 1998	World Bank Panel Reports on Use of Biotechnology
February 1998	Genetically Decaffeinated Coffee
January 1998	Biotechnology Discussion Groups on the Internet
December 1997	Biotechnology Used to Fortify Rice with Iron
December 1997	Gene Flow Between Crops and Distantly Related weeds
November 1997	New Plant Transformation Vectors
November 1997	Plant Biologists Converge in Singapore
October 1997	Sunflower Gene Improves Grain Legume Protein
October 1997	Engineering Plants to Manage Stress
September 1997	New DNA Chip Technologies Impact Agbiotech Research
September 1997	No Small Potatoes: Yeast Gene dramatically Alters Tuber Size
August 1997	Towards High Provitamin-A Rice
August 1997	And Now A Vitamin-Enhanced Tomato Too!
July 1997	Boom and Bust of Insect Resistant Bt Cotton?
July 1997	Crops Engineered to Tolerate Aluminum Toxicity
June 1997	Forever Flowers and Fruits
May 1997	New Insight into Chemical signaling
April 1997	Vaccine Produced in Plants Shown to Protect Animals
April 1997	Plant Gene Transfer Comes of Age
March 1997	First Gene for Resistance to Insect identified In Plants
January 1997	Towards the Development of Cold Tolerant Plants
February 1997	International Conference on Plant and Animal Genomes
December 1996	Transgenic Cotton with Improved Polyester-like Fiber
September 1996	India's emerging biotechnology scene. ISB News Report.
November 1996	Plants that Detoxify Mercury
May 1996	Access Excellence: A Web Site for High School Biology Teachers
April 1996	Green Fluorescent Protein - A New Reporter Gene
May 1996	AFLP Markers: A New Powerful Tool for Genome Analysis
March 1996	Plant Biotechnology Research at Tuskegee University
March 1996	BIOSCI - A Network for Biologists

Popular Articles in other media (50+ popular articles in the Newspapers and Magazines)

- Prakash, C. S. 1996. A One-Stop Shop: Plant Biotech Workshop.. Tuskegee Horizons 7:10-11
- Prakash, C. S. 1996. Scientists converge on Tuskegee to discuss biotechnology, ethics and commerce. BioLink. 2: 8-10.
- Prakash, C. S, 1996. Transgenic plants producing edible vaccines. Biotechnology and Development Monitor (June 1996)
- Prakash, C. S. 1991. Genetic Engineering Research on Sweet Potato. A flyer highlighting research at Tuskegee University.
- Loretan, M. and C. S. Prakash. 1990. Plant Biotech.- New but old. Tuskegee Horizons 1:12-13.
- Prakash, C. S. 1988. Tissue culture of eastern cottonwood. The International Plant Biotechnology Network Newsletter #9. p 4.
- Prakash, C. S. 1987. Super trees and designer forests: Tissue culture of woody plants. Natural Resources Newsletter 8: 1-3.

Invited Papers At Meetings (200+)

- Prakash, C. S. "*Ushering the New Green Revolution: How Can Biotechnology Contribute to Food Security?*" 'Seeds of Opportunity: The Role of Biotechnology in Agriculture' London, UK. May 31- June 1, 2001
- Prakash, C. S. 200 Biotechnology in the Developing World: Challenges and Opportunities. Abstract of Invited Presentation. World Congress on In Vitro Biology, San Diego, June 10-15, 2000.
- Prakash, C. S. 1999. Biotechnology for a Better World - Enhancing Nutritional Security in the Third World. BIO'99. Biotechnology Industry Organization Annual Meeting. May 16-20, 1999. Seattle.

- Prakash, C. S. 1999. Can Biotechnology Enhance Agricultural Productivity in Developing Countries? Conf. Molecular Biology's Role in Agricultural Productivity, March 15-16, 1999, Amsterdam (Chair of Session Talk)
- Prakash, C. S. 1999. Relevance of Biotechnology in Enhancing Agricultural Productivity in Developing Countries South African Association of Botany 25th Annual Conference. January 11-15, 1999. University of Transkei, Umtata, South Africa. (Plenary Speech)
- Prakash, C. S., M. Egnin and J. Jaynes 1998. Biotechnology touches a third world crop: Improving protein content in sweetpotato. Agricultural Biotechnology International Conference. June 9-12, 1998. Saskatoon, Canada.
- Prakash, C. S. 1998. Can biotechnology keep the ghost of Malthus at bay? International Conference on "Malthus and Mendel: Population, Science and Sustainable Food Security" January 27-31, 1998; at M. S. Swaminathan Research Foundation, Chennai, India. (*Plenary Speech*)
- Prakash, C. S., M. Egnin and D. Scott. 1997. Molecular insights into the biology of sweetpotato. "Radical Biology- An International Symposium in Root Biology" Penn State Symposium Series in Plant Physiology. May 22-24, 1997. State College, PA.
- Prakash, C. S., M. Egnin, R. Walls, D. Scott, R. Gowda, A. Kilonzo and X. Zhu. 1997 Genetic engineering of sweetpotato for improved nutritional quality and disease resistance. Symp of Int. Soc for Tropical Root Crops (ISTRC). October 19-24, 1997. St. Augustine, Trinidad and Tobago. (*Plenary Speech*)
- Prakash, C. S. 1997. Engineering sweetpotato for improved productivity. Sweetpotato Collaborators Group Meeting. February 2-3, 1997. Birmingham, AL
- Prakash, C. S. 1996. Use of Internet in biotechnology research and teaching. Instructional Technology Conference. March 11-13. Birmingham Southern College.
- Prakash, C. S. 1995. Application of biotechnology to root and tuber crop improvement. REDBIO'95-II Latin American Meeting on Plant Biotechnology. June 4-9, 1995. Iguazu Falls, Argentina (Workshop Coordinator).
- Prakash, C. S. 1995. Genetic transformation and DNA polymorphism research on sweetpotato and peanut. Workshop on Biotechnology at 1890 Institutions. Nov. 8-10, 1995. Florida A & M University.
- Prakash, C. S., Q. Zheng, A. Porobo Dessai. 1995. High efficiency transformation and regeneration of transgenic sweetpotato plants. Congress of In Vitro Biology. May 20-24, 1995. Denver, CO. (In Vitro Cell and Dev. Biol. 31:28A)
- Prakash, C. S., G. He, and R. Jarret 1995. Genetic relationships among U. S. sweetpotato cultivars analyzed by DNA amplification fingerprinting. Am. Soc. Hort. Science Southern Section/Sweetpot Collab Annual meet. Jan. 28-29, 1995. New Orleans. (HortScience 30:441)
- Prakash, C. S., Q. Zheng, A. Porobo Dessai. 1995. Development of transgenic sweetpotato and analysis of transgene expression. Am. Soc. Hort. Science Southern Section/Sweetpot. Collab.. Annual meet. Jan. 28-29, 1995. New Orleans. (HortScience 30:441)
- Rajapakse, S., J. Bohac, C. S. Prakash, and G. He. 1995. Analysis of phylogeny of *Ipomoea* using DNA markers Am. Soc. Hort. Science Southern Section/Sweetpotato Collaborators Annual meet. January 28-29, 1995. New Orleans.
- Prakash, C. S., G. He, A. Porobo Dessai, Q. Zheng, M. Egnin and R. Jarret. 1994. Progress and Promise of Biotechnology in the improvement of sweetpotato. 10th Symposium of the International Society for Tropical Root Crops, Salvador, Bahia, Brazil (Nov. 13-19, 1994) (*Plenary Speech*).
- Gosukonda, R. M., Q. Zheng, A. P. Dessai, G. He, M. Egnin, and C. S. Prakash. Genetic Engineering and DNA Fingerprinting Research in Sweetpotato. 18th Int. Cong. of Biochemistry and Molecular Biology. Satellite Symp on Plant Biotechnology Applications. Sept. 14-18, 1994. Hyderabad, India.

- Prakash, C. S. 1993 Potential food safety concerns from the use of genetically engineered plants. The 51st Professional Agricultural Workers Conference. Dec. 5-7, 1993. Tuskegee University.
- Prakash, C. S., Porobo Dessai, A., G. Ramanamurthy, K. Dumenyo, G. He, and Q. Zheng and M. Egnin. 1993. Biotechnological approaches to the improvement of sweetpotato. The International Symposium on Tropical Tuber Crops (ISOTUC). November 8-9, 1993. Trivandrum, India.
- Prakash, C. S. 1991. Optimizing gene transfer systems for sweetpotato. International Symposium on Sweetpotato Technology for 21st Century. June 1991. Montgomery, AL.
- Prakash, C. S., U. Varadarajan, and A. S. Kumar. 1991. Foreign gene transfer to sweetpotato. Sweetpotato Collaborators Annual Meeting. February 1991. Fort Worth, TX. (HortScience 28: 492)
- Prakash, C. S. 1989. Managing resistance to defense mechanisms in trees. National IPM Symposium. April 1, 1989. Las Vegas.
- Prakash, C. S. 1988. Genetics of poplar-leaf rust interaction and breeding for durable resistance. 5th International Congress of Plant Pathology. August 1988. Kyoto, Japan.
- Thielges, B. A., C. S. Prakash, and R. C. Hamelin. 1988. Selection and breeding for *Melampsora* leaf rust resistance in eastern cottonwood: Laboratory and field screening. 10th North American Forest Biology Conference. Vancouver, British Columbia.
- Prakash, C. S. 1988. Priorities in crop biotechnology research in developing countries. Int. ICSU/CASAFA symp. on Agricultural Applications of Biotechnology. Dec. 1988. Madras, India.
- Prakash, C. S. 1985. Prospects and problems in agricultural genetic engineering. Student Pugwash Conference "Science Society and Individual Responsibility." June 1985. Princeton University, NJ.

Select Abstracts and Contributed Papers At Meetings

- Egnin, M., K. Shireen, M. Walker, J. Lewis, R. Pace, C. S. Prakash and J. Jaynes, 1999. Enhanced protein content and quality in sweetpotato engineered with a synthetic storage protein gene. at Plant Biology'99 – Annual Meeting of the American Society of Plant Physiology. July 20-24, 1999. Baltimore, MD..
- Zhu, X., M. Egnin, K. George, A. McKenzie, J. Jackson, O. Abdelmagid, P. McGarvey, V. Yusibov, H. Koprowski, and C. S. Prakash. Engineering plants with an edible vaccine gene against rabies virus. June 5-9, 1999. Congress on In Vitro Biology. New Orleans.
- Egnin, M., C. S. Prakash, M. Walker, K. Shireen, R. Pace, J. Lewis and J. Jaynes, 1999. Enhanced essential amino acid level and increased nutritive value of transgenic sweetpotato expressing a synthetic storage protein gene. Conf. on Molecular Biology's Role in Agricultural Productivity, March 15-16, 1999, Amsterdam.
- K. Shireen, R. Pace, Egnin, M., C. S. Prakash, 1999. Animal testing of transgenic sweetpotato with improved protein content for biosafety and protein efficiency. 1999. Southern Association of Agricultural Scientists Annual Meeting. February 1-4. Memphis.
- Scott, D and C. S. Prakash. 1997. Isolation of periderm-specific cDNA from sweetpotato (*Ipomoea batatas*) storage roots. Fifth Int. Congress of Plant Mol. Biology. September 21-27, 1997. Singapore.
- Prakash, C. S. and M. Egnin. 1997. Engineered sweetpotato plants with a synthetic storage protein gene show high protein and essential amino acid levels. Fifth int. Congress of plant mol. Biology. September 21-27, 1997. Singapore.
- Prakash, C. S. and G. He. 1997. Genetic diversity analyzed in peanut landraces using AFLP and DAF markers. Fifth Int. Congress of Plant Mol. Biology. September 21-27, 1997. Singapore.
- Jiaxu, W. He, G., and C. S. Prakash 1997. Analysis of genetic diversity in Chinese sweetpotato using DNA markers. Plant Genome V. January 15-19, 1997. San Diego, CA.

- Egnin, M. and C. S. Prakash. 1997. Transgenic sweetpotato expressing a synthetic storage protein gene exhibits high levels of total protein and essential amino acids. World Congress on In Vitro Biology. June 14-18, 1997. Washington, D. C.
- Walls, R., M. Egnin and C. S. Prakash. 1996. Genetic transformation of sweetpotato with chitinase and glucanase genes for fungal resistance. World Congress on In Vitro Biology. June 22-27, 1996. San Francisco.
- Scott, D. L. and C. S. Prakash. 1996. Identification of periderm-specific genes in sweetpotato using differential display RNA PCR. Plant Genome IV. January 14-18, 1996. San Diego, CA.
- He, G., C. S. Prakash and M. Watts 1996. Polymorphic DNA markers in cultivated peanut. Plant Genome IV. January 14-18, 1996. San Diego, CA.
- Zheng, Q., Z. Yao, M. Egnin, R. Gowda, A. Kilonzo, R. Walls and C. S. Prakash. Development of transgenic sweetpotato with 'value-added' traits. Int. Conf. on Transgenic Plants for Commercial Applications. October 1-4, 1995. Lexington, KY
- Egnin, M., M. Mora, and C. S. Prakash. 1995. Factors enhancing *Agrobacterium*- mediated transformation in peanut. Congress on In Vitro Biology. May 20-24, 1995. Denver, CO. (In Vitro Cell and Dev. Biol. 31:4A)
- Egnin, M., and C. S. Prakash. 1995. Genetic transformation and regeneration of transgenic sweetpotato plants. HortScience 30:435.
- He, G., M. Watts and C. S. Prakash. 1995. Detection of polymorphic markers in cultivated peanut. American Peanut Research and Education Society Ann. Meet. July 11-14, 1995, Charlotte, NC.
- He, G. and C. S. Prakash. 1995. Application of DNA markers in studies of genetic diversity and genetic relationships in crop germplasm research. Intl. Symposium on Research and Utilization of Crop Germplasm Resources. June 1-3, 1995. Beijing, China.
- C. S. Prakash, G. He, M. Kanyand and A. K. Singh 1994. Identification of polymorphic markers in cultivated peanut using DNA amplification fingerprinting approach. III Intl. Conf. on DNA Fingerprinting. Dec. 13-18, 1994. Hyderabad, India
- Prakash, C. S. , He, G., and R. Jarret 1994. Genetic relationships between sweetpotato genotypes analyzed by DNA amplification fingerprinting. 4th Int. Cong. Plant Molecular Biol. Amsterdam, Netherlands. June 19-24, 1994.
- Mora, A., M. Egnin, M. Kanyand and C. S. Prakash. 1995. Antibiotics promote in vitro organogenesis in peanut. Southern Association of Ag. Scientists/Crop Science Soc of America-Southern Division. Annual Meet. January 29-31, 1995. New Orleans.
- Kanyand, M., A. Porobo Dessai, A. and C. S. Prakash. 1994 Screening of peanut germplasm for *in vitro* regeneration . Int. Conf. Plant Tissue and Cell Culture. Firenze, Italy. June 12-19, 1994.
- Daniell, H., A. Porobo Dessai, C. S. Prakash, and W. J. Moar. Engineering chloroplast genomes for stress tolerance in plants. 4th Int. Cong. Plant Molecular Biol. Amsterdam, Netherlands. June 19-24, 1994.
- Prakash, C. S. , He, G., and R. Jarret 1994. DNA sequence polymorphism based genetic diversity studies in sweetpotato germplasm (Abstr.) . HortScience 29: 727
- He, G., , C. S. Prakash, R. Jarret 1994. DNA amplification fingerprinting to analyze genetic diversity in sweetpotato germplasm. Conf. on Plant Genome II. San Diego, CA. January 24-27, 1994.
- Kanyand, M., A. Porobo Dessai, A. and C. S. Prakash. 1994 Thidiazuron mediated *in vitro* regeneration of peanut plants. Congress on Cell and Tissue Culture. Raleigh, NC. June 4-7, 1994.
- Zheng, Q., A. Porobo Dessai, and C. S. Prakash. 1994 . A rapid and repetitive somatic embryogenesis system in sweetpotato. Congress on Cell and Tissue Culture. Raleigh, NC. June 4-7, 1994.

- He, G., Prakash, C. S., Jarret, R. L., Tuzun, S. and Qiu, J. 1993. DNA amplification fingerprinting of sweetpotato. Gatlinburg Symposium on Plant Genome Analysis, Knoxville, TN. June 9-12, 1993.
- Porobo Dessai, A., R. Gosukonda, E. Blay, K. Dumenyo and C. S. Prakash. 1993. Improved adventitious regeneration of sweetpotato. Cong. on Cell and Tissue Culture. San Diego, CA. June 1993.
- Korsi Dumenyo, C., E. Blay, A. Porobo Dessai, and C. S. Prakash. 1993. Effect of *Agrobacterium* growth stage and culture density on the transformation efficiency of sweetpotato. 90th Annual Meeting of Ameri. Soc. Hort. Science. Nashville, TN. July 24-29, 1993.
- Ramanamurthy, G., A. Porobo Dessai, and C. S. Prakash. 1993. Thidiazuron mediated induction of adventitious shoots in sweetpotato. 90th Annual Meeting of Ameri. Soc. Hort. Science. Nashville, TN. July 24-29, 1993.
- Prakash, C. S., R. Gosukonda, A. Porobo Dessai, E. Blay and K. Dumenyo. 1993. An efficient *n vitro* regeneration method to produce adventitious plants in sweetpotato. Sweetpotato Collaborators Meeting. Tulsa, OK. January 30-31, 1993 (HortScience 28:282).
- Prakash, C. S., A. Porobo-Dessai, and E. Blay. 1992. Potential for improvement of sweetpotato productivity through genetic engineering. Symp of Assoc. Res Directors. Oct., 1992. Atlanta, GA.
- Prakash, C. S. and U. Varadarajan. 1992. Foreign gene delivery into sweet potato and its potential applications in agriculture. Miami Winter Bio/Technology Symposium. January 19-24, 1992.
- Porobo-Dessai, A., E. T. Blay, C. S. Prakash and K. Nakamura. 1992. Expression of *gusA* gene with an intron in sweet potato and garden egg plant. *In Vitro Cell Developmental Biology* 28: 123A
- Blay, E. T., Porobo-Dessai, A., C. S. Prakash. 1992. Effect of *vir* gene inducers on genetic transformation frequencies of sweet potato and garden egg plant. 89th Annual Meeting of the American Soc. of Hort. Science. Honolulu, HI (August 1-8, 1992) (HortScience 27: 172. #841).
- Prakash, C. S. and U. Varadarajan. 1991. Expression of foreign genes in transgenic sweet potatoes. Third International Congress of Plant Mol. Biology. October 8-12, 1991. Tucson, AZ.
- Varadarajan, G.S. and C. S. Prakash. 1991 Evolutionary complexities within the batatas complex (*Ipomoea section batatas*), characteristic of a "polyploid pillar" system. *Am J. Bot.* 78: p225 (#588).
- Prakash, C. S. and U. Varadarajan. 1991. Genetic transformation of sweetpotato (*Ipomoea batatas* (L.) Lamk.). Golden Jubilee Symposium on Genetic Research and Education : Current Trends and the Next Fifty Years. Feb. 12-15, 1991, New Delhi, India.
- Varadarajan, G. S. and C. S. Prakash. 1991. Evolutionary biology of the sweetpotato and its relatives: opportunities for molecular genetic studies. Sweetpotato Collaborators Annual Meeting. February 1991. Fort Worth, TX. (HortScience 28: 492) .
- Prakash, C. S. 1990. Microprojectile delivery of foreign genes into sweetpotato. Proceedings of VII International Conf. on Plant Cell and Tissue Culture (Amsterdam, Netherlands).
- Prakash, C. S. *et al.* RFLP approaches to identify sweetpotato cultivars. 1990. Abstracts of the IV International Symposium on Development and Applications of New Technologies for Varietal Identification. A. D. Knapp (Ed.) p.23. Iowa State University, Ames.
- Prakash, C. S. and B. A. Thielges. 1989. Somaclonal variation in eastern cottonwood for resistance to leaf rust. 20th Southern Forest Tree Improvement Conference. June 1989. Charleston, SC.
- Jingsheng, D., D. B. Wagner, C. S. Prakash, B. A. Thielges, and R. J. Rousseau. 1989. Inheritance and linkage analyses of isoenzymes in eastern cottonwood leaf tissue. 20th Southern Forest Tree Improvement Conference. June 1989. Charleston, SC.

- Prakash, C. S. and B. A. Thielges. 1988. Microevolutionary considerations in the stability of host-pathogen interactions. 5th International Congress of Plant Pathology. August 1988. Kyoto, Japan.
- Prakash, C. S. and B. A. Thielges. 1988. Plantlets from leaf discs of *Populus deltoides* In: Genetic Manipulation of Woody Plants (Eds. J. W. Hanover and D. E. Keathley). p 485. Plenum press, NY.
- Prakash, C. S. and B. A. Thielges. 1988. Genetics and breeding for durable resistance to leaf rust disease in poplars. IUFRO Conference on Breeding Theory, Progeny Testing and Seed Orchards. October 1988. Williamsburg, VA.
- Prakash, C. S. 1988. Antagonistic interaction of races of *M. medusae* and cultivars of *Populus*. Annual Meeting of the American Phytopathological Society. August 1988. Kissimmee, FL.
- Prakash, C. S. and W. A. Heather. 1985. Survival in mixtures of avirulent and virulent races of *M. medusae* on cultivars of poplar. 5th Australian Conference of Plant Pathology. May 1985. Auckland, New Zealand.
- Prakash, C. S. and W. A. Heather. 1983. Adaptation to a higher temperature in *M. medusae* on poplars. 4th Int. Congress of Plant Pathology. August 1983. Melbourne, Australia.

(Presentations by students at meetings are not listed)