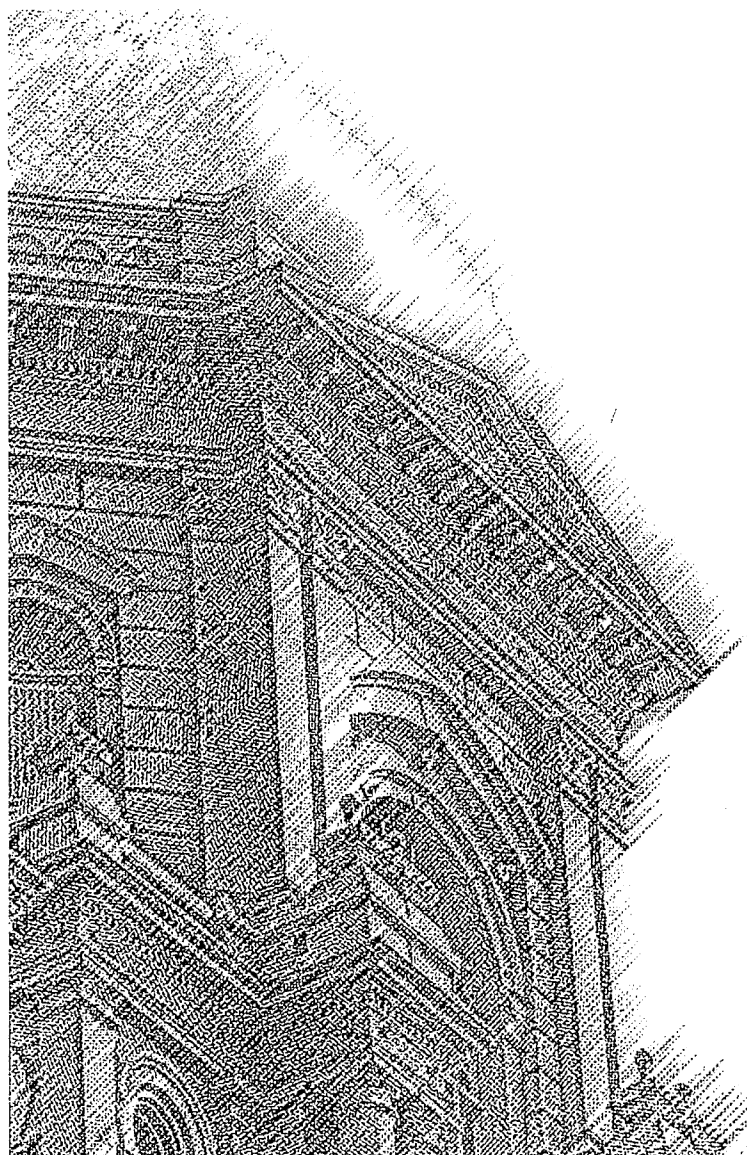


# Notre Dame Report

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N U M B E R 6

# Faculty Notes

## Honors

**Kathleen Biddick**, professor of history, and **Robert Nelson**, professor and chair of aerospace and mechanical engineering, received Fulbright Scholar grants from the U.S. Department of State and the J. William Fulbright Foreign Scholarship Board.

**Thomas L. Shaffer**, Short Professor Emeritus of Law, received an Exceptional Service Award from the agencies administering two *pro bono* programs at the meeting of the St. Joseph County Bar Association, South Bend, Oct. 7.

**J. Kerry Thomas**, Nieuwland Professor Emeritus of Chemistry and Biochemistry, has been named to the steering and organizing committee for the next International Meeting on Radiation Effects in Polymers, to be held in 2004.

## Activities

**Ani Aprahamian**, professor of physics, chaired the session on "Structure of Light Nuclei" at the International Conference on Frontiers of Nuclear Structure, Berkeley, July 29 through Aug. 2; gave the invited talk "Nuclear Masses in Nucleosynthesis" at the Symposium in Honor of Daeg Brenner at the 224th ACS National Meeting, Boston, Aug. 20; gave the invited talk "Nuclear Structure Effects in Astrophysics" at the 11th International Symposium on Capture Gamma-Ray and Related Topics, Prohonice, Czech Republic, Sept. 1-4; and chaired the session on "Nuclear Astrophysics I" at the 11th International Conference on Capture  $\gamma$ -rays and Related Topics, Prague, Sept. 1-6.

**Dinshaw S. Balsara**, assistant professor of physics, presented "Divergence-free Adaptive Mesh Refinement for Magnetohydrodynamics," an invited talk, at the Workshop on Multidimensional Schemes, Bordeaux, France, June 12; "Protostellar Core Collapse and Fragmentation Using AMR-MHD Simulations" an invited talk, at Star Formation '02 Conference, Taiwan, June 18; and "AMR-MHD in Computational Astrophysics," an invited talk, at the IAU Symposium on Numerical Simulations in Astronomy, Tokyo, July 5.

**Alan Bowling**, assistant professor of aerospace and mechanical engineering, presented "Actuator Selection for Desired Dynamic Performance" at the IEEE/RSJ International Conference on Intelligent Robots and Systems, Lausanne, Switzerland, on Oct. 4.

**Seth Brown**, associate professor of chemistry and biochemistry, presented an invited seminar "Alkene Activation by Osmium Nitrides" at Rutgers Univ., New Brunswick, N.J., Oct. 15.

**Patricia L. Clark**, Luce Assistant Professor of Chemistry and Biochemistry, presented "Hysteresis in the Folding/Unfolding of a Monomeric Single-Domain" at the 16th annual Gibbs Conference on Biothermodynamics in Carbondale, Ill., Sept. 28 through Oct. 1.

**James H. Davis**, associate professor of management and administrative sciences, along with D. Vollrath and S. Fankforter, presented "Chief Executives as Agents and/or Stewards: CEO and Director Perceptions" at the meeting of the Strategic Management Society, Paris, Sept. 23; and, with M. Lee, and J. Ruhe, presented "Trust and the Perception of Marketing Channels—An Empirical Study in Taiwan" at the meeting of the Society for Marketing Advances, Heidelberg, June 21.

**Mara Faccio**, assistant professor of finance and business economics, presented "Politically Connected Firms: Can They Squeeze the State?" at the METU International Conference in Economics (Ankara), in Sept., where she was an invited speaker, and at Indiana Univ., in April; "Benefits of Control? Evidence From Western European Acquisitions," coauthored with J.J. McConnell and D. Stolin, at the Western Finance Association, Park City, in June, and at the IESE Business School conference on "European M&As, Corporate Restructuring and Consolidation Issues" (Barcelona), in April; and coauthored "Debt, Agency Costs and Institutions" with L.H.P. Lang and L. Young, which was presented at the Mitsui Life Symposium on Global Financial Markets, Tokyo, in September.

**Umesh Garg**, professor of physics, presented a series of lectures on "Lifetime Measurements Using Large Arrays" at the School-cum-Workshop on Computations in Investigations of High Spin

States, Kolkata, India, Sept. 28 through Oct. 2.

**Peter Garnavich**, assistant professor of physics, presented "The Future of Supernova Research," an invited talk, at the Hubble Legacy Workshop, Univ. of Chicago, Apr. 21; and "Optical Afterglows of Gamma-ray Bursts," an invited talk, at the Univ. of Michigan, Ann Arbor, Sept. 19.

**Thomas Gresik**, professor of finance and business economics, and **Richard Jensen**, concurrent professor of economics, hosted the Midwest Economic Theory and International Economics meetings, Oct. 18-20.

**Paul W. Huber**, associate professor of chemistry and biochemistry, presented the seminar "Localization and Translational Control of Vg1 mRNA in *xenopus* Oocytes" at the Univ. of Michigan School of Medicine, Ann Arbor, Oct. 22.

**William D. McGlinn**, professor emeritus of physics, gave the invited talk "The O'Raifeartaigh Theorem" at the O'Raifeartaigh Memorial Conference, Dublin Institute for Advanced Studies, Sept. 26-28.

**Dan Meisel**, director of the Radiation Laboratory, and professor of chemistry and biochemistry, served on the External Advisory Board of the Environmental Catalysis Institute at Northwestern Univ., Evanston, during its semiannual review on Sept. 11-12; and presented a seminar on "Size Effects in Core-Shell Nanoparticles" at Andrews Univ., Berrien Springs, Mich., Oct. 10.

**Kajal Mukhopadhyay**, research assistant professor and associate director in the Laboratory for Social Research and concurrent assistant professor of economics, presented "IT, Media, and Economic Growth" and chaired sessions in the Western Economic Association meetings, Seattle, June 30 through July 3.

**James S. O'Rourke IV**, associate professional specialist in management and administrative sciences, presented "Communication and Values: Principles for an Enduring Organization" at the Department of Aeronautics 50th Dining-In, United States Air Force Academy, Colorado Springs, Oct. 11; and "Corporate Communication and the Value of the Case Study Method" at the

College of Business Administration at California State Univ., Fullerton, Oct. 21.

**Margaret Shackell-Dowell**, assistant professor of accountancy, presented "Do Managers Use the Information That Their Incentive Plans Encourage?" and "Separating the E From the Commerce: The Relationship Between Routines and Stock Return Volatility for Internet IPOs," coauthored with **Glen Dowell**, assistant professor of management and administrative sciences, and N. Stuart, at the American Accounting Association annual meeting, San Antonio, Aug. 15 and 17; and had two papers presented by coauthors at the Frank Batten Young Scholars Forum in Accounting at The College of William and Mary, July 18-20: "Voted Off: Differences in Corporate Governance Characteristics Between Internet Survivors and Failures," coauthored with Glen Dowell and N. Stuart (presenter); and "Organizational Architecture in the New Economy: Some Evidence from Business-to-Consumer Internet Firms," coauthored with E. Demers, and S. Widener (presenter).

**Thomas L. Shaffer**, Short Professor Emeritus of Law, presented a lecture on ethics in estate planning by lawyers to the Fulton County Bar Association, Rochester, Ind., Aug. 22; and a lecture on moral reasons for providing free legal services to low-income clients to the St. Joseph County Bar Association, South Bend, Oct. 7.

**Richard Taylor**, associate professor of chemistry and biochemistry, presented an invited seminar "Conformation-Activity Relationships in Polyketide Natural Products" at Colorado State Univ., Fort Collins, Oct. 6.

**Anthony M. Trozzolo**, Huisling Professor Emeritus of Chemistry, presented the invited lecture "Origins of Modern Photochemistry in Italy. A Lot of Bologna" as the American Chemical Society Rocky Mountain Lecturer for September before the Colorado and Wyoming ACS Sections, Fort Collins, Colo., Sept. 24, and the Idaho ACS Section, Pocatello, Sept. 26.

**Olaf Wiest**, associate professor of chemistry and biochemistry, presented an invited talk "Case Studies in Drug Design" at Danish Technical Univ., Lyngby, Denmark, and "Computational

Studies of DNA Photolyase at the Swedish Chemical Society, Univ. of Uppsala, Sweden.

## Publications

**Ani Aprahamian**, professor of physics, coauthored "Gamma-ray Spectroscopy With a Low-energy  $^6\text{He}$  Radioactive Ion Beam" with S.M. Vincent, **James J. Kolata**, professor of physics, **Larry O. Lamm**, research associate professor of physics, V. Guimaraes, R.D. deHaan, D. Peterson, P. Santi, A. Teymurazyan, F.D. Becchetti, T.W. O'Donnell, M. Lee, D. Roberts, J. Zimmerman, and J.A. Brown, published in *Nuclear Instruments and Methods in Physics Research, Section A* 491 (2002): 426-436.

**Alan Bowling**, assistant professor of aerospace and mechanical engineering, coauthored "Actuator Selection for Desired Dynamic Performance" with Oussama Khatib, *Proceedings IEEE/RSJ International Conference on Intelligent Robots and Systems* (2002): 1966-1973.

**Peter Garnavich**, assistant professor of physics, coauthored "The Optical Afterglow of the Gamma-ray Burst GRB 011211" with S. Holland, I. Soszynski, M. Gladders, L. Barrientos, P. Berlind, D. Bersier, S. Jha, and K.Z. Stanek, in *The Astronomical Journal* 124 (2002): 639-645; "Superhumps in the Helium Dwarf Nova KL Draconis" with M. Wood, M. Casey, and B. Haag, in *Monthly Notices of the Royal Astronomical Society* 334 (2002): 87-93; "Supernova 1998b2—The Final Phases" with J. Sollerman, S.T. Holland, P. Challis, C. Fransson, R.P. Kirshner, C. Kozma, B. Leibundgut, P. Lundqvist, F. Patat, A.V. Filippenko, N. Panagia, and J.C. Wheeler, *Astronomy and Astrophysics* 386 (2002): 944-956; "Optical Spectral Monitoring of XTE J1118+480 in Outburst: Evidence for Precessing Accretion Disk?" with M.A.P. Torres, P.J. Callanan, M.R. Garcia, J.E. McClintock, Z. Balog, P. Berlind, W.R. Brown, M. Calkins, and A. Mahdavi, *The Astrophysical Journal* 569 (2002): 423-431; and "Kinematics of the HH 111 Jet From the Space Telescope Imaging Spectrograph" with A.C. Raga, A. Noriega-Crespo, B. Reipurth, S. Heathcote, K.H. Bhm, and S. Curiel, *The Astrophysical Journal Letters* 565 (2002): 29-33.

**Teresa Ghilarducci**, associate professor of economics and director of the Higgins Labor Research Center, published "Forget Retirement; Get to Work!" in *American Prospect* 13, No. 17 (Sept. 6).

**Kevin Hart**, professor of English, reviewed *Gnostic Return in Modernity* by C. O'Regan, *The Journal of Religion* 82, No. 4 (Oct.): 643-645.

**Hans G. Heidle**, assistant professor of finance, published "Information-Based Trading in Dealer and Auction Markets: An Analysis of Exchange Listings," *Journal of Financial and Quantitative Analysis* 37, No. 3 (Sept.): 391, coauthored with **Roger D. Huang**, Meyer Professor and chair, finance.

**Bei Hu**, professor of mathematics, coauthored "Mathematical Analysis of a Model for the Initiation of Angiogenesis" with M.A. Fontelos and A. Friedman, *SIAM Journal on Mathematical Analysis* 33, No. 6 (2002): 1330-1355.

**Gordon L. Hug**, associate professional specialist in the Radiation Laboratory, coauthored "Spectral, Kinetics, and Theoretical Studies of Radical Cations Derived from Thioanisole and Its Carboxylic Derivative" with A. Korzeniowska-Sobczuk, **Ian Carmichael**, professional specialist in the Radiation Laboratory, and K. Bobrowski, *Journal of Physical Chemistry A* 106, No. 40 (2002): 9251-9260.

**Edward F. Hums**, adjunct assistant professor of accountancy, published "Class One Classwork at Notre Dame," *Railway Age* 23, No. 6 (June): 72.

**Encarnación Juárez**, assistant professor of Spanish, published "El discurso sartorial y el conflicto amoroso social en El caballero de Olmedo," *Bulletin of the Comediantes* 53 (2001): 247-266; and "The Autobiography of the Aching Body in Teresa de Cartagena's *Arboleda de los enfermos*" in *Enabling the Humanities*, B.J. Brueggemann, S.L. Snyder, and R. Garland, eds. (New York: MLA, 2002): 131-143.

**Lloyd H. Ketchum Jr.**, associate professor of civil engineering and geological sciences and Kellogg Institute fellow, coauthored "Corrosion Control Enhancement From a Dolomite-amended Slow Sand Filter" with S.J. Rooklidge, *Water Research* 36, No. 11 (June): 2689-2694.

**Anthony N. Michel**, Freimann Professor of Engineering, coauthored "Stability and  $L_2$  Gain Analysis for Switched Symmetric Time Delay Systems Under Arbitrary Switching" with G. Zhai, X. Chen, and Y. Sun, published in the *Proceedings of the IASTED International Conference on Intelligent Systems and Control*, M.H. Hamza, ed. (Tsuka, Japan: 2002): 239-244.

**Mark W. Roche**, O'Shaughnessy Dean and Joyce Professor of German Language and Literature, published "Hegel's Theory of Comedy in the Context of Hegelian and Modern Reflections on Comedy," *Revue Internationale de Philosophie* 56 (2002): 411-30 and "Allusions to and Inversions of Plato in Hölderlin's *Hyperion*," *Literary Friendship, Literary Paternity*, G. Richter, ed. (Chapel Hill: Univ. of North Carolina Press, 2002): 86-103.

**Thomas L. Shaffer**, Short Professor Emeritus of Law, published "American Legal Ethics" in *Theology Today* 59, No. 3 (Oct.): 369-383, and *Moral Memoranda From John Howard Yoder* (Eugene, Ore.: Wipf and Stock, 2002): 121 pp.

**Lee A. Tavis**, Smith Professor of Business Administration, recently published "Modern Contract Theory and the Purpose of the Firm, Rethinking the Purpose of Business" in *Interdisciplinary Essays from the Catholic Social Tradition* (Univ. of Notre Dame Press, 2002).

**David Yamane**, assistant professor of sociology, edited *Goodbye Father: The Celibate Male Priesthood and the Future of the Catholic Church*, by R.A. Schoenherr (Oxford Univ. Press, 2002).

## Departmental Awards Received and Proposals Submitted

SEPTEMBER 1, 2002 TO SEPTEMBER 30, 2002.

Category	AWARDS RECEIVED		PROPOSALS SUBMITTED	
	No.	Amount	No.	Amount
Research	24	\$5,626,277	73	\$18,097,555
Facilities and Equipment				
Instructional Programs				
Other Programs				
Service Programs				
Total	24	\$5,626,277	73	\$18,097,555

Category	FISCAL YEAR-TO-DATE CUMULATIVE AWARDS RECEIVED		PROPOSALS SUBMITTED	
	No.	Amount	No.	Amount
Research	93	\$20,315,442	140	\$36,590,009
Facilities and Equipment				
Instructional Programs	2	268,133	4	67,615
Other Programs				
Total	95	\$20,583,575	144	\$36,657,324

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, which 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 [research2@nd.edu](mailto:research2@nd.edu) or 1-4670 if you are aware of any proposals or awards that have not been properly credited to a center or institute.

## Awards Received

September 1, 2002 through September 30, 2002

### Awards for Research:

#### Aerospace and Mechanical Engineering

##### Corke, Thomas C. (Center or Institute)

University of Notre Dame/Northrop Grumman Corporation  
Joint Program in Aero-Optics

Corporation

\$25,000

3 months

##### Jumper, Eric J. (Center or Institute)

Active Flow Control for Tactical Optical Weapons Systems

Corporation

\$35,200

12 months

##### Jumper, Eric J. (Center or Institute)

Directed Energy Beam Improvement Using Flow Excitation  
(DEBI-FX)

Corporation

\$293,974

32 months

##### Mason, James J.

Thermomechanical Investigations of High Speed Machining  
of Aluminum

National Science Foundation

\$124,308

36 months

#### Biological Sciences

##### Duman, John G.

Structure/Function Studies of Antifreeze Proteins and their  
Enhancers from the Beetle *Dendriodes canadensis*

National Science Foundation

\$100,000

36 months

##### Hollocher, Hope

Genetic and Developmental Analysis of Hybrid Female  
Sterility Rescue Between *Drosophila Melanogaster* and  
*Drosophila Simulans*

National Science Foundation

\$60,311

12 months

##### Lodge, David M.; Lamberti, Gary A.

Ecological Forecasting

National Science Foundation

\$589,451

60 months

##### Severson, David W. (Center or Institute)

The *Aedes aegypti* Genome Project

National Institutes of Health

\$1,081,017

21 months

#### Chemical Engineering

##### Brennecke, Joan F.

Tuning the Solvent Strength of Ionic Liquids and Ionic  
Liquid-Supercritical Carbon Dioxide Solutions

Corporation

\$120,000

38 months

##### McCready, Mark J.; Brockman, Jay B.; Ostafin, Agnes E.; Palmer, Andre F.

Towards a New Chemical and Biomolecular Engineering  
Curriculum

National Science Foundation

\$269,581

36 months

#### Computer Science and Engineering

##### Flynn, Patrick; Bowyer, Kevin W.

Data Sets, Baseline Performance Reference Points, and  
Evaluation Metrics for Human ID: Subcontract to Notre  
Dame

University of South Florida

\$20,000

16 months

##### Lent, Craig S.; Kogge, Peter M.; Brockman, Jay B.

Memory Architectures in QCA

Corporation

\$60,000

36 months

##### Freeh, Vincent W.; Tynan, Renee O.; Madey, Gregory R.

Understanding Open Source Software Development

National Science Foundation

\$103,786

36 months

#### Electrical Engineering

##### Walvoord, Barbara E.; Costello, Daniel J.; Huang, Yih-Fang; Collins, Oliver M.; Fuja, Thomas E.

Real-World Wireless Communications in the Graduate and  
Undergraduate Curriculum

National Science Foundation

\$281,768

36 months

##### Antsaklis, Panos J.; Hu, Xiabo; Lemmon, Michael D.; Haenggi, Martin

*Ad hoc* Networks of Embedded Control Systems

National Science Foundation

\$150,000

24 months

**Government and International Studies****Kommers, Donald P.**

American Constitutionalism in Comparative Perspective  
National Endowment for the Humanities  
\$106,032 12 months

**Office of Information Technologies****Bellina, Brendan T.; Wishon, Gordon D.**

Supporting Research and Collaboration through Integrated  
Middleware  
Corporation  
\$11,047 10 months

**Physics****Barabási, Albert-László**

The Organization of Complex Metabolic Networks  
Department of Energy  
\$321,925 24 months

**Mathews, Grant J.; Wiescher, Michael C.; Aprahamian, Ani**

Collaboration Research of the Joint Institute for Nuclear  
Astrophysics  
National Science Foundation  
\$19,500 24 months

**Psychology****Borkowski, John G.**

Predicting and Preventing Neglect in Teen Mothers  
National Institutes of Health  
\$1,249,480 48 months

**Cummings, E. Mark**

Family Process, Emotional Security, and Child Adjustment  
University of Rochester  
\$153,897 44 months

**Sociology****Cárdenas, Gilberto (Center or Institute)**

IUPLR Latino HIV/AIDS Education and Promotion Project  
Health and Human Services  
\$150,000 42 months

**Cárdenas, Gilberto (Center or Institute)**

Children and Families in Latino Communities  
Private Foundation  
\$150,000 12 months

**Cárdenas, Gilberto (Center or Institute)**

Hispanic Access to Health Services  
Health and Human Services  
\$150,000 48 months

**Proposals Submitted**

September 1, 2002 through September 30, 2002

**Proposals for Research:****Aerospace and Mechanical Engineering****Corona, Edmundo; Mason, James J.**

Mass Production Methods for Bending of Laminated Steel  
National Science Foundation  
\$271,298 36 months

**Mueller, Thomas J.**

An Experimental Study of Trailing Edge Noise  
Department of Navy  
\$140,000 12 months

**Ovaert, Timothy C.; Maginn, Edward J.; Schmid, Steven R.**

Multi-Scale Investigation of Protein-On-Polyethylene Bio-  
Tribological Systems  
National Institutes of Health  
\$240,475 12 months

**Powers, Joseph M.; Paolucci, Samuel**

Multiscale Modeling of Combustion of Energetic Materials  
Los Alamos National Laboratory  
\$501,471 36 months

**Schmid, Steven R.; Niebur, Glen L.**

Collaborative Research: Forming and Cutting of Metal Foams  
National Science Foundation  
\$206,084 36 months

**Schmid, Steven R.**

GOALI: Suppression of Rolling Chatter with Emulsion  
Lubricants  
National Science Foundation  
\$143,674 36 months

**Anthropology****Sheridan, Susan G.**

Undergraduate Research in Biocultural Anthropology (REU  
Site)  
National Science Foundation  
\$239,152 36 months

**Art, Art History, and Design****Barber, Charles E.**

The Gift of Sight: An Investigation into the Nature of Vision  
in Eleventh-Century Byzantium

Private Foundation

\$65,000 9 months

**Barber, Charles E.**

The Gift of Sight: An Investigation into the Nature of Vision  
in Eleventh Century Byzantium

Private Foundation

\$40,000 9 months

**Barber, Charles E.**

The Gift of Sight

Private Foundation

\$36,000 9 months

**Gill, Meredith J.**

Augustine and the Renaissance

Private Foundation

\$30,000 9 months

**Gill, Meredith J.**

Augustine and the Renaissance

National Gallery of Art

\$33,000 9 months

**Rhodes, Robin F.**

Project for the Study and Publication of the Greek Stone  
Architecture of Corinth

Private Foundation

\$10,000 12 months

**Biological Sciences****Adams, John H.**

Analysis of MAEBL Expression in Malaria Sporozoites

National Institutes of Health

\$148,500 12 months

**D'Souza-Schorey, Crislyn**

The Role of ARF6 in Cell Division

Private Foundation

\$150,000 36 months

**D'Souza-Schorey, Crislyn**

The Role of ARF6 in Cell Division

Private Foundation

\$135,000 36 months

**D'Souza-Schorey, Crislyn**

The Role of ARF6 in Cell Division

Private Foundation

\$150,000 36 months

**Hellenthal, Ronald A.**

The Effects of Stream Restoration on Sediment Dynamics and  
Secondary Production of Benthic Invertebrates in a  
Northern Indiana Stream.

Indiana Academy of Science

\$1,946 12 months

**Hyde, David R.**

zASIP Protein in the Development of Retinal Lamination

National Institutes of Health

\$334,125 12 months

**McDowell, Mary A.**

Interleukin-12 Regulation in Leishmania Infected Human  
Dendritic Cells

National Institutes of Health

\$344,819 12 months

**Pollard, Morris**

Hypoxia and Tumor Development/Metastasis  
Corporation

\$513,280 24 months

**Welsh, JoEllen J.**

Novel Functions of VDR in Breast Cancer

Private Foundation

\$248,125 36 months

**Chemical Engineering****Chang, Hsueh-Chia**

Collaborative Research in Modeling, Simulations and  
Experiments of Elastic Complex Fluids

National Science Foundation

\$210,000 36 months

**Ostafin, Agnes E.**

Hydroxyapatite Nanospheres for Bone Marrow Targeted  
Drug Delivery

Private Foundation

\$25,000 12 months

**Chemistry and Biochemistry****Castellino, Francis J.**

Pathophysiologies Involving Hemostasis-Related Genes

National Institutes of Health

\$2,038,541 12 months



**Serianni, Anthony S.**

Glucose Modification of Proteins in Diabetic Nephropathy  
Vanderbilt University

\$50,000

12 months

**Civil Engineering and Geological Sciences****Kurama, Yahya C.**

Precast Buildings with Supplemental Energy Dissipation  
National Science Foundation

\$25,000

8 months

**The Classics****Afsaruddin, Asma**

Striving in the Path of God: Discursive Traditions on Jihad  
and the Cult of Martyrdom

Private Foundation

\$30,000

9 months

**Computer Science and Engineering****Kogge, Peter M.**

Understanding Performance of New PIM-Based Execution  
Models

Sandia National Laboratory

\$80,000

12 months

**Madey, Gregory R.**

An REU Site on E-Technologies-Crossover and Convergence  
of E-Science and E-Business Technologies

National Science Foundation

\$494,352

60 months

**East Asian Languages and Literatures****Ge, Liangyan**

A Cultural Phenomenon in Late Imperial China: From  
Examination Candidates to Fiction Writers

National Endowment for the Humanities

\$5,000

2 months

**Ge, Liangyan**

Out of the Examination Hall: A Way of Making Fiction in Late  
Imperial China

Private Foundation

\$40,000

12 months

**Electrical Engineering****Fay, Patrick J.**

High Speed Electrometers for Nanoelectronics  
National Science Foundation

\$12,000

12 months

**Fay, Patrick J.**

Low Voltage InP DHBT Amplifiers  
Corporation

\$20,048

6 months

**Fay, Patrick J.**

RF Device Modeling  
Corporation

\$34,497

6 months

**Merz, James L.; Mintairov, Alexander**

Zero-Dimensional Quantum Structure for Optoelectronics  
National Science Foundation

\$335,307

36 months

**Porod, Wolfgang; Bernstein, Gary H.; Huang, Yih-Fang**

Biologically Inspired CNN Image Processors with  
Dynamically Integrated Hyperspectral Nanoscale Sensors

Department of Navy

\$530,000

60 months

**Seabaugh, Alan C.**

Electromagnetic Peristaltic Pump  
DARPA

\$580,634

36 months

**Seabaugh, Alan C.**

Silicon Tunnel Diode Pulse Generator  
Corporation

\$567,857

36 months

**Seabaugh, Alan C.**

Integration of Out-of-Plane Inductors with Nanoelectronics  
DARPA

\$609,899

36 months

**Wernersson, Lars-Erik M.; Seabaugh, Alan C.**

Materials for Functional Tunneling Devices  
National Science Foundation

\$473,246

36 months

**English****Hammill, Graham L.**

Figuring Moses in the Secular State from Machiavelli to  
Spinoza to Freud

Private Foundation

\$65,000

9 months

**Hammill, Graham L.**

Figuring Moses in the Secular State from Machiavelli to  
Spinoza to Freud

Private Foundation

\$40,000 9 months

**Sayers, Valerie L.**

Hard on the Heels: A Novel

The New York Public Library

\$50,000 8 months

**Sayers, Valerie L.**

Hard on the Heels: A Novel

Private Foundation

\$37,000 12 months

**Ziarek, Ewa**

Aesthetics: Art, Gender, and Race in Modernism

Private Foundation

\$36,000 9 months

**Ziarek, Krzysztof**

The Force of Art: The Avant-Garde in the 21st Century

Private Foundation

\$36,000 9 months

**Film, Television, and Theatre****Arons, Wendy K.**

Staging the Fair Sex

Private Foundation

\$30,000 9 months

**Pilkinton, Mark C.**

A History of Jacob's Wells Theatre, Bristol, 1729-1766

Private Foundation

\$50,000 9 months

**Freimann Animal Care Facility****Suckow, Mark A.**

Testing of Biomaterials for Tumor Inhibitory Activity

Corporation

\$5,020 12 months

**German and Russian Languages and Literatures****Gasperetti, David W.**

Conceiving the Russian Novel: Toward the Golden Age, 1763-  
1849

Private Foundation

\$40,000 9 months

**Mathematics****Barron, Katrina D.**

Algebraic and Geometric Aspects of Superconformal Field  
Theory

National Science Foundation

\$647,971 60 months

**Cholak, Peter A.**

Definability and Automorphisms in Computability Theory

National Science Foundation

\$447,732 60 months

**Gekhtman, Michael**

Collaborative Research: Teichmueller Space, Hurwitz  
Numbers and Cluster Algebra

National Science Foundation

\$222,730 36 months

**Himonas, Alex A.; Misiolek, Gerard K.; Nicholls, David P.; Han, Qing; Hu, Bei**

Conference: Partial Differential Equations and Applications

National Science Foundation

\$20,000 12 months

**McNinch, George J.**

Reductive Groups in Positive Characteristics

National Science Foundation

\$150,887 36 months

**Migliore, Juan C.**

The Ideal Generation Conjecture

National Science Foundation

\$127,102 36 months

**Starchenko, Sergei**

Topics in o-minimality

National Science Foundation

\$263,876 60 months

**Philosophy****Loux, Michael J.**

Analytical Hylomorphism

Private Foundation

\$36,000 9 months

**Loux, Michael J.**

Analytical Hylomorphism

Private Foundation

\$35,000 9 months

## Physics

**Berry, Henry G.**

Atomic Structure and Lifetime Studies

National Science Foundation

\$221,005

36 months

**Dobrowolska-Furdyna, Malgorzata; Furdyna, Jacek K.**

Electron Spin Effects in Semiconductor Nanostructures

National Science Foundation

\$331,839

36 months

**LoSecco, John M.; Tanner, Carol E.**

Research in Practical Aspects of Quantum Computing

Department of Army

\$667,110

36 months

## Political Science

**Hero, Rodney E.**

Latino National Survey

Private Foundation

\$125,000

12 months

**Lindley, Daniel A.**

Is War Rational?

U.S. Institute of Peace

\$45,000

12 months

**Lopez, George A.**Failed States and International Security V: The Continuing  
Failure of the International Community

U. S. Army War College

\$15,000

0 months

## Program of Liberal Studies

**Fallon, Stephen M.**The Author and His Work: Self-representation in Milton's  
Poetry and Prose

Private Foundation

\$40,000

12 months

**Munzel, G. Felicitas**Immanuel Kant—Philosopher and Educator: The Critical  
Philosophy and the Rise of Pedagogical Science

Private Foundation

\$36,000

9 months

## Psychology

**Borkowski, John G.; LeClere, Felicia B.; Maxwell, Scott E.**

Neglect in High-Risk Mothers

National Institutes of Health

\$1,907,961

12 months

**Yuan, Ke-Hai; Borkowski, John G.; Cummings, E.M.**

SEM for Developmental Data with Small Samples

National Institutes of Health

\$247,992

12 months

## Romance Languages and Literatures

**Boulton, Maureen B.**Pious Fictions: The Lives of Christ and the Virgin in Medieval  
French Literature

Private Foundation

\$50,000

9 months

**DellaNeva, Jo Ann**The Theory and Practice of Minor Model Imitation by French  
Renaissance Poets

Private Foundation

\$40,000

9 months

## Walther Cancer Research Center

**Navari, Rudolph M.; Ploplis, Victoria A.; Smith, Bradley D.; Castellino, Francis J.; D'Souza-Schorey, Crislyn; Helquist, Paul; Paoni, Nicholas F.; Miller, Marvin J.; Johnson, Alan L.; Hinchcliffe, Edward H.; Prorok, MaryFrances E.; Vaughan, Kevin T.**

Molecular Medicine II: Hormone Dependent Cancers

Department of Army

\$1,887,000

24 months

## Centers and Institutes Awards Received and Proposals Submitted

SEPTEMBER 1, 2002 TO SEPTEMBER 30, 2002.

Department or Office	AWARDS RECEIVED		PROPOSALS SUBMITTED	
	No.	Amount	No.	Amount
Center for Flow Physics and Control	3	\$ 354,174	2	\$ 641,471
Center for Molecularly Engineered Materials			1	25,000
Center for Transgene Research			1	2,038,541
Center for Tropical Disease Research and Training	1	1,081,017	2	493,319
Center for Zebrafish Research			1	334,125
Freimann Animal Care Facility			1	5,020
Institute for Latino Studies	3	\$450,000	1	125,000
Kroc Institute for International Peace Studies			1	15,000
Laboratory for Social Research			1	247,992
Lobund Laboratory			1	513,280
Nano Science and Technology Center			8	3,151,488
Walther Cancer Research Center			4	2,322,000
Total	7	\$1,885,191	24	\$9,912,236

### FISCAL YEAR-TO-DATE CUMULATIVE

Department or Office	AWARDS RECEIVED		PROPOSALS SUBMITTED	
	No.	Amount	No.	Amount
Alliance for Catholic Education	1	\$ 66,000		
Center for Astrophysics			1	\$ 918,287
Center for Environmental Science and Technology	1	80,000		
Center for Flow Physics and Control	3	354,174	4	758,594
Center for Molecularly Engineered Materials			4	1,076,918
Center for Orphan Drug Development	1	20,000		
Center for Transgene Research	3	1,023,510	1	2,038,541
Center for Tropical Disease Research and Training	5	3,034,514	3	611,115
Center for Zebrafish Research			1	334,125
Environmental Molecular Science Institute			1	7,460
Freimann Animal Care Facility	1	1,500	1	5,020
Freimann Life Science Center			1	309,875
Higgins Labor Research Center			1	12,500
Institute for Latino Studies	4	599,512	2	275,000
Kellogg Institute for International Studies			1	103,370
Kroc Institute for International Peace Studies			1	15,000
Laboratory for Social Research			1	247,992
Lobund Laboratory			1	513,280
Nano Science and Technology Center	2	1,159,999	16	4,423,771
Nanovic Institute			1	14,676
South Bend Center for Medical Education			3	395,500
TRIO Programs	1	243,133		
Walther Cancer Research Center			7	3,133,815
Total	22	\$6,582,342	51	\$15,194,839

## Awards Received

September 1, 2002 through September 30, 2002

### Awards for Research:

#### **Center for Flow Physics and Control**

Active Flow Control for Tactical Optical Weapons Systems  
Corporation

\$35,200 12 months

University of Notre Dame/Northrop Grumman Corporation  
Joint Program in Aero-Optics  
Corporation

\$25,000 3 months

Directed Energy Beam Improvement Using Flow Excitation  
(DEBI-FX)

Corporation  
\$293,974 32 months

#### **Center for Tropical Disease Research and Training**

The *Aedes aegypti* Genome Project  
National Institutes of Health

\$1,081,017 21 months

#### **Institute for Latino Studies**

Children and Families in Latino Communities  
Private Foundation

\$150,000 12 months

IUPLR Latino HIV/AIDS Education and Promotion Project  
Health and Human Services

\$150,000 42 months

Hispanic Access to Health Services  
Health and Human Services

\$150,000 48 months

## Proposals Submitted

September 1, 2002 through September 30, 2002

### Proposals for Research:

#### **Center for Flow Physics and Control**

Multiscale Modeling of Combustion of Energetic Materials  
Los Alamos National Laboratory

\$501,471 36 months

An Experimental Study of Trailing Edge Noise  
Department of Navy

\$140,000 12 months

#### **Center for Molecularly Engineered Materials**

Hydroxyapatite Nanospheres for Bone Marrow Targeted  
Drug Delivery

Private Foundation  
\$25,000 12 months

#### **Center for Transgene Research**

Pathophysiology Involving Hemostasis-Related Genes  
National Institutes of Health

\$2,038,541 12 months

#### **Center for Tropical Disease Research and Training**

Interleukin-12 Regulation in Leishmania Infected Human  
Dendritic Cells

National Institutes of Health  
\$344,819 12 months

Analysis of MAEBL Expression in Malaria Sporozoites  
National Institutes of Health

\$148,500 12 months

#### **Center for Zebrafish Research**

zASIP Protein in the Development of Retinal Lamination  
National Institutes of Health

\$334,125 12 months

**Freimann Animal Care Facility**

Testing of Biomaterials for Tumor Inhibitory Activity  
Corporation  
\$5,020 12 months

**Institute for Latino Studies**

Latino National Survey  
Private Foundation  
\$125,000 12 months

**Kroc Institute for International Peace Studies**

Failed States and International Security V: The Continuing  
Failure of the International Community  
U.S. Army War College  
\$15,000 0 months

**Laboratory for Social Research**

SEM for Developmental Data with Small Samples  
National Institutes of Health  
\$247,992 12 months

**Lobund Laboratory**

Hypoxia and Tumor Development/Metastasis  
Corporation  
\$513,280 24 months

**Nano Science and Technology Center**

Electromagnetic Peristaltic Pump  
DARPA  
\$580,634 36 months

Integration of Out-of-Plane Inductors with Nanoelectronics  
DARPA  
\$609,899 36 months

Zero-Dimensional Quantum Structure for Optoelectronics  
National Science Foundation  
\$335,307 36 months

Silicon Tunnel Diode Pulse Generator  
Corporation  
\$567,857 36 months

Low Voltage InP DHBT Amplifiers  
Corporation  
\$20,048 6 months

Biologically-Inspired CNN Image Processors with  
Dynamically-Integrated Hyperspectral Nanoscale Sensors  
Department of Navy  
\$530,000 60 months

Materials for Functional Tunneling Devices  
National Science Foundation  
\$473,246 36 months

RF Device Modeling  
Corporation  
\$34,497 6 months

**Walther Cancer Research Center**

The Role of ARF6 in Cell Division  
Private Foundation  
\$150,000 36 months

Molecular Medicine II: Hormone Dependent Cancers  
Department of Army  
\$1,887,000 24 months

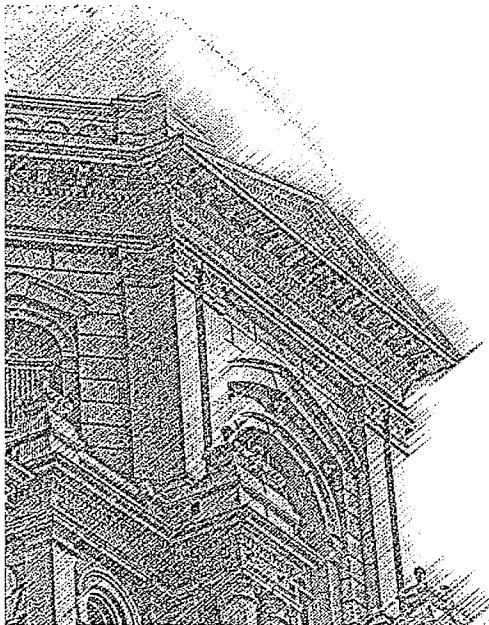
The Role of ARF6 in Cell Division  
Private Foundation  
\$150,000 36 months

The Role of ARF6 in Cell Division  
Private Foundation  
\$135,000 36 months

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# Notre Dame Report

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Kate Russell, Editor  
Maggie Benson, Publications Assistant  
University Communications Design  
502 Grace Hall  
Notre Dame, IN 46556-5612  
(574) 631-4633  
e-mail: [ndreport.1@nd.edu](mailto:ndreport.1@nd.edu)

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