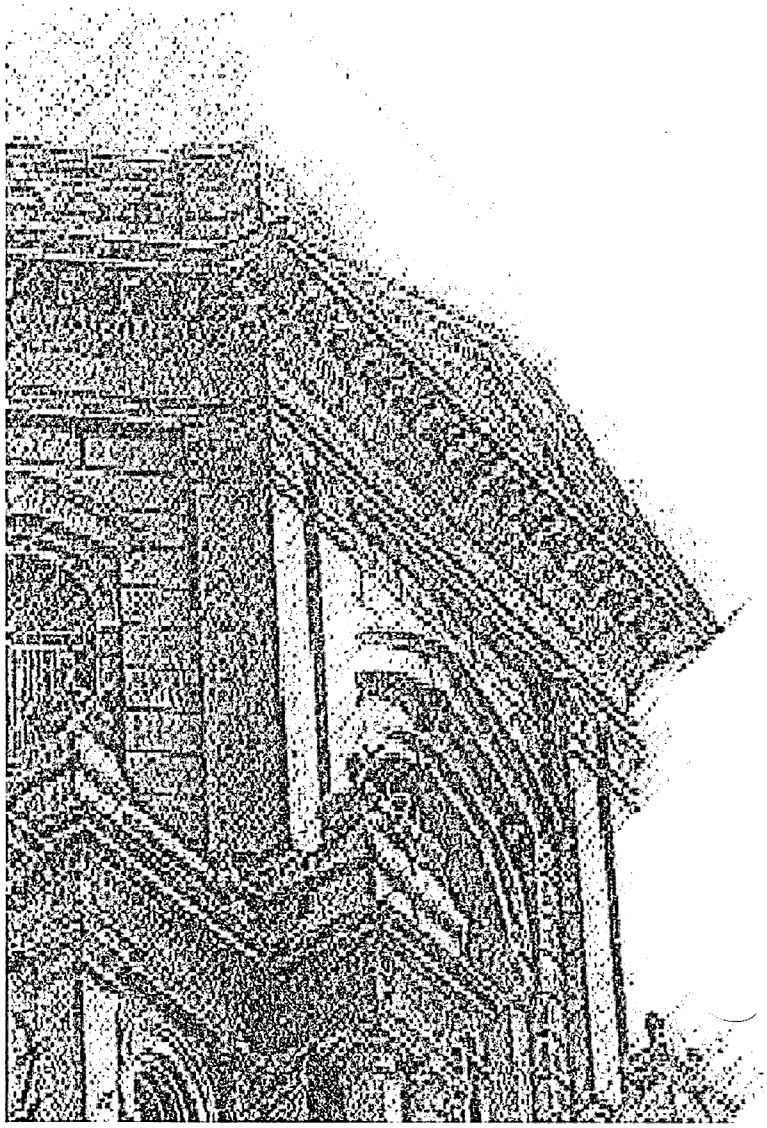
Notre Dame Report



MARCH 28, 2003

NUMBER 14

The University Administrators' Notes

Academic Apparel Rental

Measurements for academic apparel for the May 2003 Commencement Exercises will take place on Tuesday and Wednesday, April 15 and 16, ONLY from 9:30 a.m. to 7:00 p.m., at the Hammes Notre Dame Bookstore in the Eck Center. The rental of a doctoral cap, gown, and hood is $40. Faculty who received a Ph.D. or law degree from Notre Dame may rent the Notre Dame doctoral cap, gown, and hood. The rental fee is $92. The rental of a cap, gown, and hood for the master's degree is $40.

Please note that the listing of Grenville Clark Award Winners in issue 13 should have listed Peter Walshe and James and Mary Ann Roemer only once. Walshe won the award in 1979; the Roemers in 1980.

Activities

Feiwu Chen, research assistant in the Radiation Laboratory, presented "Cavity Construction in Reaction Field Theory for solvation," written with **Daniel M. Chipman**, professional specialist in the Radiation Laboratory, at the 43rd Sanibel Symposium, St. Augustine, Fla., Feb. 22 through March 1.

Publications

Alan Bigger, director of Building Services, published "The Seeds of Opportunity are in Your Hand!" with coauthor L.B. Bigger, *Executive Housekeeping Today* 24, No. 3 (March): 6–8.

Faculty Notes

Honors

Meredith Gill, assistant professor of art history, was selected to be a fellow in residence at the National Humanities Center, North Carolina, for 2003–2004, finishing her book *Augustine and the Italian Renaissance* (Cambridge Univ. Press). This project is also supported by a fellowship from the National Endowment for the Humanities.

Ahsan Kareem, the Moran Professor of Civil Engineering, was named chair of the Engineering Mechanics Division of the American Society of Civil Engineers, the division responsible for technical activities in applied mechanics and other basic branches of knowledge forming the background and foundation of the civil engineering profession.

Mark Schurr, associate professor of anthropology, was invited to serve on Indiana's Preservation Advisory Committee, which will develop the next five-year historic preservation plan for the state of Indiana.

Activities

Daniel M. Chipman, professional specialist in the Radiation Laboratory, presented "Hydrogen Bonding Contributions to Solvation Energies of Aqueous Anions" at the 43rd Sanibel Symposium, St. Augustine, Fla., Feb. 22 through March 1.

Patricia Clark, the Luce Assistant Professor of Biochemistry, presented "Hysteresis in the Folding/Unfolding of a Monomeric β-Sheet Protein" at the Biophysical Society annual meeting, San Francisco, March 3–5.

Lawrence S. Cunningham, the O'Brien Professor of Theology, presented an invited lecture "Reflections on the Psalms as Prayer" at the Center for Catholic-Jewish Studies of St. Leo Univ., Florida, March 2.

Guillermo J. Ferraudi, professional specialist in the Radiation Laboratory, presented "Photochemical and Thermal Redox Chemistry of Transition Metal Macrocyclic Complexes. Potential Applications to the Catalyzed Reduction of CO_2 and Oxidation of SO_{32}." at the research collaboration /lecture/organizational meeting, INIFTA, Univ. of la Plata, Argentina, March 3.

Dirk M. Guldi, associate professional specialist in the Radiation Laboratory, presented "Charge Separation in Fullerene Nanostructures" at Indiana Univ. Northwest, Gary, March 12.

Eileen Kolman, dean of the First Year of Studies, was part of an invited panel on "Supporting the First-Year Advanced Education Student" at the Midwest Regional Meeting of The College Board, Chicago, Feb. 24.

Rev. John Allyn Melloh, S.M., coordinator of the Marten Program in Homiletics and Liturgics and professional specialist in theology, presented the keynote Lenten address "Lent/Easter: It's all about Baptism!" at St. Paul's Church, Valparaiso, March 2.

Thomas J. Prügl, assistant professor of theology, presented "Dominicans and Thomism at the Council of Basel (1431–1449)" at the symposion "*I Padri della Chiesa e le scuole teologiche nei Concili*," Pontificia Univ. della Santa Croce, Rome, March 6–7.

Hon. Kenneth F. Ripple, professor of law, presided at the 54th Annual Hale Moot Court Honors Competition at the Univ. of Southern California Law School, Feb. 28.

Steven Schmid, associate professor of aerospace and mechanical engineering, presented the invited lecture "An Advanced Friction Model for Use with the Finite Element Method" at the Univ. of Michigan, Feb. 20; and participated in a panel session titled "Collaborations in Medical Research" sponsored by the Indiana Health Industry Forum, Feb. 18.

John A. Weber, associate professor of marketing, organized and presented a workshop on "Helping Professional Sales Teams Self-Discover More Ethical Selling Practices" at the 2003 Joint Conference of the Institute for the Study of Business Markets and the Center for Business and Industrial Markets in Orlando, Feb. 14–17.

Publications

Asma Afsaruddin, assistant professor of Arabic and fellow in the Kroc Institute, published the entries "*Muhammad Ibn al-Qasim*," "*Naqshbandiya*," and "*Qadiriyya*" in the *Encyclopedia of Modern Asia*, D. Levinson and K. Christensen, eds. (New

York: Berkshire Publishing Group, 2002), v. 3, p.2; v. 4, pp. 283–284; v. 5, p. 21.

Panos J. Antsaklis, the Brosey Professor of Electrical Engineering and director of the Center for Applied Mathematics, published "Optimal Control of Switched Systems via Nonlinear Optimization Based on Direct Differentiations of Value Functions" with X. Xu, *International Journal of Control,* special issue on "Switched, Piecewise and Polytopic Linear Systems" 75, No. 16/17 (2002): 1406–1426; "Synthesis of Deadlock Prevention Supervisors Using Petri Nets" with M.V. Iordache and J.O. Moody, *IEEE Transactions on Robotics and Automation* 18, No. 1 (2002): 59–68; "Design of Stabilizing Switching Control Laws for Discrete and Continuous-Time Linear Systems Using Piecewise-Linear Lyapunov Functions" with X.D. Koutsoukos, *International Journal of Control*, 75, No. 12 (2002): 932–945; "A Practical Controller for Explicit Rate Congestion Control" with K.P. Laberteaux and C.E. Rohrs, "Special Issue on Systems and Control Methods for Communication Networks," W. Gong and T. Basar, eds., *IEEE Transactions on Automatic Control* 47, No. 6 (June): 960–978; "An Adaptive Inverse Controller for Explicit Rate Congestion Control with Guaranteed Stability and Fairness" with K.P. Laberteaux and C.E. Rohrs, *International Journal of Control* 76, No. 1 (2003): 24–47; "Synthesis of Supervisors Enforcing General Linear Vector Constraints in Petri Nets" with M.V. Iordache, *Proceedings of the 2002 American Control Conference, Anchorage, Alaska, May 8–10, 2002*: 154–159; "An Approach to Optimal Control of Switched Systems with Internally Forced Switchings" with X. Xu, *ibid.*: 148–153; "HySTAR: A Toolbox for Hierarchical Control of Piecewise Linear Hybrid Dynamical Systems" with H. Lin, *ibid.*: 686–691; "An Approach to Switched Systems Optimal Control Based on Parameterization of the Switching Instants" with X. Xu, *Proceedings of the 2002 IFAC 15th World Congress, Barcelona, Spain, July 21–26, 2002*; "Hierarchical Control for a Class of Uncertain Piecewise Linear Hybrid Dynamical Systems" with H. Lin and X.D. Koutsoukos, *ibid.;* "Model-Based Networked Control Systems-Necessary and Sufficient Conditions for Stability" with L.A. Montestruque, *Proceedings of the 10th Mediterranean Conference on Control and Automation (MED'02), Lisbon, Portugal, July 9–12, 2002*; and "An Approach to General Switched Linear Quadratic Optimal Control Problems with State Jumps" with X. Xu, *Proceedings of the 15th International Symposium on Mathematical Theory of Networks and Systems (MTNS 2002), Univ. of Notre Dame, Aug. 12–16, 2002.*

Gary H. Bernstein, professor and associate chair of electrical engineering, chaired a session at the Nanomes 2003 conference, Tempe, Feb. 17–21, where he presented "Experimental Progress in Quantum-dot Cellular Automata," co-written with R.K. Kummamuru, **Alexi O. Orlov**, research associate professor of electrical engineering, R. Ramasubramaniam, **Craig S. Lent**, professor of electrical engineering, and **Gregory L. Snider**, associate professor of electrical engineering. He also co-wrote "Application of Magnetic Rings for Field-Coupling Computing," presented at the same conference by G. Csaba, A. Imre, **Wolfgang Porod**, the Freimann Professor of Electrical Engineering and director of the Center for Nano Science and Technology, and V. Metlushko.

Denis A. Goulet, the O'Neill Professor Emeritus in Education for Justice, Dept. of Economics, and Kellogg and Kroc Institutes fellow, published "*A Natureza Evolutiva do Desenvolvimento à Luz da Globalização*" in *Cadernos de Estudos Sociais* 18, No. 1 (Jan./Jun., 2002): 35–51.

Dirk M. Guldi, professional specialist in the Radiation Laboratory, published "Photoactive Nanowires in Fullerene-Ferrocene Dyad Polyelectrolyte Multilayers" with C. Luo, D. Koktysh, N.A. Kotov, T. Da Ros, S. Bosi, and M. Prato, *Nano Letters* 2, No. 7 (2002): 775–780; "A Helical Peptide Receptor for [60]Fullerene" with A. Bianco, C. Corvaja, M. Crisma, M. Maggini, E. Sartori, and C. Toniolo, *Chemistry, A European Journal* 8, No. 7 (2002): 1544–1553; "Fullerenes (C60) versus Heteroazafullerenes (C59N): A Photophysical Comparison of their Monoadducts and Hexaadducts" with F. Hauke and A. Hirsch, *Research on Chemical Intermediates* 28, No. 7–9 (2002): 817–830; "C60 in the Box. A Supramolecular C60-Porphyrin Assembly" with T. Da Ros, P. Braiuca, M. Prato, and E. Alessio, *Journal of Materials Chemistry* 12 (2002): 2001–2008; "Comparison of Reorganization Energies for Intra- and Intermolecular Electron Transfer" with H. Imahori, H. Yamada, Y. Endo, A. Shimomura, S. Kundu, K.Yamada, T. Okada, Y. Sakata, and S. Fukuzumi, *Angewandte Chemie - International Edition* 41, No. 13 (2002): 2344–2347; and "Supramolecular Assembly of a Quasi-Linear Heterofullerene-Porphyrin Dyad" with F. Hauke, A. Swartz, and A. Hirsch, *Journal of Materials Chemistry* 12 (2002): 2088–2094.

Linda Gutierrez, professional specialist in the College of Science, published "Thrombospondin 1—A Regulator of Adenoma Growth and Carcinoma Progression in the APC$^{Min/+}$ Mouse Model" with **Mark Suckow**, director and research associate professor in the Freimann Life Science Center, J. Lawler, **Victoria A. Ploplis**, research professor of chemistry and biochemistry and associate director of the Keck Center for Transgene Research, and **Francis J. Castellino**, dean emeritus of Science and the Kleiderer-Pezold Professor of Chemistry and Biochemistry, *Carcinogenesis* 24 (2003): 199–207.

Dennis C. Jacobs, professor of chemistry and biochemistry, published "Dynamical Study of Ion-Beam Oxidation: Incorporation of Hyperthermal Oxygen Ions into Silicon Oxide Thin Films" with T. Tzvetkov and X. Qin, *Physical Review B* 67 (2003): 075418-1–7.

Scott P. Mainwaring, Kellogg and Kroc Institutes fellow and the Conley Professor of Political Science, published "The Political Recrafting of Social Bases of Party Competition: Chile, 1973–95," written with M. Torcal, in the *British Journal of Political Science* 33 (2003): 55–84; and "*Objetivos de los partidos bajo regimenes autoritarios con elecciones o democracias fragiles: Un juego dual*" in *Sociologica* 17, No. 48 (2002): 243–271.

Timothy Matovina, associate professor of theology and director of the Cushwa Center, published "A Fundamental Gap" in *America* 188, No. 9 (March 17).

Lenny Moss, assistant professor of philosophy and Nanovic and Reilly Center fellow, published *What Genes Can't Do* (Cambridge, Mass.: The MIT Press, 2003) and "From Representational Preformationism to the Epigenesis of Openness to the World? Reflections on a New Vision of the Organism" in *From Epigenesis to Epigenetics: The Genome in Context, Annals*

of the New York Academy of Sciences 981 (2002): 219–230.

Daniel J. Myers, associate professor of sociology and Kroc Institute fellow, published "Networks, Diffusion, and Cycles of Collective Action" with P.E. Oliver, *Social Movements and Networks: Relational Approaches to Collective Action,* M. Diani and D. McAdam, eds. (Oxford: Oxford Univ. Press, 2003); and "The Coevolution of Social Movements" with P.E. Oliver, *Mobilization* 8 (2003): 1–24.

Walter Nugent, the Tackes Professor of History Emeritus, coedited with M. Ridge *Going Places: Transportation Redefines the Twentieth-Century West,* by A. Schwantes, and *The Bad City in the Good War: San Francisco, Los Angeles, Oakland, and San Diego,* by R.W. Lotchin, both of which are in the series *The American West in the Twentieth Century* (Indiana Univ. Press).

William O'Rourke, professor of English, wrote "Edward Dahlberg: 1900–1977," published in *Published and Perished,* S. Gilbar and D. Stewart, eds. (Boston: David R. Godine, 2002): 149–152.

John H. Robinson, associate dean for Academic Affairs and associate professor of law, wrote (with R.M. Berry) "Unraveling the Codes: The Dialectic Between Knowledge of the Moral Person and Knowledge of the Genetic Person in Criminal Law," chapter 14 of *Mutating Concepts, Evolving Disciplines: Genetics, Medicine, and Society* 75 (Kluwer Academic Publishers, 2002).

Valerie Sayers, professor of English, published reviews of *A Burning in Homeland* by R. Yancey in the *New York Times Book Review,* March 2, 2003; *The Crazed* by H. Jin in *Commonweal,* Feb. 14; *Girl Meets God* by L. Winner in *Commonweal,* Nov. 8; and *Caramelo* by S. Cisneros, in the *New York Times Book Review,* Sept. 29.

Slavi C. Sevov, professor of chemistry and biochemistry, published "$[MO_5{}^{V}MO_7{}^{VI}O_{30}(BPO_4)_2(O_3P\text{-}Ph)_6]^{5-}$: A Phenyl-Substituted Molybdenum(V/VI) Boro-Phosphate Polyoxometalate" with C. Sassoye and K. Norton, *Inorganic Chemistry* 42 (2003): 1652–1655.

Tomohiro Shibata, research assistant professor of physics, published "Photoinduced Transformations at Semiconductor/Metal Interfaces: X-ray Absorption Studies of Titania/Gold Films" with V. Subramanian, D. Lahiri, **Eduardo E. Wolf**, professor of chemical engineering, **Bruce A. Bunker**, chair and professor of physics, and **Prashant V. Kamat**, professional specialist in the Radiation Laboratory, *Journal of Applied Physics* 93, No. 5 (2003): 2575–2582.

Daniel T. Simon, professor of accountancy, published "Audit Markets in Emerging Economies—Evidence from Nigeria" with M.H. Taylor in *Research in Accounting in Emerging Economies* 5, R.S.O. Wallace, et al., eds. (Amsterdam: JAI, 2003): 165–175.

Bradley D. Smith, professor of chemistry and biochemistry, published "Text-Rev: A Window into How General and Organic Chemistry Students Use Textbook Resources" with **Dennis C. Jacobs**, professor of chemistry and biochemistry, *Journal of Chemical Education* 80 (January): 99–102.

Kathleen Sprows Cummings, professional specialist and associate director of the Cushwa Center and concurrent assistant professor of history, published a review titled "Builders and Shakers" of *Sisters: Catholic Nuns and the Making of America* (Saint Martin's Press) by J.J. Fialka, in *Commonweal* (March 14).

John A. Weber, associate professor of marketing, published "Helping Professional Sales Teams Self Discover More Ethical Selling Practices" in the *Proceedings of the 2003 Joint Conference of the Institute for the Study of Business Markets and the Center for Business and Industrial Markets,* at http://www.smeal.psu.edu/isbm/seminars/ic03aca/weber.pdf.

Henry Weinfield, associate professor in the Program of Liberal Studies, published "'With Serpent Error Wand'ring Found Thir Way': Milton's Counterplot Revisited," *Milton Quarterly* 37, No. 1 (March): 11–20.

Research

Awards and Proposal Summary

02/01/2003 to 02/28/2003

Awards Received

Category	No.	Amount
Research	38	$3,596,261
Total:	**38**	**$3,596,261**

Proposals Submitted

Category	No.	Amount
Research	39	$10,108,836
Total:	**39**	**$10,108,836**

February 2003 Cumulative summary

Awards Received

	07.01.2000 - 02.28.2001		07.01.2001 - 02.28.2002		07.01.2002 - 02.28.2003	
Category	**No.**	**Amount**	**No.**	**Amount**	**No.**	**Amount**
Research	282	$39,439,676	253	$31,556,900	228	$36,340,662
Facilities and Equipment						
Instructional Programs	9	$870,726	9	$1,184,402	10	$1,333,710
Other Programs	1	$25,000				
Service Programs						
Total:	**292**	**$40,335,402**	**262**	**$32,741,302**	**238**	**$37,674,372**

Proposals Submitted

	07.01.2000 - 02.28.2001		07.01.2001 - 02.28.2002		07.01.2002 - 02.28.2003	
Category	**No.**	**Amount**	**No.**	**Amount**	**No.**	**Amount**
Research	403	$179,994,646	479	$169,656,133	389	$107,996,888
Facilities and Equipment						
Instructional Programs	1	$11,500	7	$4,663,018	7	$3,253,080
Other Programs						
Service Programs						
Total:	**404**	**$180,006,146**	**486**	**$174,319,151**	**396**	**$111,249,968**

All awards and proposals are credited in the Monthly Summaries report to the academic department of the primary principal investigator. The Office of Research proposal routing form asks principal investigators to indicate at the time the proposal is submitted which unit will be responsible for the conduct of the project. If that unit is a center or institute the proposal/award is included in the Centers/ Institutes report that is a subset of the Monthly Summaries report.

The Office of Research is doing what it can to ensure all units receive credit for the proposals/awards they submit and receive. However, it depends on the PI to properly identify responsibility for the project at the time the proposal is submitted. Please notify the Office of Research at research@nd.edu or 631-4670 if you are aware of any proposals or awards that have not been properly credited to a center or institute.

Awards Received

February 1, 2003, through February 28, 2003

Awards for Research

Aerospace and Mechanical Engineering

Bowling, Alan P.
CAREER: Agility in Legged Locomotion
National Science Foundation
$61,516 60 months

Renaud, John E. (Center or Institute)
Trust Region Meta-Model Management for the Design of a High Speed Supercavitating Vehicle
Department of Navy
$70,000 30 months

Biological Sciences

Boyd, Sunny K.
Contemporary Approaches to Endocrine Signaling
National Science Foundation
$11,160 12 months

Diffley, Peter
Beinecke Memorial Scholarship for Reanna A. Ursin
Private Funding
$3,750 61 months

Diffley, Peter
Beinecke Memorial Scholarship for Katherine Hennessey
Private Funding
$4,000 48 months

Diffley, Peter
Fellowship for David Maxwell
Private Funding
$21,072 96 months

Diffley, Peter
Fellowship for Thomas Butler
Private Funding
$21,072 96 months

Diffley, Peter
Beinecke Memorial Scholarship for Katherine Hennessey
Private Funding
$6,100 48 months

Diffley, Peter
Beinecke Memorial Scholarship for Reanna A. Ursin
Private Funding
$3,750 61 months

Diffley, Peter
Fellowship for Jonathon Couser
Private Funding
$21,072 96 months

Diffley, Peter
Fellowship for Rebecca Davis
Private Funding
$21,072 96 months

Diffley, Peter
Fellowship for J. Shrader
Private Funding
$21,072 96 months

Diffley, Peter
Beinecke Memorial Scholarship for Reanna A. Ursin
Private Funding
$3,750 61 months

Diffley, Peter
Beinecke Memorial Scholarship for Katherine Hennessey
Private Funding
$2,800 48 months

Diffley, Peter
Fellowship for James Rissler
Private Funding
$21,072 96 months

Diffley, Peter
Fellowship for Jonathan Lyon
Private Funding
$21,072 96 months

Vaughan, Kevin T.
Visual Cell, Pigment Cell Interface, and Disk Turnover
Medical College of Wisconsin
$31,727 12 months

Whaley, Michelle A.
REU Site Program for Undergraduate Research in Cellular and Molecular Biology
National Science Foundation
$61,486 36 months

Chemistry and Biochemistry

Fehlner, Thomas P.
International: Novel Metallaborane Chemistry. A Combined Experimental and Theoretical Study
National Science Foundation
$22,590 36 months

Hartland, Gregory V.
Material Properties of Nanospheres and Nanorods Studied by Time-Resolved Spectroscopy
National Science Foundation
$125,400 36 months

Helquist, Paul (Center or Institute)
Asymmetric Synthesis of Nitrogen-Containing Organic Compounds
Corporate Funding
$20,000 36 months

Jacobs, Dennis C.
MURI Center for Materials Chemistry in the Space Environment
University of Chicago
$147,185 31 months

Rosen, Elliot D. (Center or Institute)
Coagulation Initiation In FVll Deficient Mice
National Institutes of Health
$284,875 12 months

Taylor, Richard E. (Center or Institute)
Design and Synthesis of Epothilone Analogs
Corporate Funding
$150,000 24 months

Civil Engineering and Geological Sciences

Burns, Peter C.
U(VI) Subsurface Chemistry in Hanford's Tank Farms
Private Funding
$80,000 12 months

Kareem, Ahsan
Characterization, Modeling, and Simulation of Transient Hurricane Loads
University of Florida
$55,000 6 months

Westerink, Joannes J.
Hydrodynamic Modeling of Flooding Events in Southern Louisiana
Louisiana State University
$77,415 48 months

The Classics

Afsaruddin, Asma
Striving in the Path of God: Discursive Traditions on Jihad and the Cult of Martyrdom
Private Funding
$29,640 12 months

Electrical Engineering

Antsaklis, Panos J.; Lemmon, Michael D.; Haeggi, Martin
Real-Time Reconfiguration of Networked Embedded Systems
Air Force Research Lab/ARPA
$438,630 36 months

Antsaklis, Panos J.; Lemmon, Michael D.
Supervisory Control of Networked Control Systems
Department of Army
$44,270 28 months

Porod, Wolfgang; Lent, Craig S.
Nanoelectronics
Arizona State University
$139,726 68 months

Freimann Animal Care Facility

Jain, Jinesh C.; Suckow, Mark A. (Center or Institute)
Calcification Potential of Biomaterials
Corporate Funding
$20,016 6 months

Kroc Institute for International Peace Studies

Appleby, Robert S.; Orozco-Abad, Ivan (Center or Institute)
Transition to Peace in Columbia: Between Justice and Reconciliation
Private Funding
$40,000 11 months

Physics

Barabási, Albert-Lászlo
The Topologic Properties of Metabolic Networks
National Institutes of Health
$452,740 24 months

Sapirstein, Jonathan R.
Weak and Electromagnetic Radiative Corrections in Atomic Physics
National Science Foundation
$41,776 48 months

Political Science

Hagopian, Frances; Schierling, Sharon K. (Center or Institute)
Kellogg Religion Initiative Workshop
Private Funding
$15,000 12 months

Psychology

Gondoli, Dawn M.
Parenting Stability and Change During Early Adolescence
National Institutes of Health
$74,250 12 months

Theology

Cavadini, John C. (Center or Institute)
Sustaining Excellence in Episcopal Ministry
Private Funding
$930,205 61 months

Proposals Submitted

February 1, 2003, through February 28, 2003

Proposals for Research

Aerospace and Mechanical Engineering

Bowling, Alan P.
Controller for Agility in Legged Locomotion
Oak Ridge Associated Universities
$5,000 7 months

Goodwine, John W.
Robust Nonlinear Cooperative Robotic Manipulation
Indiana Space Grant Consortium
$10,000 7 months

Jumper, Eric J.; Corke, Thomas C.
Development of Plasma-Based Actuators and Employment Techniques on Aerodynamic Surfaces
U.S. Air Force Academy
$70,000 12 months

Nelson, Robert C.
Study of Aircraft Wake Turbulence and Its Impact on Flight Safety
Indiana Space Grant Consortium
$5,000 12 months

Ovaert, Timothy C.; Renaud, John E.
Reliability-Based Design Optimization of Tailored Multi-Layer Coating Architectures
National Science Foundation
$311,817 36 months

Stanisic, Michael M.
Preliminary Analysis of an Advanced Humanoid Shoulder Complex
Indiana Space Grant Consortium
$10,000 12 months

Anthropology

Chesson, Meredith S.
Final Publication of Excavations at Tell el-Handaquq Jordan
Private Funding
$29,735 12 months

Biological Sciences

Collins, Frank H.
Malaria Control by Genetic Manipulation of Vectors
National Institutes of Health
$710,857 12 months

Collins, Frank H.
Cloning of Plasmodium Refractoriness Genes in *A. gambiae*
National Institutes of Health
$300,088 12 months

McDowell, Mary A.
The Role of Complement Receptor 3 in Leishmaniasis
Private Funding
$50,000 12 months

Chemical Engineering

Brennecke, Joan F.
Subcontract from: Environmentally Benign Quaternary Ammonium-Based Room Temperature Ionic Liquids with Predictable Melting Points
Wesleyan University
$121,028 36 months

McGinn, Paul J.
Combinatorial Development of Catalysts for Use in Diesel Soot Particulate Traps Employing Microwave Heat
Corporate Funding
$60,000 6 months

Ostafin, Agnes E.; Chang, Hsueh-Chia
Chemiluminescenct Liposomes for the Detection of Lung Cancer
National Institutes of Health
$175,925 12 months

Palmer, Andre F.
REU Supplement: Engineering Artificial Cells
National Science Foundation
$13,800 3 months

Hartland, Gregory V.
Investigation of Size Dependent Properties of Metallic Nanoparticles
Private Funding
$16,000 24 months

Miller, Marvin J.
Centers of Excellence in Chemical Methodologies/Library Development
National Institutes of Health
$2,558,167 12 months

Civil Engineering and Geological Sciences

Burns, Peter C.
Renewal of Direct Investigations of the Immobilization of Radionuclides
Department of Energy
$600,248 36 months

Burns, Peter C.
Quantifying and Predicting Reactive Transport of U(VI)
Lawrence Berkeley National Laboratory
$79,968 36 months

Kareem, Ahsan
Study of Load Effects on Structures Induced by Gust-Fronts
National Science Foundation
$283,656 36 months

Kurama, Yahya C.
REU Supplement 2003/ CAREER: Seismic Behavior and Design of Non-Emulative Precast Concrete Buildings with Supplemental Passive Energy Dissipation
National Science Foundation
$10,000 12 months

Neal, Clive R.
Evolution of the Hawaiian Plume: Assessing the Roles of Different Source Components Over Time
National Science Foundation
$241,536 36 months

Computer Science and Engineering

Brockman, Jay B.
ITR Collaborative Research: Programming, Compilation, and Runtime Support for Processing-In-Memory Based Parallel Architectures
National Science Foundation
$765,650 36 months

Electrical Engineering

Bauer, Peter H.
Collaborative Research: Distributed Information Fusion Networks for Threat Detection and Assessment
National Science Foundation
$325,191 36 months

Laneman, J.N.
Source-Channel Diversity Methods for Wireless Communications
Oak Ridge Associated Universities
$5,000 12 months

Institute for Latino Studies

Brown-Gort, Allert R.; Lafield, Karen; Garcia, Alma C.
Integration and Return of Highly Skilled Forced Migrants to the United States: The Case of Colombia
Private Funding
$100,000 12 months

Mathematics

Alber, Mark S.; Maurice, Patricia A.; Madey, Gregory R.; Izaguirre, Jesus A.
E-Complexity: Scalable Data-Rich Multi-Scale Modeling for Biological Systems
Indiana University Bloomington
$880,000 48 months

Physics

Furdyna, Jacek K.
Spin-Based Photonics Via Electromagnetically-Induced Transparency
University of Oregon
$305,577 36 months

Ruggiero, Steven T.; Tanner, Carol E.
Tunnelling and Transport in Single Molecules
DARPA
$682,992 36 months

Political Science

Connolly, Barbara M.
Sustainable Development in a Global Economy: International Pressures, National Response
Private Funding
$75,000 18 months

Hagopian, Frances
Building Linkages, Promoting Social Service: U.S. Students, International Students, and Community Organizations
Private Funding
$1,997 12 months

Psychology

Boker, Steven M.
Dynamic Postural Equilibrium
National Institutes of Health
$89,685 12 months

Borkowski, John G.; Whitman, Thomas L.
Research Training in Mental Retardation
National Institutes of Health
$137,327 12 months

Gondoli, Dawn M.
Parenting Stability and Change During Early Adolescence
National Institutes of Health
$74,250 12 months

Smith, David A.
Depression, Marital Discord, and Inter-Spousal Criticism
National Institutes of Health
$74,250 12 months

Radiation Laboratory

LaVerne, Jay A.; Pimblott, Simon M.
Hazardous and Corrosive Gas Production in the Radiolysis of Water/Organic Mixtures in Model TRU Waste
Department of Energy
$691,730 36 months

Sociology

Halton, Eugene W.
How has a Chinese Village become Catholic? Local Culture and the Inculturation of Catholicism in Northern China
National Science Foundation
$7,480 12 months

LeClere, Felicia B.
Past Socioeconomic Status/Position (SES) and Income Dynamics in Studies of Black/White Disparities in Low Birth Weight(LBW)
University of California, San Francisco
$73,779 12 months

Welch, Michael R.; McVeigh, Rory M.
Structural Determinants of Hate Crime Reporting: A County-Level Approach for Identifying Under-Reporting of Bias Crimes
National Institute of Justice
$35,475 12 months

Theology

Matovina, Timothy M.
Catholicism in U.S. History
National Endowment for the Humanities
$120,628 15 months

Awards and Proposal Summary

Centers and Institutes Report

02/01/2003 to 02/28/2003

Awards Received

Department or Office	No.	Amount
Center for Flow Physics and Control	1	$70,000
Center for Orphan Drug Development	1	$20,000
Center for Transgene Research	1	$284,875
Freimann Life Science Center	1	$20,016
Institute for Church Life	1	$930,205
Kellogg Institute for International Studies	1	$15,000
Kroc Institute for International Peace Studies	1	$40,000
Walther Cancer Research Center	1	$150,000
Total:	**8**	**$1,530,096**

Proposals Submitted

Department or Office	No.	Amount
Center for Flow Physics and Control	1	$70,000
Center for Molecularly Engineered Materials	2	$73,800
Center for Tropical Disease Research & Training	3	$1,060,945
Cushwa Center for American Catholicism	1	$120,628
Institute for Latino Studies	1	$100,000
Kellogg Institute for International Studies	1	$1,997
Laboratory for Social Research	1	$73,779
Radiation Laboratory	1	$691,730
Total:	**11**	**$2,192,879**

Awards and Proposal Summary

Centers and Institutes Report

07/01/2002 to 02/28/2003

Awards Received

Department or Office	No.	Amount
Alliance for Catholic Education	2	$141,249
Center for Astrophysics	1	$17,928
Center for Environmental Science and Technology	1	$80,000
Center for Flow Physics and Control	12	$930,218
Center for Molecularly Engineered Materials	2	$33,500
Center for Orphan Drug Development	2	$40,000
Center for Transgene Research	4	$1,308,385
Center for Tropical Disease Research & Training	8	$4,205,700
Freimann Life Science Center	4	$38,536
Institute for Church Life	1	$930,205
Institute for Latino Studies	5	$719,512
Interdisciplinary Center for the Study of Biocomplexity	2	$15,000
Kellogg Institute for International Studies	4	$232,218
Keough Institute for Irish Studies	1	$107,694
Kroc Institute for International Peace Studies	2	$55,000
Nano Science and Technology Center	12	$2,171,942
Nanovic Institute	1	$13,245
Radiation Laboratory	3	$530,000
South Bend Center for Medical Education	1	$243,855
TRIO Programs	3	$1,065,595
Walther Cancer Research Center	1	$150,000
Total:	**72**	**$13,029,782**

Proposals Submitted

Department or Office	No.	Amount
Center for Astrophysics	4	$1,773,852
Center for Flow Physics and Control	7	$2,609,348
Center for Molecularly Engineered Materials	11	$5,977,194
Center for Transgene Research	7	$4,512,614
Center for Tropical Disease Research & Training	14	$3,057,700
Center for Zebrafish Research	1	$334,125
Cushwa Center for American Catholicism	2	$150,628
Environmental Molecular Science Institute	2	$435,062
Freimann Animal Care Facility	1	$5,020
Freimann Life Science Center	3	$2,144,524
Higgins Labor Research Center	1	$12,500
Institute for Educational Initiatives	1	$204,988
Institute for Latino Studies	10	$604,487
Interdisciplinary Center for the Study of Biocomplexity	2	$762,384
Kellogg Institute for International Studies	5	$1,740,555
Kroc Institute for International Peace Studies	1	$15,000
Laboratory for Social Research	2	$321,771
Lobund Laboratory	1	$513,280
Mendelson Center for Sports, Character, & Community	1	$14,866
Nano Science and Technology Center	45	$24,804,934
Nanovic Institute	2	$16,176
Office of Special Instructional Projects and Activities	1	$1,625,789
Program of Liberal Studies	1	$103,591
Radiation Laboratory	4	$1,071,319
South Bend Center for Medical Education	3	$395,500
Walther Cancer Institute Chair I	1	$194,955
Walther Cancer Research Center	7	$3,133,815
Total:	**140**	**$56,535,977**

Awards Received

February 1, 2003, through February 28, 2003

Awards for Research

Center for Flow Physics and Control

Trust Region Meta-Model Management for the Design of a High Speed Supercavitating Vehicle
Department of Navy
$70,000 30 months

Center for Orphan Drug Development

Asymmetric Synthesis of Nitrogen-Containing Organic Compounds
Corporate Funding
$20,000 36 months

Center for Transgene Research

Coagulation Initiation In FVII Deficient Mice
National Institutes of Health
$284,875 12 months

Freimann Life Science Center

Calcification Potential of Biomaterials
Corporate Funding
$20,016 6 months

Institute for Church Life

Sustaining Excellence in Episcopal Ministry
Private Funding
$930,205 61 months

Kellogg Institute for International Studies

Kellogg Religion Initiative Workshop
Private Funding
$15,000 12 months

Kroc Institute for International Peace Studies

Transition to Peace in Columbia: Between Justice and Reconciliation
Private Funding
$40,000 11 months

Walther Cancer Research Center

Design and Synthesis of Epothilone Analogs
Corporate Funding
$150,000 24 months

Proposals Submitted

February 1, 2003, through February 28, 2003

Proposals for Research

Center for Flow Physics and Control

Development of Plasma-Based Actuators and Employment Techniques on Aerodynamic Surfaces
U.S. Air Force Academy
$70,000 12 months

Center for Molecularly Engineered Materials

Combinatorial Development of Catalysts for Use in Diesel Soot Particulate Traps Employing Microwave Heat
Corporate Funding
$60,000 6 months

REU Supplement: Engineering Artificial Cells
National Science Foundation
$13,800 3 months

Center for Tropical Disease Research and Training

The Role of Complement Receptor 3 in Leishmaniasis
Private Funding
$50,000 12 months

Cloning of Plasmodium Refractoriness Genes in *A. gambiae*
National Institutes of Health
$300,088 12 months

Malaria Control by Genetic Manipulation of Vectors
National Institutes of Health
$710,857 12 months

Cushwa Center for American Catholicism

Catholicism in U.S. History
National Endowment for the Humanities
$120,628 15 months

Institute for Latino Studies

Integration and Return of Highly Skilled Forced Migrants to the United States: The Case of Colombia
Private Funding
$100,000 12 months

Kellogg Institute for International Studies

Building Linkages, Promoting Social Service: U.S. Students, International Students, and Community Organizations
Private Funding
$1,997 12 months

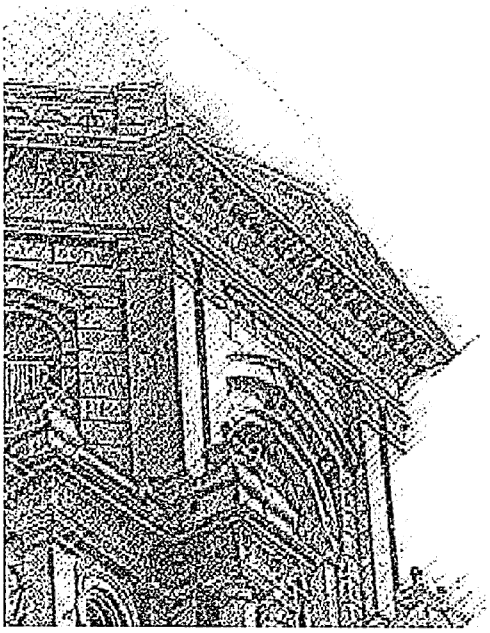
Laboratory for Social Research

Past Socioeconomic Status/Position (SES) and Income Dynamics in Studies of Black/White Disparities in Low Birth Weight(LBW)
University of California, San Francisco
$73,779 12 months

Radiation Laboratory

Hazardous and Corrosive Gas Production in the Radiolysis of Water/Organic Mixtures in Model TRU Waste
Department of Energy
$691,730 36 months

Notre Dame Report



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