

# Sonny Ramaswamy

## SENIOR EXECUTIVE

**Director, National Institute of Food and Agriculture**

**2012-2018**

Science and Technology  
Leadership  
Government Administration  
Federal Administration  
Academic Administration  
Congressional Relations  
Strategic Planning  
Budget Development  
Fundraising and Grants  
Intellectual Property  
Communications  
Talent Development  
Policy and Regulations  
Risk Management  
Conflict Resolution  
Board Membership  
Environmental Issues  
Stakeholder Relations  
International Relations

**Director** May 7, 2012, I was appointed to a six-year term by President Barack Obama to head NIFA, which catalyzes transformative discoveries, education, and engagement to solve societal challenges. I am responsible for providing leadership and strategic direction in the formulation of broad, national policies needed to develop and execute cutting edge science through the administration of Federal funding to address challenges in food and agricultural systems.

As a senior official in the Trump administration, I manage a budget of approximately \$1.6 billion and a staff of approximately 400 permanent and contractual employees. Priorities for seeking and investing funds are developed in line with those of the President, the USDA Secretary, Office of Management and Budget (OMB), Congress, university partners, and other stakeholders. I work with agency staff, departmental leadership, and the OMB to develop the agency budget, and then testify before and work with relevant committees and staff in Congress to seek the funds. Despite the budget situation, I have had significant success with Congress—since the start of my tenure, NIFA’s annual budget has been increased by over \$350 million in Congressional appropriations.

**Exceptional communicator, motivator, and strategist** I have helped enhance the global stature of the NIFA, synergizing interagency and international partnerships in the areas of food, nanotechnology, robotics, drones, Big Data, cyber-physical systems, public health and nutrition, energy, earth systems, water, climate, social sciences, and military and Veterans issues. I have promoted use of data analytics

and *Lean Six Sigma Continuous Process Improvement* to help develop science priorities, revamp IT infrastructure, reporting/accountability/evaluation systems, data systems, and online presence; modernized grants processes; and initiated a new, stakeholder driven strategic direction. I have had significant success in hiring a diverse workforce in the agency, particularly at the executive leadership level.

I bring deep knowledge of the American *federal and academic ecosystems*. I have demonstrably supported and accomplished significant impacts and outcomes in the food and agriculture, natural resources, biomedical, biophysical, and social sciences, including one health/one medicine, engineering, and energy. I have exceptional fundraising and management skills. I bring outstanding business acumen and stakeholder driven strategic thinking. I am a consensus builder and I have championed shared governance. I have demonstrably created vibrant public/private partnerships. I have excellent rapport with people—from Republicans and Democrats to Liberals and Conservatives, from Legislators and Congressional Representatives to Stakeholders, from Donors to Parents, from Custodial Staff to CEOs, and from Children to Retirees. I have created an inclusive and enabling environment to attract and help people of color succeed. I have set federal and state level priorities and have been successful at receiving significant additional public resources, even in dire funding environments, and I bring passion, energy, excitement, and optimism.

## **Dean, College of Agricultural Sciences, Oregon State University**

**2009-2012**

**Served as dean of the college and director of the experiment station with annual budget of \$125 million and oversaw approximately 600 staff and 2,200 students**

**Dean and Director** Responsible for shaping and guiding the College’s external relations, marketing, legislative and alumni relations, fund-raising, and development activities. I articulated a vision for preeminence—*People, Purpose, Impact*—and the College experienced unprecedented success in extramural research support and donations. I worked with a vast array of statewide stakeholders, alumni, university administration, the Oregon legislature, and the governor’s office to help successfully mitigate the severity of state budget cuts approaching 30 percent. I dealt with the latter by developing a student-centered, strategic redirection focused on preeminence. The College was restructured, adhering to principles of shared governance and transparency. I was able to convince local stakeholders to provide 25 percent of the operating funds for branch experiment stations and extension offices; similarly, I was able to convince local (highly conservative)

communities to undertake tax referenda, which were passed successfully. With the help of an Advisory Board, I successfully executed a planned \$100 million Capital Campaign aligned with Oregon State University's \$1 billion Capital Campaign. The campaign raised funds for student scholarships, particularly for students of color, endowed professorships, construction of new and renovation of existing research and teaching infrastructure, and support of graduate education.

I promoted a strong technology commercialization portfolio, which was deployed creatively and which resulted in creating additional revenue stream to support programs. I am particularly proud of: helping the College achieve *top 10 global ranking* in agriculture and forestry programs; facilitating greater and measurable opportunities for students of color by raising money to endow the *Minorities in Agriculture and Natural Resource Related Sciences (MANRRS)* program; reinvigorating and significantly *enhancing alumni engagement*; envisioning, creating, and endowing the *Leadership Academy*, including an endowed professorship, to inculcate non-cognitive and leadership skills in undergraduate students; executing *experiential and service learning* requirements for undergraduate students; enhancing *international engagement* and study abroad programs; and, capitalizing on the College's strength in enology and viticulture, brewing, and cheese making, crafting a vision to create a Center for Innovations in Fermentation—"iFerm", which has recently received significant state and private sector funding to enhance the efforts of the endowed beer, wine, and cheese programs, combined with facilitating strong programs in hop and barley breeding, viticulture, and grass-fed dairy systems.

### **Director, Agricultural Research Programs, Purdue University**

**2006-2009**

***Served as director of agricultural research programs with an annual budget of \$100 million derived from state and extramural support***

**Director** I directed Purdue's agricultural research programs, and facilitated multi- and trans-disciplinary research and education projects on energy, climate change, water, agroecology, nutrition and public health, and food security and production agriculture.

My proudest achievement was to help faculty, staff, and students work across disciplines and colleges—from agriculture to the humanities and psychology to science, biomedical science, and engineering—to address societal challenges, and the concomitant success on many multi-million dollar grants. I helped create public-private partnerships for federal grants: for example, we successfully competed on many multimillion dollar grants from the Department of Energy, National Institutes of Health, National Science Foundation, and from NIFA, for which we brought in corporate partners to provide not only monetary resources, but also intellectual resources and to mentor graduate students undertaking corporate research. I facilitated the streamlining of business processes and grants development, resulting in significant savings, which were reinvested in supporting faculty scholarship.

I worked with the Purdue Sponsored Programs Office and the Purdue Research Foundation's Office of Technology Commercialization to facilitate faculty discoveries and inventions to be licensed in innovative ways. For example, instead of spending significant resources to patent plant and animal genes, I helped develop an approach without patents to license the genes to biotechnology companies that resulted in up-front funds to the researcher's program and the institution, and I also created a clause—*Gatorade Clause*—for royalties in case the invention became a significant money earner. Similarly, we came up with the idea to trademark walnut tree genetics rather than patent the same and, therefore, protected intellectual property (IP) without having to worry about "policing" our IP.

I facilitated a partnership between the Purdue Research Park, the Indiana Economic Development Corporation, and the Lafayette, IN Mayor's office to create infrastructure to attract Dow AgroSciences to establish a Life Sciences Research and Greenhouse Facility at the Purdue Research Park. The latter is a thriving facility today employing tens of highly paid scientific positions, and offers an excellent public-private platform for Purdue scientists and engineers to collaborate with Dow AgroSciences scientists.

### **University Distinguished Professor and Head, Department of Entomology, Kansas State University**

**1997-2006**

***As head, I oversaw a budget of approximately \$5 million and 120 staff and students***

### **Professor, Department of Entomology, Mississippi State University**

**1982-1997**

**University Distinguished Professor and Head.** My proudest accomplishments include: helping create a student-centered, globally *top-ten ranked* department; hiring outstanding faculty; creating an environment of shared governance; helping facilitate five-fold increase in graduate enrollment and three-fold increase in undergraduate student credit hours; facilitating unprecedented growth in extramural research support to over \$4 million/year.

I facilitated the streamlining of business processes and grants development, which enhanced workflow and saved money. Facilitating human development was a significant part of what I did from the perspective of developing our faculty, staff, and students and also from the perspective of developing opportunities for our clientele and end users. I was particularly effective in nurturing and mentoring people, team building, facilitating excellence in teaching, research, and extension, and conflict resolution.

I envisioned, raised funds for, and created the K-State Insect Zoo (<https://www.k-state.edu/butterfly/>), which is thriving today and receives tens of thousands of visitors each year. I was active in the Manhattan community, the public school system, the university

and community theater programs, and Habitat for Humanity. For the latter two community organizations, I also raised funds.

From 1982 through 1997, I rose through the ranks of assistant professor to associate professor to professor of insect physiology at Mississippi State University. I also served as Graduate Coordinator for the department from 1993 through 1997. I taught insect physiology, insect behavior, chemical ecology, and general entomology. I also taught students the development and use of visual aids and computer graphics and animations for presentations and public speaking skills; many of the students won numerous awards.

I have taught and mentored high school, undergraduate, graduate, and veterinary students and post-doctoral associates, particularly women and minorities. My research—based on *learner-centered and user-inspired science*—straddled the research continuum, from the fundamental to adaptive to disseminative, and utilized physiological and biochemical, molecular, chemical, behavioral, ecological, and field techniques to answer fundamental questions in insect reproduction, while offering experiential education to students. It has resulted in tools and kits used by farmers, crop consultants, and extension personnel resulting in significant savings in production costs and mitigating insecticide use, contributing to economic and environmental benefits. My research was funded—in the range of \$80,000 per year at the beginning of my career to \$350,000 per year in later years—with grants from federal agencies, including NIFA, NSF, NIH, EPA, and USAID, and from state agencies, commodity groups, and industry.

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#### E D U C A T I O N

##### DOCTOR OF PHILOSOPHY, ENTOMOLOGY, 1980

**Rutgers University**, New Brunswick, New Jersey

##### MASTER OF SCIENCE, ENTOMOLOGY, 1976

**University of Agricultural Sciences**, Bangalore, India

##### BACHELOR OF SCIENCE, AGRICULTURE, 1973

**University of Agricultural Sciences**, Bangalore, India

#### C O N T I N U I N G E D U C A T I O N

##### MANAGEMENT DEVELOPMENT PROGRAM, 2001

**Harvard University**, Cambridge, MA

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#### O R A L P R E S E N T A T I O N S

Presented over 250 keynote addresses, lectures, seminars, and commencement addresses, in addition to serving as a moderator and organizer of symposia and workshops, at over 60 universities across 20 countries.

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#### A D M I N I S T R A T I V E W O R K S H O P S

I have participated in and offered workshops at several universities and in the Federal Government, including faculty and staff development, electronic classroom scheduling, multicultural efforts, diversity and inclusion, fundraising, student, staff, faculty, and employee performance and evaluation, sexual harassment, curriculum development and management, team building, work-life balance and lifeline training, mentoring, mediation and conflict resolution, faculty development and tenure, post-tenure management and evaluation, human relations management and organizational climate, collegiality, budget development, workmen's compensation and injury management, leadership development, recruitment, mentoring, and retention of female and minority faculty, facilitating teams, creating diverse learning environments, dealing with emotional problems in students, faculty, and staff, legislative issues, spousal accommodation, media relations, alumni engagement, priority setting and strategic planning, dealing with difficult faculty and staff, intellectual property management and licensing, organizational change, ethics, civil rights, cultural transformation, scientific integrity, STOCK Act, HATCH Act, political/campaign activity by appointees, ethics and leadership, and many other topics.

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#### W H I T E H O U S E C O M M I T T E E A S S I G N M E N T S

- Co-Chair, Grand Challenges, President Obama's Second Term Agenda on Economic Growth
- Member, United States Department of Agriculture Homeland Security Council
- Board Member, Foundation for Food and Agriculture Research
- Member, Deputies Policy Process. National Network of Manufacturing Initiatives, National Science and Technology Council, Subcommittee on Advanced Manufacturing, Office of Science & Technology Policy (OSTP)
- Member, Deputies Policy Process. Increasing Diversity in the STEM Workforce by Reducing the Impact of Bias. OSTP and Office of Management and Budget (OMB)
- Organizing Committee Member, White House Water Innovation Roundtable, OMB
- Writing Team Member. Advanced Manufacturing: A Snapshot of Priority Technology Areas Across the Federal Government. National Science and Technology Council (NSTC), OSTP
- Co-Chair, Subcommittee on Food and Agriculture. NSTC, OSTP
- Inter-Agency Working Group and Writing Team Member. A Strategy for Integrating Best Practices with New

Science to Prevent Disease Transmission by Aedes Mosquito Vectors. NSTC, OSTP

- Inter-Agency Working Group and Writing Team Member. Reducing the Impact of Bias in the Stem Workforce: Strengthening Excellence and Innovation, NSTC, OSTP

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#### STUDENTS

I have mentored over 140 high school, undergraduate, and graduate students, postdoctoral research associates, visiting scientists.

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#### PUBLICATIONS

I have published over 150 refereed journal articles, book chapters, a book, and a patent. My Google Scholar H index is 25 and i10 index is 72. Listed here are just five highly cited, refereed journal articles.

- Ramaswamy, S. B., W. K. Ma and G. T. Baker. 1987. Sensory cues and receptors for oviposition by *Heliothis virescens*. Entomol. Exp. Appl. 43:159-168.
- Ramaswamy, S. B. 1988. Host finding by moths: sensory modalities and behaviors. J. Insect Physiol. 34:235-249.
- Ramaswamy, S. B., S. Shu, Y. I. Park, F. Zeng. 1997. Dynamics of juvenile hormone-mediated gonadotropism in the Lepidoptera. Arch. Insect Biochem. Physiol. 35:539-558.
- Shu, S., Y. I. Park, S. B. Ramaswamy, and A. Srinivasan. 1997. Hemolymph juvenile hormone titer in pupal and adult stages of southwestern corn borer [*Diatraea grandiosella* (Pyralidae)] and its relationship with ovarian development. J. Insect Physiol. 43:719-726.
- Keita, S. M., C. Vincent, J-P. Schmit, S. B. Ramaswamy, and A. Belanger. 2000. Effect of various essential oils on *Callosobruchus maculatus* (Fabricius) (Coleoptera : Bruchidae). J. Stored Prod. Res. 36:355-364.

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#### AWARDS

In addition to several teaching and research awards, I was elected Fellow of the American Association for the Advancement of Science and Fellow of the Entomological Society of America. I was named outstanding graduate alumnus at Rutgers, and was selected for the Outstanding Department Head award at Kansas State University. The Chicago Botanic Garden selected me for the 2018 Hutchinson Medal.

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#### COMMITTEES

I have served in various capacities on various academic committees, including departmental, college, and university committees, such as tenure and promotion, student program of study committees, admissions, faculty and administrative search, instruction, computer and infrastructure, awards, departmental and college seminar, student club advisor, summer scholars programs, research and extension task force, reviews of sponsored programs, minority affairs, university accreditation, teaching workshops, graduate council, academic review, faculty grievance, housing appeals, biotechnology advisory committee, university theater, instructional technology, international students, minority scholars, including McNair Scholars, faculty senate, digital libraries, laboratory and farm safety, website advisory, new faculty orientation and mentoring, United Way Campaign, Purdue University Cancer Center, Energy Center, and Environment Center, and design committee for BSL3 facility and life sciences building, biosecurity code of conduct, dual use research protocol, bioeconomy consortium, and biosecurity and risk communications, college and university cabinets.

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#### COMMUNITY ACTIVITIES

I have been active in public schools and community efforts in the communities we have lived in, including homeowners associations, Suzuki Violin Association, school PTA, Adopt-A-Highway, science fairs, International Science and Engineering Fair, Teacher Appreciation, local radio stations, community festivals, stage construction, construction of and fundraising for Habitat for Humanity homes, community playground construction, construction of Starkville Community Theater and Manhattan Community Theater.

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#### BOARD MEMBERSHIP

I have had Boards report to me and have served on Boards of several non-profit and non-governmental organizations, along with university and government Boards, which included helping set priorities, budget development and allocation, fundraising, and evidence based evaluation of accomplishments and organization leadership performance.

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#### HOBBIES

Harley-Davidson Motorcycles, Reading, Crossword Puzzles.