

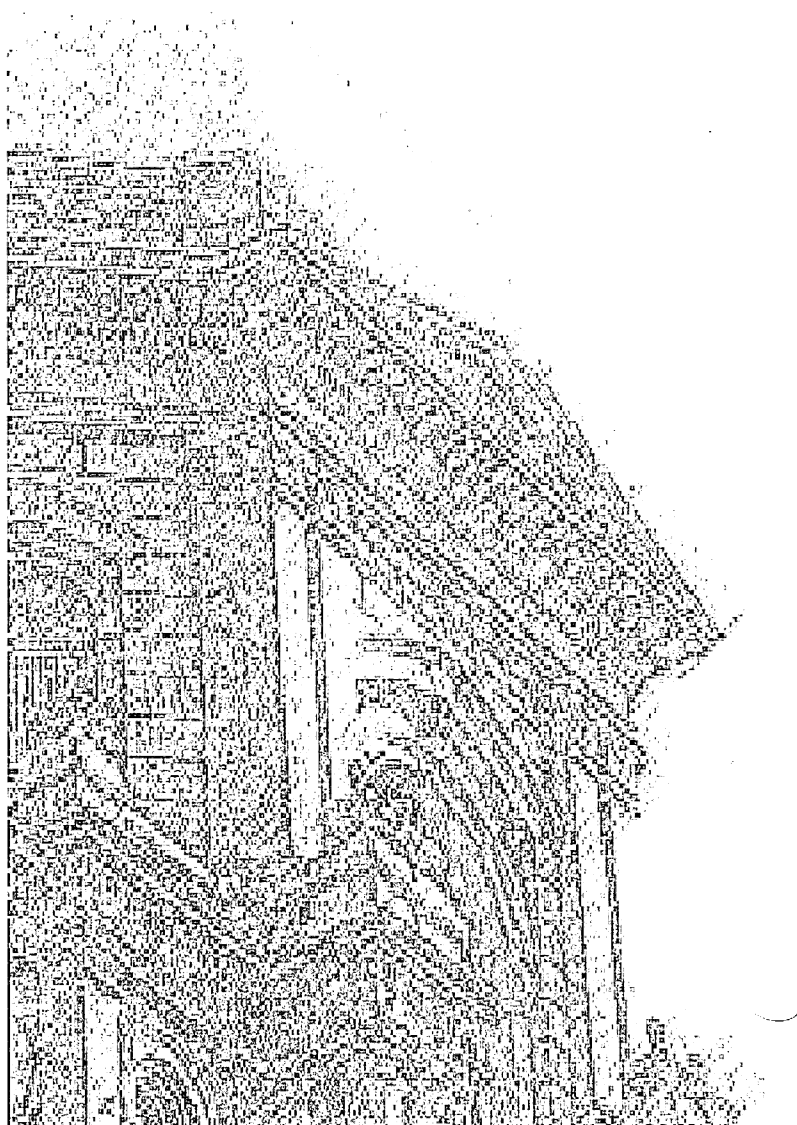
# Notre Dame Report

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# Faculty Notes

## Honors

**Kevin J. Christiano**, associate professor of sociology, was named chair of the committee on publications of the Association for the Sociology of Religion, publishers of the quarterly journal *Sociology of Religion* and *Religion and the Social Order*, an annual volume.

**Patrick E. Murphy**, professor of marketing, the Smith Director of the Institute for Ethical Business Worldwide, and Nanovic fellow, was appointed for a three-year term as an Invited Fellow, Ethics Resource Center, Washington, D.C.

**Robert E. Norton**, chairperson, professor of German, and Nanovic Institute fellow, has been awarded the 2002 Jacques Barzun Prize in Cultural History by the American Philosophical Society for his recent book *Secret Germany* (Cornell Univ. Press).

**Susan Ohmer**, assistant professor of American Studies, has been elected to the executive board of the Society for Cinema and Media Studies, to serve a three-year term as secretary.

**Norlin G. Rueschhoff**, professor of accountancy, received the John B. Begley Service Award at the Beta Alpha Psi honorary accounting society Alpha Nu chapter's 50th anniversary celebration at Creighton Univ., Omaha Neb., April 25.

**James X. Sullivan**, assistant professor of economics, received a \$5,000, 12-month grant from the W.E. Upjohn Institute for employment research.

**David Yamane**, assistant professor of sociology, was named a "Young Scholar in American Religion" for 2003–2004 by the Center on Religion in American Culture at Indiana Univ.–Purdue Univ.

**Susan Youens**, professor of music, was selected to be a fellow in residence at the National Humanities Center, North Carolina, for the 2003–2004 academic year.

**Jennifer Younger**, the Arnold Director of University Libraries, was elected chair, board of directors, Academic Libraries of Indiana, for a one-year term.

## Activities

**J. Douglas Archer**, librarian, chaired the OPAC (Online Public Access Catalog) roundtable discussion and presented "New Titles Search / New Titles Email Service (SDI)" with Donna Stevenson at the 2003 annual meeting of North American ALEPH Users Group at the Univ. of Iowa, June 1.

**Kathleen Biddick**, professor of history and currently a Fulbright Scholar in Ireland, presented an invited paper "Provincializing Christianity" at the "Symposium on Medieval Temporalities and Colonial Histories," Princeton Univ., May 16.

**Wolfgang Porod**, the Freimann Professor of Electrical Engineering and director, Center for Nano Science and Technology, presented "Restoration of Magnetization Distributions from Joint Magnetic Force Microscopy Measurements and Micro-magnetic Simulations" with G. Csaba, and served on the program committee at the 9th International Workshop on Computational Electronics, Frascati (Rome), May 25–28.

**E. Jane Doering**, assistant professional specialist in the Institute for Scholarship in the Liberal Arts and concurrent assistant professor in the Arts and Letters core course, presented "Simone Weil's Classical Science and After: Joy and the Reality of the World" to the American Weil Society in Berkeley, Calif., May 2.

**Kwan S. Kim**, professor of economics and Kellogg Institute fellow, presented "Financial Cooperation in East Asia: Possibilities and Prospects," a paper written with S.-H. Kim, at an international symposium on "Regional Financial Cooperation" organized by the Korean Finance Association in Seoul, May 23.

**James J. Mason**, associate professor of aerospace and mechanical engineering, presented "Temperature Generation in Cutting of Aluminum at Low and Negative Rake Angles" written with K. Vernaza, **Timothy C. Ovaert**, professor of aerospace and mechanical engineering, and M. Li, in the "Thermal Effects in Dynamic Deformation and Failure Symposium" at the Society for Experimental Mechanics annual meeting, Charlotte, N.C., June 2.

**Patrick E. Murphy**, professor of marketing, the Smith Director of the Institute for Ethical Business Worldwide and Nanovic fellow, co-organized "Taking a Leadership Role in Ethical Marketing Education," sponsored by the American Marketing Association, Feb. 14; and served as moderator for "Doing Ethical Business in Silicon Valley," sponsored by the Notre Dame Technology Forum, March 10, San Mateo, Calif.

**Rudolph Navari**, associate dean of the College of Science, professional specialist in preprofessional studies, and director of the Walther Cancer Research Center, copresented "Effect of Antimicrobial Use on Symptom Control in Patients with Advanced Cancer Receiving Hospice Care" with P.H. White at the international meeting of the American Society of Clinical Oncology in Chicago, May 31.

**Susan Ohmer**, assistant professor of American Studies, presented "George Gallup in Iowa: A Market Researcher's Roots in Applied Psychology" at the "Conference on Historical Analysis and Research in Marketing" at Michigan State Univ., May 16; "The Movie-Type of Coed: The University of Iowa and 1920s Film Culture" at the Joint Conference of the Mid-America American Studies Association and the Great Lakes American Studies Association, Univ. of Iowa, April 11; and "The Wonderful World of Promotion: Disney, ABC, and 1950s Television" at the Society for Cinema and Media Studies conference, Minneapolis, March 6–9.

**Szilvia Papai**, assistant professor of finance, made an invited presentation "Random Paths to Stability in Hedonic Coalition Formation" at Wallis Institute Mini Conference, Univ. of Rochester, N.Y., April 25–26.

**Joseph M. Powers**, associate professor of aerospace and mechanical engineering, presented "Low-Dimensional Manifolds in

Reaction-Diffusion Systems" at the SIAM Conference on Applications of Dynamical Systems in Snowbird, Utah, May 27–31.

**Vera B. Profit**, professor of German and comparative literature, presented an invited paper "A Psychological and Literary Paradigm of Group Evil: Max Frisch's *Andorra*" at the 4th Global Conference on Evil and Human Wickedness, Anglo-American College in Prague, Czech Republic, Mar. 24.

**Steven R. Schmid**, associate professor of aerospace and mechanical engineering, chaired the session "Metal Forming III" at the 31st North American Manufacturing Research Conference, May 20–22, in Hamilton, Ontario, and also cowrote the paper "A Thermal Interface Model for Finite Element Simulation of Hot Forging", presented by J. Liu.

**Laurence R. Taylor**, professor of mathematics, presented the invited talk "Gauss Sums in Low Dimensional Topology" at the special session on geometric topology at the meeting of the American Mathematical Society, Bloomington, Ind., April 4.

**M. Katherine Tillman**, professor in the Program of Liberal Studies, was invited to deliver the 25th anniversary lecture for the St. Anselm College Humanities Program: "The Humanities, the Liberal Arts, Liberal Education: A Story of Battles and Distinctions," St. Anselm College, Manchester, N.H., March 26; and gave an invited paper for the Paideia Institute conference on "The Risk of Education" at Georgetown Univ., Washington, D.C., April 5.

**Joannes Westerink**, associate professor of civil engineering and geological sciences, was a member of the international organizing committee, and chaired a plenary session and a contributed session for the 12th international conference on Finite Element Methods in Flow Problems held at Meijo Univ., Nagoya, Japan, April 2–4; and presented three lectures at the Florida Coastal Hydraulics Workshop, Univ. of Central Florida, Orlando, June 4–6.

**Carolyn Woo**, the Gillen Dean and the Siegfried Chair in Entrepreneurial Studies, presented "Grace in a Competitive World" at the Allen County War Museum, Ft. Wayne, sponsored by the Univ. of St. Francis, May 3; presented "Aspiring to Leadership" to the Indiana Humanities Council at

the Indiana Leadership Summit, Indianapolis, May 14; and spoke to FADICA (Foundations & Donors Interested in Catholic Activities, Inc.) on ethics, Memphis, June 6.

## Publications

**Mark C. Bolino**, assistant professor of management, published "Counternormative Impression Management, Likeability, and Performance Ratings: The Use of Intimidation in an Organizational Setting," written with W.H. Turnley, *Journal of Organizational Management* (March): 237–250.

**Joan F. Brennecke**, professor of chemical and biomolecular engineering, published "Predicting Melting Points of Quaternary Ammonium Ionic Liquids," written with D.M. Eike and **Edward J. Maginn**, associate professor of chemical and biomolecular engineering, *Green Chemistry* 5 (2003): 323–328.

**Sarv Devaraj**, assistant professor of management, published "Performance Impacts of Information Technology: Is Actual Usage the Missing Link?" with **Rajiv Kohli**, assistant professor of management, in *Management Science* 49, No. 3 (March).

**Leonid Faybusovich**, professor of mathematics, published "Simultaneous Diagonalizations on Simple Euclidean Jordan Algebras and Its Applications," written with Y. Lim and J. Kim, *Forum Mathematicum* 15 (May): 639–644.

**Kevin Hart**, professor of English, published "Finland" in *Eureka Street* 31, No. 5 (2003): 29, "Yes," *ibid.*: 41, and "The Eel" (translation of *L'anguilla*) in E. Montale, *Poems*, H. Thomas, ed. (London: Penguin, 2002): 159–160; and two poems "Dark Angel" and "The Room" in *Staying Alive: Real Poems for Unreal Times*, N. Astley, ed. (New York: Miramax Books, 2003).

**Prashant V. Kamat**, professional specialist in the Radiation Laboratory, published "Mass-Transfer and Kinetic Studies during the Photocatalytic Degradation of an Azo Dye on Optically Transparent Electrode Thin Film," written with V. Subramanian and **Eduardo E. Wolf**, professor of chemical and biomolecular engineering, *Industrial and Engineering Chemistry Research* 42, No. 10 (2003): 2131–2138.

**Thomas A. Klein**, visiting professor of business ethics and marketing, recently published two book reviews: B. Ehrenreich, *Nickel and Dime*, *Journal of Macromarketing* 23, No. 1 (June): 59; and J.P. Talwar, *Fast Food, Fast Track: Immigrants, Big Business, and the American Dream*, *ibid.*: 59–61.

**Anthony N. Michel**, the Freimann Professor Emeritus and the McCloskey Dean of Engineering Emeritus, published "Robustness Analysis of a Class of Discrete-Time Systems with Applications to Neural Networks," written with Z. Feng, *Nonlinear Dynamics and Systems Theory* 3, No. 1 (2003): 75–86.

**Patrick E. Murphy**, professor of marketing, Smith Director of the Institute for Ethical Business Worldwide and Nanovic fellow, published *Business Ethics: Wiley/Fast Company Reader Series*, John Wiley, April.

**Rudolph M. Navari**, associate dean, College of Science, and director, Walther Cancer Research Center, published "Infections in Patients with Advanced Cancer" in *Handbook of Advanced Cancer Care*, M.J. Fisch, E. Bruera, eds. (New York: Cambridge Univ. Press, 2003): 444–449.

**Susan Ohmer**, assistant professor of American Studies, published "George Gallup and Advertising," in *The Encyclopedia of Advertising II* (Chicago: Fitzroy Dearborn, 2003): 633–635.

**Olaf Wiest**, associate professor of chemistry and biochemistry, published "Synergy of Combining Sonolysis and Photocatalysis in the Degradation and Mineralization of Chlorinated Aromatic Compounds" with J. Peller and **Prashant V. Kamat**, professional specialist in the Radiation Laboratory, *Environmental Science and Technology* 37, No. 9 (2003): 1926–1932.

# Research

## Awards and Proposal Summary

05/01/2003 to 05/31/2003

### Awards Received

Category	No.	Amount
Research	47	\$8,529,676
<b>Total:</b>	<b>47</b>	<b>\$8,529,676</b>

### Proposals Submitted

Category	No.	Amount
Research	48	\$13,239,262
Instructional Programs	1	\$63,500
<b>Total:</b>	<b>49</b>	<b>\$13,302,762</b>

## May 2003 Cumulative summary

### Awards Received

Category	07.01.2000 - 05.31.2001		07.01.2001 - 05.31.2002		07.01.2002 - 05.31.2003	
	No.	Amount	No.	Amount	No.	Amount
Research	378	\$59,063,233	386	\$47,700,632	340	\$60,008,711
Facilities and Equipment						
Instructional Programs	10	\$994,582	12	\$1,365,975	10	\$1,333,710
Other Programs	1	\$25,000				
Service Programs						
<b>Total:</b>	<b>389</b>	<b>\$60,082,815</b>	<b>398</b>	<b>\$49,066,607</b>	<b>350</b>	<b>\$61,342,421</b>

### Proposals Submitted

Category	07.01.2000 - 05.31.2001		07.01.2001 - 05.31.2002		07.01.2002 - 05.31.2003	
	No.	Amount	No.	Amount	No.	Amount
Research	521	\$208,086,245	611	\$201,399,850	546	\$147,691,462
Facilities and Equipment						
Instructional Programs	4	\$193,683	13	\$4,846,010	9	\$3,341,578
Other Programs						
Service Programs						
<b>Total:</b>	<b>525</b>	<b>\$208,279,928</b>	<b>624</b>	<b>\$206,245,860</b>	<b>555</b>	<b>\$151,033,040</b>

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](mailto: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

May 1 through May 31, 2003

### Awards for Research

#### Art, Art History and Design

Gill, Meredith J.

Augustine and the Arts

National Endowment for the Humanities

\$40,000

9 months

Gill, Meredith J.

Augustine and the Renaissance

National Humanities Center

\$2,500

9 months

#### Biological Sciences

Belovsky, Gary E.

Comparative Ecology of Montane Snakes in Burned and Unburned  
Madrean Woodland

U.S. Forest Service

\$75,280

13 months

Diffley, Peter

Graduate Research Fellowship for SEBASTIAN VELEZ

National Science Foundation

\$38,000

60 months

Duman, John G.

Studies of Antifreeze Proteins in Arctic and Nearctic Insects

National Science Foundation

\$131,607

36 months

Feder, Jeffrey Lee

The Genetics of Speciation in *Rhagoletis*

National Science Foundation

\$6,408

60 months

Fraser, Malcolm J. (Center or Institute)

Transgenic Engineering of *Aedine* Mosquitoes Using the PiggyBac  
Transposon

National Institutes of Health

\$392,738

36 months

Kulpa, Charles F. (Center or Institute)

Microbial Films for Analysis in APS by Argonne Personnel

Argonne National Laboratory

\$20,000

68 months

Lodge, David M.; Lamberti, Gary A.; Maurice, Patricia A. (Center  
or Institute)

Interactive Effects of Climate Change, Wetlands, and Dissolved  
Organic Matter on UV Damage to Aquatic Foodwebs

University of Oregon

\$204,860

30 months

Lamberti, Gary A.

Influence of Large Woody Debris and Sediment Composition on  
Stream Biota of the Ottawa National Forest

U.S. Forest Service

\$20,222

59 months

Olson, Kenneth R. (Center or Institute)

A Novel Animal Model of Hypoxic Vasoconstriction

I.U. School Medicine

\$20,242

12 months

Shay, Neil F.

Soy Supplements Interact With Cholesterol-Lowering Drugs

National Institutes of Health

\$180,775

20 months

Vihitelic, Thomas S. (Center or Institute)

Development of Wild-Type and Mutant Zebrafish Lens

National Institutes of Health

\$259,875

59 months

**Welsh, JoEllen J.**

Novel Functions of VDR in Breast Cancer

ARMY/DARPA

\$432,039

36 months

### **Chemical Engineering**

**McCready, Mark J.**

Fundamental Studies on Two-Phase Gas-Liquid Flows Through  
Packed-Beds in Microgravity

National Aeronautics and Space Administration

\$1,001

46 months

**Varma, Arvind (Center or Institute)**

Combustion Mechanisms of Complex Metal Particles

National Science Foundation

\$102,000

36 months

### **Chemistry and Biochemistry**

**Castellino, Francis (Center or Institute)**

Blood Coagulation Protein-Metal Ion-Lipid Interactions

National Institutes of Health

\$414,801

12 months

**Carmichael, Ian C.; Ferraudi, Guillermo; Helman, W. Phillip;  
Kamat, Prashant; Madden, Keith P.; LaVerne, Jay A.; Guldi, Dirk;  
Hug, Gordon L.; Chipman, Daniel M.; Tripathi, Gorakh Nath  
R.; Bentley, John J.; Pimblott, Simon M.; Meisel, Dan (Center or  
Institute)**

Radiation and Photochemistry in Condensed Phase

Department of Energy

\$470,000

12 months

**Miller, Marvin J.**

Bioactive Compounds From Acylnitroso Cycloadducts

National Institutes of Health

\$294,030

47 months

**Miller, Marvin J.**

Consulting Program for 2003

Corporate funding

\$30,000

12 months

**Scheidt, W.R.**

X-Ray and Chemical Studies of Metalloporphyrins

National Institutes of Health

\$331,700

12 months

**Smith, Bradley Dennis**

Rationally Designed Promoters and Inhibitors of Membrane  
Fusion

National Institutes of Health

\$264,667

12 months

### **Civil Engineering and Geological Sciences**

**Silliman, Stephen E.**

An REU Site on Water Resources in Developing Countries

National Science Foundation

\$63,200

35 months

**Westerink, Joannes J.**

ADCIRC Hydrodynamic Circulation and Transport Code  
Development

Department of Army

\$50,000

47 months

### **Computer Science and Engineering**

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

Data Sets, Baseline Performance Reference Points, and Evaluation  
Metrics for Human ID

Navy/DARPA

\$410,816

38 months

**Freeland, Joseph C.; Schaelicke, Lambert**

Scalable Programmable Appliance-based Network Intrusion  
Detection Architecture

National Science Foundation

\$12,000

36 months

### **Electrical Engineering**

**Costello, Daniel J.; Huang, Yih-Fang; Fuja, Thomas E.; Laneman,  
J.N.**

Indiana Center for Wireless Communications and Networking

Purdue University

\$300,000

24 months

**Lent, Craig S.; Snider, Gregory L. (Center or Institute)**

Center of Excellence in Computational Nanoscience

Ball State University

\$241,520

24 months

### **English**

**Staud, John J.; Scully, Timothy R. (Center or Institute)**

ACE Summer Training Program

Private funding

\$20,000

27 months

### History

**Turner, James C. (Center or Institute)**

Erasmus Institute

Private funding

\$500,000 48 months

### Institute for Latino Studies

**Elizondo, Virgilio P. (Center or Institute)**

Translation of the Proceedings of the International Historical Commission's Proceedings on Our Lady of Guadalupe and Juan Diego

Corporate funding

\$15,000 12 months

### Mathematics

**Sommese, Andrew J.**

Collaborative Research: Software for decomposing Solution Sets of Polynomial Systems

National Science Foundation

\$52,674 36 months

### Physics

**Wiescher, Michael C.; Garg, Umesh; Aprahamian, Ani (Center or Institute)**

Nuclear Structure and Nuclear Astrophysics

National Science Foundation

\$1,400,000 36 months

**Bigi, Ikaros I.**

Subtle Tests of the Standard Model

National Science Foundation

\$75,000 35 months

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

Electron Spin Effects in Semiconductor Nanostructures

National Science Foundation

\$115,317 36 months

**Furdyna, Jacek K.; Bunker, Bruce A.; Ruggiero, Steven T.;**

**Dobrowolska-Furdyna, Malgorzata**

Spintronics and Spin-Photonics in Ferromagnetic InAs/GaSb-Based Heterostructures

Research Foundation of SUNY

\$550,000 41 months

**Garnavich, Peter M. (Center or Institute)**

SBS 1150 + 599: A Population III Planetary Nebula?

Space Telescope Science Institute

\$35,673 24 months

**Shephard, William D.; Cason, Neal M.; Ruchti, Randal C.; Wayne, Mitchell R.; Hildreth, Michael D.**

Enhancing the Potential for Higgs Discovery at the Fermilab Tevatron

Corporate funding

\$75,000 60 months

**Ruchti, Randal C.**

Research in Hadron Collider Physics

National Science Foundation

\$473,382 36 months

**Tanner, Carol E.**

Precision Measurements of Transition Amplitudes in Atomic Cesium

National Science Foundation

\$96,408 48 months

### Political Science

**Hero, Rodney E. (Center or Institute)**

Advocacy Focus Groups and the Latino National Survey

Private funding

\$30,000 9 months

### Psychology

**Boker, Steven Marshall**

Dynamic Postural Equilibrium

National Institutes of Health

\$89,685 11 months

**Radvansky, Gabriel A.**

Engineering a Transformatin of Human-Machine Interaction to An Augmented Cognitive Relationship

Sandia National Laboratory

\$15,000 19 months

**Wenger, Michael J.**

Perceptual Processes, Evidence, and Configuratity

Indiana University Bloomington

\$76,611 11 months

### Radiation Laboratory

**LaVerne, Jay A. (Center or Institute)**  
 Gas Generation and Modeling: Radiation Chemistry and  
 Microdosimetry  
 Los Alamos National Laboratory  
 \$37,145 60 months

### Theology

**Cummings, Kathleen S.; Matovina, Timothy M. (Center or Institute)**  
 Uncommon Faithfulness: The Witness of African American  
 Catholics  
 Louisville Institute  
 \$30,000 9 months

**Ulrich, Eugene C.; VanderKam, James C.**  
 The Publication of Four Volumes of Dead Sea Scrolls  
 National Endowment for the Humanities  
 \$32,500 25 months

### Proposals Submitted

May 1 through May 31, 2003  
Proposals for Research

### Aerospace and Mechanical Engineering

**Jumper, Eric J.; Goodwine, John W.**  
 Aero-Optical Measurements Over Nose of Aircraft POD  
 Corporate funding  
 \$50,000 5 months

**Renaud, John E.**  
 REU Supplement for Managing Uncertainty in Bilevel Robust  
 Design Optimization  
 National Science Foundation  
 \$12,000 12 months

**Schmid, Steven R.**  
 Chatter Suppression Through Emulsion Lubrication  
 Corporate funding  
 \$29,730 6 months

### American Studies

**Ardizzone, Heidi L.**  
 Under the Mask and Manner: The Worlds of Belle da Costa Greene  
 National Endowment for the Humanities  
 \$40,000 9 months

### Anthropology

**Kuijt, Ian**  
 Early Village Social Organization and Food Production  
 National Endowment for the Humanities  
 \$40,000 12 months

### Biological Sciences

**Collins, Frank H.**  
 Experimental Parasitology and Vector Biology  
 National Institutes of Health  
 \$124,006 12 months

**D'Souza-Schorey, Crislyn**  
 Molecular Mechanisms of Cell Invasion  
 National Institutes of Health  
 \$284,875 12 months

**Ferdig, Michael T.**  
 Genetic Control of Malaria Parasite Proliferation  
 National Institutes of Health  
 \$108,000 12 months

**McDowell, Mary A.**  
 Defining Mechanisms of Pseudocarcinomatous Hyperplasia  
 Initiation  
 Corporate funding  
 \$50,000 36 months

**McDowell, Mary A.**  
 IL-12 in Leishmania Infected Human Dendritic Cells  
 National Institutes of Health  
 \$108,000 12 months

**McDowell, Mary A.**  
 Defining Mechanisms of Pseudocarcinomatous Hyperplasia  
 Initiation  
 Private funding  
 \$35,000 12 months

**O'Tousa, Joseph E.**  
 Genetic Analysis of Retinal Degeneration  
 National Eye Institute  
 \$309,477 12 months

**Severson, David W.**  
 The Aedes aegypti Genome Project  
 National Institutes of Health  
 \$1,123,256 12 months



**Tenniswood, Martin**

Modulation of Estrogen Receptor Negative Breast Cancer Growth  
and Metastasis

Department of Defense

\$89,100

36 months

**Welsh, JoEllen J.**

Vitamin D Mediated Apoptosis in Breast Cancer Cells

National Institutes of Health

\$267,300

12 months

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**Center for Social Concerns**


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**Caponigro, Jerome V.**

Leading a Campaign for Violence Reduction

Department of Justice

\$496,747

24 months

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**Chemistry and Biochemistry**


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**Barkai, Eli**

Quantum Jump Approach to Single Molecule Spectroscopy

Private funding

\$35,000

24 months

**Castellino, Francis J.**

Pathophysiologies Involving Hemostasis-Related Genes

National Institutes of Health

\$1,703,723

12 months

**Castellino, Francis J.**

Hemostasis-related Genes in Atherosclerosis

National Institutes of Health

\$480,398

12 months

**Ploplis, Victoria A.**

The Hemostasis System in Tumor Growth and Metastasis

National Institutes of Health

\$371,250

12 months

**Smith, Bradley D.**

Synthetic Receptors for Anions, Salts and Neutral Molecules

National Science Foundation

\$10,485

12 months

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**Civil Engineering and Geological Sciences**


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**Maurice, Patricia A.**

Collaborative Research: Active Layer Dynamics and It's Influence  
on Hyporheic Zone Storage and Chemical Weathering in  
Antarctic Dry Valley Streams

National Science Foundation

\$141,521

48 months

**Neal, Clive R.**

The Use of Crystal Stratigraphy in Highlighting Magma Chamber  
Processes in the Evolution of Plume and Non-Plume Magmas

National Science Foundation

\$270,250

36 months

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**Economics**


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**Betson, David M.**

Determinates of Winning Infant Formula Contracts and the  
Impact on Wholesale Prices

Department of Agriculture

\$169,171

24 months

**Ghilarducci, Teresa**

Work Options for Mature Americans

Private funding

\$41,716

1 months

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**Electrical Engineering**


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**Bernstein, Gary H.; Alpert, Sheri A.**

National Network for Multi-Scale Integrative Technology  
(NNMIT)

University of California-Los Angeles

\$4,569,886

60 months

**Hall, Douglas C.**

Ultra-High-Capacity Optical Communications and Networking:  
Coupled Micro-Ring Resonator Tunable Lasers and Filters

National Science Foundation

\$300,000

36 months

**Laneman, J. N.**

Cooperative Diversity for Army Communication and Sensor  
Networks

Corporate funding

\$140,702

36 months

**Porod, Wolfgang; Bernstein, Gary H.**

NER: Computing Architectures for Coupled Nanomagnets

National Science Foundation

\$5,000

3 months

## History

### Appleby, Robert S.

Indiana Center for Cultural Exchange, Purdue University visit to  
University of Notre Dame

Purdue University

\$67,977

60 months

### O'Leary, Aileen M.

Druidic Apocalypse and Church Reform in Medieval Ireland  
National Endowment for the Humanities

\$40,000

9 months

## Institute for Latino Studies

### Ready, Timothy; Sun, Wei; Chun, Sung-Chang

Border Kids Count

Private funding

\$17,844

7 months

## Music

### Youens, Susan L.

Heine and the Lied

National Humanities Center

\$40,000

9 months

## Physics

### Bennett, David P.

Gravitational Microlensing in the NGC3314A-B Galaxy Pair

Space Telescope Science Institute

\$177,999

24 months

### Bennett, David P.

Resolution of the Source Star for a Candidate Planetary

Gravitational Microlensing Event

Space Telescope Science Institute

\$31,833

18 months

### Garnavich, Peter M.

Transients in the Ultra-Deep Field

Space Telescope Science Institute

\$75,735

12 months

### Garnavich, Peter M.

Essence: Measuring the Dark Energy Equation of State

Space Telescope Science Institute

\$46,647

12 months

### Hildreth, Michael D.

Optimizing Higgs Discovery Prospects at the Fermilab Tevatron

Department of Energy

\$255,000

36 months

### Kolata, James J.

Research with Radioactive Nuclear Beams

University of Michigan

\$37,173

12 months

### Ruchti, Randal C.

USCMS Hadron Calorimeter Subsystem

Fermi National Laboratory

\$0 12 months

### Ruchti, Randal C.

USCMS Project Office Subsystem

Northeastern University

\$115,229

12 months

## Political Science

### Collins, Kathleen A.

Islam, Identity, and Conflict in Central Asia and the Caucasus

Corporate funding

\$100,000

24 months

### Collins, Kathleen A.

Islam, Identity, and Conflict in Central Asia and the Caucasus

U.S. Institute of Peace

\$40,000

12 months

### Keys, Mary M.

Humility and Modernity

University of Chicago

\$6,000

9 months

## Psychology

### Bergeman, Cindy S.; Boker, Steven M.; Ong, Anthony

Notre Dame Longitudinal Study of Optimal Aging

National Institutes of Health

\$334,125

12 months

### Borkowski, John G.; Maxwell, Scott E.; Whitman, Thomas L.

Precursors of Retardation in Children with Teen Mothers

National Institutes of Health

\$249,404

12 months

**Borkowski, John G.; Whitman, Thomas L.**

Research Training in Mental Retardation

National Institutes of Health

\$149,069

12 months

**Cummings, E. M.**

Child Regulation and Exposure to Marital Violence

National Institutes of Health

\$48,634

12 months

Proposals for Instructional Programs

**Center for Social Concerns**

**Pettit, Rebecca**

National Youth Sports Program

Private funding

\$63,500

12 months

**Awards and Proposal Summary**

**Centers and Institutes Report**

05/01/2003 to 05/31/2003

Department or Office	No.	Amount
Alliance for Catholic Education	1	\$20,000
Center for Astrophysics	1	\$35,673
Center for Environmental Science and Technology	2	\$224,860
Center for Molecularly Engineered Materials	1	\$102,000
Center for Transgene Research	1	\$414,801
Center for Tropical Disease Research & Training	1	\$392,738
Center for Zebrafish Research	1	\$259,875
Cushwa Center for American Catholicism	1	\$30,000
Erasmus Institute	1	\$500,000
Institute for Latino Studies	2	\$45,000
Nano Science and Technology Center	1	\$241,520
Nuclear Structure Laboratory	1	\$1,400,000
Radiation Laboratory	2	\$507,145
South Bend Center for Medical Education	1	\$20,242
<b>Total:</b>	<b>17</b>	<b>\$4,193,854</b>

**Proposals Submitted**

Department or Office	No.	Amount
Center for Astrophysics	4	\$332,214
Center for Children and Families	1	\$149,069
Center for Environmental Science and Technology	1	\$141,521
Center for Flow Physics and Control	1	\$50,000
Center for Social Concerns	1	\$63,500
Center for Transgene Research	3	\$2,555,371
Center for Tropical Disease Research & Training	5	\$1,498,262
Institute for Latino Studies	1	\$17,844
Kroc Institute for International Peace Studies	1	\$67,977
Nano Science and Technology Center	3	\$4,874,886
Robinson Community Learning Center	1	\$496,747
Walther Cancer Research Center	1	\$284,875
<b>Total:</b>	<b>23</b>	<b>\$10,532,266</b>

## **Awards and Proposal Summary**

### **Centers and Institutes Report**

**07/01/2002 to 05/31/2003**

#### **Awards Received**

<b>Department or Office</b>	<b>No.</b>	<b>Amount</b>
Alliance for Catholic Education	3	\$161,249
Center for Astrophysics	3	\$203,601
Center for Children and Families	1	\$1,249,480
Center for Environmental Science and Technology	3	\$304,860
Center for Flow Physics and Control	14	\$1,128,281
Center for Molecularly Engineered Materials	10	\$2,035,573
Center for Orphan Drug Development	2	\$40,000
Center for Transgene Research	6	\$1,866,186
Center for Tropical Disease Research & Training	15	\$6,782,414
Center for Zebrafish Research	1	\$259,875
Cushwa Center for American Catholicism	1	\$30,000
Erasmus Institute	1	\$500,000
Freimann Life Science Center	5	\$44,046
Institute for Church Life	1	\$930,205
Institute for Latino Studies	8	\$889,512
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	15	\$2,481,248
Nanovic Institute	1	\$13,245
Nuclear Structure Laboratory	2	\$1,415,500
Office of the Provost	1	\$400,000
Radiation Laboratory	8	\$3,600,364
South Bend Center for Medical Education	4	\$404,992
TRIO Programs	3	\$1,065,595
Walther Cancer Research Center	3	\$2,174,000
<b>Total:</b>	<b>120</b>	<b>\$28,390,138</b>

#### **Proposals Submitted**

<b>Department or Office</b>	<b>No.</b>	<b>Amount</b>
Center for Astrophysics	9	\$2,356,066
Center for Children and Families	2	\$1,432,628
Center for Environmental Science and Technology	2	\$474,398
Center for Flow Physics and Control	13	\$4,078,879

## Awards and Proposal Summary

### Centers and Institutes Report

07/01/2002 to 05/31/2003

Department or Office	No.	Amount
Center for Molecularly Engineered Materials	18	\$12,515,218
Center for Social Concerns	2	\$145,791
Center for Transgene Research	11	\$7,482,786
Center for Tropical Disease Research & Training	26	\$6,547,935
Center for Zebrafish Research	1	\$334,125
Cushwa Center for American Catholicism	2	\$150,628
Environmental Molecular Science Institute	3	\$444,662
Freimann Animal Care Facility	1	\$5,020
Freimann Life Science Center	7	\$2,416,577
Higgins Labor Research Center	1	\$12,500
Institute for Church Life	2	\$94,489
Institute for Educational Initiatives	2	\$229,986
Institute for Latino Studies	15	\$786,369
Institute for Scholarship in the Liberal Arts	1	\$103,591
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	2	\$82,977
Laboratory for Social Research	3	\$1,370,143
Lobund Laboratory	1	\$513,280
Mendelson Center for Sports, Character, & Community	1	\$14,866
Nano Science and Technology Center	51	\$30,514,802
Nanovic Institute	2	\$16,176
Office of Special Instructional Projects and Activities	1	\$1,625,789
Radiation Laboratory	5	\$1,787,640
Robinson Community Learning Center	1	\$496,747
South Bend Center for Medical Education	3	\$395,500
Walther Cancer Institute Chair I	1	\$194,955
Walther Cancer Research Center	8	\$3,418,690
<b>Total:</b>	<b>204</b>	<b>\$82,546,152</b>

## **Awards Received**

May 1 through May 31, 2003

### Awards for Research

#### **Alliance for Catholic Education**

ACE Summer Training Program

Private funding

\$20,000 27 months

#### **Center for Astrophysics**

SBS 1150 + 599: A Population III Planetary Nebula?

Space Telescope Science Institute

\$35,673 24 months

#### **Center for Environmental Science and Technology**

Interactive Effects of Climate Change, Wetlands, and Dissolved  
Organic Matter on UV Damage to Aquatic Foodwebs

University of Oregon

\$204,860 30 months

Microbial Films for Analysis in APS by Argonne Personnel

Argonne National Laboratory

\$20,000 68 months

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

Combustion Mechanisms of Complex Metal Particles

National Science Foundation

\$102,000 36 months

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

Blood Coagulation Protein-Metal Ion-Lipid Interactions

National Institutes of Health

\$414,801 12 months

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

Transgenic Engineering of *Aedine* Mosquitoes Using the PiggyBac  
Transposon

National Institutes of Health

\$392,738 36 months

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

Development of Wild-Type and Mutant Zebrafish Lens

National Institutes of Health

\$259,875 59 months

#### **Cushwa Center for American Catholicism**

Uncommon Faithfulness: The Witness of African American  
Catholics

Louisville Institute

\$30,000 9 months

#### **Erasmus Institute**

Erasmus Institute

Private funding

\$500,000 48 months

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

Advocacy Focus Groups and the Latino National Survey

Private funding

\$30,000 9 months

Translation of the Proceedings of the International Historical  
Commission's Proceedings on Our Lady of Guadalupe and Juan  
Diego

Corporate funding

\$15,000 12 months

#### **Nano Science and Technology Center**

Center of Excellence in Computational Nanoscience

Ball State University

\$241,520 24 months

#### **Nuclear Structure Laboratory**

Nuclear Structure and Nuclear Astrophysics

National Science Foundation

\$1,400,000 36 months

#### **Radiation Laboratory**

Gas Generation and Modeling: Radiation Chemistry and  
Microdosimetry

Los Alamos National Laboratory

\$37,145 60 months

Radiation and Photochemistry in Condensed Phase  
 Department of Energy  
 \$470,000 12 months

### **South Bend Center for Medical Education**

A Novel Animal Model of Hypoxic Vasoconstriction  
 I.U. School Medicine  
 \$20,242 12 months

### **Proposals Submitted**

May 1 through May 31, 2003  
Proposals for Research

### **Center for Astrophysics**

Resolution of the Source Star for a Candidate Planetary  
 Gravitational Microlensing Event  
 Space Telescope Science Institute  
 \$31,833 18 months

Gravitational Microlensing in the NGC3314A-B Galaxy Pair  
 Space Telescope Science Institute  
 \$177,999 24 months

Essence: Measuring the Dark Energy Equation of State  
 Space Telescope Science Institute  
 \$46,647 12 months

Transients in the Ultra-Deep Field  
 Space Telescope Science Institute  
 \$75,735 12 months

### **Center for Children and Families**

Research Training in Mental Retardation  
 National Institutes of Health  
 \$149,069 12 months

### **Center for Environmental Science and Technology**

Collaborative Research: Active Layer Dynamics and It's Influence  
 on Hyporheic Zone Storage and Chemical Weathering in  
 Antarctic Dry Valley Streams  
 National Science Foundation  
 \$141,521 48 months

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

Aero-Optical Measurements Over Nose of Aircraft POD  
 Corporate funding  
 \$50,000 5 months

### **Center for Transgene Research**

Pathophysiology Involving Hemostasis-Related Genes  
 National Institutes of Health  
 \$1,703,723 12 months

The Hemostasis System in Tumor Growth and Metastasis  
 National Institutes of Health  
 \$371,250 12 months

Hemostasis-related Genes in Atherosclerosis  
 National Institutes of Health  
 \$480,398 12 months

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

Genetic Control of Malaria Parasite Proliferation  
 National Institutes of Health  
 \$108,000 12 months

Experimental Parasitology and Vector Biology  
 National Institutes of Health  
 \$124,006 12 months

The Aedes aegypti Genome Project  
 National Institutes of Health  
 \$1,123,256 12 months

Defining Mechanisms of Pseudocarcinomatous Hyperplasia  
 Initiation  
 Private funding  
 \$35,000 12 months

IL-12 in Leishmania Infected Human Dendritic Cells  
 National Institutes of Health  
 \$108,000 12 months

### **Institute for Latino Studies**

Border Kids Count  
 Private funding  
 \$17,844 7 months

### **Kroc Institute for International Peace Studies**

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Indiana Center for Cultural Exchange, Purdue University visit to  
University of Notre Dame

Purdue University

\$67,977

60 months

### **Nano Science and Technology Center**

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NER: Computing Architectures for Coupled Nanomagnets

National Science Foundation

\$5,000

3 months

National Network for Multi-Scale Integrative Technology  
(NNMIT)

University of California-Los Angeles

\$4,569,886

60 months

Ultra-High-Capacity Optical Communications and Networking:  
Coupled Micro-Ring Resonator Tunable Lasers and Filters

National Science Foundation

\$300,000

36 months

### **Robinson Community Learning Center**

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Leading a Campaign for Violence Reduction

Department of Justice

\$496,747

24 months

### **Walther Cancer Research Center**

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Molecular Mechanisms of Cell Invasion

National Institutes of Health

\$284,875

12 months

Proposals for Instructional Programs

### **Center for Social Concerns**

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National Youth Sports Program

Private funding

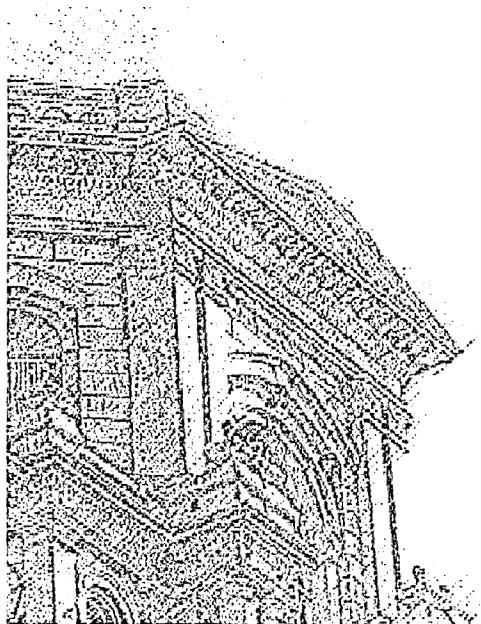
\$63,500

12 months



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# Notre Dame Report



**Volume 32, Number 19**

**June 27, 2003**

*Notre Dame Report* is an official publication published fortnightly during the school year, monthly in the summer, by the Office of the Provost at the University of Notre Dame.

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