



Notre Dame

R E P O R T

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August 28, 1992

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1992-93

The University

Libraries Rank 54th by Association of Research Libraries

The University Libraries has taken a dramatic leap in the annual rating of the Association of Research Libraries. Figures released for the 1990-91 academic year show the University jumping from 73rd to 54th in the rankings of 107 institutions. As recently as 1984-85, Notre Dame was ranked 100th in the survey.

The improvement is largely due to the purchase of the 150,000-volume library of the Chicago Bar Association for the Law School Library, which in the ARL survey is included with the Hesburgh Library and its branches.

Only 15 of the 107 institutions had fewer staff members. Notre Dame's libraries system employs 198 people. Additionally, with \$9,039,620 in expenditures in 1990-91, University of Notre Dame Libraries ranked 81st in this category. In comparison, Harvard University's library system, ranked first in the group, spent \$50,249,192 during the same year.

The ranking are based on an index developed by the ARL, taking into account the number of volumes held, number of volumes added during the previous fiscal year, the number of current serials, the total operating expenditures and the size of the staff, excluding student assistants. It does not measure a library's services, the quality of its collections, or its success in meeting the needs of users.

Graduation Rate Ranks Fourth in Nation

Notre Dame graduates students at a rate better than all but three universities in the country, according to a survey in *The Chronicle of Higher Education*. Using data provided by 256 universities, *The Chronicle* charted the six-year graduation rates of more than 500,000 full-time freshmen who enrolled in 1984.

The survey revealed 95 percent of the women and 93 percent of the men enrolled at Notre Dame graduated in six years or less. Only Columbia University (98 percent women/96 percent men), Princeton University (96/95) and Dartmouth College (97/94) reported better graduation rates. Yale (94/94) and Stanford Universities (94/90) were the only other schools posting rates of better than 90 percent for both men and women.

Nationally, 53 percent of the full-time freshmen who enrolled in 1984 graduated within six years, according to the survey. *The Chronicle's* data was culled from a National Collegiate Athletic Association report and appeared in the July 15 edition.

Scholar Sought for the Regan Directorship of the Kroc Institute

The University of Notre Dame seeks a senior scholar to fill the John M. Regan Jr. Directorship of the Joan B. Kroc Institute for International Peace Studies. Founded in 1986 through a generous endowment from Joan B. Kroc, the institute is a multidisciplinary center focused on the causes of violence and the conditions for peace in a changing world.

The Regan director administers a multifaceted program of research, teaching and public outreach that involves more than 30 faculty from all areas of the University and enrolls more than 25 graduate students and 100 undergraduates annually. The University requires an individual with a solid scholarly record, interest in peace and security issues, and the energy, experience and vision to lead the institute in its development.

The candidate also should have a range of administrative skills, including the talent to bring together people of diverse backgrounds to work on common tasks, and the ability to find additional resources to further the work of the institute.

As the representative of the institute to the wider community, the Regan director should be conversant with the values embodied in both the work of the Kroc Institute and the rich tradition of Notre Dame as a Catholic university.

Appointment begins July 1, 1993.

Nominations and applications for the Regan Directorship should be received no later than October 30 and sent to:

Timothy O'Meara, Provost
Chair of the Regan Director Search Committee
202 Main Building
The University of Notre Dame
Notre Dame, Indiana 46556, USA

The University of Notre Dame is an Affirmative Action, Equal Opportunity Employer.

Faculty Notes

Appointments

Edward Augustine, a 1987 alumnus of the University, has been named assistant dean of graduate admissions. His primary responsibility will be the recruitment and retention of minority students in the Graduate School. A graduate of the Program of Liberal Studies, Augustine received his master's degree in liberal studies in 1990 from New York University. For the past four years he has served as assistant director of admissions and financial aid at NYU's Graduate School of Arts and Sciences, where he was responsible for all phases of admission and financial aid in an office that processes 8,000 applications annually. He also managed a national recruiting plan for the Graduate School, including the identification, recruitment and admission of minority graduate students.

Honors

Dean A. Porter, director of the Snite Museum of Art and associate professor of art, art history and design, has been appointed to the Harwood Foundation Museum Council of the University of New Mexico, Taos, N.M.

Mark R. Schurr, visiting assistant professor of anthropology, has been appointed by Governor Evan Bayh to the Indiana Native American Commission. The purpose of the council is to provide insights into Native American traditions, beliefs, values and concerns, ensuring protection of Indiana's Native American heritage.

Stephen E. Silliman, associate professor of civil engineering and geological sciences, was named an associate editor of *Water Resources Research* for 1992-95. He was named to the Groundwater Committee of the American Geophysical Union starting July 1.

James I. Taylor, associate dean of engineering and professor of civil engineering and geological sciences, was appointed to Special Projects Committee 20-30, National Cooperative Highway Research Program, Innovations Deserving Exploratory Analysis (NCHRP-IDEA), of the Transportation Research Board, National Research Council and attended the organizational meeting in Washington, D.C., July 8.

Arvind Varma, Schmitt professor of chemical engineering, has been appointed a member of the editorial advisory board for a new journal titled *International Journal of Self-Propagating High Temperature Synthesis*.

Activities

Craig E. Adcock, professor of art, art history and design, read the paper "First Nature/Second Nature: Images of the Americas as Reflected in Environmental Art" at the 61st Anglo-American conference "Europe and the Americas, 1492-1992" at the Institute of Historical Research at the University of London in London, England, July 8.

Hafiz M. Atassi, professor of aerospace and mechanical engineering, gave an invited lecture titled "Aerodynamics and Aeroacoustics of Airfoils and Cascades in Nonuniform Flows" at the NASA workshop on Unsteady Aerodynamics for Aeroelasticity and Aeroacoustics of Rotating Blades at NASA Lewis Research Center in Cleveland, Ohio, July 21-22.

Jeffrey H. Bergstrand, associate professor of finance and business economics, presented the paper "Productivity Factor Endowments, Military Expenditures, and Relative National Price Levels" at a symposium on "International Price Comparison, and their Influence on Growth and Productivity" at the North-South Center of the University of Miami in Coral Gables, Fla., July 17-18.

Kathleen Biddick, associate professor of history, chaired a session on Towns and Trade at the 27th international conference on Medieval Studies at Western Michigan University in Kalamazoo, Mich., May 7-10. She organized the sessions "Roundtable on Silence, Conflict and Resistance in the Postcolonial Classroom" and "'Pastism,' 'Presentism,' Theory: Roundtable on Judith Butler's *Gender Trouble*" and gave these papers in both sessions: "Cybernetic Pedagogy" and "Dressed to Kill?: Pastism/Presentism, or Performance in Medical History."

Joan F. Brennecke, assistant professor of chemical engineering, presented a talk titled "Time-Resolved Spectroscopic Investigations to Probe Molecular Structure in Supercritical Fluids" at the sixth international conference on Fluid Properties and Phase Equilibria for Chemical Process Design in Cortina, Italy, July 19-24.

Bruce A. Bunker, associate professor of physics, presented the talk "X-ray Absorption Spectroscopy Investigations of Atomic Reordering at ZnTe/CdSe Interfaces" with M. Kemner, M.R. Weidmann, Hong Lou, assistant faculty fellow in physics, Nitin Samarth, assistant faculty fellow in physics, Jacek K. Furdyna, Marquez professor of physics, and Kathie E. Newman, associate dean of science and associate professor of physics, at the NATO Advanced Study Institute on "The Statics and Dynamics of Alloy Phase Transformations" held in Rhodes, Greece, June 19-July 3.

Faculty Notes

James T. Cushing, professor of physics, delivered a seminar on "Einstein's Hidden-variables Theory and the 1927 Solvay Congress" in the Philosophy Department of the London School of Economics in London, England, July 10.

William G. Gray, chairman and Massman professor of civil engineering and geological sciences, gave the lecture "The Impact of Interfacial Physics on Multiphase Flow Theory" at the Institute for Mathematics and its Applications Summer Program on Environmental Studies: Mathematical, Computational, and Statistical Analysis, at the University of Minnesota in Minneapolis, Minn., July 7.

Jeffrey C. Kantor, professor of chemical engineering, presented a paper titled "On the Application of Wavelets to Model Predictive Control" and chaired a session on "Chaotic Systems" at the 1992 American Control Conference in Chicago, Ill., June 25. He was an invited speaker at the NSF/AFOSR workshop in Modeling for Uncertain Systems held at the University of California in Santa Barbara, Calif., June 17-20.

Janet A. Kourany, adjunct professor of philosophy, presented a paper titled "Beyond Gendered Philosophy" at the seventh international conference for Social Philosophy held at Colorado Springs, Colo., March 15-17. She presented the paper "Transforming the Philosophy Curriculum" at the fifth annual international conference of Women in Higher Education held in San Diego, Calif., April 20-22. She presented a paper titled "Philosophy in a Different Voice" as a symposium paper at the eastern division meeting of the American Philosophical Association held in New York, N.Y., May 27-30. Kourany gave the paper "Toward a New Agenda in Philosophy of Science" at the ninth international conference for Social Philosophy held at Davidson College in Davidson, N.C., July 30-Aug. 2.

Gary A. Lamberti, assistant professor of biological sciences, organized the symposium "Research in Artificial Streams: Applications, Uses and Abuses" at the annual meeting of the North American Benthological Society in Louisville, Ky., May 26-29. He delivered the paper "Grazing Experiments in Laboratory Streams: Contributions and Constraints" and co-authored the paper "Influences of Riparian Canopy on Benthic Community Structure in High Desert Streams" and the poster "The Effects of Introduced Crayfish on the Benthic Community of a Northern Michigan Stream" at that symposium.

Michael J. Loux, O'Shaughnessy professor of philosophy, presented the seminar "Aristotle's Teleology" and presented the lectures "One Defining Process" and "Aristotle and Parmenides: An Interpretation of Physics A.8" at the Boston area colloquium in Ancient Philosophy in Boston, Mass., April 23-25.

Keith P. Madden, associate professional specialist in the Radiation Laboratory, presented the paper "In situ Radiolysis ESR Studies of Hydroxyalkyl Radical Spin Trapping Using 2-methyl-2-nitrosopropane" co-authored by Hitoshi Taniguchi, visiting associate professional specialist in the Radiation Laboratory, at the 34th Rocky Mountain Conference on Analytical Chemistry in Denver, Colo., Aug. 2-6.

Ralph M. McInerney, Grace professor of medieval studies, director of the Maritain Center and professor of philosophy, gave the lecture "The Mystery of Fiction" at the Oklahoma University short course on professional writing in Normal, Okla., June 6. He presented "Thomas Aquinas' *Treatise on Law* and *Treatise on Happiness*" at the National Endowment for the Humanities Regional Humanities Institute at Marquette University in Milwaukee, Wis., July 7.

Martin F. Murphy, associate professor of anthropology and faculty fellow in the Kellogg Institute, served as organizer and chair of "Simposio sobre Movimiento Obrero en el Caribe Hispano" (Symposium on Labor Movements in the Hispanic Caribbean) at the Instituto de Historia de Cuba in Havana, Cuba, March 24-27. He gave the paper "Divisiones en el movimiento obrero de la industria azucarera dominicana" (Division in the Labor Movement of the Dominican Sugar Industry) at the same symposium.

Thomas L. Nowak, professor of chemistry and biochemistry, presented "The Structure of the Cation-enolase Complex and its Catalytic Processes" at the University of Concepcion, Chile, June 3. He taught a course and did laboratory work titled "Applications of NMR Spectroscopy to Biological Systems" at Universidad Católica de Chile, Santiago, Chile, June 9-19. He presented the invited seminars "Chemical Approaches to Active Site Structure in Phosphoenolpyruvate Carboxykinase" at the University of Santiago, Chile, June 16. He presented "The Function of Divalent Cations in Enolase Catalysis" at the University Austral in Valdivia, Chile, June 22.

María Rosa Olivera-Williams, associate professor of romance languages and literatures, read the paper "*Muerte sin fin* de José Gorostiza o 'El viaje inmóvil'" at Cuartas Jornadas Internacionales "Carlos Pellicer" in Villahermosa, Tabasco, Mexico, Feb. 12-16. She was interviewed as a distinguished guest of the city by Radio Tabasco, in their program "Hora cultural," Feb. 14.

William O'Rourke, associate professor of English served as a fiction juror for a Literary Competition sponsored by the Arts Council of Indianapolis, Ind., July 22.

Morris Pollard, Coleman director of the Lobund Laboratory and professor emeritus of biological sciences, presented the public lecture "The Promise of Cancer Prevention" under the auspices of the American Cancer Society in South Bend, Ind., July 29.

Faculty Notes

Dean A. Porter, director of the Snite Museum of Art and associate professor of art, art history and design, delivered the lecture "Victor Higgins' Painting 'Winter Funeral': The Return of a Masterpiece" at the Harwood Foundation of the University of New Mexico in Taos, N.M., July 23.

Steven T. Ruggiero, associate professor of physics, presented "Charging Effects in Single Particle Systems" at the Nordita Workshop on Nanometer Structures and Mesoscopic Physics in Trondheim, Norway, June 21-26.

James H. Seckinger, director of the National Institute for Trial Advocacy and professor of law, served as a faculty member for the NITA Master Advocates Program at the University of Colorado School of Law in Boulder, Colo., July 5-10. He chaired the conference on NITA Teaching Techniques in Boulder, Colo., July 15-17. He gave a series of presentations on trial advocacy teaching techniques. Seckinger chaired the NITA Program Directors' Meeting and gave a presentation on new techniques for training faculty members in teaching techniques in Boulder, Colo., July 17-19. He served as a faculty member for the NITA Gulf Coast Deposition Program at the University of Loyola School of Law in New Orleans, La., July 23. He gave a presentation on NITA's learning-by-doing teaching techniques at the Clifford Chance law firm in London, England, July 28. Seckinger gave a presentation on NITA's learning-by-doing teaching techniques at the Linklaters & Paines law firm in London, England, July 30.

Andrew J. Sommese, chairman and professor of mathematics, was a visitor of the Mathematics Institute of the University of Göttingen, Germany, Jan. 15-July 31. His visit was funded by the Sonderforschungsbereich 170 at the University of Göttingen. He gave the colloquium talk "On the Adjunction Theory of Projective Varieties" in Germany.

Billie F. Spencer Jr., associate professor of civil engineering and geological sciences, chaired the sessions titled "Reliability of Controlled Structures" and "Probabilistic Methods in Crack Initiation and Propagation" at the sixth ASCE specialty conference on Probabilistic Mechanics and Structural and Geotechnical Safety in Denver, Colo., July 8-10. He co-authored the paper "Numerical Solution of the Transient Fokker-Planck Equation: The Move" and presented the paper "Reliability of Controlled Structures Subject to Real Parameter Uncertainty" at that conference. He presented a paper titled "Nonlinear Control of a Tension Leg Platform" at the Innovative Large Span Structures Conference in Toronto, Ontario, Canada, July 13-16.

Donald E. Sporleder, professor of architecture, presented a talk on "Internship Process" at the Architectural IDP Fair, Intern Development Program, sponsored by the Indiana Society of Architects and the State of Indiana Board of Regis-

tration for Architects at Ball State University in Muncie, Ind., June 11. He met with the National Council of Architectural Registration Boards, Master Juror Committee, in San Francisco, Calif., June 20-23, and attended the NCARB annual meeting June 27. The committee pre-tested the Building Design Examination and developed criteria for use at the Architects Registration Examination — Building Design division — to be administered in mid-June 1993 to candidates for licensure.

Duncan G. Stroik, assistant professor of architecture, presented the paper "Rome as a Work of Art: Teaching Urban Design in the Italian Tradition" at the 13th annual international "Making Cities Livable Conference" in Venice, Italy, June 26.

Rafael Tenorio, assistant professor of finance and business economics, presented the paper "Incentives in Professional Boxing Contracts" at the 67th meetings of the Western Economic Association International held in San Francisco, Calif., July 9-13.

James C. VanderKam, professor of theology, presented "The Care and Keeping of Scrolls" at the Midwest Archives Conference in Chicago, Ill., May 21. He presented "4Q Jub^a(4Q222)" to the international organization of Qumran Studies in Paris, France, July 18. He presented "Genesis 1 in Jubilees 2" at the international organization for the Study of the Old Testament in Paris, France, July 21.

Arvind Varma, Schmitt professor of chemical engineering, presented a plenary lecture titled "Combustion Synthesis of Advanced Materials" at the international symposium on Chemical Reaction Engineering held in Torino, Italy, June 28-July 1. He presented the paper "Some Chemical Reaction Engineering Considerations in the Synthesis of Silicon Nitride" and chaired the session "Reactor Modeling, Scale-up and Control" at that conference. He served as visiting chair professor where he presented a series of lectures on combustion synthesis of materials at the Università di Cagliari, Italy, July 3-24.

Warren J. Wong, professor of mathematics, gave the invited address "Some Finite p-groups, and Bilinear and Quadratic Maps on Vector Spaces" at Massey University in Palmerston North, New Zealand, June 25.

Deaths

Edward A. Fischer, professor emeritus of American studies, Aug. 10.

Mark Searle, associate professor of theology, Aug. 16.

Documentation

Publication Schedule for *Notre Dame Report* Volume 22 — 1992-93

Number	Copy Deadline	Publication Date
1	August 12, 1992	August 28, 1992
2	August 26, 1992	September 11, 1992
3	September 9, 1992	September 25, 1992
4	September 30, 1992	October 16, 1992
5	October 21, 1992	November 6, 1992
6	November 4, 1992	November 20, 1992
7	November 18, 1992	December 4, 1992
8	December 2, 1992	December 18, 1992
9	January 6, 1993	January 22, 1993
10	January 20, 1993	February 5, 1993
11	February 3, 1993	February 19, 1993
12	February 17, 1993	March 5, 1993
13	March 3, 1993	March 19, 1993
14	March 17, 1993	April 2, 1993
15	March 31, 1993	April 16, 1993
16	April 14, 1993	April 30, 1993
17	April 28, 1993	May 14, 1993
18	May 19, 1993	June 11, 1993
19	June 23, 1993	July 9, 1993
20	July 14, 1993	July 30, 1993
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Notre Dame Report Submission Information

Faculty Members (all classes: teaching research faculty, special professional faculty, and librarians and special research faculty) may submit information to be printed in *Notre Dame Report* to the Research Division of the Graduate School, 312 Main Building. Standardized cards are to be used for submissions of Faculty Notes and Current Publications and Other Scholarly Works. These cards are available by contacting the Research Division of the Graduate School (239-7432).

Faculty Notes:

Appointments include only those University appointments such as deans, department heads, heads of committees, public relations and development professionals and advisory council members. This does not include appointments to faculty positions.

Honors is comprised of non-University appointments in one's field and outright honors. It does not include fellowships, grants, etc. Any grants not published in the Awards Received section of the *Report* should be noted in Activities.

Activities must be of a professional and public nature (such as invited lectures and papers read) and should be related to one's work at the University. Lectures given on campus are only acceptable if they are of a special nature and/or if they are presented to a broader audience than the Notre Dame community. Merely attending a meeting is unacceptable. Information required for each activity submitted includes: name, rank, title of presentation, title of meeting, place and date. No activities are printed ahead of the date, only after the fact. Activities will not be printed over six months out of date.

Current Publications and Other Scholarly Works:

Submissions of current publications are due on the Friday prior to the copy deadlines stated on this page.

Administrators' Notes:

Items are accepted from **Administrative Staff** and follow the same guidelines as Faculty Notes. Standardized cards are available by contacting *Notre Dame Report* (239-5337). Submissions should be sent to 415 Main Building.

Minutes of Meetings:

The only meeting minutes printed in the **Documentation** section are from the Graduate Council, Academic Council, Faculty Senate, University Committee on Libraries, Committee on Research and Sponsored Programs, and Faculty Board in Control of Athletics. These minutes should be sent to 415 Main Building.

Documentation

Board of Trustees Executive Summary May 1, 1992

The following is a summary of the University of Notre Dame Board of Trustees meeting.

Reelection of trustees, fellows, officers and creation of life trustees. Messrs. Brademas, Caron, Decio, Lewis, Lozano, Minow and Ambassador Ruppe were reelected to three-year terms as trustees. Mr. Early was reelected to a one-year term, which will take him to the retirement age of 70. All emeriti trustees were newly designated as life trustees, including Messrs. Regan and Sullivan and Sister Gallin who were now retiring. Mr. Keough, who will relinquish his ex-officio position on the Fellows of the University when he steps down as chair of the board June 1, was elected a fellow. Dr. Faccenda resigned as a trustee and was elected a vice president of the University. Mr. Mason and Profs. Hatch, O'Hara, Sexton and Schmitz were reelected officers of the University.

Report of the President. Father Malloy distributed documentation concerning the campus dialogue about the role of the faculty in University governance, and he briefed the trustees on the final agreement. He also reviewed for the trustees the process involved in the choice of Senator Daniel Patrick Moynihan as 1992 Laetare Medalist and the issues involved in the criticism of that decision. He reported to the trustees that the officers of the University were not prepared at this time to recommend expansion of Notre Dame Stadium, pending discussions of this issue in the "Colloquy" process. (The full report of the stadium expansion committee was also presented and discussed at the meeting.)

Provost's academic report. Provost O'Meara had been asked to report on the status of both undergraduate and postbaccalaureate programs. He said the Student Government Report on undergraduate education, *Back to Basics*, which had been distributed to the trustees at their February meeting, was being discussed by some faculty committees, and that he preferred to await their input before discussing the topic with trustees. On the matter of advanced studies, he asked Dr. Hatch to brief the trustees. Dr. Hatch stressed in his report that Notre Dame was better than its reputation in graduate studies and cited evidence for progress, but he also conceded that the University was not yet in "the major leagues" in graduate education. A resolution submitted by the Faculty Affairs Committee for discussion at the fall meeting called for maintaining the excellence of undergraduate education, with particular attention to adding faculty positions in departments with acute undergraduate teaching needs, as well as continuing the enhancement of advanced studies, with particular attention to the funding

of financial aid for advanced students. The provost also reported briefly on admissions, [noting that the quality of the Freshman class was not expected to be quite as strong as usual,] which was also the case elsewhere in private higher education. He also reported that because of an increase in the University's share of financial aid on a per-student basis, the dollars previously allocated in the funding plan for Notre Dame Scholars (the academically top students) would cover fewer students.

Budget report. Mr. Mason presented and trustees approved the University's budget for fiscal 1993, including proposed increases in tuition, room and board costs which averaged 8 percent for undergraduates. A recurrent theme in his presentation was the necessity of finding new sources of revenue if the rate of tuition increases was to be reduced as planned.

Investment performance. Mr. Wilmouth reported that the Investment and Finance Committee had endorsed a global investment strategy giving maximum discretion to portfolio managers to invest in the most attractive equities in any country. In reviewing the performance of University investments over the last 15 years, he noted that they had reached the institution's stated goal of inflation plus 5 1/2 percent. He said in the future the committee was to discuss the University's spending policy, cash management, cooperation with "Colloquy" initiatives and capital funding alternatives. As regards the last, he said the University would issue bonds, as it did to assist funding of the Hessert Aerospace Research Center and the Fischer Graduate Residences, to underwrite a \$5 million electrical distribution network on campus.

Alumni Association Report. Dr. Harrington emphasized new records in the number of association-sponsored activities and in the number of graduates involved in them. He highlighted the association's pace-setting continuing education programs and its promising growth in community service activities.

Change in chairman. At the conclusion of the meeting, Mr. Keough turned the gavel over to Mr. McKenna, who will assume the chair of the board June 1.

The Graduate School Research Division

Jesse H. Jones Faculty Research Travel Fund Awards for 1991-92

The Graduate School announces the following awards from the Jesse H. Jones Faculty Research Travel Fund for the period July 1, 1991, through June 30, 1992.

John Adams, Department of Biological Sciences. Travel to Dublin, Ireland, to conduct research on identification of gene family homologues in plasmodium. \$1,000.

Gerald Berk, Department of Government and International Studies. Travel to Boston and Washington, D.C., to conduct research on Louis D. Brandeis and small business regulation. \$465.

Bernard Doering, Department of Romance Languages. Travel to Maritain Archives in Kolbsheim, France, for research on a book on Jacques Maritain. \$1,000.

Donald Kommers, Department of Government and International Studies. Travel to the Max Planck Institute in Heidelberg, Germany, for research work on a book on constitutional law and foreign policy. \$1,000.

Edward Lorenz, Department of Economics. Travel to Paris to conduct research on a project entitled "Coordination, Standards and Economic Competitiveness: A Case Study of the French Aircraft Industry, 1920-1990." \$1,200.

Vicki Martin, Department of Biological Sciences. Travel to the Developmental Biology Center at University of California-Irvine to conduct research on stem cell development during embryogenesis at the cellular and molecular levels. \$1,000.

Martin Murphy, Department of Anthropology. Travel to Cuba for a pilot research project addressing patterns of labor use in the Cuban sugar industry. \$850.

Terrence Rettig, Department of Physics. Travel to the Infrared Telescope Facility for observations scheduled for October 23-26, 1991. \$1,500.

Bradley Smith, Department of Chemistry and Biochemistry. Travel to New Jersey for molecular modular course for use in analysis of host/guest chemistry systems. \$400.

Michael Waldstein, Program of Liberal Studies. Travel to German and Austrian universities in the spring of 1992 to arrange research for a book on the *Apocryphon of John*. \$741.

Jesse H. Jones Faculty Research Fund Awards for 1991-92

Craig J. Cramer, Department of Music. A Recording of the Paris Conservatory Pieces de Concours for Organ, Vol. 1. \$9,616.

John H. Adams, Department of Biological Sciences. Analysis of the Apical Organelles of Malaria Sporozoites. \$10,000.

David J. Kirkner, Department of Civil Engineering and Geological Sciences. Prediction of Permanent Deformation in Pavement Systems by Numerical Simulation. \$8,256.

Edmundo Corona, Department of Aerospace and Mechanical Engineering. A Pilot Study on the Behavior of Metals Subjected to Cyclic, Biaxial Stress Histories. \$9,300.

Joachim Rosenthal, Juan Migliori, Department of Mathematics. Algebraic Geometry and Coding Theory. \$7,080.

Gary Bernstein, Department of Electrical Engineering. Electromigration in Ultra-Narrow Interconnects. \$10,000.

Michael Waldstein, Program of Liberal Studies. Apocryphon of John Synopsis. \$8,265.

Paul McGinn, Department of Electrical Engineering. Processing of High Magnetic Saturation Iron Nitride Compounds. \$10,000.

Yih-Fang Huang, Department of Electrical Engineering. Real-Time Aggressive Image Data Compression. \$10,000.

Katherine Spiess, Department of Finance and Business Economics. Seasoning and the Wealth Impact of Equity Offerings. \$1,875.

Jesse H. Jones Faculty Research Equipment Fund Awards for 1991-92

John H. Adams, Department of Biological Sciences. Molecular Analysis of Apical Organelles of Malaria Sporozoites. \$17,973.

Daniel Sheerin, Medieval Institute. A CLCLT Workstation for Patristic and Medieval Texts. \$3,150.

Robert L. Stevenson, Department of Electrical Engineering. Hardware for the Acquisition and Display of Real-Time Video Signals. \$7,675.

The Graduate School Research Division

Arvind Varma, Department of Chemical Engineering. An Isostatic Press for Research in Combustion Synthesis. \$12,570.

Terrence Rettig, Stephen Tegler, Department of Physics. The Primordial Composition of the Early Solar System. \$11,296.

Patrick Dunn, Department of Aerospace and Mechanical Engineering. An Optical Diagnostic-Vacuum Test Cell System for Microsphere Impact Studies. \$4,395.

Zahm Research Travel Fund Awards for 1991-92

The Graduate School announces the following awards from the Zahm Research Travel Fund for the period July 1, 1991, through June 30, 1992.

Emil Bolongaita, Department of Government and International Studies. Political Parties in an Uncertain Democracy: The Philippines in Comparative Perspective. Quezon City, Luzon; Cebu, Visayas; and Cagayan de Oro, Mindanao. \$1,785.00.

Marga Bonamusa, Department of Sociology. The Women's Movement in Democratic Spain: In Search of its Socio-Political Roots. Barcelona, Madrid, Leon and Vigo, Spain. \$1,260.

Marie Conn, Department of Theology. The Pontifical of Dunstan and the Anderson Pontifical. London, England, and Paris, France. \$2,100.

Melvin Hall, Department of Sociology. Social Movement Organizations: An Analysis of Organizational Structure and Collective Action. Arkansas, Texas, California and Washington, D.C. \$300.

Anna M. Hill, Department of Biological Sciences. Interspecific Competition and Indirect Effects of Predation as Mechanisms for Crayfish Species Replacement in Northern Wisconsin Lakes. Trout Lakes Research Station, Wisconsin. \$200.

Murray Leibbrandt, Department of Economics. Rabula Revisited: Changes in the Economy of a South African Village Over Forty Years. Johannesburg, South Africa. \$1,900.

Ellen O'Brien, Department of Economics. On the Role of Quantification in Economics: A Critical History of National Income Accounts. Cambridge, Massachusetts; Boston, Massachusetts; Columbia University, New York; Washington, D.C. \$400.

Enrique Dussel Peters, Department of Economics. Economic Integration as a Form to Overcome the Crisis? A Case Study of the Free Trade Agreement Between Canada, Mexico, and the United States. Tijuana and Mexico City, Mexico, and San Diego, California. \$150.

Margaret Stauber, Department of Chemistry and Biochemistry. The Design, Synthesis, and Biological Activity of Novel Antibiotics and Enzyme Inhibitors. Uppsala, Sweden. \$1,260.

Anna Marie Sweet, Department of Theology. The Life of Adam and Eve: A Religious-Historical Study of The Greek Version. Bielefeld, Germany, and Lille, France. \$1,170.

Carol Stuart, Department of Government and International Relations. Mobilization Under State Terrorism: The Search for the Disappeared in Guatemala. Guatemala City, Guatemala. \$656.

Cornelius Thomas, Department of History. Black Workers at the Point of Production: Shopfloor Radicalism and Wildcat Strikes in the Automobile Industry in Metropolitan Detroit. Detroit, Michigan. \$240.

Ronald Vander Griend, Department of Sociology. The House Church Movement in Philippine Protestantism. Manila, Philippines. \$1,744.

Mathew Verghis, Department of Economics. Changing Constraints on Indian Economic Growth. India. \$1,800.

Eric Watkins, Department of Philosophy. Kant's Third Analogy: Physical Influx. Marburg and Gottingen, Germany. \$940.

John H. Wigger, Department of History. Reshaping American Religion: Francis Asbury, the Early Methodist Itinerants, and the Expansion of American Methodism, 1770-1820. Madison, New Jersey, and Evanston, Illinois. \$300.

Nathan E. Yoder, Department of History. Mennonite Fundamentalists, 1890-1950: Sectarian Voices in a Pluralistic Context. Lancaster, Pennsylvania, and Harrisburg, Virginia. \$200.

The Graduate School Research Division

Current Publications and Other Scholarly Works

Current publications should be mailed to the Research Division of the Graduate School, Room 312, Main Building.

COLLEGE OF ARTS AND LETTERS

American Studies

Schmuhl, Robert P.

R.P. Schmuhl. 1992. Bush Enjoyed the Martin Van Buren Comparisons in 1988; He isn't in '92. *Chicago Tribune* 145(117):Perspective Section, page 4.

R.P. Schmuhl. 1992. The First Great Nose-Holding Media Campaign, Review of The Campaign of the Century: Upton Sinclair's Race for Governor of California and the Birth of Media Politics, by G. Mitchell. *Chicago Tribune* 145(147):Section 2, page 3.

R.P. Schmuhl. 1992. The High Price of Power, Review of What It Takes: The Way to the White House, by R.B. Cramer. *The Philadelphia Inquirer* 325(179):Section M, pages 1-2.

R.P. Schmuhl. 1992. Whom to Blame for the Country's Economic Plight, Review of America: What Went Wrong? by D.L. Barlett and J.B. Steele. *Chicago Tribune* 145(97):Section 2, page 3.

Economics

Wilber, Charles K.

C.K. Wilber and K.P. Jameson. 1992. Albert O. Hirschman: An Intellectual Portrait. Pages 106-128 in, W.J. Samuels, ed., *New Horizons in Economic Thought: Appraisals of Leading Economists*. E. Elgar Publisher, Hants, England/Brookfield, Vermont.

C.K. Wilber. 1992. How We Lost Our Shirt: The End of American Economic Hegemony. *Commonweal* 119(12):11-14.

C.K. Wilber and L.M. Grimes. 1992. The Moral Defense of Free Market Capitalism III: On Michael Novak's Democratic Capitalism. *New Oxford Review* 59(4):18-25.

English

O'Rourke, William A.

W.A. O'Rourke. 1992. Review of Cooler by the Lake, by L. Heinemann. *The South Bend Tribune*, 6/28/92:Section F, page 9.

Vanden Bossche, Chris R.

C.R. Vanden Bossche. 1992. The Queen in the Garden/The Woman of the Streets: The Separate Spheres and the Inscription of Gender. *Journal of Pre-Raphaelite Studies* 1(1):1-15.

Government and International Studies

Mainwaring, Scott P.

S.P. Mainwaring. 1992. Review of Ideas and Institutions: Developmentalism in Brazil and Argentina, by K. Sikkink. *Review of Politics* 54(2):333-335.

History

Biddick, Kathleen A.

K.A. Biddick. 1992. Review of Wharham Percy: Deserted Medieval Village, by M. Beresford and J. Hurst. *American Journal of Archaeology* 96(1992 Issue):392-393.

Romance Languages and Literatures

Cachey, Theodore, J., Jr.

T.J. Cachey, Jr. 1992. Review of A Letter of Columbus, by D. Citino. *VIA: Voices in Italian Americana* 3(1):122-126.

T.J. Cachey, Jr. 1991. Review of Dante Today, ed., A. Iannucci, *Quaderni d'italianistica*, 10.1-2 (1989). *Journal of the Rocky Mountain Medieval and Renaissance Association* 12:137-139.

T.J. Cachey, Jr. 1991. Review of Rosetta D'Angelo, *Il poemetto dell'intelligenza*. *Annali d'italianistica* 9:335-336.

Philosophy

Ameriks, Karl P.

K.P. Ameriks. 1992. Review of Hegel's Theory of Mental Activity, by W. deVries. *Philosophical Review* 101:399-401.

K.P. Ameriks. 1992. Kantian Idealism Today. *History of Philosophy Quarterly* 9:329-342.

K.P. Ameriks. 1992. Recent Work on Hegel: The Rehabilitation of an Epistemologist? *Philosophy and Phenomenological Research* 52:177-202.

K.P. Ameriks. 1992. Review of Kant's Theory of Freedom, by H.E. Allison. *Ethics* 102:655-657.

K.P. Ameriks. 1992. The Critique of Metaphysics: Kant and Traditional Ontology. Pages 249-279 in, P. Guyer, ed., *The Cambridge Companion to Kant*. Cambridge University Press, Cambridge.

Loux, Michael J.

M.J. Loux. 1991. Primary Ousia: A Philosophical Essay on Aristotle's Metaphysics Z and H. Cornell University Press, Ithaca, New York. xiv + 285 pp.

M.J. Loux. 1991. Substance. Pages 870-873 in, H. Burkhardt and B. Smith, eds., *Handbook of Metaphysics and Ontology*. Philosophia Verlag, Munich, Germany.

Manier, Edward A.

E.A. Manier. 1992. Language, Neuropsychology and Moral Tradition, by W. Percy. Pages 121-137 in, A. Harrington, ed., *So Human a Brain: Knowledge and Values in the Neurosciences*. Boston: Birkhauser/Dibner, Boston, Massachusetts.

The Graduate School Research Division

McMullin, Ernan

- E. McMullin. 1992. Introduction. Pages 1-26 in, E. McMullin, ed., *The Social Dimensions of Science*. University of Notre Dame Press, Notre Dame, Indiana.
- E. McMullin. 1992. *The Social Dimensions of Science*. University of Notre Dame Press, Notre Dame, Indiana. xvii + 299 pp.

COLLEGE OF SCIENCE

Biological Sciences

Duman, John G.

- M.E. Urrutia, J.G. Duman and C.A. Knight. 1992. Plant Thermal Hysteresis Proteins. *Biochimica et Biophysica Acta* 1121:199-206.

Martin, Vicki J.

- J.S. Van Lieshout and V.J. Martin. 1992. Development of Planuloid Buds of *Cassiopea xamachana* (Cnidaria: Scyphozoa). *Trans. American Microscopical Society, Inc.* 111(2):89-110.

Saz, Howard J.

- J.I. Arevalo and H.J. Saz. 1992. Effects of Cholinergic Agents on the Metabolism of Choline in Muscle from *Ascaris Suum*. *Journal of Parasitology* 78(3):387-392.

Chemistry and Biochemistry

Fehlner, Thomas P.

- T.P. Fehlner. 1992. Element Variation in Organometallic Chemistry: The Main-Group—Transition-Element Bond. *CHEMTRACTS—INORGANIC CHEMISTRY* 4(January/February Issue):1-16.

- W. Cen, P. Lindenfeld and T.P. Fehlner. 1992. On the Interface of Metal-Metal Multiple Bond Compounds and Organometallic Clusters: Synthesis and Structure of $\text{Mo}_2\{\mu\text{--}[(\text{CO})_9\text{Co}_3(\mu_3\text{-CCO}_2)]\}_4[(\text{CO})_9\text{Co}_3(\mu_3\text{-CCO}_2\text{H})]_2$ and Related Compounds. *Journal of the American Chemical Society* 114:5451-5452.

Gellene, Gregory I.

- P.W. McLoughlin and G.I. Gellene. 1992. Ab Initio Investigation of Possible Dynamical Stabilization of the H_3O Radical. *Journal of Physical Chemistry* 96:4396-4404.

IU, Kai-Kong

- See under Thomas, J. Kerry. 1992. *Colloids and Surfaces* 63:39-48.

Miller, Marvin J.

- C.M. Gasparski, A. Ghosh and M.J. Miller. 1992. Titanium (III)-Mediated Synthesis of a 1,2,3-Tricarbonyl Moiety from an α -Oximido- β -keto Ester: Application to the Synthesis of the Carbacephem Nucleus. *Journal of Organic Chemistry* 57:3546-3550.

Scheidt, W. Robert

- L.D. Sparks, W.R. Scheidt and J.A. Shelnutt. 1992. Effects of π - π Interactions on Molecular Structure and Resonance Raman Spectra of Crystalline Copper (II) Octaethylporphyrin. *Inorganic Chemistry* 31:2192-2196.
- W.R. Scheidt, D.K. Geiger, Y.J. Lee, P. Gans and J.-C. Marchon. 1992. Two Salts of Bis(ethanol) (meso-tetraphenylporphinato)iron(III). Molecular Structures and Magnetic Susceptibilities. *Inorganic Chemistry* 31:2660-2663.

Schuler, Robert H.

- See under RADIATION LABORATORY; Tripathi, G.N.R. 1992. *The Journal of Physical Chemistry* 96(13):5344-5350.

Szmuszkowicz, Jacob

- S. Zhao, J.P. Freeman and J. Szmuszkowicz. 1992. Hydrogenation and Dehydrogenation Reactions of Phenalenones and Dihydrophenalenones. *Journal of Organic Chemistry* 57:4051.

Thomas, J. Kerry

- K.-K. Iu and J.K. Thomas. 1992. Photophysical Properties of Pyrene in Zeolites 3. A Direct Time-Resolved Diffuse Reflectance Study in Alkali Cation-Exchanged Zeolites X and Y. *Colloids and Surfaces* 63:39-48.

Mathematics

Dwyer, William G.

- W.G. Dwyer and C.W. Wilkerson. 1992. A Cohomology Decomposition Theorem. *Topology* 31(2):433-443.

Physics

Cushing, James T.

- J.T. Cushing. 1992. Review of The Philosophy of Vacuum, by S. Saunders and Harvey Brown. *American Journal of Physics* 60:668-669.

Kolata, James J.

- J.J. Kolata. 1992. Experiments with Radioactive Nuclear Beams at the University of Notre Dame. Pages 349-353 in, F.A. Beck, S. Kossionides and C.A. Kalfas, eds., *Proceedings of the International Conference on New Nuclear Physics with Advanced Techniques*. World Scientific, Singapore.

Wiescher, Michael C.

- H. Beer, M.C. Wiescher, F. Kappeler, J. Gorres and P.E. Koehler. 1992. A Measurement of the $^{14}\text{C}(n,\gamma)^{15}\text{C}$ Cross Section at a Stellar Temperature of $kT = 23.3$ keV. *The Astrophysical Journal* 387:258-262.

The Graduate School Research Division

COLLEGE OF ENGINEERING

Aerospace and Mechanical Engineering

Batill, Stephen M.

See under Mueller, Thomas J. 1992. *Proceedings of the American Institute of Aeronautics and Astronautics AIEE* 92-3883:1-14.

Jumper, Eric J.

E.J. Jumper and R.J. Hugo. 1992. Optical Phase Distortion Due to Turbulent-Fluid Density Fields: Quantification Using the Small-Aperture Beam Technique (AIAA Paper No. 92-3020). Pages 1-10 in, *Proceedings of the AIAA Annual Thermophysics Meeting (Plasmadynamics and Lasers Conference)*. American Institute of Aeronautics and Astronautics, Nashville, Tennessee.

Mueller, Thomas J.

T.J. Mueller, D.F. Scharpf, S.M. Batill, R.B. Strebinger, C.J. Sullivan and S. Subramanian. 1992. The Design of a Subsonic Low-Noise, Low-Turbulence Wind Tunnel for Acoustic Measurements. *Proceedings of the American Institute of Aeronautics and Astronautics*. AIAA 92-3883:1-14.

Sen, Mihir

See under CHEMICAL ENGINEERING; Chang, Hsueh-Chia. 1992. *Journal of Fluid Mechanics* 238:119-149.

Stanisic, Michael M.

M.M. Stanisic and K.C. Gupta. 1992. Closed-Form Solutions to the Spherical Joint Attachment Problem. *Journal of Mechanical Design* 114(2):269-273.

Chemical Engineering

Carberry, James J.

See under ELECTRICAL ENGINEERING; Alcock, Charles B. 1992. *Proceedings of Symposium on Natural Gas Upgrading II Division of Petroleum Chemistry*.

See under ELECTRICAL ENGINEERING; Alcock, Charles B. 1992. *Solid State Ionics* 50:197-202.

Chang, Hsueh-Chia

S. Ghosh, H.-C. Chang and M. Sen. 1992. Heat Transfer Enhancement Due to Slender Circulation and Chaotic Transport Between Counter-Rotating Eccentric Cylinders. *Journal of Fluid Mechanics* 238:119-149.

Gunasekaran, N.

See under ELECTRICAL ENGINEERING; Alcock, Charles B. 1992. *Proceedings of Symposium on Natural Gas Upgrading II Division of Petroleum Chemistry*.

Strebing, Richard B.

See under AEROSPACE AND MECHANICAL ENGINEERING; Mueller, Thomas J. 1992. *Proceedings of the American Institute of Aeronautics and Astronautics AIAA* 92-3883:1-14.

Civil Engineering and Geological Sciences

Halfman, John D.

J.D. Halfman, D.F. Jacobson, C.M. Cannella, K.A. Haberyan and B.P. Finney. 1992. Fossil Diatoms and the Mid to Late Holocene Paleolimnology of Lake Turkana, Kenya: A Reconnaissance Study. *Journal of Paleolimnology* 7:23-35.

Spencer, Billie F., Jr.

See under ELECTRICAL ENGINEERING; Sain, Michael K. 1992. Pages 63-68 in, *Proceedings Second IFAC Symposium on Nonlinear Control Design*.

J. Suhardjo, B.F. Spencer, Jr., and M.K. Sain. 1992. Non-Linear Optimal Control of a Duffing System. *International Journal of Non-Linear Mechanics* 27(2):157-172.

Suhardjo, Johannes

See under Spencer, Billie F., Jr. 1992. *International Journal of Non-Linear Mechanics* 27(2):157-172.

Computer Science and Engineering

Henry, Eugene W.

E.W. Henry and J.J. Uhran, Jr. 1992. Computer Networks in Engineering Laboratories. Pages 1454-1458 in, 1992 Annual Conference Proceedings, June 21-25, 1992, Toledo, Ohio. American Society for Engineering Education, Washington, D.C.

Uhran, John J., Jr.

See under Henry, Eugene W. 1992. Pages 1454-1458 in, American Society for Engineering Education.

Electrical Engineering

Alcock, Charles B.

C.B. Alcock, J.J. Carberry, R. Doshi and N. Gunasekaran. 1992. Coupling Reactions on Oxide Solid Solution Catalysts. *Proceedings of Symposium on Natural Gas Upgrading II Division of Petroleum Chemistry*. American Chemistry Society, San Francisco, California.

C.B. Alcock and J.J. Carberry. 1992. The Preparation and Properties of Highly Conductive Nonstoichiometric Oxide Catalysts. *Solid State Ionics* 50:197-202.

Bauer, Peter H.

P.H. Bauer, K. Premaratne and J. Duran. 1992. A Necessary and Sufficient Condition for Robust Stability of Time-Variant Discrete Interval Matrix Systems. Pages 95-96 in, *Proceedings of the 1992 American Control Conference*. IEEE, Chicago, Illinois.

Michel, Anthony N.

M.S. Radenkovic and A.N. Michel. 1992. A Unified Approach to Robust Stochastic and Deterministic Adaptive Control. Pages 1187-1191 in, *Proceedings of the 1992 American Control Conference*. Chicago, Illinois.

The Graduate School Research Division

- K.M. Passino and A.N. Michel. 1992. Stability and Boundedness Analysis of Discrete Event Systems. Pages 3201-3205 in, Proceedings of the 1992 American Control Conference. Chicago, Illinois.
- Sain, Michael K.
H. Jiang, M.K. Sain, P.M. Sain and B.F. Spencer, Jr. 1992. Feedback Control of a Family of Nonlinear Hysteretic Systems. Pages 63-68 in, Proceedings Second IFAC Symposium on Nonlinear Control Design. International Federation of Automatic Control, Bordeaux, France.
- P.M. Sain and M.K. Sain. 1992. Individualized Problem Assignments: An Answer to a Pedagogical Challenge. Section 4C, pages 15-19 in, Proceedings ASEE Illinois/Indiana Spring Conference. ASEE, South Bend, Indiana.
- See under CIVIL ENGINEERING AND GEOLOGICAL SCIENCES; Spencer, Billie F., Jr. 1992. *International Journal of Non-Linear Mechanics* 27(2):157-172.

COLLEGE OF BUSINESS ADMINISTRATION

Accountancy

- Davis, Larry R.
L.R. Davis and D.T. Simon. 1992. The Impact of SEC Disciplinary Actions on Audit Fees. *A Journal of Practice & Theory* 11(1):58-67.
- Simon, Daniel T.
See under Davis, Larry R. 1992. *A Journal of Practice & Theory* 11(1):58-67.

Marketing Management

- Wilkie, William L.
W.L. Wilkie, E.S. Moore-Shay and A. Assar. 1992. Family Decision-Making for Household Durable Goods. *Marketing Science Institute Report Series* 92-108:1-28.

LAW SCHOOL

- Kmiec, Douglas W.
D.W. Kmiec. 1992. The Attorney General's Lawyer—Inside the Meese Justice Department. Praeger, New York, New York. 256 pp.
- Phelps, Teresa G.
T.G. Phelps. 1992. Pollyanna, Alice and Other Women in the Law. *Notre Dame Journal of Law, Ethics & Public Policy* 6(2):283-291.
- Shaffer, Thomas L.

- T.L. Shaffer. 1992. The New Property Law. *Preventive Law Reporter* 11(2):8-11.
- T.L. Shaffer. 1992. Review of Mount, Professional Ethics in Context. *Theology Today* 49(2):260-264.
- T.L. Shaffer. 1992. Review of Segers, Church Policy and American Politics (1990). *Journal of Church and State* 34(2):406.

O'NEILL CHAIR IN EDUCATION FOR JUSTICE

- Goulet, Denis A.
D.A. Goulet. 1992. International Ethics and Human Rights. *Alternatives* 17:231-246.

RADIATION LABORATORY

- Chipman, Daniel M.
See under Tripathi, G.N.R. 1992. *The Journal of Physical Chemistry* 96(13):5344-5350.
- Dimitrijevic, Nada M.
See under Kamat, Prashant V. 1992. *The Journal of Physical Chemistry* 96(12):4811-4814.
- Kamat, Prashant, V.
K. Vinodgopal and P.V. Kamat. 1992. Photochemistry on Surfaces. Photodegradation of 1,3-Diphenylisobenzofuran over Metal Oxide Particles. *The Journal of Physical Chemistry* 96(12):5053-5059.
- N.M. Dimitrijevic and P.V. Kamat. 1992. Triplet Excited State Behavior of Fullerenes: Pulse Radiolysis and Laser Flash Photolysis of C₆₀ and C₇₀ in Benzene. *The Journal of Physical Chemistry* 96(12):4811-4814.
- Tripathi, G.N.R.
G.N.R. Tripathi, Q. Sun, D.A. Armstrong, D.M. Chipman and R.H. Schuler. 1992. Resonance Raman Spectra and Structure of Phenylthiyl Radical. *The Journal of Physical Chemistry* 96(13):5344-5350.
- Vinodgopal, Kizhanipuram
See under Kamat, Prashant V. 1992. *The Journal of Physical Chemistry* 96(12):5053-5059.

The Graduate School Research Division

Awards for Sponsored Research, Facilities and Equipment, Instructional, Service and Other Programs Fiscal Year 1992

COMPARISON WITH TWO PRECEDING PERIODS

Category	Fiscal Year Ending June 30, 1990	Fiscal Year Ending June 30, 1991	Fiscal Year Ending June 30, 1992
Research	\$13,194,408	\$18,756,354	\$19,933,846
Facilities and Equipment	373,127	1,390,048	512,833
Instructional Programs	1,166,396	1,102,697	1,229,195
Service Programs	602,840	484,124	533,128
Other Programs	<u>407,280</u>	<u>2,187,655</u>	<u>1,412,235</u>
Total	\$15,744,051	\$23,920,878	\$23,621,237

CLASSIFIED BY SPONSORING AGENCY

Sponsoring Agency	Research	Facilities- Equipment	Instructional Programs	Service Programs	Other Programs	Total
Non-Government Agencies, Total	\$3,749,717	\$51,171	\$113,474	\$280,613	\$245,250	\$4,440,225
Individuals, Subtotal	1,500	0	0	0	0	1,500
Philanthropic Foundations, Subtotal	379,381	0	48,384	0	77,500	505,265
Industrial and Business Organizations, Subtotal	1,619,167	25,000	0	0	9,975	1,654,142
Other Non-Profit Organizations, Subtotal	1,749,669	26,171	65,090	280,613	157,775	2,279,318
Government Agencies, Total	16,184,129	461,662	1,115,721	252,515	1,166,985	19,181,012
U.S. Government Agencies, Subtotal	16,033,454	461,662	1,115,721	196,884	1,166,985	18,974,706
State Government Agencies, Subtotal	96,975	0	0	25,631	0	122,606
Local Government Agencies, Subtotal	<u>53,700</u>	<u>0</u>	<u>0</u>	<u>30,000</u>	<u>0</u>	<u>83,700</u>
Total	\$19,933,846	\$512,833	\$1,229,195	\$533,128	\$1,412,235	\$23,621,237

The Graduate School Research Division

Summary of Awards Received and Proposals Submitted

In the period July 1, 1992, through July 31, 1992

AWARDS RECEIVED

Category	Renewal		New		Total	
	No.	Amount	No.	Amount	No.	Amount
Research	7	528,346	8	325,293	15	853,639
Facilities and Equipment	0	0	1	38,380	1	38,380
Instructional Programs	2	86,832	1	10,000	3	96,832
Service Programs	0	0	10	38,739	10	38,739
Other Programs	<u>0</u>	<u>0</u>	<u>1</u>	<u>10,000</u>	<u>1</u>	<u>10,000</u>
Total	9	615,178	21	422,412	30	1,037,590

PROPOSALS SUBMITTED

Category	Renewal		New		Total	
	No.	Amount	No.	Amount	No.	Amount
Research	5	1,432,946	9	3,127,294	14	4,560,240
Facilities and Equipment	0	0	3	234,427	3	234,427
Instructional Programs	0	0	1	29,080	1	29,080
Service Programs	0	0	0	0	0	0
Other Programs	<u>0</u>	<u>0</u>	<u>1</u>	<u>50,320</u>	<u>1</u>	<u>50,320</u>
Total	5	1,432,946	14	3,441,121	19	4,874,067

The Graduate School Research Division

Awards Received

In the period July 1, 1992, through July 31, 1992

AWARDS FOR RESEARCH

Aerospace and Mechanical Engineering

Nelson, R.
Static and Dynamic Characteristics
NASA - Ames Research Center
\$40,000 12 months

Biological Sciences

Lodge, D.
Food Webs and Nutrients: Benthic Community Responses
National Science Foundation
\$63,321 24 months

Hellenthal, R.
Biological Reconnaissance and Evaluation of Juday Creek
St. Joe River Basin Commission
\$30,056 22 months

Chemistry and Biochemistry

Helquist, P.
Synthesis of Enantiomers and Salmeterol
Sepracor, Inc.
\$17,983 6 months

Reactive Energy Surfaces
C. & H. Dreyfus Foundation, Inc.
\$25,000 60 months

Huber, P.
Protein Binding Sites on 5S r RNA
National Institutes of Health
\$181,354 12 months

Creary, X.
Carbanion, Carbocation, Carbenic, and Electron Transfer
National Science Foundation
\$88,000 12 months

Fehlner, T.
Main Group-Transition Element Clusters
National Science Foundation
\$27,200 36 months

Computer Science and Engineering

Lumsdaine, A.
Parallel Numerical Methods for Initial Value Problems
National Science Foundation
\$67,460 36 months

Electrical Engineering

Michel, A.
Qualitative Analysis of Complex Dynamical Systems
National Science Foundation
\$37,200 24 months

Costello, D., Mills, D.
Award for Creativity in Engineering
National Science Foundation
\$35,000 36 months

Physics

Livingston, A.
Atomic Physics of Rydberg States in Highly-Ionized Atoms
Department of Energy
\$80,973 15 months

Ruchti, R., Biswas, N., et al.
High Rate Scintillating Fiber Tracking for SSC
Purdue University
\$55,000 12 months

Program of Liberal Studies

Crowe, M., Kevin, J.
Calendar of the Correspondence of Sir John Herschel
National Science Foundation
\$104,592 30 months

Psychology

Anderson, D.
Discretionary Research Fund
Wilco Wire & Cable Co., Inc.
\$500 12 months

AWARDS FOR FACILITIES AND EQUIPMENT

Electrical Engineering

Minniti, R., Das, B., et al.
A Modern IC Fabrication Laboratory
National Science Foundation
\$38,380 24 months

AWARDS FOR INSTRUCTIONAL PROGRAMS

Government and International Studies

Mainwaring, S.
NAFSA Fellowships
NAFSA/Association of International Educators
\$10,000 9 months

The Graduate School Research Division

Psychology

Borkowski, J., Whitman, T.
Research Training in Retardation
National Institute of Health
\$81,832 12 months

Graduate School

Hatch, N.
McGee Fellowship Program in Economics
McGee Foundation
\$5,000 9 months

AWARDS FOR SERVICE PROGRAMS

N.D. Center for Pastoral Liturgy

Bernstein, E.
Center for Pastoral Liturgy
Various Others
\$3,018 1 month
Center for Pastoral Liturgy-Publications
Various Others
\$895 1 month
Center for Pastoral Liturgy-Publications
Various Others
\$1,014 1 month
Center for Pastoral Liturgy
Various Others
\$1,402 1 month

Center for Continuing Formation in Ministry

Cannon, K.
Center for Continuing Formation in Ministry
Various Others
\$29,488 1 month

Institute for Pastoral and Social Ministry

Cannon, K.
IPSM/Dynamic Parish
Various Others
\$234 1 month
Institute for Pastoral and Social Ministry
Various Others
\$8 1 month
IPSM/Dynamic Parish
Various Others
\$38 1 month

Latin/North American Church Concerns

Cannon, K.
IPSM/LANACC
Various Others
\$392 1 month

Programs for Church Leaders

Kelly, S.
Programs for Church Leaders
Various Others
\$2,250 1 month

AWARDS FOR OTHER PROGRAMS

Institute for International Peace Studies

Hayner, A.
Baltic/East Central European Assistance Awards Program
NAFSA/Association of International Educators
\$10,000 12 months

Proposals Submitted

In the period July 1, 1992, through July 31, 1992

PROPOSALS FOR RESEARCH

Aerospace and Mechanical Engineering

Atassi, H.
Hydrodynamics and Acoustics in Nonuniform Flow
Department of the Navy
\$128,223 12 months
Batill, S.
Time Domain Parameter Identification
NASA - Ames Research Center
\$89,622 24 months
Mueller, T.
NASA National Space Grant College and Fellowship
Program
Purdue University
\$75,000 12 months
Indiana Business Modernization and Technology
Program
Purdue University
\$12,500 12 months
Szewczyk, A.
3-D vs. 2-D Aspects of Bluff Bodies
Department of the Navy
\$342,175 36 months

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Biological Sciences

Craig, G.
Vector Competence for La Crosse in *Aedes*
National Institute of Health
\$429,967 12 months

Kulpa, C., Boopathy, R.
Anaerobic Biotransformation of Munitions Wastes
Environmental Protection Agency
\$244,004 36 months

Civil Engineering and Geological Sciences

Gray, K.
Photocatalytic Degradation of MTBE
ACS Petroleum Research Fund
\$29,480 24 months

Chemical Engineering

Leighton, D.
Reaction Induced Separation in Oscillatory Systems
ACS Petroleum Research Fund
\$110,550 44 months

Chemistry and Biochemistry

Bumpus, J., Irvine, R.
Strategies to Enhance Bioremediation
DARPA
\$549,395 48 months

Nowak, T.
NMR Studies of Metals in Kinases and Related Enzymes
National Institute of Health
\$263,442 12 months

Electrical Engineering

Porod, W., Lent, C., et al.
Quantum Cellular Automata
DARPA
\$1,718,189 36 months

Physics

McGlinn, W.
Classical Topology and Quantum Statistics
National Science Foundation
\$31,379 12 months

Furdyna, J., Dobrowolska-Furdyna, M.
II-VI Semiconductors NSF/MRG
Purdue University
\$536,314 36 months

PROPOSALS FOR FACILITIES AND EQUIPMENT

Aerospace and Mechanical Engineering

Powers, J.
Computer Hardware for Pyrotechnic Modeling
NASA - Lewis Research Center
\$12,550 10 months

Electrical Engineering

Costello, D., Stevenson, R., et al.
High Resolution Video Processing System
National Science Foundation
\$96,877 18 months

Physics

Cason, N., LoSecco, J., et al.
Equipment for Brookhaven Experiment E-852
Brookhaven National Lab.
\$125,000 3 months

PROPOSALS FOR INSTRUCTIONAL PROGRAMS

Government and International Studies

Mainwaring, S.
NAFSA Fellowships
NAFSA/Association of International Educators
\$29,080 9 months

PROPOSALS FOR OTHER PROGRAMS

University Libraries

Ames, C.
Brief Record Project 2: Catholic Pamphlet Collection
Our Sunday Visitor, Inc.
\$50,320 9 months

Notre Dame

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