
RESEARCH IN REVIEW

a report of research activities for fiscal year
2000-2001



WRIGHT STATE
UNIVERSITY

produced by the Office of Research and Sponsored Programs

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RESEARCH IN REVIEW

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2000-2001

Fall 2000

Dear Colleagues:

On behalf of Wright State University and the Office of Research and Sponsored Programs, it is a pleasure for me to present this report of research activities for the fiscal year 2000-01 (July 1, 2000, to June 30, 2001).



For the second year in a row, Wright State faculty and staff exceeded the \$45 million mark in the quest for externally sponsored projects. This represents an 80% increase over the last five years. The explosive growth in funded projects during the past decade is indicative of a talented and energetic faculty and staff.

Wright State University's achievements cannot be measured by simple statistics alone, however. Every day the faculty and staff demonstrate their excellence in the sciences, arts, and education, while simultaneously conducting research and publishing these results in peer-reviewed journals. Sponsors run the gamut from the biggest and best known federal agencies to local governments, industry, and foreign agencies. Obviously, the Wright State University community is making an impact at both the national and international levels.

We are proud of the accomplishments of Wright State University and would welcome your comments or requests for further information.

Joseph F. Thomas, Jr.
Associate Provost for Research, and
Dean, School of Graduate Studies

FUNDING HIGHLIGHTS

Larry G. Arlian, Biological Sciences, College of Science and Mathematics, awarded \$302,952 from the National Institute of Allergy and Infectious Diseases (NIH) for a project entitled,

Scabies: Biology, Culture, Host Specificity and Antigens.

Abstract: This funding continues the investigator's research to isolate and characterize *S. scabiei* antigens and to isolate the cell-mediated and humoral response mechanisms to these antigens.

Steven J. Berberich, Biochemistry and Molecular Biology, School of Medicine, awarded \$225,225 from the National Cancer Institute (NIH) for a project entitled,

MdmX Regulation of the p53 Tumor Suppression Protein.

Abstract: The hypothesis of the project is that the MdmX protein is capable of maintaining p53 protein levels in undamaged cells and thus represents a novel target to modulate p53 activity.

Katherine L. Cauley, Center for Healthy Communities, School of Medicine, awarded \$300,000 from the Corporation for National Service for a project entitled,

The Midwest Health Professions Service Learning Consortium.

Abstract: Project staff will establish five regional training teams of health professions faculty, provide faculty curricular development and community service development grants and provide technical assistance to faculty and community members.

Katherine L. Cauley also received \$635,124 from the Montgomery County Department of Job and Family Services for a project entitled,

Montgomery County Medicaid Outreach Services.

Abstract: The Center for Healthy Communities will contract with the Montgomery County Department of Job and Family Services to provide coordination of outreach services in Montgomery County.

Jay B. Dean and Robert W. Putnam, Physiology and Biophysics, School of Medicine, awarded \$217,721 from the National Heart, Lung, and Blood Institute (NIH) for a project entitled,

Intracellular pH Responses of Central Chemoreceptors.

Abstract: The main aim of this work will be to test the hypothesis that pHi is the proximate chemosensitive signal.

Jay B. Dean, Physiology and Biophysics, and **Richard A. Henderson**, Community Health, School of Medicine, awarded \$231,005 from the Office of Naval Research for a project entitled,

Cellular Mechanisms of Oxygen Toxicity in the Mammalian Central Nervous System.

Abstract: This proposal will evaluate whether the excessive production and accumulation of reactive oxygen species during exposure to various oxygen levels has any effect on neurological activity and the probable mechanism for this effect..

FUNDING HIGHLIGHTS

Robert E.W. Fyffe, Anatomy, School of Medicine, awarded \$300,680 from the National Institute of Neurological Disorders and Stroke (NIH) for a project entitled,

Regulation of Spinal Interneuron Input-Output Functions.

Abstract: The experiments proposed in this grant, to define several structural and functional properties of spinal cord interneurons, will help to establish the essential baseline for understanding the effects of spinal cord injury on these interneurons.

Robert E.W. Fyffe also received \$287,951 from the National Institute of Neurological Disorders and Stroke (NIH) for a project entitled,

Mechanisms of Mammalian Neuronal Integration.

Abstract: This funding will continue and extend the investigator's research into understanding the synaptic and integrative mechanisms involved in motor control circuits in the mammalian spinal cord.

Margaret Clark Graham, Nursing and Health, College of Nursing and Health, awarded \$255,324 from the Health Resources and Services Administration for a project entitled,

Family Nurse Practitioner First and Second Master's.

Abstract: This award expands the second master's and continues the first master's Family Nurse Practitioner (FNP) program at WSU's College of Nursing and Health.

Shumei S. Guo, Alexander F. Roche and W. Cameron Chumlea, Community Health, School of Medicine, awarded \$252,814 from the National Institute of Child Health and Human Development (NIH) for a project entitled,

Sexual Maturity for U. S. Children: Relationships With Growth.

Abstract: The major focus of the project is on the development of statistical models for analyzing longitudinal data.

Craig M. Harvey, Sundaram Narayanan and Chandler A. Phillips, Biomedical, Industrial and Human Factors Engineering, College of Engineering and Computer Science, along with **Michele G. Wheatly**, Biological Sciences, College of Science and Mathematics, awarded \$342,000 from the Dayton Area Graduate Studies Institute (DAGSI) for a project entitled,

Self-Evolving Adaptive Interface.

Abstract: The research goal is to extrapolate to the biological sciences for novel evolutionary models upon which to build innovative mechanisms of adaptation.

Michael B. Hennessy, Psychology, College of Science and Mathematics, awarded \$267,754 from the National Science Foundation for a project entitled,

Social Influences on Endocrine and Behavioral Responses During Development.

Abstract: This project examines the hypothalamic-pituitary-adrenal (HPA) axis during development using several behavioral measures.

FUNDING HIGHLIGHTS

William W. Hurd, Obstetrics and Gynecology, School of Medicine, awarded \$204,422 from the National Institute of Child Health and Human Development (NIH) for a project entitled,

Magnesium Sulfate Effects on Pregnant Human Uterus.

Abstract: This project will evaluate how high concentrations of magnesium sulfate, a medication commonly used to treat premature labor, interfere with in vitro contractile mechanism(s).

I. Michael Leffak, Biochemistry and Molecular Biology, School of Medicine, awarded \$205,932 from the National Institute of General Medical Sciences (NIH) for a project entitled,

Human c-myc Gene Replication Origin.

Abstract: Funding is provided to continue the investigator's studies to identify the structures that define a mammalian DNA replication origin and understand the mechanism of origin activation.

David C. Look, Semiconductor Research Center, College of Science and Mathematics, awarded \$1,192,805 from the Air Force Research Laboratory for a project entitled,

Materials for High Speed Devices.

Abstract: The research team will study temperature-dependent hall-effect measurements to determine the concentration and energies of donors and acceptors in the electrical properties of practical semiconductors.

David C. Look also received \$203,041 from the Air Force Office of Scientific Research (AFOSR) for a project entitled,

Identification and Elimination of Defects and Impurities in GaN.

Abstract: The research effort will continue the Phase I program called "A Frontal Attack on Limiting Defects in GaN" and build upon significant accomplishments including the identification of the dominant donors, acceptors, and a trap (the N vacancy).

Luo Lu, Physiology and Biophysics, School of Medicine, awarded \$250,250 from the National Eye Institute (NIH) for a project entitled,

Early Response of Corneal Epithelium to UV-induced Death.

Abstract: The long-term goal of this proposal is to characterize the interactions among the cell signaling pathways which are responsible for UV-induced programmed cell death (apoptosis) and oncogenic changes.

James N. McDougal, Pharmacology and Toxicology, School of Medicine, awarded \$258,743 from the Centers for Disease Control and Prevention (CDC) for a project entitled,

Prediction of Irritation Based on Exposure Duration.

Abstract: This project will help to improve our understanding of occupational dermatitis and will help select chemicals that do not cause irritation.

FUNDING HIGHLIGHTS

Dennis C. Moore, Community Health, School of Medicine, awarded \$499,990 from the U.S. Department of Education for a project entitled,

Rehabilitation Research and Training Centers (RRTC) on Drugs and Disability.

Abstract: The RRTC will continue to address issues of substance abuse, disability, and vocational rehabilitation outcomes, with an emphasis on vocational rehabilitation consumers who experience substance abuse as a co-existing disability.

Mariana Morris, Pharmacology and Toxicology, and **Daniel T. Organisciak**, Biochemistry and Molecular Biology, School of Medicine, awarded \$7,241,319 from the Army Medical R&D Command for a project entitled,

Low Level Chemical Toxicity: Relevance to Chemical Agent Defense.

Abstract: A comprehensive research program will study the basis of chemical toxicity from environmental and chemical interactions from the level of the cell to the clinic.

Mariana Morris, Pharmacology and Toxicology, School of Medicine, and **Steven J. Berberich**, Biochemistry and Molecular Biology, College of Science and Mathematics, awarded \$266,663 from the Dayton Area Graduate Studies Institute (DAGSI) for a project entitled,

Toxico-Genomics: Use of Gene Microarrays.

Abstract: The objective of the research is to validate the use of DNA microarray analysis to evaluate chemical toxicity using *in vitro* and *in vivo* models.

Jogeshwar Mukherjee, Internal Medicine, School of Medicine, awarded \$200,000 from the U.S. Department of Energy for a project entitled,

Development of Dopamine Receptor Radiopharmaceuticals for the Study of Neurological and Psychiatric Disorders.

Abstract: This project will develop and characterize high affinity radiopharmaceuticals that are specific for dopamine receptors and that can be used with positron emission tomography (PET) to study various neurological and psychiatric disorders.

Sundaram Narayanan and **Jennie J. Gallimore**, Biomedical, Industrial and Human Factors Engineering, College of Engineering and Computer Science, awarded \$310,125 from the Dayton Area Graduate Studies Institute (DAGSI) for a project entitled,

Command and Control of Remotely Operated Vehicles.

Abstract: The research team will develop a model-based approach to support human-centered automation in the command and control of remotely operated vehicles.

Barbara S. O'Brien, Nursing and Health, College of Nursing and Health, awarded \$319,558 from the Health Resources and Services Administration for a project entitled,

Online Nurses: RN-BSN Program via the Internet.

Abstract: This funding will enable nurses to complete all nursing courses required for the College of Nursing and Health RN/BSN program through distributed learning via the Internet.

FUNDING HIGHLIGHTS

Daniel T. Organisciak, Biochemistry and Molecular Biology, School of Medicine, awarded \$299,022 from the National Eye Institute (NIH) for a project entitled,

Environmental Light and Retinal Membrane Development.

Abstract: This project will evaluate the effects of intense visible light on the composition and metabolism of retinal tissue.

Francis Quek, Computer Science and Engineering, College of Engineering and Computer Science, awarded \$322,719 from the National Science Foundation for a project entitled,

Gesture, Speech, and Gaze in Discourse Management.

Abstract: The interdisciplinary team of researchers from WSU, the University of Chicago, and the University of Illinois at Chicago will continue work on the realities of human communication in spontaneous discourse across a wide range of pragmatic conditions.

Kristine A. Scordo, Nursing and Health, College of Nursing and Health, awarded \$209,727 from the Health Resources and Services Administration for a project entitled,

Acute Care Nurse Practitioner Program.

Abstract: Funding will be used to establish an adult acute care nurse practitioner program (ACNP) within the existing master of science degree program in nursing at Wright State University.

Wayne L. Shebilske and Pamela S. Tsang, Psychology, College of Science and Mathematics, awarded \$324,200 from the Texas A & M University for a project entitled,

Intelligent Distributed Group and Team Training Systems.

Abstract: The emphasis of this research is on the training of higher order, executive control of multiple task components that is imperative in many complex tasks such as that of launching a shuttle.

Harvey A. Siegal, Community Health, School of Medicine, awarded \$2,248,521 from various sponsors for research and services related to drug use and treatment, including \$558,947 from the National Institute on Drug Abuse (NIH) for a project entitled,

Crack and Health Service Use: A Natural History Approach.

Abstract: This project will help develop a natural history of crack-cocaine users and will describe and analyze their use of health services/drug treatment programs. **Russel S. Falck, Robert G. Carlson and Jichuan Wang**, Community Health, School of Medicine, are co-investigators on the above project.

Roger M. Siervogel, W. Camerond Chumlea, Shumei S. Guo and Bradford Towne, Community Health, School of Medicine, awarded \$1,100,518 from the National Institute of Child Health and Human Development (NIH) for a project entitled,

Subcutaneous Fat, Blood Lipids, and Subsequent Outcome.

Abstract: This work continues the serial analyses of body composition, fat-related variables, and risk factors for growth, development, and disease (The Fels' Longitudinal Study).

FUNDING HIGHLIGHTS

Raghavan Srinivasan, Mechanical and Materials Engineering, College of Engineering and Computer Science, awarded \$200,000 from the U.S. Department of Energy for a project entitled,

Continuous Severe Plastic Deformation Processing of Aluminum Alloys.

Abstract: The research program calls for the development of the Continuous Severe Plastic Deformation (CSPD) process for the production of continuous long lengths of bulk ultra fine grained aluminum alloys that will serve as forging, extrusion, and machining stock.

Bradford Towne, W. Cameron Chumlea, Shumei S. Guo and Roger M. Siervogel, Community Health, School of Medicine, awarded \$360,617 from the National Institute on Aging (NIH) for a project entitled,

Genetic Epidemiology of Aging and Body Composition.

Abstract: This grant will explore the relationship between aging and age-related changes in body composition such as bone, muscle and fat, cardiopulmonary functioning, lipids, and hormones.

Bradford Towne and Roger M. Siervogel, Community Health, School of Medicine, awarded \$440,008 from the National Institute of Child Health and Human Development (NIH) for a project entitled,

Genetic Epidemiology of Childhood Skeletal Maturation.

Abstract: This project will evaluate the genetic involvement in skeletal maturation throughout childhood, locate and determine the significance of as yet undetermined gene(s) influencing this skeletal maturation, and evaluate the contributions of multiple gene sites in this process.

John J. Turchi, Biochemistry and Molecular Biology, School of Medicine, awarded \$216,900 from the National Cancer Institute (NIH) for a project entitled,

Recognition and Repair of Cisplatin-DNA Damage.

Abstract: The research is directed toward identifying and characterizing the cellular proteins that contribute to the chemotherapeutic effectiveness of cisplatin and how these proteins affect the ability to initiate apoptosis in response to cisplatin treatment.

Michele G. Wheatly and Timothy S. Wood, Biological Sciences, College of Science and Mathematics, along with **Jeffrey A. Vernooy**, Office of Disability Services, Student Affairs, and **Patricia Renick and James H. Tomlin**, Teacher Education, College of Education and Human Services, awarded \$500,000 from the National Science Foundation for a project entitled,

Creating Laboratory Access for Science Students (CLASS): National Dissemination.

Abstract: The objectives of the project are to develop a broader external audience for CLASS initiatives, to develop more comprehensive CLASS programs on site, and to become a model for excellence in accessible science education.

FOCUS ON TECHNOLOGY

OVERVIEW

Research is essentially a knowledge quest, and for the most part this means a search for answers to questions and solutions to problems. Often these answers and solutions have potential practical application, and one of the services provided by the Office of Research and Sponsored Programs is to help actualize this potential.

The typical means of achieving this goal is by patenting the technology and licensing it to a company. The company then has (usually exclusive) rights to use the technology to produce products or services offered for commercial sale. The company earns income on these sales and, in accordance with the terms of the license agreement, returns a portion to the university. This "royalty income" is shared with the originators of the technology as called for in Wright State's "Policy and Procedures for Intellectual Property." The inventor can also choose to have 90% of the gross income plowed back into further research. Thus technology transfer is an integral part of the infrastructure that supports research at Wright State University.

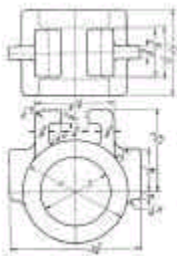
- The University currently holds twenty-one active patents, six of which are provisional.
- During the fiscal year ending June 30, 2001, RSP received seven invention disclosures and managed a total portfolio of twenty-nine active inventions.
- Eighteen inventions made by University researchers are currently licensed and two other technologies are being sold under R&D agreements.
- In the past fiscal year, six new license agreements were negotiated.
- A total of \$229,191 was earned on WSU technologies during fiscal year 2001, representing a 570% increase over the previous year. Almost \$176,000 of this was returned to the inventors for their research.

The following pages describe some of these inventions and license agreements.

FOCUS ON TECHNOLOGY

SOLVING FORGING PROBLEMS THROUGH COMPUTER SIMULATION

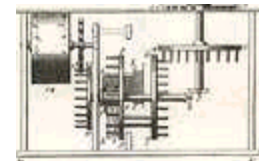
The inventor, Ramana Grandhi, is University Professor in the Department of Mechanical and Materials Engineering. Dr. Grandhi disclosed an invention, titled *PREFORMS: Preform Engineering using Forward and Reverse Modeling Simulations*, to RSP in August 1997. PREFORMS is a finite element based forging simulation program for use in die designs, capable of simulating both forward and backward material deformation processes.



Even before this invention was disclosed, it had already been successfully used by a large equipment manufacturing company to design the optimum starting shape to be used in forging a particular part. In this case, ‘optimum’ meant the least amount of material wastage at the end of the forging process.

The inventor continued to receive requests from different companies to work on specific forging problems but no long-term relationships had been established. There were two routes that could be followed. One was essentially to try to sell the software either directly to end-users or through a software distributor. The other was to license the software to an engineering firm that would use it to provide improved service to its customers.

RSP retained the services of a consultant, Commerce Services Corporation, to help market the software through both routes. The former proved intractable because this is not a ‘shrinkwrap’ application. It takes extensive training to use the technology effectively. The latter route proved successful, however, and in February 2001 a license agreement was signed with Deformation Control Technologies (DCT), a small engineering firm based in Cleveland.



This is not the end of the story. Commerce Services Corporation is now working closely with DCT to line up customers who have the kinds of forging problems that PREFORMS was designed to solve. In addition, Dr. Grandhi and his graduate students continue to make improvements in the software—for example, developing a Windows version in addition to the existing Unix version.

FOCUS ON TECHNOLOGY

DISCOVERY OF A REPLICATION ORIGIN BINDING PROTEIN

In early 1998, Wright State biochemist Michael Leffak discovered in his lab a DNA sequence involved in the initiation of DNA replication in human cells, and a protein that bound specifically to that DNA sequence. This replication origin sequence was similar to ones in yeast cells that were known to be essential for replication and cell division, but at that time nothing similar had been discovered in mammalian—including human—cells. The significance of such a finding could be enormous: if the protein was one of the keys controlling cell division, then presumably a defect in the DNA sequence associated with that protein would be disruptive, and could therefore be a cause of certain kinds of cancers. Dr. Leffak might just have discovered a target for chemotherapeutic drugs designed to inhibit tumor cell division.



After further work on isolating and characterizing the protein, Dr. Leffak submitted an invention disclosure form to RSP in May 1999. RSP asked the Edison Biotechnology Center in Cincinnati to review the invention, and the conclusion was that the technology,



while very promising, still needed to be proved. Then in December 2000, Dr. Leffak was contacted by a Canadian biopharmaceutical company, REPLICor, that was interested in licensing the protein to screen for potential anti-cancer agents and tissue regeneration compounds.

Shortly thereafter, RSP signed a non-disclosure agreement with REPLICor and performed a “due-diligence” review of the company through its consultant, Commerce Services Corporation. License negotiations were soon entered into and proceeded fairly smoothly. On the basis of a marketing plan drawn up by the company, an exclusive license was granted in April 2001.

The license provides that REPLICor will pay for patenting the technology, and will then pay royalties to Wright State based on sales of services and products that employ the patented technology. If the protein turns out to be what both Dr. Leffak and REPLICor hope it will prove to be, this could be a significant source of research support—but we won't know this for several more years.

FOCUS ON TECHNOLOGY

USING CASPASE PEPTIDE INHIBITORS TO TREAT AIDS

This invention was made jointly by Thomas L. Brown in the Wright State University department of Microbiology and Immunology and Heinz Kohler, who heads a biotech company called Immpheron, Inc. It was disclosed to RSP in February 2000, under the title “Caspase Inhibitors for AIDS and HIV Infection.”



Caspases are enzymes inside a cell that operate at the degradation phase of apoptosis (sometimes referred to as programmed cell death). Their activation leads to degradation of cellular proteins and fragmentation of cellular nucleic acids: the cell falls apart. A “caspase inhibitor” is made up of mono to tetrapeptide amino acids and acts to prevent caspases from being activated. Administration of caspase inhibitors has been shown to be effective in lessening the severity of a number of diseases. One thing these diseases have in common is that they affect apoptosis in some animal models.

It is well known that HIV infection results in the dramatic elimination of lymphocytes (CD4 T-cells) and that some of this loss is the result of increased apoptosis among both infected and non-infected cells. The inventors proposed that treatment with caspase inhibitors might prevent HIV-induced apoptosis of lymphocytes and boost the immune system to allow the body to fight viral infection more productively. Such treatment could be effective either alone or in conjunction with other treatments for AIDS and perhaps other immunodeficiency diseases.

The inventors eventually agreed to have Immpheron, Inc., take the lead in patenting and marketing this technology, and after working out a few details a license agreement to that effect was put in place in February 2001. Under this agreement, Immpheron will pay royalties to Wright State based on sales of products based on the technology. There is a long road, though, to product development in this case. The technology has to be demonstrated in non-human models and then human clinical trials must be done to obtain FDA approval.



AWARDS

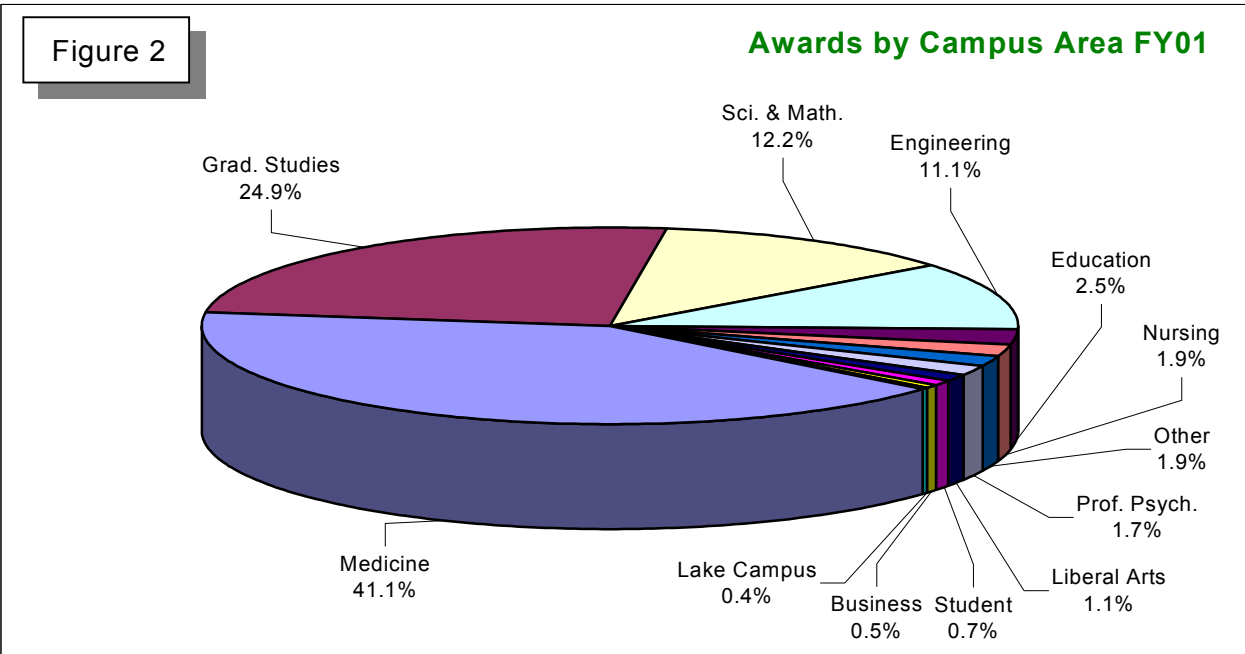
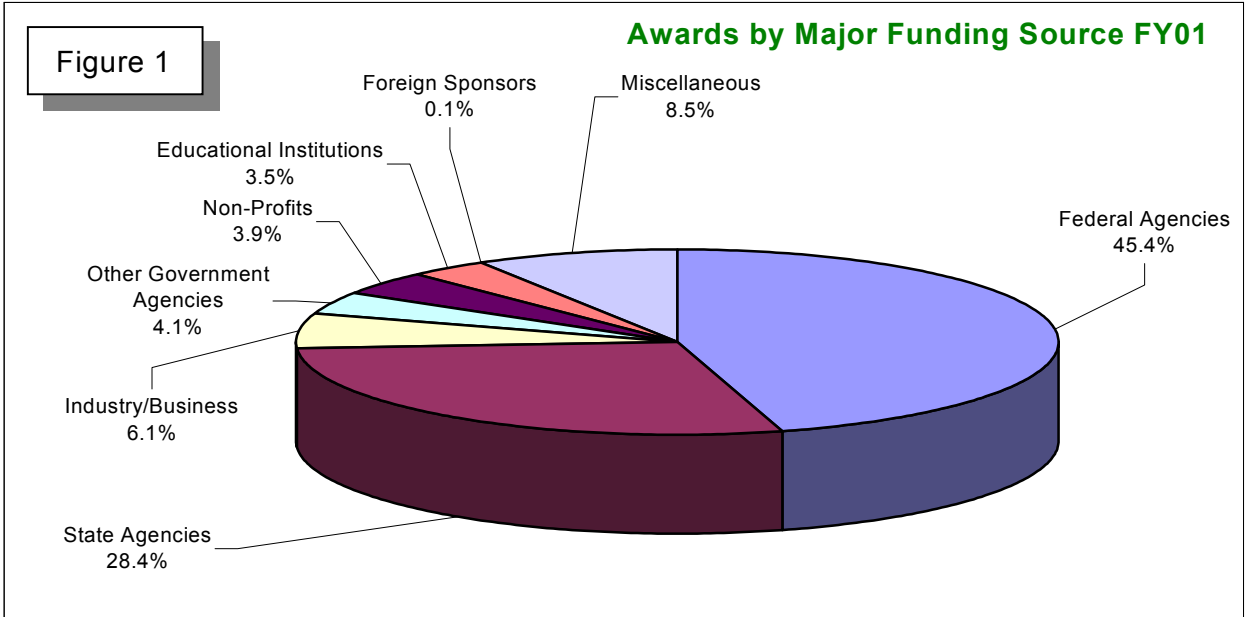
Table 1: Awards by Major Funding Source FY01

Major Funding Source	Number of Awards	Amount Awarded
Federal Agencies	118	\$22,041,975
State Agencies	84	\$13,785,845
Industry/Business	124	\$2,961,260
Other Government Agencies	46	\$1,970,056
Non-Profits	39	\$1,891,948
Educational Institutions	43	\$1,698,631
Foreign Sponsors	3	\$48,322
Miscellaneous	24	\$4,112,913
Total	481	\$48,510,950

Table 2: Awards by Campus Area FY01

Campus Area	Number of Awards	Amount Awarded
School of Medicine	117	\$19,961,922
School of Graduate Studies	12	\$12,062,074
College of Science & Mathematics	130	\$5,935,892
College of Engineering & Computer Science	93	\$5,390,777
College of Education & Human Services	17	\$1,207,977
College of Nursing & Health	6	\$944,152
Universitywide/Miscellaneous	16	\$919,127
School of Professional Psychology	41	\$806,260
College of Liberal Arts	25	\$528,726
Student Services	9	\$363,118
College of Business & Administration	6	\$220,042
Lake Campus	9	\$170,883
Total	481	\$48,510,950

AWARDS



AWARDS

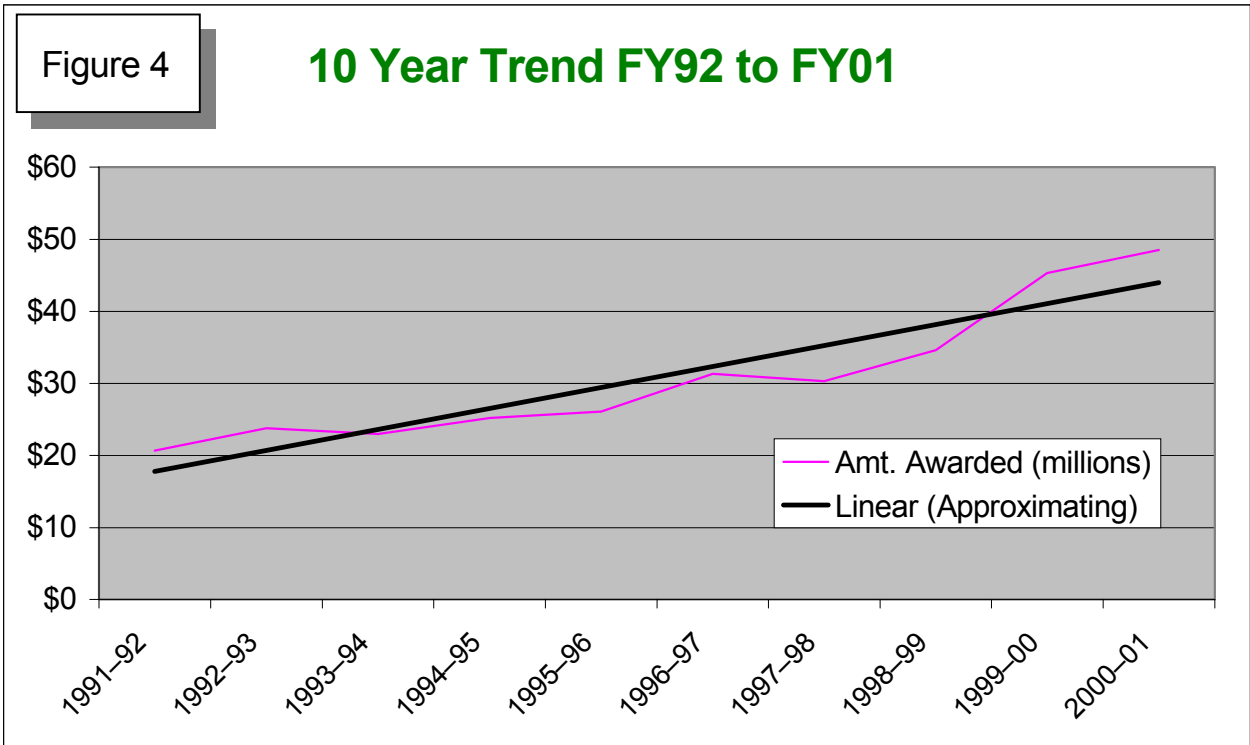
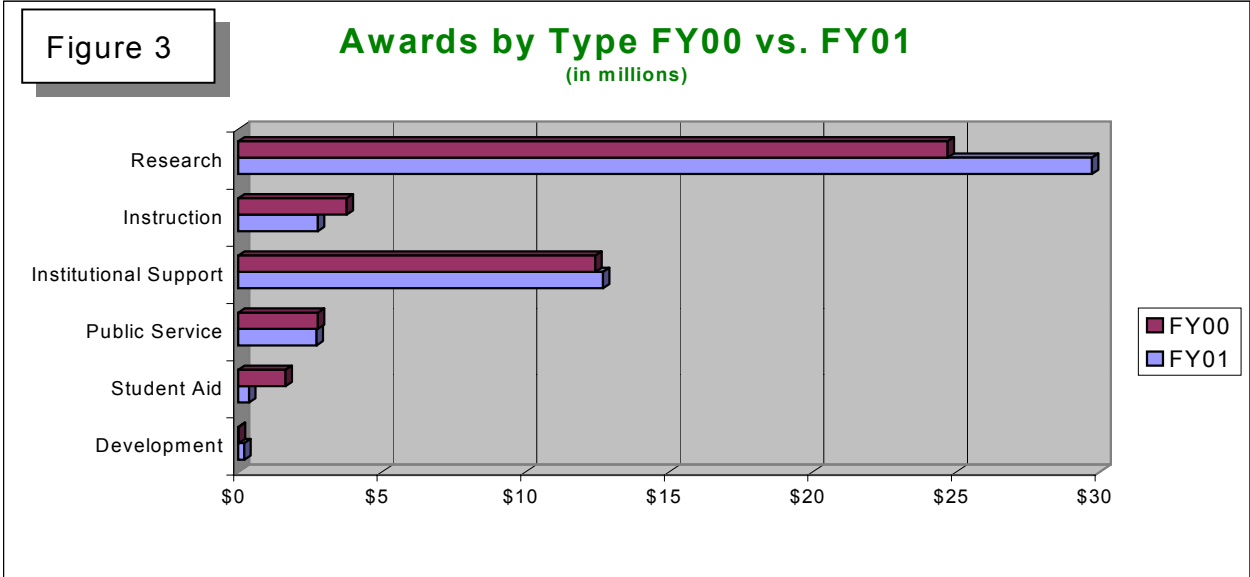
Table 3: Awards by Type FY00 vs. FY01

Type	FY00		FY01	
	Number of Awards	Amount Awarded	Number of Awards	Amount Awarded
Research	293	\$24,702,433	284	\$29,729,328
Instruction	79	\$3,776,997	71	\$2,765,848
Institutional Support	35	\$12,429,788	34	\$12,703,778
Public Service	53	\$2,765,367	69	\$2,727,554
Student Aid	11	\$1,648,734	8	\$374,009
Development	4	\$15,730	15	\$210,433
Total	475	\$45,339,049	481	\$48,510,950

Table 4: Ten Years of Funding: Grant and Contract Awards FY92 to FY01

Fiscal Year	Number of Awards	Amount Awarded	Increase/ Decrease Vs. Prev. Yr.
1991-92	363	\$20,687,323	
1992-93	376	\$23,771,626	15%
1993-94	378	\$22,972,429	-3%
1994-95	439	\$25,207,174	10%
1995-96	457	\$26,104,247	4%
1996-97	535	\$31,336,991	20%
1997-98	462	\$30,283,100	-3%
1998-99	460	\$34,642,162	14%
1999-00	475	\$45,339,049	31%
2000-01	481	\$48,510,950	7%

AWARDS



AWARDS

Table 5: Awards by Type and Campus Area FY01

College/ School	Research	Instruction	Pub. Serv.	Other	Total
Medicine	\$17,553,723	\$302,907	\$1,502,424	\$602,868	\$19,961,922
Grad. Studies	\$927,381			\$11,134,693	\$12,062,074
Engineering	\$5,270,713	\$68,000		\$52,064	\$5,390,777
Sci. & Math.	\$5,087,893	\$256,767	\$7,434	\$583,798	\$5,935,892
Other	\$530,133	\$62,500	\$324,244	\$365,368	\$1,282,245
Nursing		\$784,609		\$159,543	\$944,152
Education	\$320,000	\$701,580		\$186,397	\$1,207,977
Prof. Psych.	\$20,000	\$492,607	\$203,730	\$89,923	\$806,260
Liberal Arts	\$6,000		\$492,064	\$30,662	\$528,726
Business	\$13,485	\$81,878	\$56,775	\$67,904	\$220,042
Lake Campus		\$15,000	\$140,883	\$15,000	\$170,883
TOTAL	\$29,729,328	\$2,765,848	\$2,727,554	\$13,288,220	\$48,510,950

AWARDS

Table 6: Awards by Federal Agency and Campus Area FY01

College/ School	DHHS	NSF	ED	DoD	Other Fed	Federal Total
Medicine	\$6,349,450		\$603,663	\$7,472,324	\$746,503	\$15,171,940
Engineering		\$462,985		\$1,040,288	\$283,154	\$1,786,427
Sci. & Math.	\$588,879	\$1,237,140		\$1,617,008	\$267,110	\$3,710,137
Other	\$261,786		\$65,091	\$36,241		\$363,118
Nursing	\$854,152					\$854,152
Business			\$66,278			\$66,278
Prof. Psych.	\$89,923					\$89,923
Education						\$0
Liberal Arts						\$0
Lake Campus						\$0
Grad. Studies						\$0
TOTAL	\$8,144,190	\$1,700,125	\$735,032	\$10,165,861	\$1,296,767	\$22,041,975

SPONSORS

Federal

Corporation for National Service
Council for International Exchange of Students
DHHS, Centers for Disease Control and Prevention (CDC)
DHHS, Health Resources and Services Administration (HRSA)
DHHS, National Cancer Institute (NIH)
DHHS, National Eye Institute (NIH)
DHHS, National Heart, Lung, and Blood Institute (NIH)
DHHS, National Institute of Allergy and Infectious Diseases (NIH)
DHHS, National Institute of Child Health and Human Development (NIH)
DHHS, National Institute of General Medical Sciences (NIH)
DHHS, National Institute of Neurological Disorders and Stroke (NIH)
DHHS, National Institute on Aging (NIH)
DHHS, National Institute on Drug Abuse (NIH)
DHHS, National Library of Medicine (NIH)
DoD, Air Force, AFROTC
DoD, Air Force, Air Force Research Laboratory
DoD, Air Force Office of Scientific Research (AFOSR)
DoD, Army Medical R&D Command
DoD, National Security Agency
DoD, Office of Naval Research
DoD, U.S. Military Academy (West Point)
National Aeronautics and Space Administration
National Research Council
National Science Foundation (NSF)
NSF, Faculty Early Career Development (CAREER)
NSF, Research Experience for Teachers
NSF, Research Experiences for Undergraduates
NSF, Research in Undergraduate Institutions
Oak Ridge National Laboratory
U.S. Department of Agriculture
U.S. Department of Education
U.S. Department of Energy
U.S. Department of Transportation, Federal Aviation Administration
U.S. Environmental Protection Agency
Veterans Affairs Medical Center

Foreign

Academy of Finland
Nestec Ltd., Vevey, Switzerland
Supreme Council of Universities (Egypt)

SPONSORS

Industry/Business

A & S Pacific International, Inc.
Air Filter Testing Labs, Inc.
Albaugh, Inc.
Alcon Laboratories, Inc.
Aldrich Chemical Company
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Ameritech
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Automotive Systems Laboratory, Inc.
Battelle Columbus Laboratories
C.B.F. LETI, S.A.
Camelot R&D, Inc.
Children's Medical Center (Dayton)
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Cohesia Corporation
Consumer Advocacy Model Program
DaimlerChrysler
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Dettmer Hospital
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Employee Care of Miami Valley and Good Samaritan Hospitals
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Evans East
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LeCroy Corporation
Lexis-Nexis
Material Service Corporation
Matrix Psychological Services
Merck & Co., Inc.

SPONSORS

Miami Valley Hospital
Midmark
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Pain Care Institute
Parsons Engineering Science, Inc.
Paxar Corporation
Pfizer, Inc.
Procter & Gamble Company
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Research Corporation
S.C. Johnson Wax
SelectTech Services Corporation
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Universal Energy Systems, Inc. (UES, Inc.)
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Veridian Engineering
Zeneca Pharmaceuticals

Non-Profit

American Academy of Pediatrics
American Cancer Society - Ohio Division
American Heart Association – National
American Heart Association - Ohio Valley Affiliate
Children's Hospital Medical Center (Cincinnati)
Children's Hospital Research Foundation
Culture Works
Dayton Area Graduate Studies Institute (DAGSI)
Dayton Urban League
Fulbright Legacy Fund
Institute for Educational Inquiry
Institute of Electrical and Electronics Engineers, Inc.
National Alliance for Autism Research
National Association on Alcohol, Drugs and Disability, Inc. (NAADD)
Ohio Lions Eye Research Foundation (OLERF)
Pima Prevention Partnership

SPONSORS

*Project C.U.R.E., Inc.
Sigma XI
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State of Ohio

*Edison Materials Technology Center (EMTEC)
Lake Erie Commission, Ohio
Ohio Arts Council
Ohio Biological Survey
Ohio Board of Regents
Ohio Commission on Minority Health
Ohio Department of Administrative Services
Ohio Department of Aging
Ohio Department of Alcohol & Drug Addiction Services
Ohio Department of Development
Ohio Department of Education
Ohio Department of Health
Ohio Department of Human Services
Ohio Department of Mental Health
Ohio Department of Natural Resources
Ohio Department of Rehabilitation and Correction
Ohio Governor's Office of Criminal Justice Services
Ohio Historical Society
Ohio Humanities Council
Ohio Learning Network
Ohio Supercomputer Center*

Other Government

*Butler County Alcohol and Drug Addiction Services (ADAS) Board
Butler County Mental Health Board
City of Beavercreek, Ohio
City of Dayton, Ohio
City of Sidney, Ohio
City of Troy, Ohio
Dayton Area Chamber of Commerce
Dayton Municipal Court
Detroit Public Schools
Greene County Children Services Board
Greene County Family and Children First
Lake County Economic Development Center
Miami Conservancy District
Montgomery County ADAMH Services Board
Montgomery County Combined Health District
Montgomery County Community Development Office*

SPONSORS

Montgomery County Department of Job and Family Services
Montgomery County Sheriff's Office
Scioto Paint Valley ADAMH Board
Shelby County Counseling Center
Shelby County Family and Children First Council
South Community Mental Health Center
State of Alabama
State of Florida
State of New York
State of South Carolina
State of Tennessee
Tri County Board of Recovery and Mental Health Services
Village of Lodi, Ohio

Educational Institutions

Boston University
Cleveland State University
Howard University
Kent State University
Lima Technical College
Lorain County Community College
Miami University
National Space Biomedical Research Institute
Ohio State University
Ohio University
Rochester City Schools
Sinclair Community College
Southwestern Ohio Council for Education
Texas A & M University
Trotwood-Madison Schools
University of California
University of Connecticut
University of Dayton
University of Illinois
University of North Carolina
University of Utah
Wheeling Jesuit University

OVERVIEW

The Office of Research and Sponsored Programs (RSP) works with faculty and staff at Wright State University (WSU) to increase externally funded research and other sponsored programs. RSP staff members provide the following services:

Identification of External Sources of Funding

WSU subscribes to SPIN (Sponsored Programs Information Network), an electronic funding database of thousands of funding opportunities, available through the World Wide Web (WWW). In addition, WSU is a member of the Community of Science (COS), a resource for scientific information on the WWW. Membership in COS offers to WSU faculty a Funding Opportunities database, an Expertise database, “Faculty Match” software, “Funding Alert” e-mailed reminder system, and access to other COS databases. RSP also maintains a library of reference materials and monitors federal, state, and local newsletters, and publications for funding opportunities.

Dissemination of Funding Information

RSP produces ***Funding Update***, a semi-monthly electronic bulletin of upcoming deadlines for funding programs, and ***Research News***, a newsletter published three times per academic year, which covers grants awarded and related topics of interest. RSP maintains a computerized research interest profile database of over 600 WSU faculty and staff.

Liaison with Sponsors

RSP staff members serve as liaisons with public and private sponsors to discuss preliminary proposals, study and interpret program priorities and funding levels, observe trends in federal and non-federal programs; monitor proposals that have been submitted and attempt to expedite their review; stimulate interest in WSU by providing sponsors with information about faculty and staff research interests; and arrange for sponsors to visit WSU to discuss their funding programs.

Proposal Development and Preparation

RSP staff will help faculty develop preproposals, review proposals for completeness and proper assembly, interpret guidelines and regulations, present workshops on grantseeking, and assist faculty in locating alternative sources of funding.

Budget Preparation

RSP offers expertise in developing and reviewing final budget drafts that accurately reflect grant expenses, comply with university regulations, and meet agency guidelines, and assists in setting up computerized spreadsheets to develop multi-year budgets.

OVERVIEW

Institutional Authorization

RSP is the central office for the institutional review process for requests for external support; staff will obtain the appropriate necessary signatures.

Proposal Transmittal

RSP will make the necessary copies of the proposal, mail the proposal to the agency, and maintain files for tracking submissions.

Institutional Compliance

RSP staff checks for proper review and approval of all research involving animal use, human subjects, hazardous wastes, radioactive materials, recombinant DNA, and security classifications.

RSP administers the Institutional Review Board, the Institutional Biosafety Committee, the Laboratory Animal Care and Use Committee, and acts as a liaison with the University Radiation Safety Committee, and the Biological Chemical Health and Safety Committee.

Technology Transfer

RSP is the initial contact for information on copyrights and patents. WSU enlists the assistance of various technology transfer programs to help faculty in the evaluation, patenting, and licensing of inventions

Administration of Externally Funded Programs

Following award notification, RSP will establish a budget and account number for the project, assist the project director in the orderly administration of the project, act as liaison between the sponsor and Principal Investigator (PI), keep the PI apprised of technical reports due dates, finalize all budget transfers, and prepare and submit fiscal reports.

Administration of Internally Funded Programs

RSP coordinates WSU's four internal grant programs: Research Initiation Grants, Professional Development Grants, Research Challenge, and Research Travel.

Contract Negotiations

RSP staff is authorized to negotiate the terms of awards with potential sponsors.

Government Security

RSP is the clearinghouse for all government security matters involving WSU employees. RSP processes security clearances, monitors security activities and processes passes and credentials for individuals working on Department of Defense contracts and for research conducted on federal property.

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