

RESEARCH IN BIOTECHNOLOGY

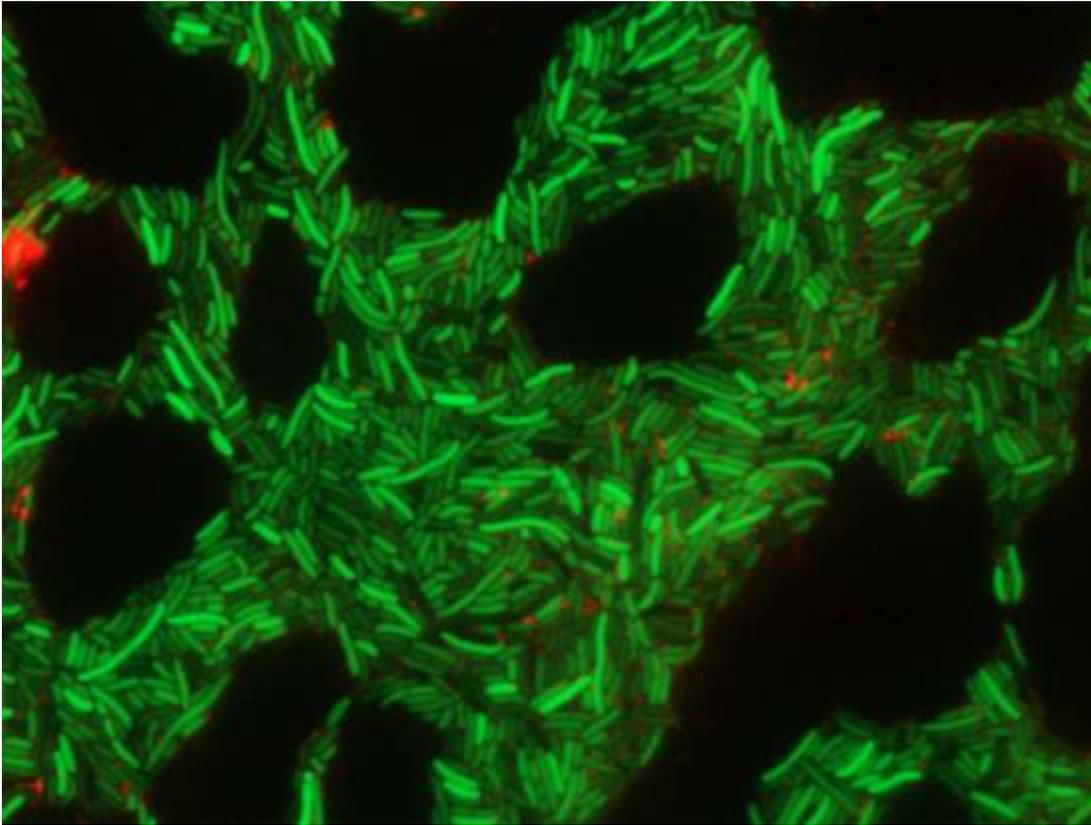


The exciting new world of Biotechnology in the 21st century has developed as a result of the convergence of biological, physical and mathematical sciences to solve problems in ways never before imagined. The breathtaking advance of DNA sequencing is one example of the power of this approach. In Biotechnology, students are trained in a broad range of basic sciences as a foundation for many important real-world applications.

A major part of this training is participation in research. All Biotechnology majors participate in at least 3 credit hours of research. Students have a large number of research laboratories across all the Rutgers campuses from which to choose research projects when positions are available (<https://sebs.rutgers.edu/faculty/> OR complete list of SEBS laboratories are near the end of this document below OR for non-SEBS labs - <http://lifesci.rutgers.edu/people/faculty-staff-directory>). More details on registering for credit for research under “How do I find a lab?” below.

Students gain a truly complete understanding of what they have learned in their courses when that knowledge is applied in research. Why is it important to know how to calculate molarities? Why is the relative solubility of hydrophilic and hydrophobic molecules important? Why do I need to know about pKa? Why is it important to know how to keep samples sterile? You will learn in research. You may make exciting new discoveries, but more importantly you will learn to plan an efficient day of research and how to accurately document and interpret your results. Understanding “how research works” is a very important skill whether you become an academic principal investigator or a business development executive of a

biotechnology company. Planning and assessing feasibility comes from your direct experience in doing research.



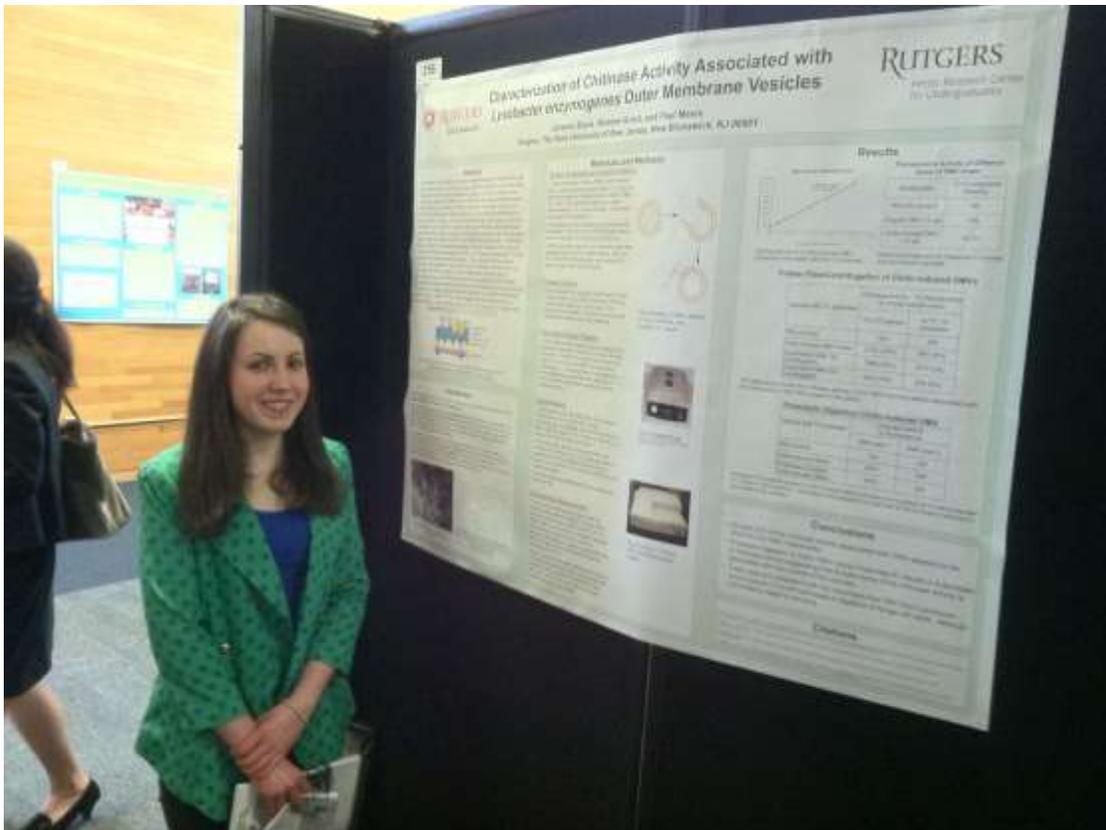
Aside from the Research in Biotechnology course (see below), students can also perform research projects in the SEBS Honors program and George H. Cook Scholars program (links below) at the School of Environmental and Biological Sciences.

(http://sebshonors.rutgers.edu/general_honors_program/)

(http://sebshonors.rutgers.edu/gh_cook_scholars_program/)

In addition, students can do Biotechnology research in the university-wide Aresty program (<https://aresty.rutgers.edu/>). An internship or paid work in Biotechnology at a company outside Rutgers can also qualify for research credit through the Rutgers SPIN program (<http://sebsspin.rutgers.edu/>).

Biotechnology students have distinguished themselves in each of these programs. For instance, in the most recent Aresty Undergraduate Research Symposium, Biotechnology students received a Best Poster Award (Daniel Hollerbach) and two Honorable Mentions (Katie Fullerton and Connor Lamontagne). Some students have even presented research at national meetings of large professional scientific societies (e.g. Biophysical Society).



Research in Biotechnology is a required course in the Biotechnology major.
11:126:497/498 Research in Biotechnology (1-6 by arrangement)

Normally Offered:

Fall Term (as 11:126:497) and Spring Term and Summer (as 11:126:498). Any faculty member at Rutgers University, Robert Wood Johnson Medical School, or the Cancer Institute of New Jersey who does research in biotechnology, biochemistry, molecular biology or genetics may supervise student research projects (see below for links to find relevant laboratories). Students working in internships at outside biotechnology-related companies can also gain credit through the SPIN internship program.

Pre-requisites and other registration restrictions:

Open to biotechnology and life science majors by special permission from the Biotechnology Curriculum Coordinator. Requires approval of the faculty member who will supervise the research project. Once approval is acquired, a special permission number may be obtained from the Biotechnology Undergraduate Program Director located in Foran Hall.

Format:

The student carries out an independent research project under the supervision of the research advisor. A minimum of 3 hrs/wk per credit in the laboratory is expected.

Description:

The student, under the guidance of a faculty member, carries out a research project. Most often, a faculty member may engage the student in some aspect of a research project that the faculty member is pursuing. However, the student may also identify her/his own project in consultation with the research advisor.

Learning Goals

1. Proficiency in the tools and scientific approaches used in biotechnology and how they are applied to answering specific scientific problems
2. Integration of knowledge from coursework and applying it to research
3. Ability to survey public literature, define an original problem for inquiry, formulate a testable hypothesis, design and execute experiments to test this problem, analyze data, and present the research in written form and orally

Assessment Measures

1. Observation of the technical and intellectual proficiency of the student in research setting
2. Evaluation of the student's ability to formulate a hypothesis from available literature, design well-controlled experiments, and analyze and interpret data
3. Evaluation of the student's written and oral presentations on the research conducted

Examinations

None

Other requirements:

All students are expected to write a paper describing the research project at the end of the semester in journal article format. Copies are submitted to the research advisor and the Biotechnology Undergraduate Program Director.

Grading

The research advisor is responsible for grading the student and reporting the grade to the Curriculum Coordinator. The grade reflects overall performance in the laboratory, including the final report.

Additional Information:

How do I find lab?

Look at two sources:

- 1) the list of biotech faculty mentors on the biotech curriculum website (**see list just below**) (for faculty on SEBS campus; <https://sebs.rutgers.edu/faculty/>) and 2) <http://lifesci.rutgers.edu/people/faculty-staff-directory> (for faculty who do research in "biotech" at Rutgers and UMDNJ and affiliated hospitals – note that this is a contact list. You need to look up what research directors (i.e professors) do on their individual department websites. You can find them by simply searching the main RU website.

Then make a short list (~10) of faculty that most interest you. After doing a little more searching on the web about the research conducted in each of these faculty labs, carefully compose a brief email that 1) tells the prospective mentor about yourself (major, year, college, interests, etc.); 2) states why you are interested in the research of the faculty mentor; and 3) asking for an appointment to meet the faculty member to talk about the research and possibly working in that faculty member's lab in the coming (semester).

To get credit, enroll in Research in Biotechnology 11:126:497 or 498 when you have enough time in your schedule to do three credits (minimum of nine hr/wk in the lab for the entire semester). If you have less time, you should volunteer (or get their feet wet by working with a grad student) or enroll for fewer than three credits. To enroll, fill out the following form ([biotech.rutgers.edu/Request Form.docx](http://biotech.rutgers.edu/Request%20Form.docx)) and send it to Dr. Meers, the program coordinator who will give you a special permission number to register for Research in Biotechnology.

In terms of paid internships, you should visit the SPIN Office in Martin Hall. They should also visit the Career Services Office with help to prepare a resume.

If you desire additional information, speak with the Biotechnology Undergraduate Program Director.

FACULTY AT SEBS INVOLVED IN RESEARCH

Faculty Name	Department	Address	Phone	e-mail <small>*completed with "rutgers.edu"</small>
Advis, Juan	Animal Sciences	213 Bartlett Hall	848-932-9240	advis@aesop.rutgers.edu
Research: Neuroendocrinology of reproduction				
Anthony, Tracy	Nutritional Sciences	131 Thompson Hall	732-932-8010	tracy.anthony@rutgers.edu
Research: Protein and amino acid metabolism; adaptation to cell stress by eIF2 and mTOR pathways; nutrition and exercise				
Arora, Sonia	Plant Biology	291B Foran Hall	(848) 932-6337	arora@SEBS.rutgers.edu
Research:	structural bioinformatics and wet lab approaches to unravel mechanism of action of botanical therapeutics			
Bagnell, Carol	Animal Science	126 Foran Hall	848-932-6334	bagnell@aesop.rutgers.edu
Research:	Reproductive endocrinology; control of reproductive tissue growth; equine placental function			
Barkay, Tamar	Biochemistry and Microbiology	333C Lipman Hall	848-932-5664	barkay@aesop.rutgers.edu
Research:	Molecular ecology of microbial processes that modulate the toxicity of mercury and other metals in the environment			
Belanger, Faith	Biotech Center/Plant Pathology	304A Foran Hall	848-932-6389	belanger@aesop.rutgers.edu
Research:	Turfgrass molecular biology; endophyte interaction with plants			
Belden, William	Animal Science	326 Foran Hall	848-932-5617	belden@aesop.rutgers.edu
Research:	Molecular mechanisms underlying epigenetics and circadian rhythms			
Bellow, Nicholas	Animal Science	121 Bartlett Hall	848-932-2966	ntbello@aesop.rutgers.edu

Research: Noradrenogenic control of food intake; neural consequences of dietary excess during adolescence

Bennett, Joan Plant Biology & Pathology 296C Foran Hall 848-932-6223 bennett@aesop.rutgers.edu

Research: Fungal genetics and secondary metabolism

Bhattacharya, Debashish Ecology, Evol, Natural Resources 102 Foran Hall 848-932-6218 dbhattac@rci.rutgers.edu

Research: Molecular evolution, comparative and functional genomics aimed at understanding the origin of photosynthetic eukaryotes, their organelles, and their place in the tree of life

Bhuyan, Sanjib Agricultural, Food and Resource Economics 104 Cook Office Bldg. 848-932-9123 bhuyan@aesop.rutgers.edu

Research: Economics of food markets and marketing systems

Bidle, Kay Marine & Coastal Sciences Marine & Coastal Sci Bldg. 848-932-3467 bidle@marine.rutgers.edu

Research: Marine microbial ecology; biological oceanography; biogeochemistry; phytoplankton mortality; structure and function of marine microbial food webs; interactions of marine microbes with phytoplankton

Bonos, Stacy Plant Biology and Pathology 284 Foran Hall 848-932-6367 bonos@aesop.rutgers.edu

Research: Inheritance of fungal resistance in turfgrass; molecular markers; turfgrass breeding; bioenergy crops

Boyd, Jeff Biochemistry and Microbiology 329 Lipman Hall 848-932-5604 jmboyd@aesop.rutgers.edu

Research: Iron-Sulfur cluster metabolism and methicillin-resistant *Staphylococcus aureus*

Brasaemle, Dawn Nutritional Sciences 311-A Food Science 932-6524 brasaemle@aesop.rutgers.edu

Research: Functions of lipid droplet-associated proteins in controlling the storage and release of neutral lipids

Brattsten, Lena Entomology 117 Blake Hall 932-8166 brattsten@aesop.rutgers.edu

Research: Insect biochemistry and toxicology; molecular aspects of insect-plant associations

Bromberg, Yana Biochemistry and Microbiology 218 Lipman Hall 848-932-5638 yanab@rci.rutgers.edu

Research: Bioinformatics approaches to protein function; prediction and genome variation analysis

Carman, George Food Science 203E Food Science 848-932-5407 carman@aesop.rutgers.edu

Research: Regulation of phospholipid metabolism/signaling in yeast

Chikindas, Michael Food Science 203 Food Science Building 848-932-5405 tchikindas@aesop.rutgers.edu

Bacillus subtilis and lactic acid bacteria spp. as a host for overproduction of biomolecules;
Research: isolation, purification, genetics, mode of action, and various applications of antimicrobial molecules of natural origin

Chin, Chee-Kok Plant Biology and Pathology 263 Foran Hall 848-932-6346 chin_c@aesop.rutgers.edu

Research: Asparagus improvement; bioactive fatty acids

Clarke, Bruce Plant Biology and Pathology 338 Foran Hall 848-932-6295 clarke@aesop.rutgers.edu

Research: Turfgrass pathology, ectotrophic root infecting fungi

Cohick, Wendie Animal Science / Biotech Center 108 Foran Hall 848-932-6319 cohick@aesop.rutgers.edu

Research: Endocrine regulation of mammary gland biology and breast cancer

Cooper, Keith Biochemistry and Microbiology 218 Lipman Hall 848-932-5614 cooper@aesop.rutgers.edu

Research: Xenobiotic metabolism in aquatic animals

Di, Rong Plant Biology and Pathology 222 Foran Hall 848-932-6350 di@aesop.rutgers.edu

Research: Plant biotechnology, food safety and nutrition, molecular detection of microorganisms

Dismukes, Charles Biochemistry and Microbiology 211 Wright Lab 732-445-1489 dismukes@rci.rutgers.edu

Oxygen production in photosynthetic systems; bioinspired catalysts for renewable energy
Research: production; the use of microorganisms for the production of bio-fuels from renewable sources

Dixon, Joseph Nutritional Sciences 132 Thompson Hall 932-9039 Dixon@aesop.rutgers.edu

Research: Lipoprotein metabolism, coronary arteriosclerosis

Dooner, Hugo Plant Biology and 2006 Waksman 445-4684 dooner@waksman.rutgers.edu

Pathology / Institute
Waksman Institute

Research: Functional genomics; homologous meiotic recombination analysis in maize

Dong, Juan Plant Biology and Pathology Waksman Institute 848-445-7034 dong@waksman.rutgers.edu

Research: Plant cell polarity, membrane proteins

Duffy, Siobain Ecology, Evol. & Natural Resources 316 Foran Hall 848-932-6299 siobain@rci.rutgers.edu

Research: Emerging viruses; molecular evolution; experimental evolution; adaptive evolution in microbes

Falkowski, Paul Marine & Coastal Sciences 211C Marine & Coastal Sciences Bldg. 848-932-3426 falko@imcs.rutgers.edu

Research: Biochemistry and biophysics; physiological adaptation; biofuels

Fefferman, Nina Ecology, Evol & Natural Resources 134 ENR Bldg 848-932-1577 fefferman@aesop.rutgers.edu

Research: Application of mathematical and computational models to biological systems

Fennell, Donna Environmental Science 231 Env. & Nat. Sci. 848-932-5748 fennell@envsci.rutgers.edu

Research: Use of microbial processes for bioremediation and waste management

Fonseca, Dina Entomology 218 Headlee Res Lab 932-3146 dinafons@aesop.rutgers.edu

Research: Research: Interaction diseases, mosquito control, evolutionary ecology

Frenkel, Chaim Plant Biology and Pathology 380 Foran Hall 848-932-6236 frenkel@aesop.rutgers.edu

Research: Molecular horticulture; natural products

Gallavotti, Andrea Plant Biology and Pathology Waksman Institute 848-445-6421 agallavotti@waksman.rutgers.edu

Research: molecular mechanisms behind the formation and activity of meristems

Gaugler, Randy Entomology 212 Blake Hall 932-9657 gaugler@rci.rutgers.edu

Research: Invertebrate pathology, parasitology, and biocontrol of plant pests

Gianfagna, Plant Biology and 280 Foran Hall 848-932-6369 gianfagna@aesop.rutgers.edu

Thomas	Pathology				
	Research:	Plant developmental physiology; dormancy mechanisms; endophytic fungi			
Goffreda, Joseph	Plant Biology and Pathology	201B Foran Hall	848-932-6372	goffreda@aesop.rutgers.edu	
	Research:	Peach, apple and apricot breeding			
Goodman, Robert	Ecology, Evolution & Natural Resources	104 Martin Hall	848-932-3600	execdean@aesop.rutgers.edu	
	Research:	Diversity and function of microorganisms in natural environments			
Govindasamy, Ramu	Agricultural, Food and Resource Economics	117 Cook Office Bldg.	848-932-9192	govindasamy@aesop.rutgers.edu	
	Research:	Marketing			
Guo, Ximing	Institute of Marine and Coastal Sciences	Haskin Shellfish Res. Lab	856-785-0074 x4324	xguo@hsrl.rutgers.edu	
	Research:	Molluscan genetics and aquaculture			
Haggbloom, Max	Biochemistry and Microbiology	121 Lipman Hall	848-932-5646	haggbloom@aesop.rutgers.edu	
	Research:	Environmental and applied microbiology, biodegradation and bioremediation			
Hallman, William	Human Ecology	215 Cook Office Building	848-932-9227	hallman@aesop.rutgers.edu	
	Research:	Risk communication; social perception of biotechnology			
Hillman, Bradley	Plant Biology and Pathology	339 Foran Hall	848-932-6307	hillman@aesop.rutgers.edu	
	Research:	Plant and fungal virology; fungal molecular biology; biocontrol			
Ho, Chi-Tang	Food Science	321C Food Science Bldg.	848-932--5553	ho@aesop.rutgers.edu	
	Research:	Flavor chemistry and technology, natural antioxidants and anticancer agents, processed food stabilization			
Hoffman, Daniel	Nutritional Sciences	Thompson Hall	932-6568	dhoffman@aesop.rutgers.edu	
	Research:	Biological and environmental factors that promote obesity and chronic diseases			

Honig, Joshua Plant Biology and Pathology 281 Foran Hall 848-932-6281 honig@aesop.rutgers.edu
Research: DNA genotyping, DNA fingerprinting, DNA sequencing, genetic linkage mapping, and marker assisted selection (MAS), turfgrass breeding

Huang, Bingru Plant Biology and Pathology 301 Foran Hall 848-932-6390 huang@aesop.rutgers.edu
Research: Turfgrass stress physiology/biotechnology

Huang, Qingrong Food Sciences 315C Food Sci Bldg 848-932-5514 qhuang@aesop.rutgers.edu
Research: Novel functional food, nano- and microencapsulation of active food ingredients, fabrication of nanoscale biosensors, nanotechnology

Janes, Harry Plant Biology and Pathology 184 Foran Hall 848-932-6324 janes@aesop.rutgers.edu
Research: Plant-environment interaction, controlled-environment agriculture

Jesse, Barry Animal Science / Academic Programs 211 Martin Hall 848-932-3510 jesse@aesop.rutgers.edu
Research: Ruminant nutritional biochemistry and molecular biology

Jin, Yanhong Ag Econ & Marketing 115 Cook Off. Bldg 848-932-9139 jinyh@rci.rutgers.edu
Research: Applied microeconomics, food safety, biosecurity, marketing

Kahn, Peter Biochemistry and Microbiology 120 Lipman Hall 848-932-56180 kahn@mbcl.rutgers.edu
Research: Protein folding, subunit assembly, ligand interactions, hydration, dioxins and related compounds

Kerkhof, Lee Marine & Coastal Sciences 305C Marine & Coastal Sciences Bldg. 848-932-3419 kerkhof@imcs.rutgers.edu
Research: Microbial population dynamics; marine microbiology-molecular biology

Kjer, Karl Entomology 121 Blake Hall 932-9564 kjer@aesop.rutgers.edu
Research: Molecular phylogenetics, aquatic insects

Kobayashi, Donald Plant Biology and Pathology 337B Foran Hall 848-932-6393 kobayashi@aesop.rutgers.edu

Research: Development of bacterial strains for biocontrol of plant diseases; microbial genomics

Lam, Eric Plant Biology and Pathology 216B Foran Hall 848-932-6351 lam@aesop.rutgers.edu

Research: Chromatin organization and dynamics, gene targeting in plants, programmed cell death in higher plants; biofuels

Lawton, Michael Plant Biology and Pathology 222A Foran Hall 848-932-6166 lawton@aesop.rutgers.edu

Research: Plant pathogen interactions, inter and intracellular signaling, gene tagging

Lee, Tung-ching Food Science 321B Food Science Bldg. 848-932-5536 lee@aesop.rutgers.edu

Research: Biotechnological application in food technology

Leustek, Thomas Plant Biology and Pathology 328A Foran Hall 848-932-6296 leustek@aesop.rutgers.edu

Research: Metabolic engineering of plants

Ludescher, Richard Food Science 311 Food Science Bldg. 848-932-3516 ludescher@aesop.rutgers.edu

Research: Protein chemistry and the physical chemistry of foods; novel applications of luminescence spectroscopy to solve basic scientific and practical problems in food science

Maliga, Pal Plant Biology and Pathology / Waksman Institute 2008 Waksman Institute 445-5329 maliga@waksman.rutgers.edu

Research: Nuclear gene regulation of plastid gene expression during development and in response to light; development of model systems for plastid transformation in higher plants

Matthews, Karl Food Science Food Science Bldg. 848-932-5404 matthews@aesop.rutgers.edu

Research: Virulence and survival mechanisms of foodborne pathogens

McLaughlin, John Plant Biology and Pathology 212A Foran Hall 848-932-6274 johnmclaughlin48@gmail.com

Research: *Fusarium graminearum*/trichothecene resistance and susceptibility, plant pathology using *Arabidopsis*, biology of ricin toxicity using yeast

Meers, Paul Plant Biology & Pathology 272 Foran Hall 848-932-6230 meers@aesop.rutgers.edu

Research: Membrane dynamics (including membrane fusion; protein-lipid interactions), small extracellular transport vesicles, vesicle-mediated drug delivery/transfection technologies

Messing, Joachim	Waksman Institute	3005 Waksman Institute	445-4257	messing@waksman.rutgers.edu
Research:	Molecular and genetic mechanisms of quantitative traits in plants; comparative genomics of cereal chromosomes; biofuels			
Miller, Joshua	Nutritional Sciences	107 Food Science Building	848-932-5428	jmiller@aesop.rutgers.edu
Research:	B vitamins, homocysteine, and one-carbon metabolism; cognitive function and dementia in older adults; mammary development and cancer			
Molnar, Tom	Plant Biology and Pathology	164 Foran Hall	848-932-6330	molnar@aesop.rutgers.edu
Research:	Ornamental and edible tree crops with a current focus on large-bracted dogwoods and hazelnuts			
Montville, Thomas	Food Science	107 Food Science Bldg.	848-932-5415	montville@aesop.rutgers.edu
Research:	Food and fermentation microbiology, food safety, antimicrobial proteins and food biotechnology			
Oudemans, Peter	Plant Biology and Pathology/Blueberry Cranberry Res. Center	Chatsworth, NJ	609-7 26-1590 x4420	oudemans@aesop.rutgers.edu
Research:	Cranberry fungal genetics and taxonomy			
Pietrzykowski, Andre	Animal Science	Endocrine Research Bldg.	932-7448	andrep@aesop.rutgers.edu
Research:	Molecular and genetic basis of adaptation, reward and addiction			
Pray, Carl	Agriculture, Food and Resource Economics	Cook Office Bldg.	932-9155 x219	pray@aesop.rutgers.edu
Research:	Science and technology policy; agricultural policy; economic development			
Quadro, Lorendana	Food Science	419 Food Science Bldg.	848-932-5491	quadro@aesop.rutgers.edu
Research:	Understanding the relationship between nutrients and human health through use of genetically modified mouse models			
Raskin, Ilya	Plant Biology and	226B Foran Hall	848-932-6267	raskin@aesop.rutgers.edu

Pathology

Research: Phytopharmaceuticals; molecular biochemistry; recombinant protein production

Reinfelder, John Environmental Sciences 260 Env. Sci. Bldg. 848-932-5737 reinfelder@envsci.

Research: Trace element bioavailability and transfer in aquatic organisms and the pathways of carbon assimilation in marine phytoplankton

Robson, Mark Entomology 204A Foran Hall 848-932-6276 robson@aesop.rutgers.edu

Research: International public health, pesticide use, policy and regulations

Roepke, Troy Animal Science 166 Foran Hall 848-932-9454 ta.roepke@

Research: Effect of environmental stresses, both naturally occurring and anthropogenic, on the physiological functions of organisms

Sarkar, Dipak Animal Science 104 Endocrine Research Bldg. 932-1529 sarkar@aesop.rutgers.edu

Research: Cellular and molecular neuroendocrinology

Schaffner, Donald Food Science 207 Food Science Building 848-932-5411 schaffner@aesop.rutgers.edu

Research: Mathematic modeling of microbial growth, quantitative risk analysis, rapid microbial methods

Schaich, Karen Food Science 315D Food Science Building 848-932-5454 schaich@aesop.rutgers.edu

Research: EPR studies of free radicals; oxidative stability of membranes; oxidative stress and medicine

Schilling, Brian Agricultural, Food and Resource Economics 108 Cook Office Bldg. 848-932-9127 schilling@aesop.rutgers.edu

Research: Food system security and bioterrorism

Shapses, Susan Nutritional Sciences 111 Thompson Hall 732-932-9403 shapses@aesop.rutgers.edu

Research: Nutritional regulation of skeletal tissues; clinical trials of bone turnover and bone mass to determine how nutritional intake influences the development of osteoporosis

Simon, James Plant Biology and Pathology 396C Foran Hall 848-932-6239 jesimon@aesop.rutgers.edu

Research: New crop development; plant domestication, medicinal plants & natural products

Smouse, Peter Ecology, Evolution and Natural Resources 1 Waller Hall 848-932-1124 smouse@aesop.rutgers.edu

Research: Population genetics, mathematical ecology, systematics

Specca, David Environmental Research & Extension Center NJ Ecocomplex, Bordentown 609-499-3600 x226 specca@aesop.rutgers.edu

Research: Large and small scale biomass-based renewable energy technologies

Storch, Judith Nutritional Sciences 214 Thompson Hall 932-1689 storch@aesop.rutgers.edu

Research: Lipid traffic in cells

Strom, Peter Environmental Sciences 228 Env. & Nat. Res. Sciences Bldg. 848-932-5709 strom@aesop.rutgers.edu

Research: Microbial ecology of biological treatment of waters

Struwe, Lena Ecology, Evolution and Natural Resources / Plant Biology and Pathology 237 Foran Hall 848-932-6343 struwe@aesop.rutgers.edu

Research: Angiosperm biodiversity and evolution; bioprospecting

Takhistov, Paul Food Science Food Science Bldg 848-932-5478 Takhistov@aesop.rutgers.edu

Research: Development of microfluidic devices and biosensors for microorganism detection, nanotechnology applications in food sciences; cell adhesion and biofilm development

Trivers, Robert Anthropology 210 Bio Sci Bldg. 732-932-5792 trivers@rci.

Research: Natural selection and social theory; evolutionary genetics; deceit and self-deception

Tumer, Nilgun Plant Biology and Pathology 206B Foran Hall 848-932-6359 tumer@mbcl

Research: Plant molecular biology; cellular translation; viral infection

Uzumcu, Mehmet Animal Sciences 0119 Bartlett Hall 848-932-6912 mehmet@aesop.rutgers.edu

Research: Testis and ovary development in mammals

Vellangany, Isaac Agricultural, Food and Resource 112 Cook Office Bldg. 848-932-9155 isaacv@rci.rutgers.edu

Economics
Research: microeconomics, public policy toward food Industry, food safety and health policy, and application of mathematics to agricultural economics

Vetriani, Costa Institute of Marine and Coastal Sciences 240G Marine Science Building 848-932-3379 vetriani@imcs.rutgers.edu
Research: Deep-sea microbiology; extremophiles, molecular ecology; adaptation to extreme environments

Vorsa, Nicholi Plant Biology and Pathology Blueberry/Cranberry Center, Chatsworth, NJ (609)726-1590 vorsa@aesop.rutgers.edu
Research: Plant breeding, genetics, germplasm evolution of blueberry and cranberry; natural product chemistry

Ward, William Biochemistry and Microbiology 216 Lipman Hall 848-932-5636 crebb@rci.rutgers.edu
Research: Green fluorescent protein and applications of bioluminescence

Watford, Malcolm Nutritional Sciences 130 Thompson Hall 932-7418 watford@aesop.rutgers.edu
Research: The role and regulation of glutamine and glutamine metabolism as they related to gluconeogenesis and nitrogen excretion

White, James Plant Biology and Pathology 264 Foran Hall 848-932-6286 jwhite@aesop.rutgers.edu
Research: Endophytic fungi; fungi and grass interrelationships; natural products

White, Lori Biochemistry and Microbiology 128 Lipman Hall 848-932-5605 lawhite@aesop.rutgers.edu
Research: Molecular mechanisms of xenobiotic-induced pathologies

Yee, Nathan Environmental Sciences 238 Env. Sci. Bldg. 848-932-5714 nyee@envsci.rutgers.edu
Research: Microbe-mineral interaction and influence of microorganisms on the chemistry of toxic metals

Young, Lily Environmental Sciences 308B Foran Hall 848-932-6383 lyoung@envsci.rutgers.edu
Research: Anaerobic microbial metabolism of environmental contaminants, microbial ecology

Zhang, Ning Plant Biology and Pathology 201 Foran Hall 848-932-6348 zhang@aesop.rutgers.edu

Research: Fungal diseases of plants; population ecology

Zilinskas, Barbara Plant Biology and Pathology 296D Foran Hall 848-932-6224 zilinskas@aesop.rutgers.edu

Molecular biology and physiology of the response of plants to environmental stress;
Research: oxidative stress and antioxidant protective mechanisms; genetic modification of turfgrass species; biofuels

Zylstra, Gerben Biochemistry and Microbiology 322A Foran Hall 848-932-6298 zylstra@aesop.rutgers.edu

Research: Molecular and biochemical basis for microbial aromatic hydrocarbon degradation