

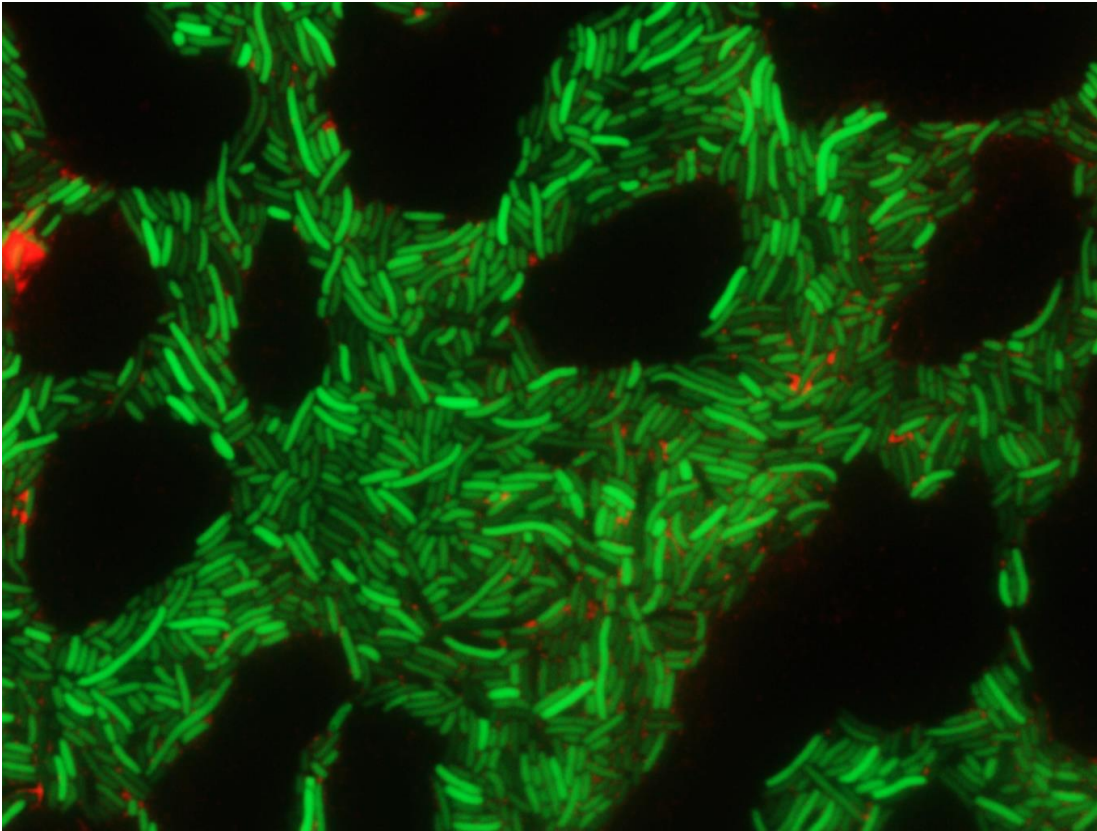
RESEARCH IN BIOTECHNOLOGY



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 (see SEBS list below or link for non-SEBS labs - <http://lifesci.rutgers.edu/~molbiosci/faculty>)

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.



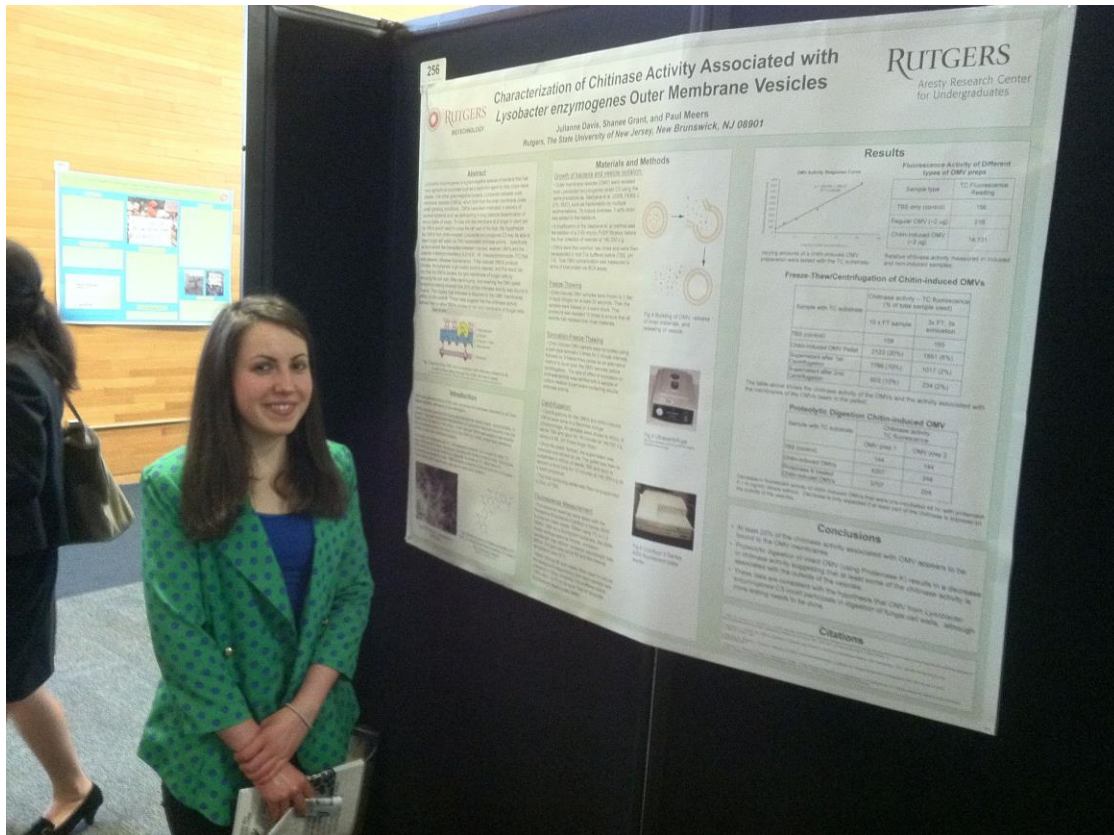
Aside from the Research in Biotechnology course (see below), students can also perform research projects in the SEBS Honors program and George H. Cook Scholars program (links below) at the School of Environmental and Biological Sciences.

(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:

To find a lab:

Look at two sources:

- 1) the list of biotech faculty mentors on the biotech curriculum website **tbd (see list below)** (for faculty on this campus) and
- 2) **<http://lifesci.rutgers.edu/~molbiosci/faculty>** (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 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 they can enroll for three credits. The program coordinator gives special permission numbers for Research in Biotech after the student has a mentor.

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 & | 296C Foran Hall | 848-932-6223 | bennett@aesop.rutgers.edu |

Pathology

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

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|---------------------------|---|---------------------------|--------------|------------------------------|
| Chikindas, Michael | Food Science | 203 Food Science Building | 848-932-5405 | tchikindas@aesop.rutgers.edu |
| | <i>Bacillus subtilis</i> 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 | | | |

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|-----------------------|---|----------------|--------------|--------------------------|
| Chin, Chee-Kok | Plant Biology and Pathology | 263 Foran Hall | 848-932-6346 | chin_c@aesop.rutgers.edu |
| | Research: Asparagus improvement; bioactive fatty acids | | | |

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|----------------------|--|----------------|--------------|--------------------------|
| Clarke, Bruce | Plant Biology and Pathology | 338 Foran Hall | 848-932-6295 | clarke@aesop.rutgers.edu |
| | Research: Turfgrass pathology, ectotrophic root infecting fungi | | | |

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|-----------------------|--|----------------|--------------|--------------------------|
| 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 | | | |

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|----------------------|---|-----------------|--------------|--------------------------|
| Cooper, Keith | Biochemistry and Microbiology | 218 Lipman Hall | 848-932-5614 | cooper@aesop.rutgers.edu |
| | Research: Xenobiotic metabolism in aquatic animals | | | |

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|-----------------|--|----------------|--------------|----------------------|
| 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 | | | |

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|--------------------------|--|----------------|--------------|--------------------------|
| 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 | | | |

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|----------------------|--|-------------------|----------|-------------------------|
| Dixon, Joseph | Nutritional Sciences | 132 Thompson Hall | 932-9039 | Dixon@aesop.rutgers.edu |
| | Research: Lipoprotein metabolism, coronary arteriosclerosis | | | |

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|---------------------|--|------------------------|----------|----------------------------|
| 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, Plant Biology and 201B Foran Hall 848-932-6372 goffreda@aesop.rutgers.edu

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|--------------------------|---|--|--------------------|-------------------------------|--|
| Joseph | Pathology | | | | |
| | 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

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|-----------------------|--|---------------------------|--------------|----------------------------|
| Miller, Joshua | Nutritional Sciences | 107 Food Science Building | 848-932-5428 | jmillerr@aesop.rutgers.edu |
| Research: | B vitamins, homocysteine, and one-carbon metabolism; cognitive function and dementia in older adults; mammary development and cancer | | | |

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|--------------------|---|----------------|--------------|--------------------------|
| 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 | | | |

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|--------------------------|--|------------------------|--------------|-----------------------------|
| 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 | | | |

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|------------------------|---|----------------|---------------------|----------------------------|
| 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 | | | |

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|-----------------------------|---|--------------------------|----------|--------------------------|
| Pietrzykowski, Andre | Animal Science | Endocrine Research Bldg. | 932-7448 | andrep@aesop.rutgers.edu |
| Research: | Molecular and genetic basis of adaptation, reward and addiction | | | |

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|-------------------|--|-------------------|---------------|------------------------|
| 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 | | | |

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|--------------------------|--|------------------------|--------------|--------------------------|
| 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 | | | |

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|---------------------|--|-----------------|--------------|--------------------------|
| Raskin, Ilya | Plant Biology and Pathology | 226B Foran Hall | 848-932-6267 | raskin@aesop.rutgers.edu |
| Research: | Phytopharmaceuticals; molecular biochemistry; recombinant protein production | | | |

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

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|--|---|------------------------------|----------------------|--------------------------|
| 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 | | | | |

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|---|----------------------|-------------------|----------|--------------------------|
| Storch, Judith | Nutritional Sciences | 214 Thompson Hall | 932-1689 | storch@aesop.rutgers.edu |
| Research: Lipid traffic in cells | | | | |

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|--|---------------------------|--|--------------|-------------------------|
| 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 | | | | |

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|--|--|----------------|--------------|--------------------------|
| 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 | | | | |

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|--|--------------|-------------------|--------------|-----------------------------|
| 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 | | | | |

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|--|--------------|-------------------|--------------|--------------|
| Trivers, Robert | Anthropology | 210 Bio Sci Bldg. | 732-932-5792 | trivers@rci. |
| Research: Natural selection and social theory; evolutionary genetics; deceit and self-deception | | | | |

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|---|--------------------------------|-----------------|--------------|------------|
| Tumer, Nilgun | Plant Biology and Pathology | 206B Foran Hall | 848-932-6359 | tumer@mbcl |
| Research: Plant molecular biology; cellular translation; viral infection | | | | |

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|--|-----------------|--------------------|--------------|--------------------------|
| Uzumcu, Mehmet | Animal Sciences | 0119 Bartlett Hall | 848-932-6912 | mehmet@aesop.rutgers.edu |
| Research: Testis and ovary development in mammals | | | | |

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|--|---|--------------------------|--------------|------------------------|
| 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 296D Foran Hall 848-932-6224 zilinskas@aesop.rutgers.edu
Barbara Pathology

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

Research: Molecular and biochemical basis for microbial aromatic hydrocarbon degradation