Funded Research & Sponsored Programs FY 2006 Annual Report



OFFICE OF RESEARCH AND SPONSORED PROGRAMS



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December 1, 2006

TO:	President, Richard L. McCormick Executive Vice President, Academic Affairs, Philip Furmanski
FROM:	Michael J. Pazzani Vice President for Research and Graduate and Professional Education
SUBJECT:	Annual Report of the Office of Research and Sponsored Programs

I am pleased to transmit the annual report of the Office of Research and Sponsored Programs for the fiscal year 2006, ending June 30, 2006. The report has two parts: 1) a brief summary of important numbers and descriptions of activities from the year, including individual profiles on selected faculty, and 2) an appendix containing a detailed list of all individual awards. The part one summary report has proved very useful in helping to inform guests to this office, and others, on the research strengths of the university. In FY 2006, Rutgers registered an increase in overall growth in research grants and contracts, receiving \$298 million compared with \$295.5 million in FY 2005. Rutgers submitted approximately 3000 applications to external sponsors and processed 1931 awards.

Funding from the US Department of Agriculture was up 55% and the Department of Defense 48%, although overall federal funding decreased by 2%. Funding from the National Science Foundation increased 4% in FY 2006 while funding from the National Institute of Health decreased 5%. The maintenance and slight growth of sponsored programs awarded to Rutgers continues to be impressive in an increasingly restrictive budget and competitive environment.

In spite of difficult financial times within the state, funding from the State of New Jersey was up 37% from FY 2005 for a total of \$60 million. Given the state's continued difficult fiscal picture, this was a good outcome. The continued increase in the numbers of proposals submitted and funded is an encouraging sign of underlying excellence in our research faculty and of our ability to compete successfully on the national stage. The contribution of private foundations to the research funding mix will continue to be a resource, particularly for education, social science and community outreach initiatives. We have reason to expect continued increases in the research funding picture across the board for FY 2007.

cc: Jeffrey C. Apfel Nancy Winterbauer



STAFF

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VICTOR SÁNCHEZ, Associate Director of Finance and Computing Services

MARY FELDENKREISS, Information Specialist NOELLE CONNELY, Administrative Assistant

MARYELLEN O'BRIEN, Acting Director

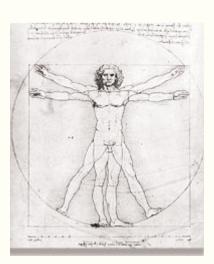
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JOSEPH DELGADO, Unit Computing Manager K. SOMA SUNDARAM, Unit Computing Specialist NICOLE J. NICHOLAS, Head Data Entry Machine Operator

CHARLES MATHEWS, Business Manager JOAN SUBER, Secretarial Assistant

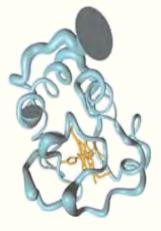


NEWARK STAFF

JACQUELINE CORNELIUS, Acting Director KASIA PROSZOWSKI, Contract/Grant Specialist MALIKA BENNETT-STAFFORD, Secretarial Assistant

CAMDEN STAFF

CAMIE MORRISON, Director, Sponsored Research Office KATHY BOYLE, Administrative Assistant



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Major Awardees FY 2006

INTERNAL FUNDING FOR RESEARCH

Charles and Johanna Busch Awards, Research Council Awards	14
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Please direct any questions or suggestions for the improvement of this report to Mr. Joseph Delgado at 732.932.0150 ext 2130 or delgado@orsp.rutgers.edu.

Desktop publishing by Nicole J. Nicholas.

Introduction to the Annual Report FY 2006

ORSP advises and assists faculty and staff engaged in research and other scholarly and creative activities. The office provides information and assistance in proposal preparation, especially for those seeking research support from external sponsors.

As part of its mission, ORSP:

- Is responsible for keeping a record of all proposals leaving the University for external funding, and for certifying that all proposals have been properly approved and endorsed by appropriate University officers.
- Collects data and generates reports on research activity, and monitors compliance with federal mandates on protection of human subjects in research, conflict of interest, use of laboratory animals, health and safety, and export controls.
- Provides information on funding opportunities on its website http://orsp.rutgers.edu, through a monthly newsletter entitled GrantNet posted to the website. ORSP also provides access to the Sponsored Programs Information Network (SPIN), which researchers can use to search for funding opportunities using criteria specific to their needs.
- Organizes workshops, lectures and seminars that advance the knowledge of the faculty about sources of funding, proposal preparation, compliance issues, and other topics of interest to the academic community.
- Administers several of the University's internal competitive grant programs designed to support junior faculty in developing research programs capable of attracting outside funding. These include the Johnson and Johnson Discovery Awards, Research Council Awards, and the Charles and Johanna Busch Awards.
- Provides staff support for the Research Advisory Board which advises the Vice President for Research and Graduate and Professional Education on policy and procedural issues.



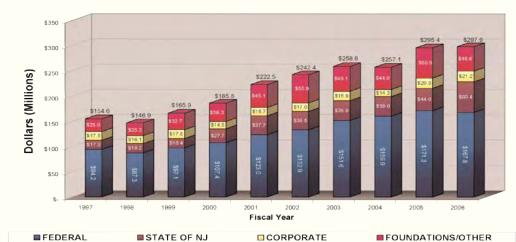
Cover Photo

Joachim Kohn, Professor Chemistry & Chemical Biology, Rutgers-NB http://rutchem.rutgers.edu/content_dynamic/faculty/joac him_kohn.shtml

This image shows an experimental device designed to test the ability of bone to interact with different biomaterials. Bone is colored in red and is seen penetrating to different degrees in between irregularly shaped coupons of various biomaterials. This research allows scientists to identify those biomaterials that will be promising candidates for use in orthopedic applications such as bone grafting after trauma or cancer, fracture fixation, and spinal cord surgery. This research effort also addresses fundamental questions of bone healing.

External Funding for Research Research Grants & Contracts FY 1997-FY 2006

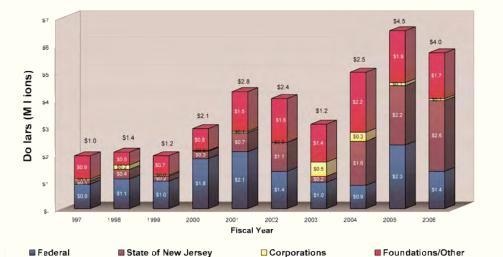
Externally sponsored research, grants and contracts totaled \$298.0 million in FY 2006 compared to \$295.5 million in FY 2005. This represents an overall 0.8 % increase. The charts below show an increase in grants from the State of New Jersey over all campuses for FY 2006. Total funding has climbed steadily after a decline in FY 1998, suffering a slight setback in FY 2004.



Overall:

There was a 37.1% overall increase in State of New Jersey grants from FY 2005 to FY 2006.

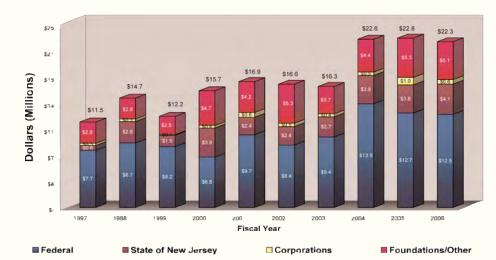
The \$60.4M recieved from the State accounts for 20.3% of the total funding that all Rutgers campuses received during FY 2006.



Camden:

There was a 19.6% increase in State of New Jersey grants from FY 2005 to FY 2006.

The \$2.6M recieved from the State accounts for 45.4% of the total funding Camden campus received during FY 2006.



Newark:

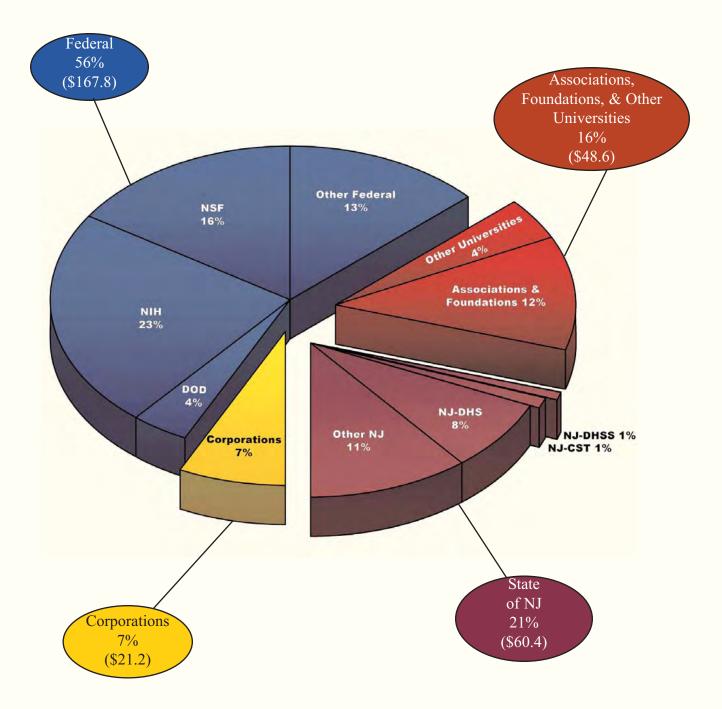
There was a 7.7% increase in State of New Jersey grants from FY 2005 to FY 2006.

The \$4.1M recieved from the State accounts for 18.4% of the total funding Newark campus received during FY 2006.

Comparison Over Five Years by Funding Source (In Millions of Dollars)

Funding Source	2002	2005	2006	% Change '05 to '06	% Change '02 to '06
Federal					
National Institutes of Health	\$46.3	\$71.8	\$68.2	(4.9%)	47.3%
National Science Foundation	\$36.2	\$45.8	\$47.7	4.1%	31.6%
U.S. Department of Defense	\$10.9	\$8.1	\$12.0	47.8%	10.4%
U.S. Department of Agriculture	\$10.3	\$6.1	\$9.4	54.6%	(7.9%)
U.S. Department of Transportation	\$5.4	\$11.0	\$6.5	(41.1%)	20.9%
U.S. Department of Commerce	\$4.4	\$7.8	\$5.3	(31.8%)	20.4%
U.S. Department of Energy	\$6.6	\$4.5	\$4.4	(1.3%)	(33.1%)
U.S. Department of Education	\$3.2	\$4.0	\$3.9	(2.6%)	25.0%
National Aeronautics and Space	\$3.8	\$2.2	\$2.7	22.6%	(28.0%)
U.S. Environmental Protection Agency	\$1.2	\$2.2	\$2.3	2.1%	87.1%
U.S. Department of Labor	\$0.1	\$0.3	\$0.0	0.0%	0.0%
Other Federal	\$5.0	\$7.3	\$5.2	(28.9%)	4.9%
Federal Total:	\$133.3	\$171.3	\$167.8	(2.0%)	25.8%
Foundations and Other					
Associations and Foundations	\$38.7	\$44.5	\$34.4	(22.6%)	(11.0%)
Institutions of Higher Education	\$38.7 \$17.4	\$14.8	\$13.0	(11.9%)	(11.0%) (25.2%)
Other States and Local Government	\$0.1	\$0.6	\$0.6	(7.6%)	561.8%
Other States and Local Government		\$ 0. 0	\$0.0	(7.070)	501.870
Other Foundations and Other:	\$0.1	\$0.0	\$0.6	1,434.4%	294.2%
Foundations and Other Total:	\$56.3	\$59.9	\$48.6	(18.9%)	(13.8%)
State of New Jersey					
Department of Human Services	\$4.7	\$6.5	\$22.5	246.8%	378.9%
Department of Transportation	\$2.0	\$2.9	\$4.6	60.7%	129.5%
Department of the Treasury	\$1.6	\$1.4	\$4.4	217.3%	175.7%
Department of Health and Senior Services	\$2.8	\$2.9	\$2.9	(2.4%)	3.6%
Commission on Science and Technology	\$4.6	\$0.6	\$2.6	335.6%	(42.5%)
Department of Environmental Protection	\$3.8	\$5.5	\$1.9	(65.8%)	(50.4%)
Department of Community Affairs	\$2.2	\$2.1	\$1.8	(11.8%)	(16.7%)
Department of Law and Public Safety	\$1.0	\$2.0	\$1.7	(18.1%)	60.7%
Department of State	\$0.9	\$1.0	\$1.5	52.4%	68.5%
Department of Labor	\$1.1	\$2.1	\$1.5	(29.2%)	40.1%
Other State of New Jersey	\$12.2	\$17.1	\$15.0	(12.2%)	23.3%
State of New Jersey Total:	\$36.8	\$44.0	\$60.4	37.1%	64.2%
Corporations					
Corporate Contracts	\$13.3	\$16.9	\$17.5	4.0%	32.3%
Corporate Grants-in-Aid	\$2.7	\$3.4	\$3.7	7.8%	37.5%
Corporations Total:	\$15.9	\$20.3	\$21.2	4.7%	33.2%
Grand Total:	\$242.4	\$295.5	\$298.0	0.8%	22.9%

External Funding by Funding Source (In Millions of Dollars)



In FY 2006, the University received \$298.0 million in external support for research. The chart above shows that Federal funding was \$167.8 million (56% of the total), Associations, Foundations, and Other Universities was \$48.6 million (16%), State support was \$60.4 million (21%), and Corporate support was \$21.2 million (7%).

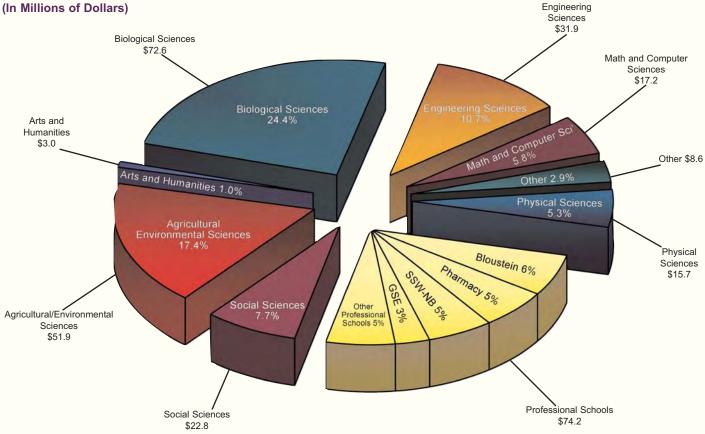
External Funding by Campus and Discipline

(In Millions of Dollars)

Central Admin	<u># of Awards</u>	Total Awarded	% of Campus <u>Total</u>
Professional Schools	<u># 07 Awaras</u> 12	\$0.5	<u> </u>
Other	12	\$0.2	6.6%
Humanities	1	\$0.2 \$0.1	1.6%
Social Sciences	2	\$0.0	0.3%
Central Admin Total:	27	\$0.8	1.3%
New Brunswick			
Biological Sciences	238	\$66.2	29.1%
Professional Schools	341	\$65.8	28.9%
Agricultural/Environmental	392	\$51.9	22.8%
Engineering Sciences	212	\$31.9	14.0%
Math and Computer Sciences	118	\$16.7	7.3%
Social Sciences	128	\$16.3	7.2%
Physical Sciences	87	\$11.7	5.1%
Other	58	\$7.4	3.2%
Humanities	23	\$1.1	0.5%
Arts	12	\$0.4	0.2%
New Brunswick Total:	1,609	\$269.3	88.5%
Newark			
Professional Schools	77	\$7.4	34.9%
Biological Sciences	43	\$6.2	29.4%
Physical Sciences	36	\$4.0	18.9%
Social Sciences	38	\$3.0	14.3%
Other	12	\$0.9	4.2%
Math and Computer Sciences	5	\$0.4	2.1%
Humanities	8	\$0.1	0.4%
Newark Total:	219	\$22.1	8.2%
Camden			
Social Sciences	25	\$3.1	61.7%
Arts	25	\$1.2	24.4%
Professional Schools	9	\$0.5	9.8%
Physical Sciences	4	\$0.4	8.0%
Biological Sciences	2	\$0.2	4.4%
Humanities	5	\$0.2	3.6%
Math and Computer Sciences	3	\$0.1	1.5%
Other	3	\$0.1	1.2%
Camden Total:	76	\$5.7	1.9%
Grand Total:	1,931	\$298.0	100%

External Funding by Discipline

(In Millions of Dollars)



Total External Funding \$297,969,930 in FY 2006

The total of \$298.0 million in FY 2006 was distributed as follows: \$72.6 million (24.4%) to the Biological Sciences, \$74.2 million (24.9%) to the Professional Schools, \$51.9 million (17.4% of the total) went to the Agricultural and Environmental Sciences, \$22.8 million (7.7%) to the Social and Behavioral Sciences, \$31.9 million (10.7%) to the Engineering Sciences, \$8.6 million (2.9%) to Other, \$17.2 million (5.8%) to the Math and Computer Sciences, \$15.7 million (5.3%) to the Physical Sciences, and \$3.0 million (1.0%) to the Arts and Humanities.



http://womens-studies.rutgers.edu/

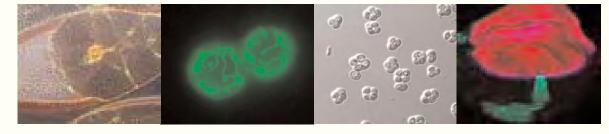
<u>PI</u>		Administrative Unit	<u># of</u> <u>Awards</u>	<u>Total:</u>
1.	MARY E. DAVIDSON	Ctr for Children and Families	18	\$15,745,218
2.	JAY TISCHFIELD	NBFAS/Life Sciences/Genetics	8	\$12,033,056
3.	GAETANO T. MONTELIONE	Ctr for Advanced Biotechnology & Medicine	4	\$9,345,023
4.	HELEN M. BERMAN	NBFAS/Chemistry & Chemical Biology	5	\$6,272,509
5.	PAUL J. LARROUSSE	Bloustein/National Transit Institute	5	\$5,986,563
6.	ROBERT E. HOLM	AES/IR-4, Office of	6	\$5,956,984
7.	MARGARET BRENNAN	AES/Food Innovation Ctr (FIC)	4	\$4,745,000
8.	FERNANDO J. MUZZIO	ENG/Engineering Research, Bureau of	9	\$4,448,085
9.	JOSEPH A. BARONE	PHARM/Pharmacy Practice and Administration	21	\$3,687,500
10.	MARTIN L. YARMUSH	ENG/Engineering Research, Bureau of	3	\$3,510,025
11.	DEBRA PALMER-KEENAN	AES/Food Policy Institute	1	\$3,401,258
12.	BRENDA HOPPER	GSM/Small Business Development Ctr	15	\$3,333,195
13.	JOACHIM B. KOHN	NBFAS/Chemistry & Chemical Biology	15	\$3,294,820
14.	DIPANKAR RAYCHAUDHURI	ENG/Electrical and Computer Engineering	7	\$3,237,465
15.	WILLIAM S. BARNETT	GSE-ETPA	2	\$3,210,000
16.	FRED S. ROBERTS	DIMACS	18	\$2,915,762
17.	STEPHEN CRYSTAL	Institute for Health, Ctr for State Health Policy	9	\$2,889,836
18.	GLORIA BONILLA-SANTIAGO	Strategic Urban Community Leadership, Ctr for	13	\$2,470,217
19.	KENNETH J. BRESLAUER	NBFAS/Division of Life Sciences	1	\$2,461,032
20.	JOSEPH G. ROSENSTEIN	Math Science & Computer Education, Ctr for	3	\$2,350,807
21.	ALI MAHER	ENG/Civil and Environmental Engineering	11	\$2,272,813
22.	LINDA M. BRZUSTOWICZ	NBFAS/Life Sciences/Genetics	5	\$2,088,788
23.	WILLIAM HALLMAN	AES/Food Policy Institute	3	\$2,081,000
24.	DEBORAH H. COOK	Math Science & Computer Education, Ctr for	2	\$2,063,485
25.	MURIEL GRIMMETT	Office of EOF Administration	5	\$2,027,400
26.	EDWARD V. ARNOLD	Ctr for Advanced Biotechnology & Medicine	3	\$1,934,927
27.	CHRIS BRUZIOS	Bloustein/Ctr for Survey Research	13	\$1,866,007
28.	JAMES R. MORRIS	CC/Continuing Professional Ed., Office of	15	\$1,821,398
29.	MONICA A. DRISCOLL	NBFAS/Life Sciences/Molecular Biology &	8	\$1,809,316
30.	ROBERT PANDINA	Ctr for Alcohol Studies	6	\$1,791,887
	Total for Top Investigators:		238	\$121,051,376
	Total for all Other:		1,693	\$176,918,554

Grand Total:

http://www.rci.rutgers.edu/~molbio/

1,931

\$297,969,930



6

Largest Single Awards by PI: Top Twenty

<u>Rank / PI / Sponsor</u>	Administrative Unit/ Project Title	Award
1. MARY E. DAVIDSON SNJ-DHS-Division of Family Development	Center for Children and Families The New Jersey Child Support Training Institute	\$13,306,684
2. GAETANO T. MONTELIONE DHHS-PHS-NIH-NIGMS	Ctr for Advanced Biotechnology & Medicine Structural Genomics of Eukaryotic Domain Families	\$9,200,000
3. JAY TISCHFIELD DHHS-PHS-NIH-NIMH	NBFAS/Life Sciences/Genetics NIMH Center for Collaborative Genetic Studies	\$6,271,995
4. PAUL J. LARROUSSE Department of Transportation-FTA	Bloustein/National Transit Institute US DOT - FTA - NTI Transit Training	\$4,257,000
5. DEBRA PALMER-KEENAN SNJ-Department of Human Services	AES/Food Policy Institute Food Stamp Nutrition Education Program FY 2006	\$3,401,258
6. HELEN M. BERMAN National Science Foundation	NBFAS/Chemistry & Chemical Biology Macromolecular Structure Database	\$3,390,843
7. JAY TISCHFIELD DHHS-PHS-NIH-NIDA	NBFAS/Life Sciences/Genetics NIDA Center for Genetic Studies	\$3,197,078
8. WILLIAM S. BARNETT Pew Charitable Trust	GSE-ETPA The National Institute for Early Education Research	\$3,150,000
9. ROBERT E. HOLM US Department of Agriculture	AES/IR-4, Office of IR-4 Minor Crop Pest Management	\$3,082,714
10. MARTIN L. YARMUSH Whitaker Foundation	ENG/Engineering Research, Bureau of A New Vision of Excellence in Biomedical Engineering	\$3,000,000
11. FERNANDO J. MUZZIO National Science Foundation	ENG/Engineering Research, Bureau of The Center for Structured Organic Composites	\$2,970,000
12. HELEN M. BERMAN National Science Foundation	NBFAS/Chemistry & Chemical Biology Macromolecular Structure Database	\$2,770,059
13. KENNETH J. BRESLAUER SNJ-Department of the Treasury	NBFAS/Division of Life Sciences Renovations for Stem Cell Research	\$2,461,032
14. BRENDA HOPPER Small Business Administration	GSM/Small Business Development Center Small Business Development Centers	\$2,330,606
15. JOSEPH G. ROSENSTEIN National Science Foundation	Math Science & Computer Education, Center for Mathematics in America's Cities: Children, Teachers, and Communities	\$2,290,397
16. ROBERT E. HOLM Various Corporate Grants-in-Aid	AES/IR-4, Office of GRANTS IN AID	\$2,211,750
17. WILLIAM HALLMAN US Department of Agriculture	AES/Food Policy Institute Modeling the Health, Economic, Social & Psychological Consequences of Fo	\$2,000,000 od
18. MARGARET BRENNAN US Department of Commerce-EDA	AES/Food Innovation Center Rutgers Food Innovation Ctr-Construction	\$2,000,000
19. MARGARET BRENNAN Casino Reinvestment Development Authority	AES/Food Innovation Center Food Innovation Construction Proposal	\$1,945,000
20. DIPANKAR RAYCHAUDHURI National Science Foundation	ENG/Electrical and Computer Engineering ORBIT: Open-Access Research Testbed for Next-Generation Wireless	\$1,704,324

Largest Single Awards by Funding Source: Top Five

Rank / PI / Funding Source	Administrative Unit	Award
State of New Jersey		
1. MARY E. DAVIDSON	Ctr for Children and Families	\$13,306,684
SNJ-DHS-Division of Family Development		
2. DEBRA PALMER-KEENAN	AES/Food Policy Institute	\$3,401,258
SNJ-Department of Human Services		
3. KENNETH J. BRESLAUER	NBFAS/Division of Life Sciences	\$2,461,032
SNJ-Department of the Treasury		
4. SHERRY N. SAPERSTEIN	Bloustein/Ctr for Government Services	\$1,662,693
SNJ-Department of Community Affairs		
5. DEBORAH H. COOK	Math Science & Computer Education, Ctr for	\$1,200,000
SNJ-Department of the Treasury		

Corporations 1. MARGARET BRENNAN AES/Food Innovation Ctr (FIC) \$1,945,000 Casino Reinvestment Development Authority 2. JOSEPH A. BARONE PHARM/Pharmacy Practice and Administration \$793,000 Novartis Pharmaceuticals 3. JOSEPH A. BARONE PHARM/Pharmacy Practice and Administration \$790,400 Hoffmann-LaRoche Inc. PHARM/Pharmacy Practice and Administration 4. JOSEPH A. BARONE \$653,400 Bristol-Myers Squibb NBFAS/Life Sciences/Cell Biology & Neuroscience 5. GARY F. MERRILL \$523,802 McNeill Specialty Products Co.

Federal

1. GAETANO T. MONTELIONE	Ctr for Advanced Biotechnology & Medicine	\$9,200,000
DHHS-PHS-NIH-NIGMS		
2. JAY TISCHFIELD	NBFAS/Life Sciences/Genetics	\$6,271,995
DHHS-PHS-NIH-NIMH		
3. PAUL J. LARROUSSE	Bloustein/National Transit Institute	\$4,257,000
Department of Transportation-FTA		
4. JAY TISCHFIELD	NBFAS/Life Sciences/Genetics	\$3,197,078
DHHS-PHS-NIH-NIDA		
5. ROBERT E. HOLM	AES/IR-4, Office of	\$3,082,714
US Department of Agriculture		

Foundations and Other

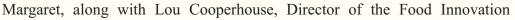
1. WILLIAM S. BARNETT	GSE-ETPA	\$3,150,000
Pew Charitable Trust		
2. MARTIN L. YARMUSH	ENG/Engineering Research, Bureau of	\$3,000,000
Whitaker Foundation		
3. DAVID MECHANIC	Institute for Health, Ctr for State Health Policy	\$862,236
Robert Wood Johnson Foundation		
4. GRETCHEN T. S. HARTLING	Institute for Health, Ctr for State Health Policy	\$808,009
Robert Wood Johnson Foundation		
5. GUTIAN XIAO	NBFAS/Life Sciences/Cell Biology & Neuroscience	\$720,000
American Cancer Society		

PI Profiles: Major Awardees for FY 2006

Margaret Brennan, Associate Director, New Jersey Agricultural Experiment Station and Co-founder of the Rutgers Food Innovation Center, **Rutgers-NB** http://www.foodinnovation.rutgers.edu/

Margaret Brennan is Associate Director for Economic Development for the New Jersey Agricultural Experiment Station (NJAES), Rutgers University. She is responsible for the development and implementation of new economic development initiatives such as the Rutgers Food Innovation Center. Margaret played a key role in the creation, organization, and strategic direction of the Rutgers Food Innovation Center. She provided leadership as

director for two years and is currently providing administrative oversight for programmatic, funding and facility development. The Food Innovation Center is an economic development outreach center of Rutgers and the NJAES, and unique in the country. It was created in an effort to proactively address the problems facing the region's ailing agricultural and food industry, which have long been a key source of economic growth. The Center stimulates business creation and expansion by transferring key technologies and business development expertise to farmers, food business entrepreneurs and small and mid-sized food processors with a full range of services that include access to processing capabilities, business development, market development, product and process development, workforce development and training, regulations and manufacturing support, and quality assurance and food safety systems. In just its fifth year of operation, the Center has assisted over 600 businesses and is recognized as a national and international model for regional economic development.



Center, have secured over \$10,000,000 in grants over the last 5 years for the operations of the center's programs and for construction of a new 23,000 s.f. facility in Bridgeton, NJ. This facility will be built entirely with grant funds and will house state-of-the-art food processing and laboratory space, analytical laboratories, distance learning and teleconferencing capabilities, and administrative space for staff as well as clients. Construction of this facility will allow the Food Innovation Center to fully realize the impact it can make to the state and surrounding region.

Margaret is currently a member of the New Jersey Department of Agriculture Industry Economic Development Task Force, the University Economic Development Association and the Northeast Research Educational Association. She was also a member of the executive board of the New Jersey Business Incubator Association for four years. She is an Agricultural Economist with expertise in economic development strategies, value-added business development and agricultural biotechnology.

Linda M. Brzustowicz, *Professor of Genetics*, Rutgers-NB http://lifesci.rutgers.edu/~genetics/faculty/webpages.asp?FACULTYID=3

Dr. Brzustowicz is a board-certified psychiatrist who focuses on research on the genetic basis of psychiatric disorders, particularly schizophrenia and autism. Work in her laboratory includes multiple facets of the genetic studies of these disorders, including development of phenotype definitions, subject recruitment and assessment, genotyping and statistical analysis for linkage and association studies, comparative genomic analysis, and gene expression studies. Dr. Brzustowicz's laboratory has identified the gene NOS1AP as important in schizophrenia susceptibility and EN2 for





autism susceptibility. In addition to studying the role of protein coding genes in these illnesses, Dr. Brzustowicz is actively investigating the role of non-coding regulatory RNA in psychiatric disease susceptibility.

Dr. Brzustowicz runs the Psychiatric Genetics Laboratory at Rutgers University. She is the principal investigator on three current NIMH R01 awards on the genetics of schizophrenia and autism, and is also principal investigator on grants from NARSAD, the March of Dimes, and the State of New Jersey. Her research grants total \$7M in direct costs. Moreover, she is a co-investigator on the \$21M NIMH Center for Collaborative Genetic Studies on Mental Disorders which funds the cell-repository for the NIMH genetics collections.

George M. Carman, *Professor of Food Science*, **Rutgers–NB** http://foodsci.rutgers.edu/Carman/index.htm

Dr. George M. Carman is a Professor II in the Department of Food Science. He received his B.A. degree from William Paterson College, M.S. degree from Seton Hall University, and Ph.D. degree from the University of Massachusetts. His postdoctoral training was at the University of Texas Medical School in Houston. Dr. Carman is recognized internationally for his seminal contributions to the understanding of lipid synthesis regulation in

yeast, a simple single cell organism. His research is currently funded by two grants from the National Institutes of Health (GM 28140 and GM 50679). His first grant (GM 28140) renewed on July 1, 2006, is in its 24th year of funding; one of the longest running grants in the university. Work funded by the NIH has led to a number of important discoveries indicating that expression of phospholipid biosynthetic enzymes is regulated by vitamins (e.g., inositol) and minerals (e.g., zinc) and that key enzyme activities are regulated by membrane lipids and nucleotides and by covalent modification by protein kinases. These forms of enzyme regulation have profound effects on membrane phospholipid composition and have important implications for understanding the molecular basis for various diseases. Carman's approach to this research is to purify and characterize key regulatory enzymes of lipid metabolism, and then utilize a reverse genetics approach to isolate and characterize the genes that encode them.



In a paper published by the Journal of Biological Chemistry on April 7, 2006, Dr. Carman and his research team found that the human protein known as lipin is a key fat-regulating enzyme. Previous studies with mice showed that a lack of lipin causes lipodystrophy (a loss of body fat), whereas an excess of lipin promotes obesity (extra body fat). So researchers knew that lipin was involved in fat metabolism, but they just didn't know how. Interestingly, the breakthrough for this discovery grew out of work using yeast. Dr. Gil-Soo Han, a research associate in the Carman laboratory, discovered the yeast gene that codes for phosphatidate phosphatase (PAP), the enzyme that catalyzes the penultimate step in the synthesis of fat (i.e., triglyceride). The link between PAP and lipin was recognized because amino acid sequences within the yeast and human proteins are evolutionarily conserved. "These findings are of major importance to the AIDS community as well as to those concerned with the obesity epidemic," said Jean Chin, a program director at the National Institute of General Medical Sciences (NIGMS), the part of the National Institutes of Health that funded the research. Indeed, this work provides an important clue to further understanding obesity and may point the way to new drugs to control fat metabolism.

Frieder Jaekle, *Associate Professor Inorganic Chemistry*, **Rutgers-Newark** http://www.andromeda.rutgers.edu/~fjaekle/

Dr. Frieder Jaekle, Associate Professor of Inorganic Chemistry, is a leader in the development of multifunctional and polymeric Lewis acids for catalysis and materials chemistry applications. His work is highly interdisciplinary, involving aspects of organic, organometallic, polymer and materials chemistry. A significant aspect of his research is the study of electronically interesting conjugated polymers, in which Lewis acid (LA)

centers are attached or embedded into the pi-conjugated polymer main chain as sensor and device materials. He is also exploring the chemistry of pentafluorophenyl copper including its use in the formation of luminescent

supramolecular structures through cuprophilic and pi-stacking interactions upon complexation with nucleophiles. Moreover, Prof. Jaekle is involved in community outreach. In March 2005, he arranged a visit to the Chemistry Department by a chemistry class from McNair high school in Jersey City to learn more about the research and educational programs at Rutgers-Newark.

New organic light-emitting materials are becoming important in linear and nonlinear optics, as emission and electron conduction layers in organic light emitting devices (OLEDs), and as luminescent probes for anions. By incorporating boron into extended organic systems, materials with intriguing electronic and photophysical properties can be obtained. New polymeric analogues are particularly intriguing and provide opportunity of using solution processing techniques for device fabrication. In the case of sensor materials, the possibility of signal amplification effects also arises. Many of these polymers show very interesting photophysical properties



and may even act as novel n-type polymers in electronic devices. These new materials may find applications in new displays and sensors.

Fernando J. Muzzio, *Professor of Chemical Engineering*, **Rutgers-NB** http://sol.rutgers.edu/new/done/muzzio.html

Professor Muzzio is a Professor of Chemical Engineering at Rutgers University. For the last 15 years, pharmaceutical product and process design has been Professor Muzzio's main research and educational focus with an emphasis on flow and mixing of liquids, powder flow and mixing, and powder constitutive behavior (cohesion, shear-induced dilation).

Since joining Rutgers University, he has received federal and industrial funding in excess of \$25 million. He is the author of over 120 peer-reviewed scientific articles, book chapters, patents, and several hundred lectures at

technical conferences, companies, and universities in areas relevant to the pharmaceutical industry. He is a consultant to most major pharmaceutical companies, as well as a number of petroleum, chemical, food, equipment, and instrumentation companies. In 1996, using funding from the NSF, the State of NJ, and several pharmaceutical companies, he founded the Pharmaceutical Engineering Program at Rutgers University. He has directed the program since inception. All this work has resulted in two prestigious awards:

1. Engineering Research Center for Structured Organic Particulate Systems (ERC-SOPS) On July 1, 2006, Rutgers University was awarded a \$15 million NSF grant (ERC-SOPS).

This five-year grant is to enhance the quality and consistency of materials used in drug manufacturing, processed foods, agrichemicals and other composite organic products and to address a societal need for better quality and less expensive pharmaceuticals. Under the umbrella of the Rutgers-led ERC,



research is performed within various departments at Rutgers and the 3 collaborating universities including Purdue University, New Jersey Institute of Technology and the University of Puerto Rico in Mayaguez. In all schools, cross-disciplinary studies are performed in Chemical Engineering, Biomedical Engineering, Pharmacy, Chemistry, Material Sciences and Food Sciences and others.

The Center's vision is to bring together cutting-edge research, technology transfer and next-generation training of scientists and engineers from this broad base of universities and departments and to promote industrial partnerships.

The Center also seeks to address the societal need for scientists with interdisciplinary training in engineering fundamentals and product design. This is pursued through an education and outreach activity component that focuses on K-12 education, enrichment of undergraduate and graduate curricula and the development of educational programs for industrial practitioners through modular education units and web-based dissemination.

In addition to Professor Muzzio, the Center leadership includes Dr. Alberto Cuitino, who is the Rutgers Site Leader, Dr. Henrik Pedersen, Education Director, and Dr. Bozena Michniak (FDA/Pharmaceutics Liaison). Leaders from the other universities are Dr. Rex Reklaitis and Ken Morris, Purdue, Dr. Raj Dave and Piero Armenante from NJIT, and Carlos Velaquez from the University of Puerto Rico at Mayaguez. Furthermore, there are 28 major companies providing research funding and equipment donations, with the estimate that an additional \$40 million in support will be generated over the next 10 years to make the Center self-sustaining.

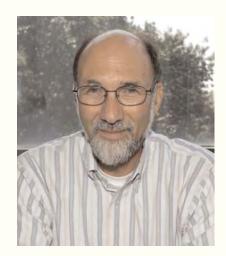
2. Integrative Graduate Education and Research Training Program in Nanopharmaceutical Engineering and Science (IGERT)

Dr. Fernando Muzzio is the Principal Investigator of the IGERT in Pharmaceutical Engineering and Science, which is a \$3.4 million grant, awarded in September 2005. The IGERT co-directors are Dr. Silvina Tomassone and Dr. Benjamin Glasser. The program's goals are to train graduate students from Engineering, Pharmacy, Chemistry and Food Science in Nanopharmaceutical Engineering. This ties the IGERT into the ERC research center with similar research, training, and educational goals. The IGERT currently has 19 graduate students participating from Rutgers, NJIT and the University of Puerto Rico, Mayaguez. The IGERT research focus is on material synthesis, materials functionalization and product and process design.

Fred S. Roberts, *Professor Math and Director of DIMACS*, **Rutgers-NB** http://dimacs.rutgers.edu/People/Staff/froberts/index.html

Interest in infectious diseases has increased greatly in recent years as new diseases such as SARS, HIV/AIDS, Hepatitis C, and West Nile virus have emerged and antibiotic-resistant strains of tuberculosis, pneumonia, and gonorrhea have evolved. Moreover, there is great concern about new strains of influenza that could cause massive pandemics. Dr. Fred Roberts and his associates have been using mathematical methods which are important tools in analyzing the spread and control of infectious diseases. They are investigating issues in computer science and

related mathematics arising from problems in epidemiology. They are working also to involve more computer scientists and mathematicians in epidemiological research; develop and strengthen collaborations between mathematical scientists and biological scientists; introduce outstanding young people to computational and mathematical epidemiology; and involve biological and computer scientists together to define the agenda and develop the tools of computational epidemiology. The project is based at DIMACS, the Center for Discrete Mathematics and Theoretical Computer Science, directed by Dr. Roberts. It has featured workshops, tutorials, and small, focused research working groups and involved hundreds of scientists and students from around the world. Special areas of interest have included analogies between computer and biological viruses, modeling choice of vaccination strategies, detection of adverse events resulting from vaccines or medications, the



evolution of influenza, and health data privacy.

As a result of his involvement in epidemiological modeling, Dr. Roberts, a mathematician by training, has served on the Secretary of Health and Human Services smallpox modeling team and has become involved in homeland security projects involving bioterrorist sensor location, methods for finding patterns of terrorist plans in massive amounts of text data, and algorithms for finding weapons of mass destruction in containers at ports. A Rutgers University Homeland Security Research Initiative has been established with Dr. Roberts as chair, as well as a Rutgers Laboratory for Port Security, based at DIMACS and the Rutgers Center for Advanced Infrastructure and Transportation. Moreover, the Department of Homeland Security has designated Rutgers/DIMACS as a new DHS-affiliated university research center dealing with "dynamic data analysis."

DIMACS has a series of new initiatives with African researchers and students, aimed at development of methods for dealing with major diseases such HIV/AIDS and related tuberculosis that are rampant in Africa, and at introducing US and African students to these topics through a workshop and an "Advanced Study Institute" in Africa.

The epidemiology work has also played a central role in a pioneering new DIMACS initiative aimed at bringing the biology-mathematics interconnection into the high schools. DIMACS has been training high school math and bio teachers in topics such as epidemiological modeling and will be developing new materials usable in high schools.

Daniel H. Shain, *Associate Professor of Zoology*, **Rutgers-Camden** http://www.camden.rutgers.edu/dept-pages/biology/Shain.html

Daniel H. Shain obtained a BS/MS degree in biochemistry from the University of New Hampshire in 1988. Following his Ph.D. in the Department of Biochemistry and Molecular Biology at Colorado State University in 1994, he pursued his postdoctoral studies with David Weisbl at the University of California, Berkeley. His research focuses on the development and evolution of segmented worms (annelids).

The National Science Foundation awarded Dr. Shain \$425,000 between 2004 and 2007 to examine the molecular properties of leech cocoons. These cocoons comprise relatively thin, flexible membranes that are remarkably resilient to heat and destructive chemicals. Current research in this area focuses on the mechanisms by which aquatic leeches secrete, assemble and deposit their cocoons—which requires the rapid synthesis of hundreds of miles of fiber and an underwater cement. The National Institute of Health awarded Dr. Shain \$149,000 between 2005 and 2008 to study the genetic factors that control the birth of leech embryonic stem (ES) cells. Surprisingly,

leech ES are among the largest and most accessible ES cells in the animal kingdom, which has permitted the isolation of several genes directly associated with stem cell genesis. NASA awarded Shain \$214,000 between 2005-2008 to examine the energetic requirements of cold adaptation in ice worms and microbiota cultured from Alaskan glaciers. The goal of this research is to understand why cold-adapted organisms are able to increase their energy levels as temperatures get colder, a metabolic process that may provide a model for life on Jupiter's icy moons (e.g., Europa). Finally, the National Geographic Society awarded Shain \$7,400 in 2006 to document the presence of ice worms on glaciers within Denali National Park, AK. To date, ice worms have been found only on coastal glaciers between AK and Washington State; their presence on Alaska Range glaciers, which endure much colder, severe winters would require further evolutionary adaptations, and these specimens will probably represent a new species of ice worm.



Charlotte Thomas-Hawkins, *Assistant Professor of Nursing*, **Rutgers-Newark** http://nursing.rutgers.edu/faculty_staff/directory/charlotte_thomas_hawkins

Dr. Charlotte Thomas-Hawkins, Assistant Professor of Nursing, is currently focusing her research on the study of illness perceptions and interpretations of elderly individuals with chronic kidney failure. Thomas-Hawkins is a leader in the development of evidence–based nephrology nursing practice, and received the American Nephrology Nurses' Association Nurse Researcher of the Year award in 2005. Prof. Thomas-Hawkins is also involved in the nursing community, having founded the South Jersey Chapter of the National Black Nurses' Association and chairing the American Nephrology Nurses' Recruitment and

Retention Task Force, among other professional activities.

As the baby boomers age, more patients will experience health issues including kidney failure. Prof. Thomas-Hawkins is exploring the associations between the nursing work environment and nurse-reported patient outcomes in dialysis centers using survey methodology. "Since nurses are in the front line of patient care, their reports regarding the work environment and frequency of adverse events are considered important indicators of the processes and outcomes of care," notes Prof. Thomas-Hawkins. "Enhancement of health outcomes among renal dialysis patients is a national priority."



Internal Funding for Research The Charles and Johanna Busch Awards

Income to the University as interest on the Charles and Johanna Busch Bequest is distributed as stipulated in the Last Will and Testament of Mr. Charles Busch. Included in the distribution are the Waksman Institute of Microbiology, the Bureau of Biological Research, and the ORSP. The ORSP share is used to support Charles and Johanna Busch Awards for biomedical research performed by full-time faculty members on all Rutgers campuses.

Proposals for funding are solicited by ORSP annually, and responses from interested and qualified faculty members are evaluated by the Biomedical Research Advisory Committee, which is comprised of senior investigators representing different health-related disciplines, as well as the various University campuses. Awards are made on a basis of merit.

In FY 2006, there were 40 applicants and 18 awards totaling \$445,567 in the ORSP-administered competition. A list of awardees may be obtained from the ORSP.

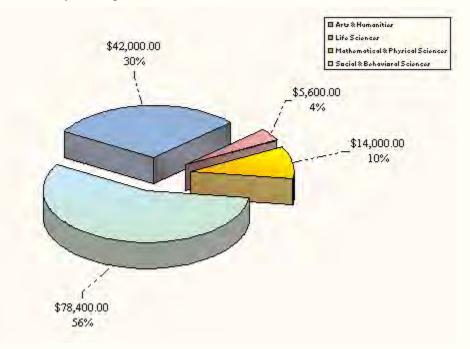
Research Council Awards

The University Research Council, a committee of faculty, advises the Vice President for Research on faculty awards which are made as the result of peer review of requests submitted by the faculty for funding of research and other scholarly and creative activities. The Council also funds research colloquia and provides subvention for scholarly publications. All awards are made on a basis of merit, although priority is given to new faculty members. The Council makes use of faculty consultants to broaden its expertise and assist in the peer review

process. The regular members of the Council and consultants for FY 2006 are listed at the end of this report.

The Council made 89 awards for a total of \$140,000 in FY 2006. The total was distributed as follows: \$5,600 (4.0%) for the life sciences, \$14,000 (10.0%) for the mathematical and physical sciences, \$78,400 (56.0%) for the social and behavioral sciences, and \$42,000 (30.0%) for the arts and humanities.

A list of individual awardees may be requested from the ORSP.



Johnson and Johnson Discovery Awards

The Johnson & Johnson Discovery Awards are made annually in support of innovative research in the health sciences. The program is open to full-time, tenure-track members of the Rutgers faculty at the rank of Assistant Professor or higher. The Biomedical Research Advisory Committee reads and ranks proposals on a basis of merit, and Johnson & Johnson scientists participate in the selection of awardees.

In FY 2006, there were three awards totaling \$60,000. Each award was for \$20,000 to be spent over an interval of two years. A list of awardees for FY 2006 may be obtained from the ORSP.

Since the total amount of money requested of the Research Council, the Busch, and the J&J programs always greatly exceeds the amount of money available, many meritorious proposals go unfunded. The Biomedical Research Advisory Committee members are listed in the Committees section of this report.

Faculty Information and Services

Institutional Review Board for the Protection of Human Subjects in Research

Protecting the people who participate in human subject research is a high priority at Rutgers. The Federal Wide Assurance (FWA00003913) maintained with the federal Office for Human Research Protections (OHRP), requires that all human subjects research conducted by or under the auspices of Rutgers University be performed in accordance with federal regulations. This policy applies to any research whether new, ongoing, proposed for funding or unfunded, whether conducted at the University or elsewhere. The Rutgers Institutional Review Board for the Protections of Human Subjects (IRB) is charged with reviewing and approving protocols involving

research with human subjects. The IRB was appointed by the Rutgers University Institutional Responsible to OHRP, Dr. Michael Breton, Associate Vice President for Research and Sponsored Programs. Twenty – one individuals served on the Committee, representing the many areas that conduct human subject research, as well as individuals from the community. The IRB is administrated through Karen Janes, Associate Director of Research Integrity, and her staff. The IRB reviewed 537 new protocols submissions. There are 2,429 active human subjects' protocols, which include full board, expedited and exempt review.

The Human Subjects Certification Program (HSCP) provides education to investigators and key personnel. The HSCP may be completed by either an on-line program or through viewing a film. During the fiscal year, 1,845 people obtained certification. Workshops are provided to honors students, new faculty members and by request.

The Human Subjects Assessment Initiative Program provides continuing oversight for research involving human subjects. The Assessment Program consists of an on-line self-assessment checklist and a face-to-face assessment for greater than minimal risk protocols. In FY 2006, 447 on-line Self-Assessments were conducted and 29 face-to-face assessments took place for greater than minimal risk protocols.

The University received \$298 million in research funding, \$55,669,388 or 18.7%, was generated by human subjects' research.

IRB Newsletter, an electronic newsletter, provides updated to people involved in human subjects' research. Additional information can be found at http://orsp.rutgers.edu/Humans/default.php#general

Animal Care and Facilities Committee

Oversight of the care and use of animals in research, instruction and demonstration is the responsibility of the University's Animal Care and Facilities Committee (ACFC). The ACFC is appointed by Dr. Philip Furmanski, Executive Vice President for Academic Affairs, and is administered by Karen Janes, Associate Director of Research Integrity and Compliance (RCI) and her staff. Dr. Robert Harris, Director of Laboratory Animal Services, and his staff attend to clinical and housing aspects.

Twenty-one individuals served on the Committee, aside from scientists representing many disciplines of research

at Rutgers, veterinarians, members of the community and non- scientists participate in the meetings. In addition, liaisons from University Relations, the Library of Science and Medicine, and Facilities Maintenance and Operations served to provide additional guidance. The Committee is charged with assuring that the University's programs of education and training of students, faculty, and staff in the proper use and care of animals, its program of clinical veterinary care, the adequacy of its animal facilities, and review of the use made of vertebrate animals in research, education and demonstration, all meet the highest standards of the University and its community. Prior to work beginning with live vertebrate animals, the ACFC must review and approve the protocol. Protocols are reviewed whether the work is done at Rutgers or elsewhere and whether or not there is a funding source. Research topics for the 275 active protocols include Parkinson's disease, effects of heavy metals, cancer research, cardiovascular studies and spinal cord injury. Faculty, Committee members and administrators utilize a protocol management system to assist in the review which was created by the RIC unit. The system allows for electronic submission and review of protocols, communication between the researchers, administrators and the committee, review of per diem charges and verifying approved procedures. In compliance





with the regulations, the Committee also conducted thorough semi-annual inspections of the 34 animal facilities, and animal care and use program.

Rutgers has an Animal Welfare Assurance (A-3262-01) with the NIH Office for Laboratory Animal Welfare, OLAW. In 2006, a renewal of the document was reviewed and approved by OLAW, extending the assurance until March 2010. This document is a legally binding institutional commitment to the Public Health Service (PHS) and is necessary to receive PHS support. Dr. Michael Breton severed as the

Institutional Responsible Official to OLAW.

Since July 8, 1994, Rutgers has been fully accredited with the Association for the Assessment and Accreditation of Laboratory Animal Care - International (AAALAC), a private, non-profit organization that promotes the humane treatment of animals in science through a voluntary accreditation program. AAALAC accreditation is accepted as evidence of program excellence and demonstrates that an institution is in full compliance with all Federal animal welfare polices and regulations. Following a site visit for reaccreditation, continuing accreditation was granted in 2006.

Several times a year the United States Department of Agriculture (USDA) conducts unannounced inspections of the University's animal research facilities and the University records relating to animal care. The Rutgers USDA registration number is 22-R-0025.

The Research Integrity and Compliance unit of the Office of Research and Sponsored Programs works in conjunction with the Department of Occupational Health to protect the health of all individuals working with animals. Over 500 hundred people have either renewed their approval or entered into the program during FY 2006.

Laboratory Animal Services provides an animal education training program for faculty, technicians, students and

others who work with animals with information regarding regulatory requirements for animal welfare and occupational and safety concerns. Over 300 people have participated in this program during FY 2006. Additional training programs are developed to meet the needs of the animal research community.

The University received \$297.9 million in research funding from all sources. Of that sum, 130 projects involving animal research were funded at a level of \$35 million or 11.7% of the total funding.

Animal Matters, an electronic newsletter, is distributed to faculty who use animals and additional information is found at http://orsp.rutgers.edu/animals/default.php#general

ORSP Website

The ORSP continues to improve its website http://orsp.rutgers.edu. It is both functional and intuitive and facilitates access to information on sponsored funding, preparing a proposal, collaborative initiatives,

electronic submission systems, and setting up and managing an award. Links are provided to information on using animals or human subjects in research and to other research integrity and compliance issues. Included also are descriptions of support and resources offered by the ORSP. For additional information please contact the



ORSP at 732-932-0150 or sponpgms@orsp.rutgers.edu.

GrantNet

The Office of Research and Sponsored Programs (ORSP) distributes information on funding opportunities, University and Federal policies related to external funding, and feature articles with tips for principal investigators via GrantNet, a monthly newsletter. GrantNet is posted to our website at http://orsp.rutgers.edu/grantnet. The web edition is available to faculty, staff, and students at Rutgers and UMDNJ. Visit the GrantNet homepage for information on subscribing and to browse the last year of funding opportunities.

Sponsored Programs Information Network (SPIN)

Rutgers subscribes to the Sponsored Programs Information Network (SPIN), a web-based funding opportunities service. This subscription provides a searchable database of public and private sources of funding for teaching, research, and training. SPINPlus is comprised of three distinct elements: SPIN, a funding opportunities database; GENIUS, a CV / Bio-Sketch database; and SMARTS an automated alerts system. SPIN provides up-to-date information on current national and international government and private funding sources, including fellowships, research grants, publication support, sabbatical support, curriculum development, and more. All of the data on SPIN is obtained directly from sponsoring agencies to ensure the integrity of the information. SPIN and other funding resources can be accessed from the ORSP website under "Sponsored Funding".

Grant Programs with Limits on Number of Submissions by an Institution

Funding agencies, such as NSF, NIH and various private foundations, limit the number of applications they will accept from a given institution. This reduces the number and increases the quality of proposals an agency or foundation must review. The ORSP monitors funding programs with limited submissions, and makes them known to the Rutgers community in sufficient time to conduct an internal competition, if necessary.

The ORSP website contains a list of such programs under "Programs with Limitations". ORSP establishes a deadline for faculty members to submit a pre-proposal as evidence of their interest in a program. If more faculty members plan to apply than the funding agency will permit, a peer review panel is established by ORSP to advise the University which pre-proposals should be expanded into full proposals for submission to the funding agency or foundation. University policy and procedure for the management of such programs is posted on the ORSP website at http://orsp.rutgers.edu/limited.php

Workshops and Training

The ORSP offers the following workshops and training sessions on aspects of the grant application process, including the area of electronic research administration:



New Faculty/Staff Orientation on Research Administration at Rutgers, an overview of services provided by the Office of Research & Sponsored Programs, Office of Corporate Liaison and Technology Transfer, and Division of Grant and Contract Accounting, scheduled annually in the fall.



Proposal Processing and Budgeting Basics: A Multi-Dimensional Approach, a workshop for both faculty and staff involved in the budgeting and proposal preparation. Included are presentations by an

experienced departmental staff member and ORSP staff, intended to help attendees understand the proposal process at Rutgers. The workshop is scheduled annually in the fall.



NSF CAREER Proposal Development Presentation, a workshop scheduled in early spring consisting of presentations by knowledgeable faculty members along with an expert faculty panel, that includes NSF CAREER awardees, to answer questions and recount valuable experiences to newer faculty applying to the program.

8

National Science Foundation's FastLane System, a hands-on workshop in a computer lab covering electronic proposal submission to the NSF. Included are uploading prepared documents, budget preparation, notifications and requests, and project reporting. This workshop is offered on an as needed basis, usually once per semester.

Effective Proposal and Fellowship Writing, workshops for faculty and staff on how to write winning proposals and fellowship applications by Dr. Marjorie Piechowski, retired professor of English at DePaul and Marquette Universities. These workshops are offered during the fall semester, when budget resources are available.



Business Managers Meetings, meetings specifically tailored for business managers and departmental administrators conducted by the Director of ORSP and the Assistant Controller of DGCA. New and old policies and procedures, which apply to both pre- and post- grant awards, are reviewed and discussed. Meetings are scheduled twice a semester.

Staff Research Showcases, informal presentations by RU faculty describing their research activities scheduled once or twice each year. Past faculty have included:

Rich Lutz, Marine and Coastal Sciences-Cook Kathryn Uhrich, Chemistry-NB Wise Young, Cell Biology and Neuroscience-NB Helen Fisher, Anthropology-NB Jay Tischfield, Genetics-NB Eric Garfunkel, Chemistry-NB Mark Frank, Communications-SCILS Tom Banks, Physics and Astronomy-NB Ilya Raskin, Biotech Center-Cook

A schedule of upcoming workshops and training can be found on the ORSP website at http://orsp.rutgers.edu/workshops.php

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