

RESEARCH IN BIOTECHNOLOGY

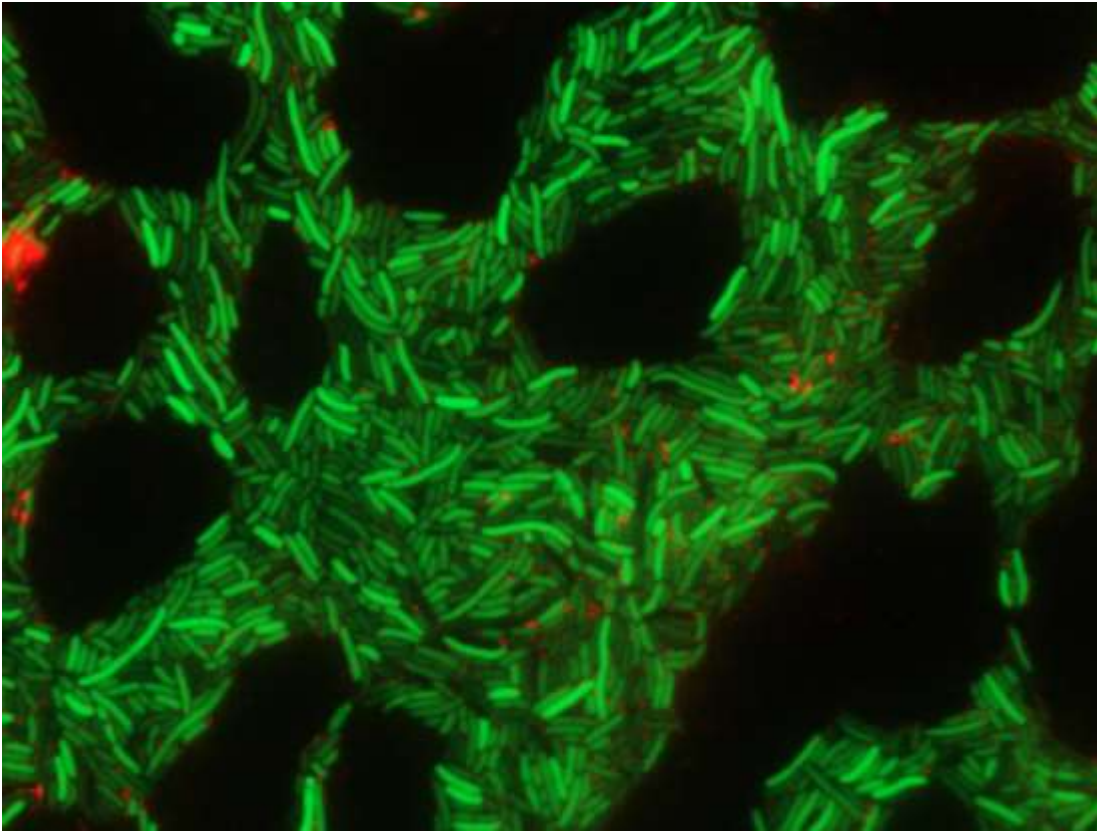


The exciting new world of Biotechnology in the 21st century has developed as a result of the convergence of biological, physical and mathematical sciences to solve problems in ways never before imagined. The breathtaking advance of DNA sequencing is one example of the power of this approach. In Biotechnology, 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/about/faculty-staff-directory>)

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.



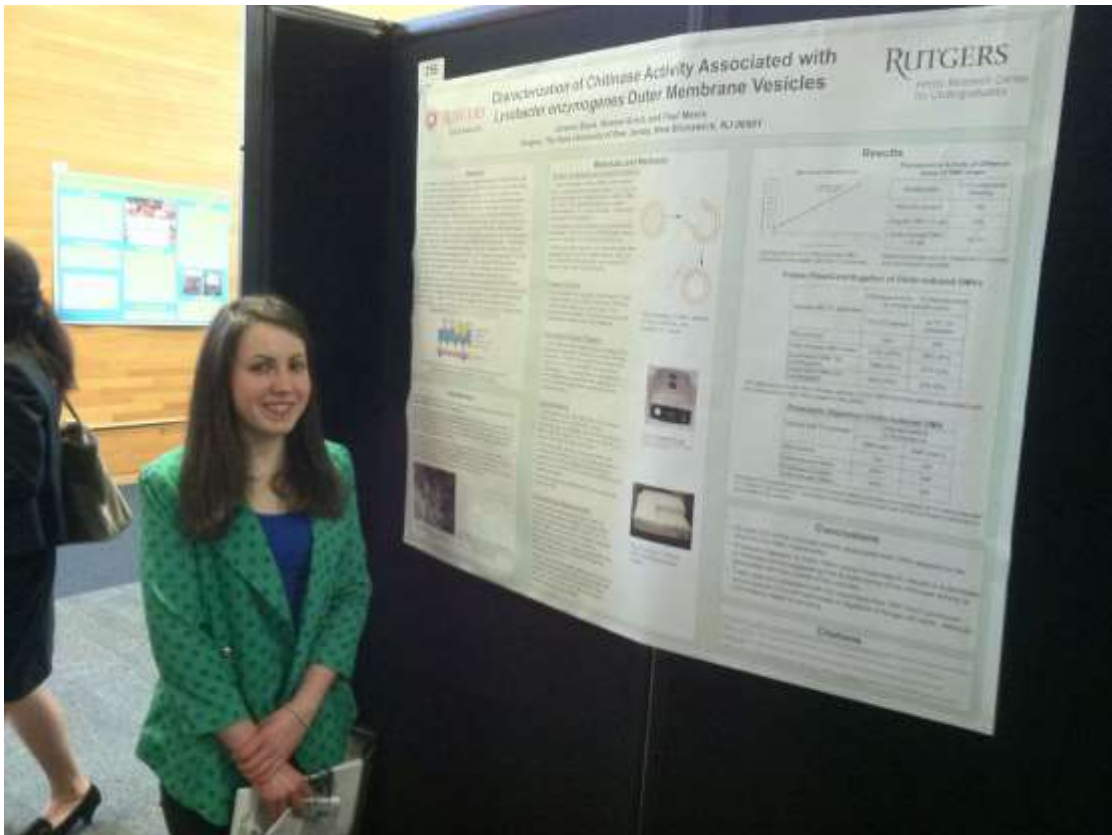
Aside from the Research in Biotechnology course (see below), students can also perform research projects in the SEBS Honors program and George H. Cook Scholars program (links below) at the School of Environmental and Biological Sciences.

(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 **tbd (see list just below)** (for faculty on this campus) and
- 2) <http://lifesci.rutgers.edu/about/faculty-staff-directory> (for faculty who do research in "biotech" at Rutgers and UMDNJ and affiliated hospitals).

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 the 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) until you can enroll for three credits. To enroll, fill out the following form ([biotech.rutgers.edu/Request Form.pdf](http://biotech.rutgers.edu/Request%20Form.pdf)) 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, Food Science 203E Food Science 848-932-5407 carman@aesop.rutgers.edu

George

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 Pathology / Waksman Institute 2006 Waksman Institute 445-4684 dooner@waksman.rutgers.edu
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, Thomas	Plant Biology and Pathology	280 Foran Hall	848-932-6369	gianfagna@aesop.rutgers.edu
	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

	Pathology				
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 jmill@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 andrepi@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 Pathology 226B Foran Hall 848-932-6267 raskin@aesop.rutgers.edu

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 Economics 112 Cook Office Bldg. 848-932-9155 isaacv@rci.rutgers.edu

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

Research: Molecular and biochemical basis for microbial aromatic hydrocarbon degradation