Research Review

Purdue Research Foundation ❖ Advancing the Mission of Purdue University

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Coming this Fall . . . Fast Track

A *New* Industrial Agreements Process

Sponsored Program Services (SPS) which is staffed by the Division of Research and Scholarly Activities (DRSA) and the Office of Contract and Grant Business Affairs (OCGBA) has developed a set of industrial proposal guidelines to assist University faculty as they work with companies to obtain funding for contract research.

SPS staff has prepared a brochure entitled *Guidelines for Submitting Industrial Proposals*, an "Industrial Agreements Checklist" and sample research agreements for University faculty.

In the brochure, the components of the industrial proposal are outlined and two methods of submitting a proposal to industry are identified:

- Fast Track (a newly developed process) and
- The Traditional Submission.

SPS developed the Fast Track method of submission to expedite the proposal review process for industrial proposals fitting certain requirements. Fast Track enables the Principal Investigator (or representative) to set up an appointment to review the proposal package with a member of the SPS staff. If the proposal package is complete and the Principal Investigator agrees to accept one of our standard agreements with no changes, the proposal can be approved within the hour.

More details on the Fast Track process will be provided in the September issue of *Research Review*.

The *Guidelines for Submitting Industrial Proposals* brochure will be available to faculty this fall. ❖

Inside this issue...

Research Review Distribution

We receive mailing labels for *Research Review* from Personnel Services. Their list, which has your name printed on the label, cannot be altered. However, if you are receiving an additional copy with your title on the mailing label, we can remove you from that list.

Faculty who are *not* receiving the newsletter and want to be added to the mailing list or who are receiving duplicate copies can call Mary Ryker at 49-46200. ❖

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NSF Updates Progress On Peer Review Reform

National Science Foundation officials say NSF is making progress in efforts to improve the proposal review process, although much remains to be done.

NSF's merit review system-like the National Institutes of Health's far more centralized system-is considered a model, but in need of fine-tuning to ensure fairness and accommodate increasing workloads, decreasing staff resources and ever-changing science.

Examining Criteria

At its May meeting, NSF's policy-setting National Science Board, established a working group to scrutinize generic review criteria in place since 1981. The assessment, needed partly to stretch research-oriented criteria to better cover NSF's increasing science education grantmaking, is central to the overall assessment of peer review begun last year.

NSF officials, including Deputy Director Anne Petersen, recently provided updates on aspects of the study.

NSF has completed the first phase in which staff were assigned to topics, from substituting disaggregated, criterion-rating of proposals for more general assessment to increasing use of two-stage proposals and preproposals.

The study should produce innovations in handling interdisciplinary proposals, a key concern.

One option is to set up new organizational structures to deal with multi-and interdisciplinary work.

Different Deadlines

Grantees also could see a spreading of program deadlines and target dates throughout the year to avoid the concentration of applications at certain times.

A September 1995 meeting of external experts raised themes ranging from the growing difficulty reviewers have discriminating among excellent proposals to adopting cut-off thresholds to winnow out noncompetitive proposals.

Solicitation of e-mail comments revealed grantseekers' worries. Topics ranged from the cost of applying for grants and the desire to have a chance to respond to reviewers before funding to dislike of reviewer anonymity.

NSF this summer will follow-up on suggestions not part of NSF's original list of issues. NSF will organize a working group of senior staff and researchers to explore subjects such as the feasibility of rank-ordering of proposals. ✦

Contact: To contribute to the discussion of merit review reform, contact Anne Petersen, National Science Foundation, Room 1205, 4201 Wilson Blvd., Arlington, VA 22230; fax, (703) 306-0109.

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Grant Review Changes Could Aid NIH Applicants

Changes—proposed and planned—to National Institutes of Health grant review procedures could yield benefits for grantseekers soon.

Some changes include permitting certain applicants to make specific revisions to proposals without going through a prolonged amendment process.

NIH will take longer to implement more ambitious reforms, as long as a year to modify its application scoring system. NIH will seek comments from researchers this summer on proposals to review and rate unsolicited research grant applications by specific criteria rather than using a more general, global assessment.

NIH recently posted on its home page the "Report of the Committee on Rating of Grant Applications" (*FGCW*, Dec. 11, 1995). (http://www.nih.gov/grants/rga.htm)

The changes are part of NIH's ongoing streamlining effort, but also a response to renewed emphasis on investigator-initiated grants, Division of Research Grant officials said.

DRG, which receives, refers, and arranges for review of 30,000 research applications a year, expects increased work as institutes downplay use of targeted requests for applications.

RFAs traditionally have been reviewed outside DRG, in individual institutes.

Plans and Pilots

Officials reported at a DRG Advisory Committee meeting on new procedures for initial review panels, or study sections, that could affect applicants in ways from ensuring proposals are fairly and expertly reviewed to giving applicants a quick second chance to put their best foot forward. Plans include:

▲ Giving voting rights to ad hoc reviewers who previously could only give advice. Recruited to peer review panels on an as-needed basis, ad hoc members provide critical expertise regular members lack.

For applicants, the change would mean temporary members brought on to ensure fair review of their proposals would have an official say. The shift, which could be in place for June study section meetings, also might make it easier to recruit needed reviewers.

▲ Liberalizing membership procedures to allow more than one investigator from the same institution-but not from the same department-to serve on the same review panel. The change also could help expand the reviewer pool.

▲ Abbreviating the amendment process on an experimental basis to save applicants with meritorious, otherwise fundable proposals the chance to directly address reviewers' concerns by letter. Applicants now lose months submitting amended applications under a subsequent deadline.

The pilot will involve four study sections during the June review round and could be widely adopted later.

Acting Deputy Director Anthony Demsey cautioned that what is seen as a way to simplify and speed up the review ultimately may not be embraced by investigators or institutions for a variety of administrative or other reasons, such as the need for additional human subjects review or budgetary issues.

▲ Increased use of "Just-In-Time" procedures with different types of awards, which free preapplicants from submitting complete application information until the award stage.

Still under discussion for use with unsolicited research project grant applications, JIT procedures will be used for First Independent Research Support and Transition awards and career development awards and career development awards beginning June 1.

Integration Model

▲ Study sections revamped to integrate applications previously reviewed by the National Institute on Alcohol Abuse and Alcoholism. The four reworked study sections are the first step in bringing into the NIH review structure hundreds of applications handled until now under separate review operations at NIAAA, the National Institute of Mental Health and the National Institute on Drug Abuse-agencies transferred to NIH in 1992.

Fears have eased that applicants and applications used to their own review homes would fare badly under a new setup, officials said. A survey of panels' members showed the majority generally agreed that expertise on panels was appropriate; integrated committee experience compared favorably with previous experience; and decisions were appropriate.

Virtually all reviewers felt their comments were treated with respect, and three-fourths of respondents thought panels performed well, the survey showed.

Plans for integrating the much larger number of NIMH and NIDA panels into DRG are still uncertain, but could follow the same model, said DRG Acting Director Donald Luecke.

Officials added that the process that produced the new panels provides a model for reinventing other study sections to better reflect evolving science. ✦

Contact: For meeting minutes, publications and policy information, access the DRG home page at http://www.drg.nih.gov/

May 1996 Projects Funded

B. A. Almanza, restaurant, hotel, institutional and tourism management, from Indiana Department of Education, $34,077, May 14, 1996 through May 15, 1997, "Nutrient Standard Menu Planning Development."

W. M. Baird, medicinal chemistry and pharmacognosy, from Public Health Service, $205,938, June 1, 1996 through May 31, 1997, "Modifers of Carcinogenesis - Environmental PAH Mixtures."

T. S. Baker, biological sciences, from National Science Foundation, $70,000, September 1, 1996 through August 31, 1997, "Cryo-Electron Microscopy and Image Analysis of Plant Viruses."

J. A. Banks, botany and plant pathology, from National Science Foundation, $5,000, September 1, 1996 through August 31, 1997, "Genetic Regulation of Sex Determination in the Homosporous Fern Ceratopteris."

S. R. Bell, mathematics, from National Science Foundation, $37,397, June 1, 1996 through May 31, 1997, "Partial Differential Equations and Complex Analysis."

R. J. Bernhard, mechanical engineering, from Continental General Tire, Inc., $19,000, June 1, 1996 through May 31, 1997, "Measurements of Dynamic Tire Properties."

A. J. Bieber, biological sciences, from National Science Foundation, $5,000, August 15, 1996 through January 31, 1998, "Molecular and Genetic Analysis of Drosophila Neuroglian."

D. R. Black and L. J. Leverenz, health, kinesiology and leisure studies, from NATA Research and Education Foundation, $5,335, April 15, 1996 through April 14, 1997, "Multicenter Study to Evaluate Screening Tests for Athletes with Eating Disorders."

G. M. Bodner and D. L. MacIsaac, chemistry, physics, from Dreyfus, Camille and Henry Foundation Inc., $10,000, January 1, 1996 through December 31, 1996, "Evaluation of the Use of World Wide Web Sites for First-Year Courses."

J. T. Bolin, biological sciences, from Public Health Service, $132,474, May 1, 1996 through April 30, 1997, "Structure and Function of Extradiol Dioxygenases."

L. W. Braile and R. L. Nowack, earth and atmospheric sciences, from Technical Educational Research Centers, $45,000, June 1, 1996 through November 30, 1996, "Implementing the PEPP Program in the Central Midwest States (Indiana, Illinois, Kentucky, Ohio): Support for a Teacher Workshop at Purdue University, West Lafayette, Indiana."

V. F. Bralts, agricultural and biological engineering, from MBI International, $7,500, May 1, 1996 through September 30, 1996, "The Application of Fertilizer Amendments Through Microirrigation Systems."

C. Braunlich, restaurant, hotel, institutional and tourism management, from American Gaming Association, $9,750, April 1, 1996 through September 30, 1996, "Analysis of Strategies Study: Strategies to Prevent and to Decrease the Prevalence of Pathological, Problem and Underage Gambling in the Casino Industry."

J. A. Brooks and T. E. Lansinger, nursing, from Indiana State Department of Health, $75,000, January 1, 1996 through December 31, 1996, "Nursing Center for Family Health Satellite."

G. E. Brust and J. M. Ferris, entomology, from Indiana Soybean Development Council, $35,000, July 1, 1996 through September 30, 1997, "Comprehensive Program for Soybean Cyst Nematode and Root-Knot Nematode Control."

T. L. Burton, technical graphics, from Mennen Builders, $500, March 15, 1996 through May 15, 1996, "House Design Documentation."

S. R. Byrn, industrial and physical pharmacy, from Parke-Davis Company, $16,500, April 1, 1996 through March 31, 1997, "Testing Agreement Between Purdue University and Parke-Davis."

N. C. Carpita, botany and plant pathology, from U. S. Department of Energy, $96,000, May 1, 1996 through April 30, 1997, "Purification and Molecular Cloning of the Synthases of Cereal (1-3), (1-4)-B-D-Glucan."

C. J. Chang, medicinal chemistry and pharmacognosy, from Creative Biomolecules, $235,672, May 1, 1996 through April 30, 1999, "Novel Selenophene Antitumor Agents."

T. C. Chang, industrial engineering, from National Research Council, $5,332, September 1, 1993 through August 31, 1996, "Integrated Manufacturing Predoctoral Fellowships."

J. A. Chmielewski, chemistry, from Alfred P. Sloan Foundation, $35,000, September 16, 1996 through September 15, 1998, "Alfred P. Sloan Fellowship."

N. I. Christensen, earth and atmospheric sciences, from National Science Foundation, $22,887, August 1, 1996 through July 31, 1997, "Physical Properties of Rock from the Southern Sierra Nevada Region: A Critical Link Between Geology and Geophysics."

E. P. Christmas, agronomy, from University of Wisconsin System, $13,825, March 1, 1994 through February 28, 1997, "No-Till Practices for Efficient Northern U. S. Soybean Production."

E. P. Christmas, agronomy, from Microbio Division of Agricultural Genetics Company Limited, $1,300, April 1, 1996 through March 31, 1997, "An Evaluation of the Ability of HiStick to Increase Nitrogen Fixation of Soybeans in Soils with a Population of Native Rhizobia."

R. Cohen, mechanical engineering, from American Society of Heating, Refrigerating, and Air Conditioning Engineers, $34,604, July 1, 1996 through June 30, 1997, "Providing Support Services for the Editor of the International Journal of Heating, Ventilating, Air Conditioning and Refrigerating Research."

S. H. Collicott and J. P. Sullivan, aeronautics and astronautics, from National Aeronautics and Space Administration, $71,000, July 14, 1996 through July 13, 1997, "High Reynolds Number Experiments on Bypass Duct and Strut Flows."

D. J. Corbin, curriculum and instruction, from Indiana Council for Social Studies Inc., $1,000, July 1, 1992 through June 30, 1997, "Indiana Council for Social Studies Newsletter."

L. A. Corson, civil engineering/IPPI, from Indiana Precision Plastics, $800, January 1, 1996 through December 31, 1996, "Technical Assistance Agreement - 1995 CRTK 311-312-313."

E. J. Coyle, K. T. Kornegay, H. G. Dietz, L. H. Jamieson, C. M. Ong, and J. L. Gray,electrical and computer engineering, from National Science Foundation, $79,310, June 15, 1996 through May 31, 1998, "Hardware Prototyping Capability for a Community Service Projects Course in Electrical and Computer Engineering."

W. A. Cramer, biological sciences, from Public Health Service, $7,792, December 1, 1995 through November 30, 1996, "Structure/Function of Membrane-Bound Cytochromes."

J. H. Cushman, agronomy, from Army Engineering Waterways Experiment Station, $100,000, June 1, 1995 through December 31, 1996, "Chemical Transport in Multiscale Porous Media: Theory, Scaling and Computation."

S. Diamond, M. D. Cohen, D. N. Winslow, and J. Olek, civil engineering, from Northwestern University, $135,787, February 1, 1996 through January 31, 1997, "National Science Foundation Center for Advanced Cement-Based Materials."

P. C. Doerschuk, electrical and computer engineering, from National Science Foundation, $7,301, June 1, 1996 through December 31, 1996, "3D Reconstruction of Icosahedral Viruses from X-Ray Scattering Data."

H. G. Donnelly, mathematics, from National Science Foundation, $72,000, June 1, 1996 through May 31, 1999, "Linear and Nonlinear Laplacians on Riemannian Manifolds."

F. J. Doyle, chemical engineering, from National Science Foundation, $62,500, September 1, 1996 through August 31, 1997, "NSF Young Investigator."

F. J. Doyle, chemical engineering, from Office of Naval Research, $78,500, May 1, 1996 through October 31, 1996, "Neurobiologically Inspired Approaches to Nonlinear Process Control and Modeling."

D. D. Dunlap, industrial technology, from Symbol Technologies, Inc., $10,000, December 12, 1995 through July 12, 1996, "LS3000 Series Scanners Self-Study Course Development."

D. Elmore, S. K. Vogt, M. E. Lipschutz, P. Sharma, and P. C. Simms,physics, chemistry,from National Science Foundation, $325,000, July 1, 1996 through June 30, 1997, "Facility Support: The Purdue Rare Isotope Measurement Laboratory."

O. K. Ersoy, electrical and computer engineering, from Indiana University, $20,000, December 1, 1995 through November 30, 1996, "Algorithms for Brain Imaging and Image Processing."

J. P. Finley, physics, from National Aeronautics and Space Administration, $6,536, August 15, 1996 through August 14, 1997, "Vela-Like and Geminga-Like Pulsars: Candidate X-Ray Emitting Neutron Stars."

S. Fleeter, mechanical engineering, from National Aeronautics and Space Administration, $100,000, May 2, 1996 through January 1, 1997, "3-D Unsteady Aerodynamics and Aeroelasticity of Advanced Turboprops."

L. T. Glickman, veterinary pathobiology, from American Kennel Club Canine Health Foundation, $30,000, April 1, 1996 through March 31, 1998, "A Prospective Study of Morphometric Genetic, and Dietary Risk Factors for Bloat in Dogs."

M. A. Grant, education - Calumet Campus, from Indiana Campus Compact, $1,500, November 10, 1995 through June 30, 1996, "Secondary Reading: Methods and Problems."

R. J. Gretebeck, foods and nutrition, from University of Medicine and Dentistry of New Jersey, $41,813, January 1, 1996 through December 31, 1998, "Measurement of Energy Expenditure During Space Flight Using the Doubly Labeled Water Method."

P. Guo, veterinary pathobiology, from Public Health Service, $126,282, May 1, 1996 through April 30, 1997, "Mechanism of Bacteriophage 029 Prohead Assembly."

J. E. Hamer, biological sciences, from Public Health Service, $211,168, May 1, 1996 through April 30, 1997, "Cellularization in Aspergillus Nidulans."

P. F. Heinstein, medicinal chemistry and pharmacognosy, from Public Health Service, $11,008, January 1, 1995 through May 31, 1996, "MARC Predoctoral Fellowship."

S. D. Heister, aeronautics and astronautics, from Air Force Office of Scientific Research, $61,411, July 1, 1996 through June 30, 1997, "Modeling Primary Atomization Processes."

N. W. Ho, Laboratory of Renewable Resources Engineering, from National Corn Growers Association/Corn Refinery Association, $21,000, July 1, 1995 through June 30, 1996, "Fiber Hydrolysis/Fermentation Project."

M. O. Hunt and D. L. Cassens, forestry and natural resources, from Indiana Department of Natural Resources, $30,000, June 1, 1996 through June 30, 1997, "Use, Reuse and Care of Wood in Historic Preservation and Restoration: Facade Restoration."

B. E. Kahr, chemistry, from American Chemical Society, $50,000, May 1, 1996 through August 31, 1998, "Salting Organic Excited States and Reactive Intermediates at Room Temperature."

Y. E. Kim, physics, from National Science Foundation, $25,000, June 1, 1996 through May 31, 1997, "Theoretical Investigations of Reactions Involving Light Nuclei."

B. A. Kingsbury, biology - Fort Wayne Campus, from U. S. Fish and Wildlife Service, $9,000, April 1, 1995 through September 30, 1996, "Habitat Requirements of the Copperbelly Water Snake, Nerodia Erythrogaster Neglecta."

B. A. Kingsbury, biology - Fort Wayne Campus, from Indiana Department of Natural Resources, $24,500, March 15, 1996 through March 1, 1998, "Status and Ecology of Three Species of Endangered Reptile on the Pigeon River Fish and Wildlife Area, and Recommendations for Management."

S. F. Konieczny, biological sciences, from Muscular Dystrophy Association, $7,000, January 1, 1995 through December 31, 1997, "Regulatory Control of MRF4 Gene Expression."

D. W. Krogmann, biochemistry, from National Science Foundation, $25,000, October 1, 1996 through October 31, 1997, "Proteins Catalysts of Fermentation Respiration and Photosynthesis in Cyanobacteria and Algae."

W. G. Krug, technology - administration, Centers for Excellence, from Lafayette Electrical JATC/LMCC, $2,400, March 1, 1996 through, "JATC/LMCC Training Sessions."

M. R. Ladisch, Laboratory of Renewable Resource Engineering, from EM Separations Technology, $25,000, December 20, 1993 through December 31, 1995, "Development of Novel Biochromatographic Stationary Phases."

R. R. Landolt, health sciences, from Indiana University, $20,200, April 1, 1996 through March 31, 1997, "New Dose Algorithm for Electron Radiotherapy."

Continues on next page

M. Levy, biological sciences, from Rockefeller Foundation, $50,000, June 1, 1996 through December 31, 1997, "Genetic Organization of Virulence Diversity in the Rice Blast Fungus: Applications for Durable Resistance Breeding Strategies."

M. Levy, biological sciences, from Colombian Agriculture Research Corporation, $36,000, May 21, 1996 through May 20, 1998, "Pathotype Evolution of Pyricularia Grisea Sacc. in the Orinoco Rice Cropping Region in Colombia."

J. M. Longuski, aeronautics and astronautics, from Jet Propulsion Laboratory, $2,000, January 19, 1996 through April 19, 1996, "Non-Earth Flyby Options for Pluto Express (2002)."

P. S. Low, chemistry, from National Science Foundation, $31,956, June 1, 1996 through May 31, 1998, "U. S.-Korea Cooperative Research on Lipid Second Messengers in Plant Signal Transduction."

D. A. Lyn, civil engineering, from University of Illinois, $8,930, February 29, 1996 through August 31, 1996, "Ozone Demand Bench Investigation."

S. A. Mackenzie, agronomy, from Public Health Service, $91,200, June 1, 1996 through May 31, 1997, "Positional Cloning of the *Fr* Locus."

D. C. Marinescu, computer science, from National Science Foundation, $10,000, September 15, 1995 through August 31, 1996, "Parallel and Distributed Computing for Solving Large Structural Biology Problems."

A. P. Mathur, computer science, from Bellcore, $30,000, March 1, 1996 through February 28, 1997, "Software Engineering Research Center."

M. R. Melloch, electrical and computer engineering, from Air Force Office of Scientific Research, $154,042, May 15, 1996 through May 14, 1997, "Dielectric Properties of Ordered and Disordered Particulates in Semiconductor Matrices."

T. J. Moffett, physics, from National Science Foundation, $30,000, June 1, 1996 through May 31, 1997, "Collaborative Research: Independently Determined Distances to the Magellanic Clouds."

L. G. Mongeau, mechanical engineering, from Ford Motor Company, $16,037, March 1, 1996 through June 30, 1996, "Measurement of the Sound Treatment Loss of Automotive Rubber Body Seals."

L. G. Mongeau, mechanical engineering, from Bombardier, Inc., $83,631, January 1, 1996 through March 31, 1997, "Analysis and Control of the Unsteady Thrust Generated by the Waterjet Pumps of Personal Watercraft Vehicles for Reduced Noise Emissions."

A. M. Morrison, restaurant, hotel, institutional and tourism management, from Greater Pittsburgh Convention and Vistors Bureau, $5,500, May 1, 1996 through October 31, 1996, "Conversion Study of Direct Response-Advertising."

A. M. Morrison, restaurant, hotel, institutional and tourism management, from Brown County Convention and Visitors Bureau, $3,400, May 1, 1996 through October 31, 1996, "Conversion Study of Direct-Response Advertising."

A. M. Morrison, restaurant, hotel, institutional and tourism management, from Monroe County Convention and Visitors Bureau, $3,400, May 1, 1996 through October 31, 1996, "Conversion Study of Direct-Response Advertising."

H. Morrison, chemistry, from American National Red Cross, $7,489, September 1, 1995 through August 31, 1996, "Novel Photoactive Virucides for Red Cells and Platelets."

J. G. Mullen, physics, from National Science Foundation, $85,000, May 15, 1996 through April 30, 1997, "Studies of Phonon-Photon and Electron-Photon Interaction Via Incoherent Nuclear Resonant Scattering of Synchrotron Radiation."

M. S. Munoz, S. A. Garrod, and R. K. Heitzmann, electrical engineering technology, from National Science Foundation, $100,000, June 1, 1996 through May 31, 1998, "An Advanced Communications Curriculum for Undergraduate Technology Students Integrated Around a Fully Functional Cellular Base Station."

S. L. Nail, industrial and physical pharmacy, from Parke-Davis, Division of Warner-Lambert, $1,497, May 1, 1996 through, "Testing Agreement with Parke-Davis."

S. L. Nail, industrial and physical pharmacy, from Alcon Laboratories, Inc., $25,000, January 1, 1997 through December 31, 1997, "NSF Industry/University CRCPP."

S. L. Nail, industrial and physical pharmacy, from Parke-Davis, Division of Warner-Lambert, $2,500, August 17, 1995 through August 16, 1996, "Testing Agreement with Parke-Davis."

L. F. Nies, civil engineering, from National Science Foundation, $31,167, August 1, 1996 through July 31, 1997, "Anaerobic Biotransformation of Environmental Pollutants by Microbial Coenzymes."

D. D. Nolte, physics, from National Science Foundation, $37,500, July 1, 1995 through December 31, 1996, "Nonlinear Optical Physics in Semiconductors."

R. J. Oglesby, earth and atmospheric sciences, from Brown University, $66,761, February 1, 1996 through January 31, 1997, "Sensitivity of Climate Models: Comparison of Simulated and Observed Patterns for Past Climates."

J. T. O'Leary, forestry and natural resources, from Canadian Tourism Commission, $5,107, February 1, 1996 through December 31, 1996, "Analysis and Data Audit for Tourism Canada: Japan."

J. T. O'Leary, forestry and natural resources, from Canadian Tourism Commission, $9,154, January 1, 1996 through July 31, 1996, "A Study of "Others" from the U. S. Repeat Visitors Survey."

M. W. Pelter, M. O. Longas, and C. E. Kriley, chemistry and physics - Calumet Campus, from National Science Foundation, $11,942, September 1, 1996 through August 31, 1998, "Incorporating FT-IR into the Laboratory Curriculum."

G. W. Petty, earth and atmospheric sciences, from National Aeronautics and Space Administration, $91,416, April 1, 1996 through March 31, 1997, "Passive Microwave Algorithm Development and Evaluation."

C. A. Pomalaza-Raez, engineering and technology administration - Fort Wayne Campus, from ITT Aerospace-Communications Division, $188,035, July 1, 1995 through June 30, 1998, "Professor of RF Communications."

T. L. Powley, psychological sciences, from Public Health Service, $10,230, December 1, 1995 through November 30, 1996, "Autonomic Controls of Body Weight and Feeding."

B. H. Ragatz, medical education, from Indiana University, $10,200, July 1, 1995 through June 30, 1996, "Ft. Wayne Center for Medical Education."

B. H. Ragatz, medical education - Fort Wayne Campus, from Indiana University, $20,000, July 1, 1995 through June 30, 1996, "Ft. Wayne Center for Medical Education."

B. H. Ragatz, medical education - Fort Wayne Campus, from Indiana University, $4,238, July 1, 1995 through June 30, 1996, "Ft. Wayne Center for Medical Education."

K. Ramani, mechanical engineering, from Bell Helicopter, Textron, Inc., $6,000, April 20, 1996 through August 20, 1996, "Fiber Placed Fiber-Reinforced Thermoplastic (FRTP) Anti-Torque Structure."

K. Ramani, mechanical engineering, from National Science Foundation, $50,000, August 1, 1996 through July 31, 1997, "Career: In-Situ Adhesive-Less Joining of Thermoplastics and Their Composites to Metals in Net-Shape Processes and an Integrated Design and Processing Education Plan."

W. J. Ray, biological sciences, from Public Health Service, $13,904, December 1, 1995 through November 30, 1996, "Mechanism of the Group Transfer Process."

F. E. Regnier, chemistry, from Massachusetts Institute of Technology, $58,253, September 15, 1995 through August 31, 1996, "Rapid Process Monitoring Systems in Biotechnology."

K. D. Ridgway, earth and atmospheric sciences, from National Science Foundation , $56,684, August 1, 1996 through July 31, 1997, "Late Cretaceous to Paleocene Depositional Systems, Paleoclimate, and Strike-Slip Basin Development, Denali Fault System, Alaska."

P. S. Ritter and D. K. Gentry, technology - administration, from CIBA Educational Foundation, $52,000, January 1, 1996 through December 31, 1996, "'Techmobile,' School to Work Outreach Program."

A. Sa Barreto, mathematics, from National Science Foundation, $75,222, June 1, 1996 through May 31, 1999, "Research on Hyperbolic Equations."

F. Shahidi, mathematics, from National Science Foundation, $27,000, June 1, 1996 through May 31, 1997, "Automorphic L-Functions and Intertwining Operators."

P. B. Shepson, chemistry, from U. S. Dept of Commerce, $5,525, March 27, 1996 through June 27, 1996, "AEROCE Ozone Vertical Profile Measurements at Purdue."

E. B. Slamovich, materials engineering, from National Science Foundation, $75,268, June 1, 1996 through May 31, 1997, "Hydrothermal Processing of Ceramic and Polymer/Ceramic Thin Films Below 100° C."

A. A. Solomon, nuclear engineering, from Commonwealth Edison Company, $42,000, April 1, 1996 through March 31, 1997, "Reinforced Electrosleeve Repair Methodology."

R. R. Squires, chemistry, from National Science Foundation, $10,000, January 1, 1996 through December 31, 1996, "Flowing Afterglow-Guided Ion Beam Studies of Reactive Organic Intermediates."

A. R. Suess, technology - administration, from Bethlehem Steel Corporation, $4,200, January 1, 1996 through December 13, 1996, "Hot Strip Mill Modernization Training Program."

D. R. Suiter, entomology, from Dowelanco, $9,000, September 21, 1994 through December 31, 1996, "Cooperator Secrecy Agreement."

J. P. Sullivan, aeronautics and astronautics, from Boeing Commercial Airplanes Group, $26,700, November 1, 1995 through September 6, 1996, "Protable Laser Scanning System."

W. A. Tacker, Institute-Interdisciplinary Engineering Studies, from Zoll Medical Corporation, $11,225, April 1, 1996 through May 31, 1996, "A Proposal for Research for Biphasic Transchest Defibrillation."

J. Thomas, pharmacy practice, from Health Economics Research Group of Eli Lilly and Company, $24,256, September 1, 1995 through August 31, 1996, "Technical Assistance Program."

J. Thomas, pharmacy practice, from Community Insurance Co. D/B/A AntheM Blue Cross/Blue Shield, $6,182, March 18, 1996 through December 31, 1996, "Validation of a Health Risk Assessment Tool Compared with Concurrent Medical Services Utilization."

J. A. Vilensky, medical education Fort Wayne Campus, from Indiana University, $16,466, January 1, 1995 through December 31, 1996, "Evaluation of the Denny Brown Research Collection."

S. R. Vrana and D. Rollock, psychological sciences, from Public Health Service, $228,594, May 1, 1996 through April 30, 1997, "Social Context of Emotion in Black Adolescents."

B. L. Wanner, biological sciences, from National Science Foundation, $93,000, July 15, 1996 through June 30, 1997, "Cross Regulation and Central Metabolism in Bacteria."

B. A. Watkins, food sciences, from National Dairy Promotion and Research Board, $27,000, January 1, 1996 through December 31, 1996, "A Role for Milkfat in Building and Sustaining Bone Mineral Density in Young Females."

A. M. Weiner, electrical and computer engineering, from National Science Foundation, $159,155, August 15, 1996 through July 31, 1997, "Ultrafast Optical Control of Coherent Charge Oscillations in Semiconductors."

A. M. Weiner, electrical and computer engineering, from National Science Foundation, $96,657, June 1, 1996 through May 31, 1997, "Femtosecond Optical Encoding for High-Speed Fiber Communications: Technology and Systems Studies."

G. R. Wodicka, electrical and computer engineering, from National Science Foundation, $62,500, September 1, 1996 through August 31, 1997, "NSF Young Investigator - Acoustical Techniques to Anatomical Structures and Physiological Processes."

Y. Yih, industrial engineering, from National Science Foundation, $62,500, August 15, 1996 through August 14, 1997, "NSF Young Investigator: Intelligent Decision Aids for Dynamic Manufacturing Environments."

T. S. Zwier, chemistry, from National Aeronautics and Space Admin., $85,000, March 1,1996 through February 28, 1997, "Laboratory Studies of Diacetylene Photochemistry: Routes to Complex Molecules in Titan and the Outer Planets' Atmospheres." ✦

Purdue/Industry Partnerships Newsletter

August 15 Deadline

We encourage faculty to submit a short write-up about their current research to the *Purdue/Industry Partnerships* newsletter. Each newsletter highlights several researchers and their projects in a section entitled "Partnership Opportunities." Several faculty members who have advertised their research projects have received calls from potential industry sponsors.

If you would like to submit information about your research, please contact the Office of Industry Research and Technology Programs at 49-40743. We can send you a sample of the required format. ✦

June 1996 Projects Funded

L. L. Avramov, mathematics, from National Science Foundation, $34,850, June 1, 1996 through May 31, 1997, "Mathematical Sciences: Ring Homorphisms and Resolutions."

W. M. Baird, Cancer Research Center, from Public Health Service, $651,081, June 5, 1996 through March 31, 1997, "Cancer Center Support (CORE)."

C. L. Bajaj, computer science, from Canadian Spinal Research Organization, $39,868, June 1, 1996 through May 31, 1997, "Analysis and Visualization of Spinal Cord Injury Data."

J. D. Balakrishnan, psychological sciences, from University of California-Los Angeles, $35,236, January 1, 1996 through December 31, 1996, "Design and Evaluation of a Multimedia Information Display for Real-Time Monitoring of Flight Test Data."

S. J. Barkman, 4-H Youth, from University of Minnesota, $40,000, May 14, 1996 through May 15, 1997, "Health...It's Your Choice (Comprehensive Health Curriculum)."

O. A. Basaran, chemical engineering, from National Aeronautics and Space Administration, $70,000, June 3, 1996 through June 2, 1997, "Forced Oscillations of Pendant and Sessile Drops."

P. E. Bauman, mathematics, from National Science Foundation, $24,500, June 15, 1996 through May 31, 1997, "Elliptic and Parabolic Problems from Physical Models."

T. Bein, chemistry, from National Science Foundation, $102,000, August 1, 1995 through July 31, 1997, "Nanoporous Films for Molecular Recognition Optical and Piezoelectric Sensors."

R.J. Bernhard, mechanical engineering, from Goodyear Tire and Rubber Company, $19,000, June 1, 1996 through May 31, 1997, "Measurements of Dynamic Tire Properties."

R.J. Bernhard, mechanical engineering, from Bridgestone/Firestone, Inc., $19,000, June 1, 1996 through May 31, 1997, "Measurements of Dynamic Tire Properties."

R.J. Bernhard, mechanical engineering, from Michelin Americas Research and Development Center, $19,000, June 1, 1996 through May 31, 1997, "Measurements of Dynamic Tire Properties."

C. L. Berry, education opportunities program - Calumet Campus, from U. S. Department of Education, $432,068, June 1, 1996 through May 31, 1997, "Upward Bound."

B. Bhargava, computer science, from National Science Foundation, $104,841, July 15, 1995 through June 30, 1997, "Communication Experiments for Widely Distributed Environments."

C. E. Brodley and A. C. Kak, electrical and computer engineering, from Jet Propulsion Laboratory, $9,978, June 17, 1996 through October 1, 1996, "Development of Pattern Recognition and Machine Learning Techniques to Detect and Characterize Structure in Images of Scientific Interest."

R. B. Borgens, Center for Paralysis Research, from Canadian Spinal Research Organization, $80,000, January 1, 1996 through December 31, 1996, "Spinal Research."

S. S. Broyles, biochemistry, from Showalter Trust, $49,600, July 1, 1996 through June 30, 1997, "Poxvirus Modulators of Protein Phosphorylation."

G. W. Bullion, economics and finance - Fort Wayne Campus, from Indiana University, $4,500, July 1, 1995 through June 30, 1997, "IPFW Proposal for Funding in Support of Economic Development Coordinator."

W. R. Chaney and H. A. Holt, forestry and natural resources, from DowElanco, $8,000, August 15, 1992 through August 15, 1997, "Physiological Aspects of Flurprimidol Use for Regulation of Tree Growth."

E. P. Christmas, agronomy, from Southern Illinois University, $15,000, July 1, 1994 through March 30, 1997, "Cultural Practice Evaluation for Canola Production Under Indiana Conditions."

E. P. Christmas, agronomy, from Agrium Inc. Biologicals, $1,300, April 1, 1996 through March 31, 1997, "An Evaluation of Rhizup Formulation of Bradyrhizobium Japonicum with Respect to Increased Nitrogen Fixation of Soybeans in Soils with a Population of Native Rhizobia, When Compared with a Control and a Regular Soybean Inoculant."

E. P. Christmas, agronomy, from Liphatech, $1,300, April 1, 1996 through March 31, 1997, "An Evaluation of Cell-Tech® S Formulation of Bradyrhizobium Japonicum with Respect to Increased Nitrogen Fixation of Soybeans in Soils with a Population of Native Rhizobia, When Compared with a Control and a Regular Soybean Inoculant."

E. P. Christmas, agronomy, from Urbana Laboratories, $1,300, April 1, 1996 through March 31, 1997, "An Evaluation of USDA Patented Bradyrhizobium Japonicum with Respect to Increased Nitrogen Fixation of Soybeans in Soils with a Population of Native Rhizobia."

L. K. Clark, S. F. Amass, and C. C. Wu, veterinary clinical sciences, animal disease and diagnostic laboratory, from Indiana Pork Producers Association Inc., $3,911, June 1, 1996 through May 31, 1997, "Transmission and Prevention of Streptococcus Suis Infection in Newborn Pigs."

J. A. Cooper and J. M. Woodall, electrical and computer engineering, from Office of Naval Research, $167,236, June 1, 1996 through May 31, 1999, "Development of Stable High Temperature Contacts and Advanced MIS Structures for Wide Band Gap Materials."

W. A. Cramer, biological sciences, from Public Health Service, $128,554, July 1, 1996 through June 30, 1997, "Biophysical Studies of Proteins, Nucleic Acids, Viruses."

P. J. Daly, chemistry, from U.S. Department of Energy, $182,000, June 1, 1996 through May 31, 1997, "Studies of Yrast and Continuum States in A=100-200 Nuclei."

P. C. Das, S. Chilukuri, and S. Chen, physics - North Central Campus, from National Science Foundation, $23,300, July 15, 1996 through June 30, 1998, "A Physics Computing Laboratory with an Interactive Digitized Video Component."

V. J. Davisson, medicinal chemistry and pharmacognosy, from Showalter Trust, $50,000, July 1, 1996 through June 30, 1997, "A Center for Study of Rapid Reactions in Biological Systems."

J. F. Doyle, aeronautics and astronautics, from National Aeronautics and Space Administration, $6,600, August 11, 1996 through August 10, 1997, "Application of the Spectral Element Method to Interior Noise Problems."

H. D. Espinosa, aeronautics and astronautics, from National Science Foundation, $210,000, July 1, 1996 through June 30, 2000, "Tribo-Mechanics of Nanostructured Materials."

M. J. Finders, curriculum and instruction, from National Council of Teachers of English, $6,650, August 1, 1996 through August 31, 1997, "Literacy, Schooling and Female Youth Offenders."

S. Fleeter, mechanical engineering, from Pratt and Whitney, $160,780, April 15, 1996 through December 31, 1998, "Rotor-Stator Interaction Effects on Airfoil Aeromechanical Response."

P. L. Fuchs, chemistry, from National Science Foundation, $169,729, July 1, 1996 through December 31, 1997, "Specificity Orchestration in the Alkynylation and Vinylation of C-H Bonds by Aceytlenic and Olefinic Triflones."

S. B. Gelvin, biological sciences, from National Science Foundation, $240,000, August 1, 1996 through July 31, 1998, "Plant Genes Involved in Agrobacterium-Mediated Transformation."

N. J. Giordano, physics, from National Science Foundation, $95,000, June 1, 1996 through January 31, 1997, "Physics of Ultra Small Metal Structures."

J. P. Gore, mechanical engineering, from National Science Foundation, $37,500, September 1, 1995 through February 28, 1998, "Presidential Young Investigator Award."

J. P. Gore, mechanical engineering, from John J. McMullen Associates, Inc., $119,115, May 1, 1996 through December 31, 1996, "Emission Measurements and Chemical Kinetics of Low Emissions Gas Turbine Fuels."

M. A. Green, D. J. Waters, and P. S. Low, medicinal chemistry and molecular pharmacology, veterinary clincial sciences, chemistry, from Public Health Service, $272,739, June 15, 1996 through May 31, 1997, "Radiopharmaceuticals Targeted to Tumor Folate Receptors."

R. A. Greenkorn, engineering administration and engineering experiment station, from Allison Engine Company, $10,000, May 1, 1996 through April 30, 1997, "Graduate Student Externs."

R. A. Greenkorn, engineering administration and engineering experiment station, from Kirby Risk Corporation, $10,000, May 1, 1996 through April 30, 1997, "Graduate Student Externs."

J. E. Hamer, biological sciences, from National Science Foundation, $100,000, September 1, 1996 through August 31, 1997, "Presidential Faculty Fellow Program."

V. L. Hammen, audiology and speech sciences, from Public Health Service, $33,752, June 1, 1996 through May 31, 1997, "A Model Based Approach to Adductor Spasmodic Dysphonia."

J. T. Hancewicz, field extension agents, from Rose-Hulman Institute of Technology, $60,046, September 1, 1995 through August 31, 1998, "Problem-Based Learning: A Key to Enhanced Performance in Advanced Technological Education."

J. M. Harbor, earth and atmospheric sciences, from Woolpert Consultants, $1,400, September 27, 1995 through December 31, 1996, "Celery Bog Project."

J. M. Harbor, earth and atmospheric sciences, from Showalter Trust, $50,000, July 1, 1996 through June 30, 1997, "The Role of Artificial Wetlands and Stormwater Basins in Controlling Surface Water Pollution in Urban Watersheds."

A. J. Heber, agricultural and biological engineering, from Indiana Department of Environmental Management, $29,140, May 29, 1996 through November 28, 1997, "Maintaining Finish Quality with Low-To-NO VOC Wood Coatings."

T. K. Hodges, botany and plant pathology, from Rockefeller Foundation, $12,500, May 1, 1996 through April 30, 1997, "Study of Agrobacterium-Mediated Transfer of Useful Genes in Basmati Rice."

T. K. Hodges, botany and plant pathology, from Rockefeller Foundation, $12,500, May 1, 1996 through April 30, 1997, "Study of Genetic Engineering of Rice for Resistance to Insect Pests."

I. Hua, civil engineering, from Showalter Trust, $49,565, July 1, 1996 through June 30, 1997, "The Use of Ultrasonic Waves for Water Pollution Control."

G. J. Hunt, entomology, from Public Health Service, $104,903, June 1, 1996 through May 31, 1997, "Genetic Dissection of Aggressive Behavior of Honey Bees."

G. E. Isom and J. L. Borowitz, medicinal chemistry and molecular pharmacology, from Public Health Service, $126,610, June 1, 1996 through May 31, 1997, "Cyanide-Induced Neurotoxicity."

B. E. Kahr, chemistry, from Eli Lilly and Company, $17,000, January 1, 1996 through December 31, 1996, "Grant for Polarizing Microscope."

A. C. Kak, electrical and computer engineering, from National Science Foundation, $32,000, July 1, 1996 through June 30, 1997, "US-Japan Graduate Student Forum for Exchange of Ideas and Expertise in Robotics and Advanced Automation; Tsukuba City, Japan; November 1996."

E. M. Kelly, audiology and speech sciences, from Public Health Service, $79,434, June 1, 1996 through May 31, 1997, "Diagnosing Stuttering: Integrating Physiologic Measures."

Continues on next page

R. D. Kemery, field extension agents, from Indiana Department of Natural Resources, $4,937, May 20, 1996 through September 30, 1997, "1996 Urban Forestry Intern, The Triad Project."

G. B. King and N. M. Laurendeau, mechanical engineering, from Air Force Office of Scientific Research, $110,960, June 15, 1996 through June 14, 1999, "Response Enhancement for Pitlif Instrument."

S. F. Konieczny and C. G. Lemercier, biological sciences, from American Heart Association, $22,000, July 1, 1995 through June 30, 1997, "Indentification and Characterization of Cardiac Muscle-Specific Transcription Factors."

S. F. Konieczny, biological sciences, from Muscular Dystrophy Association, $7,000, January 1, 1995 through December 31, 1997, "Regulatory Control of MRF4 Gene Expression."

S. J. Kontos, child development and family studies, from Danforth Foundation, $62,755, June 1, 1996 through December 31, 1996, "Successful Transitions from Early Childhood Programs to Public Schools."

H. W. Kraebber, H. R. Naumann, and M. P. Stephens, technology - administration, industrial technology, from Sparton Engineered Products, $9,351, March 28, 1996 through June 30, 1996, "Lean Manufacturing/Startup Training."

S. P. Lalley, statistics, from National Science Foundation, $62,000, July 1, 1996 through June 30, 1999, "Topics in Probability."

D. A. Landgrebe, electrical and computer engineering, from National Aeronautics and Space Administration, $31,513, February 1, 1996 through January 31, 1997, "Research Methods for Analysis of Multispectral Earth Observational Data."

L. S. Lee, C. T. Jafvert, and J. G. Graveel, agronomy, civil engineering, from Environmental Protection Agency, $106,710, September 12, 1994 through September 11, 1997, "Predictive Models for the Mobility of Ionizable Organics in Soil Systems."

L. B. Leonard, audiology and speech sciences, from Public Health Service, $424,652, June 1, 1996 through May 31, 1997, "Morphological Deficits in Specific Language Impairment."

D. W. Lopp and D. L. Stanley, aviation technology, from Indiana Soybean Development Council, $89,341, May 1, 1996 through April 30, 1998, "Turbine Engine Fuel Tests."

D. C. Marinescu, computer science, from National Science Foundation, $500,000, September 1, 1996 through August 31, 1997, "Multidisciplinary Challenge (MDC): Parallel and Distributed Computing for Solving Large Structural Biology Problems."

C. D. Mattioli, curriculum and instruction, from Indiana Campus Compact, $1,500, June 1, 1996 through August 31, 1996, "Summer Course Revision Grant."

J. E. McClure, mathematics, from National Science Foundation, $27,300, July 15, 1995 through June 30, 1997, "Mathematical Sciences: Homotopy Theory."

D. R. McMillin and W. R. Robinson, chemistry, from Laporte Water Technology and Biochemistry Inc., $2,500, May 1, 1996 through April 30, 1997, "Preparation of Copper-Containing Solids."

S. K. Mittal, veterinary pathobiology, from Showalter Trust, $49,997, July 1, 1996 through June 30, 1997, "Novel Adenovirus Vectors for Human Gene Therapy."

B. H. Morimoto, chemistry, from American Heart Association, $30,000, July 1, 1996 through June 30, 1997, "Cloning and Characterization of a Novel Dopamine Receptor."

A. M. Morrison, restaurant, hotel, institutional and tourism management, from Springfield Convention and Vistors Bureau, $7,800, July 1, 1996 through December 31, 1996, "Ozark Mountain Visitor Study."

A. M. Morrison, restaurant, hotel, institutional and tourism management, from Greater Lafayette Convention and Visitors Bureau, $14,000, May 1, 1996 through April 30, 1997, "Greater Lafayette Visitor Study."

I. A. Mudawar, mechanical engineering, from Mudawar Thermal Systems, Inc., $203,059, March 29, 1996 through March 29, 1998, "Subcooled Liquid Change of Phase Thermal Management for Electronic Packaging: New Cooling Concept for a Compact, Light-Weight, Multi-Kilowatt Avionic Enclosure for Future Advanced Aircraft."

E. E. Ortman, agriculture - administration, from U.S. Department of Agriculture, $1,879,518, May 1, 1996 through April 30, 2000, "North Central Biotechnical Initiative."

C. Y. Oseto, N. J. Carroll, and F. T. Turpin, entomology, 4-H Youth, from University of Minnesota, $35,000, September 15, 1995 through May 15, 1997, "Skills for Life: Entomology Series."

N. A. Peppas, chemical engineering, from Showalter Trust, $50,000, July 1, 1996 through June 30, 1997, "Novel Mucoadhesive Biopolymers for the Targeted Delivery of Peptides and Other Drugs to Tissues."

N. A. Peppas, chemical engineering, from Showalter Trust, $60,000, July 1, 1996 through June 30, 1997, "Showalter Distinguished Professorship."

J. Peters, computer science, from National Science Foundation, $62,500, October 1, 1996 through September 30, 1997, "Young Investigator Award: Surface Splines Over Irregular Meshes."

D. C. Petritz and J. R. Gordon, agriculture - administration, from Indiana State Department of Health, $20,000, February 15, 1996 through November 30, 1996, "WIC Farmers' Market Nutrition Program."

D. Phillips, mathematics, from National Science Foundation, $24,600, July 1, 1996 through June 30, 1997, "Mathematical Sciences: Nonlinear Partial Differential Equations."

N. G. Popovich, pharmacy practice, from Wishard Memorial Hospital, $17,118, January 1, 1994 through December 31, 1996, "Physician Order Entry System."

B. H. Ragatz, medical education - Fort Wayne, from Indiana University, $992, February 1, 1996 through January 31, 1997, "Internet Library Services of Indiana Medical Education."

K. Ramani, mechanical engineering, from Zimmer, $10,000, July 1, 1996 through December 31, 1996, "Study Re Induction Heated Die for Rapid Processing of UHMWPE Components."

F. S. Rosenthal, G. P. Carlson, and N. J. Zimmerman, health sciences, medicinal chemistry and molecular pharmacology, from Public Health Service, $54,762, July 1, 1996 through June 30, 1997, "Occupational Safety and Health Training Grant."

F. S. Rosenthal and G. P. McCabe, health sciences, statistics, from Public Health Service, $170,310, June 1, 1996 through May 31, 1997, "Aerosol Probe of Lung Injury in a Chronic Disease Model."

M. G. Rossmann, biological sciences, from Public Health Service, $319,000, June 14, 1996 through June 13, 1997, "R-Axis Image Plate Detector and Focusing Mirrors."

K. Roy, electrical and computer engineering, from Defense Advanced Research Projects Agency, $161,764, June 1, 1996 through May 31, 1999, "Data Path Synthesis for Low-Power Using Dual-Grated Soi Transistors."

R. O. Sack, earth and atmospheric sciences, from National Science Foundation, $31,081, July 15, 1996 through June 30, 1998, "Upgrade of Purdue University Cameca Sx50 Electron Microprobe."

F. Sadeghi, mechanical engineering, from National Science Foundation, $50,806, June 15, 1996 through May 31, 1997, "Interference Optical Profilometer for Debris Denting, Spall Formation and Propagation of Tribo-Contacts."

C. L. Sahley, biological sciences, from Public Health Service, $221,952, April 1, 1996 through March 31, 1997, "Cellular Analysis of Learning."

E. M. Sevick-Muraca, chemical engineering, from Public Health Service, $71,529, July 1, 1996 through June 30, 1997, "Photon Migration Measurements for Tissue Diagnostics."

L. A. Sherman, biological sciences, U.S. Department of Energy, $98,000, June 1, 1995 through May 31, 1997, "A Genetic Analysis of the Lumenal Proteins of the Photosystem II 02-Evolving Complex in Cyanobacteria."

A. Smith and H. N. Zelaznik, audiology and speech sciences, health, kinesiology and leisure studies, from Public Health Service, $204,132, July 1, 1996 through June 30, 1997, "Physiological Correlates of Stuttering."

T. J. Smith, biological sciences, from Public Health Service, $191,724, June 1, 1996 through May 31, 1997, "Structural Studies of Protein Subunit."

P. E. Sojka and J. P. Gore, mechanical engineering, from Clemson University Research Foundation, $5,500, June 3, 1996 through July 12, 1996, "Nox Abatement in Gas Turbine Combustors."

R. L. Somerville, biochemistry, from Public Health Service, $209,179, July 1, 1996 through June 30, 1997, "Regulatory Mechanisms in Tryptophan Biosynthesis."

J. M. Steiner and D. A. Williams, veterinary clinical sciences, from Ralston Purina Company, $5,330, June 1, 1996 through December 31, 1996, "Dynamics of Feline Trypsin-Like Immunoreactivity (fTLI) After Feeding."

M. S. Stohl, international programs, from Musashi Institute of Technology, $34,707, June 1, 1996 through May 30, 1997, "English Summer Program."

J. A. Story, foods and nutrition, from Health Research Studies Center Inc., $5,000, December 1, 1995 through November 30, 1996, "Analysis of Fecal Bile Acids."

R. E. Stroud, airport operations, from Federal Aviation Administration, $1,297,674, May 1, 1996 through September 30, 1996, "Hanger #4 Apron Rehabilitation."

G. H. Sullivan, S. C. Weller, and C. R. Edwards, horticulture, consumer and family sciences, entomology, from Virginia Polytechnic Institute and State University, $49,530, September 29, 1995 through September 28, 1996, "Year Three Integrated Pest Management Collaborative Research Support Program."

G. Szleifer and I. Daniel, chemistry, from National Science Foundation, $75,000, June 15, 1996 through May 31, 1997, "Career Program: Molecular Design of Surface Modified Vesicles and Liposomes: A Theoretical Study."

D. Teegarden, foods and nutrition, from Showalter Trust, $35,000, July 1, 1996 through June 30, 1997, "Fatty Acid Modulation of Prostaglandin Synthase Expression and Cell Transformation."

R. L. Tormoehlen, 4-H Youth, from University of Minnesota, $40,000, May 14, 1996 through May 15, 1997, "4-H Agricultural Tractors and Equipment Curriculum."

D. C. Van Sickle, basic medical sciences, from Bayer Corporation (Agricultural Division), $30,000, July 15, 1996 through February 15, 1997, "A Chronic Toxicity Feeding Study in the Beagle Dog."

D. E. Vietor, earth and atmospheric sciences, from American Meteorological Society, $19,967, February 1, 1996 through January 31, 1997, "Non-Exclusive Distribution Agreement Between Purdue and American Meteorological Society."

L. H. Wagner, medical education, from Indiana University, $900, February 1, 1996 through January 31, 1997, "Internet Library Services for Indiana Medical Education."

P. M. Waser, biological sciences, from American Society of Mammalogists, $944, May 1, 1996 through April 30, 1997, "Habitat Fragmentation Effects on the Genetic Structure of White-Footed Mice."

A. M. Weiner and D. D. Nolte, electrical and computer engineering, physics, from Rome Laboratory, $57,724, June 13, 1996 through June 12, 1997, "Spectral Holography Using Bulk Photorefractive Crystals for High-Speed Lightwave Processing."

C. W. Wilkerson, mathematics, from National Science Foundation, $30,500, July 1, 1996 through June 30, 1997, "Mathematical Sciences: Lie Groups up to Homotopy."

G. R. Wodicka, electrical and computer engineering, from Showalter Trust, $49,977, July 1, 1996 through June 30, 1997, "Acoustic Detection of Increased Intracranial Pressure."

J. R. Wright, civil engineering, from U. S. Geological Survey, $20,000, March 1, 1996 through February 28, 1997, "Annual Institute Program for Indiana."

L. M. Wright-Bower and K. P. Boedeker, music - Fort Wayne, from Very Special Arts Indiana, $500, February 1, 1996 through May 30, 1996, "Proposal for Funding a Workshop Involving Rhythm-Based Techniques to Promote Community Inclusion."

A. C. York, entomology, from Michigan State University, $7,500, March 1, 1996 through February 28, 1997, "1996 Food use Project Protocols and IR-4 Field Data Book."

M. D. Zoltowski, electrical and computer engineering, from National Science Foundation, $3,420, June 1, 1996 through July 31, 1997, "Closed-Form 2D Angle Estimation with Circular Arrays/Apertures for Mobile/Cellular Communications and Surveillance Radar." ✦

Research Review

For Campus Delivery Only

Purdue Research Foundation
1021 Hovde Hall, Rm. 300
West Lafayette, IN 47907-1021

Editor: Elaine Lambert-Happ

Printed on Recycled Paper

Fall 1996 Research Orientation for New Faculty

September 24, 1996

Sponsored Programs invites all new Purdue faculty members and department heads to attend a workshop on Purdue's grants/contracts process on Tuesday, September 24.

The workshop will include:

- information on the Sponsored Programs resources for identifying funding opportunities;
- an overview of the "nuts and bolts" of proposal preparation/submission/negotiation and award management; and
- presentations by two faculty members on how to succeed in finding support for research and other projects.

The workshop begins at 8 a.m. in Stewart Center, Room 218. A speaker/luncheon program will follow at 12:30 p.m. in the East and West Faculty Lounges in the Purdue Memorial Union. Optional afternoon sessions will be available.

Although this workshop is designed for faculty and department heads who are new to Purdue University, registrations from other investigators who typically submit proposals for grants and/or contracts will be accepted as space permits.

The registration deadline is Tuesday, September 17. Faculty or department heads who would like more information can contact Mary Ryker at 49-46200. ✥

Try Again, But Not Too Often, NIH Says

The National Institutes of Health is limiting the number of times applicants can revise and resubmit an application. As of October 1, applicants may revise an original submission twice.

Amended applications have increased significantly over the years. In 1990, NIH logged 4,885 first amendments, 1,236 second amendments and 263 third amendments. In 1995, amendments rose to 5,622 for the first, 1, 872 for the second, and 592 for the third.

Failing to obtain funding after three tries usually means a new application is in order, officials say. ✥