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The University

Campus Ministry Receives Grant

A foundation which has requested anonymity has awarded the Office of Campus Ministry a grant for \$50,000 to support a new religious education program entitled "Communities ND — An Experience in Adult Christianity." The grant invites Campus Ministry to request similar amounts of support for the program in 1995 and 1996.

The program is based on a peer ministry method, using the base Christian community concept, and includes support for small undergraduate and graduate communities of men and women. Each of the "Communities ND" meet once every three weeks to share insights into the gospel texts for the Sunday following the meeting, and to discuss some aspect of the content of the Catholic faith which is of special interest to the group and for which background information is provided by Campus Ministry.

FACULTY NOTES

Honors

Ahsan Kareem, professor of civil engineering and geological sciences, has been appointed to the editorial board of *Probabilistic Engineering Mechanics*, an international journal dealing with probabilistic and statistical approaches to contemporary solid and fluid mechanics problems, published by the Elsevier Applied Science, United Kingdom.

Activities

Craig E. Adcock, professor of art, art history and design, served on the review committee as a panelist and respondent for the symposium "Rising Above Our Garbage" at the Exploratorium in San Francisco, Calif., Jan. 28–30.

Mark S. Alber, assistant professor of mathematics, gave an invited colloquium talk titled "Asymptotic Reduction for Soliton Equations" at the Center for Nonlinear Studies of the Los Alamos National Laboratory, N.M., Feb. 1. He gave a talk titled "Angle Representations for Soliton Equations" at the University of California in Davis, Calif., Feb. 4.

J. Douglas Archer, associate librarian, chaired the meeting of the Intellectual Freedom Round Table's Membership Promotion Committee at the American Library Association's midwinter meeting in Los Angeles, Calif., Feb. 6.

Gary H. Bernstein, associate professor of electrical engineering, participated in a review panel on grant proposals for the Instrumentation and Laboratory Improvement Program of the National Science Foundation in Arlington, Va., Jan. 19–22.

Joan F. Brennecke, assistant professor of chemical engineering, presented an invited seminar titled "Solvation Effects on Kinetics in Supercritical Fluids," in the Department of Chemical Engineering at the University of Toledo in Toledo, Ohio, Jan. 26.

Daniel Chipman, professional specialist in the Radiation Laboratory, presented the paper "Magnetic Hyperfine Coupling Constants in Free Radicals" at the 34th Sanibel Symposium in Ponte Vedra Beach, Fla., Feb. 14–19.

Richard W. Fessenden, professor of chemistry and biochemistry and associate director of the Radiation Laboratory, presented the seminar "Applications of ESR: Radical Structure and Reactions" at Indiana State University in Terre Haute, Ind., Feb. 8.

Malcolm J. Fraser Jr., associate professor of biological sciences, presented a poster titled "Insertion and Excision of IIAA–specific Lepidopteran Transposable Elements" at the Keystone Symposium on Molecular and Cellular Biology Transposition and Site-specific Recombination: Mechanism and Biology in Park City, Utah, Jan. 21–27.

Umesh Garg, associate professor of physics, was a special invitee to the Scientific Advisory Committee of the Nuclear Science Center in New Delhi, India, Dec. 17. The committee reviews the programs and activities of the center and advises the governing body on all scientific matters. He gave the invited talk "Lifetime Measurements Using a Plunger with Gamma-ray Detector Arrays" at the Nuclear Science Centre in New Delhi, India, Jan. 7. He presented the invited talk "Lifetime Measurements and Shape Coexistence in Nuclei" at Panjab University in Chandigarh, India, Jan. 18.

James A. Glazier, assistant professor of physics, gave the invited seminar "The Energetics of Cell Sorting" at the N.E.C. Research Laboratories in Princeton, N.J., Jan. 28. He presented the Department of Chemistry Colloquium titled "Cellular Patterns in Two and Three Dimensions" at Loyola University in Chicago, Ill., Feb. 10.

Carlos Jerez-Farrán, associate professor of Romance languages and literatures, presented "Autenticidad masculina e inversión sexual en *El público* de García Lorca" at the congreso internacional "Max Aub y el Laberinto Español" at the Universidad de Valencia, Spain, Dec. 14.

Sophia K. Jordan, assistant librarian, investigated the status of preservation activities at the national libraries of Sofia, Veliko Tirnovo, and Plovdiv, Bulgaria, through a one-month grant awarded from the Commission on Preservation and Access during March.

Ahsan Kareem, professor of civil engineering and geological sciences, chaired a session titled "Offshore Structures" and presented three papers titled "Modeling of Wave-Induced Forces at Displaced Position of Compliant Offshore Platforms," "Response Statistics of Tension Leg Platforms Under Wind and Wave Loads: A Statistical Quadratization Approach" and "Time-Scale Analysis of Nonstationary Processes Utilizing Wavelet Transforms" at the sixth international conference on Structural Safety and Reliability at Innsbruck, Austria, Aug. 9–13.

Rev. Robert A. Krieg, C.S.C., associate professor of theology, lectured on "Jesus Christ in Art" at the Institute of Catechetical Formation of Teachers for the Diocese of Fort Wayne–South Bend in South Bend, Ind., Oct. 15. He gave the lecture "Preaching Advent and Christmas" at the autumn conference of C.S.C. Deacons in Rochester, Ind., Nov. 19.

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Rev. Richard P. McBrien, Crowley-O'Brien-Walter professor of theology, gave the keynote address "Catholic Identities Today and the Future of the Church Tomorrow: Challenges and Opportunities Toward the 21st Century" at Faith Break '94 at St. Rose Parish in Perrysburg, Ohio, Feb. 6.

Anand Pillay, professor of mathematics, gave the invited talks "Definable Subgroups of Algebriac Groups over Finite Fields" and "The Buium-Manin Homomorphism" at the Oberwolfach Model Theory Meeting in Germany, Jan. 2–8. He presented the invited talk "Stable Groups and Differential Algebraic Groups" at the Very Informal Logic Meeting at the University of California in Los Angeles, Calif., Jan. 15–17. He presented a colloquium titled "Model Theory and Algebraic Groups Over Finite Fields" at the University of Illinois in Urbana, Ill., Feb. 24. He presented the talk "Remarks on Lang's Conjecture" at the Midwest Model Theory Meeting at the University of Illinois in Urbana, Ill., Feb. 26.

Wolfgang Porod, professor of electrical engineering, and Craig Lent, associate professor of electrical engineering, presented the talk "Resonant Tunneling Valley Current Suppression: Engineering Poles and Zeros in the Complex-Energy Plane" at the of the Texas Instruments Quantum Device Modeling Workshop held in Dallas, Tex., Feb. 4–6.

Jean Porter, associate professor of theology, gave the 13th annual Aquinas Lecture "At the Limits of Liberalism: Thomas Aquinas and the Religious Roots of Feminism" at the Aquinas Institute of Theology in St. Louis, Mo., Jan. 27. She participated in a consultation on the Future of Religious Studies sponsored by the Chicago University Divinity School in Chicago, Ill., Jan. 30–31.

Joseph M. Powers, assistant professor of aerospace and mechanical engineering, presented a paper titled "Choked Flow Effects in the NSI Driven Pin Puller" at the second NASA Aerospace Pyrotechnic Systems Workshop at the Sandia National Laboratories in Albuquerque, N.M., Feb. 8–9.

James P. Sterba, professor of philosophy and faculty fellow in the Kroc Institute, presented "Feminist Justice and Sexual Harassment" at the sixth Concerned Philosophers for Peace Conference held in St. Paul, Minn., Oct. 7–10. He presented "Reconciling Anthropocentric and Nonanthropocentric Environmental Ethics" to the philosophy department of the University of Pittsburgh in Pittsburgh, Pa., Nov. 4. Sterba presented "Feminist Justice and the Pursuit of Peace" at the conference on Feminist Ethics and Social Policy at the University of Pittsburgh, Pittsburgh, Pa., Nov. 5–7. He conducted a work-

shop on "Ethics Across the Curriculum" at Utah Valley College in Provo, Utah, Dec. 12–14. He presented a symposium paper titled "On Ridding the World of Nuclear Weapons" at the eastern division meeting of the American Philosophical Society in Atlanta, Ga., Dec. 27–30.

Albin A. Szewczyk, professor of aerospace and mechanical engineering, presented two talks titled "Modification of the Near Wake of a Circular Cylinder in a Shear Flow by Use of a Splitter Plate" and "Periodic Trailing Edge Splitter Plate Revisited" at the fourth workshop on the ONR Accelerated Research Initiative — Vortex Shedding and Vortex Wakes: Dynamics, Instabilities and Modifications at Arizona State University in Tempe, Ariz., Dec. 8–10.

Rev. Oliver F. Williams, C.S.C., associate provost and associate professor of management, gave a talk on "Prospects and Challenges of the Reborn South Africa" for the Notre Dame Council on International Business Development at Notre Dame, Ind., Feb. 9.

254th Graduate Council Minutes December 9, 1993

Members present: Nathan O. Hatch, chair; Harold W. Attridge; Peter Diffley; Gregory E. Dowd; Rita P. Francis; Morton S. Fuchs; Kimberly A. Gray; Ethan T. Haimo; John W. Houghton; Jeffrey C. Kantor; John G. Keane; Anthony N. Michel; Robert C. Miller; Wilson D. Miscamble, C.S.C.; Thomas J. Mueller; Kathie E. Newman; Thomas L. Nowak; Sharon L. O'Brien; James H. Powell; Andrew J. Sommese; Barbara M. Turpin; Chris R. Vanden Bossche; Diane R. Wilson.

Members absent and excused: Francis J. Castellino, represented by Charles F. Kulpa Jr.; JoAnn DellaNeva, represented by John P. Welle; Scott P. Mainwaring; John H. Van Engen.

Guests: Cheryl Ann Blain; Kimberly A. Gray; Vicki J. Martin; Janice M. Poorman; Lissa J. VanBebber; Susan L. Youens.

Observers: Edward J. Conlon; Chau T.M. Le.

Prof. Nathan O. Hatch opened the meeting at 3:35 p.m. on December 9, 1993, in Room 210, Center for Continuing Education. He welcomed the guests and invited Ms. Rita Francis, president of the Graduate Student Union, to make an announcement about a new GSU publication. Ms. Francis said that a focus on funding intellectual liferelated activities resulted in a plan to publish a book of abstracts of articles published by graduate students. The first edition will be out in February, and Ms. Francis said she hopes it will continue to be published as a way for the GSU to recognize peers who are producing.

I. Minutes of the 253rd Graduate Council Meeting

The minutes were approved by voice vote.

II. Panel Discussion on the Experience of Women in Graduate Education

Prof. Hatch called on Dr. Barbara Turpin, associate dean of the Graduate School, to introduce the faculty-graduate student panel on the experience of women in graduate education. This session today is about neither blatant harassment nor men, Dr. Turpin said; rather, it's about the institutional sexism that allows women and men to denigrate women and whose power resides in its invisibility, like a lethal gas. This is an opportunity to make the lethal gas visible and diminish its power by articulating the

microinequities in the environment at Notre Dame, she said. Referring to an article on the psychology of gender and academic discourse by Jane Margolis which appeared in the Harvard University journal, On Teaching and Learning (distributed to council members before the meeting). Dr. Turpin said that the academic structure puts women in a double bind by forcing them to "switch voices," to break the feminine stereotype in order to succeed, and then penalizing them for breaking it. She distributed a list of microinequities she compiled from her conversations with female faculty and graduate students, and she noted that the double bind is something they all have experienced. Both male and female faculty and graduate students perceive that the rules for women in graduate school are different from the "rules of the master culture," according to a National Science Foundation Project on Women in Science and Engineering report; Dr. Turpin distributed the two lists of rules and pointed out the divergence between them. Unfortunately, she said, the problems don't go away when a student graduates and becomes a faculty member.

She then introduced the panel of three faculty and three students: Cheryl Ann Blain, doctoral candidate in civil engineering and geological sciences; Janice M. Poorman, assistant dean of the Graduate School and doctoral candidate in theology; Lissa J. VanBebber, doctoral candidate in sociology; Susan L. Youens, professor of music; Vicki J. Martin, associate professor of biological sciences; and Kimberly A. Gray, assistant professor of civil engineering and geological sciences.

Ms. Blain said she has felt isolated both from the faculty and from the other students, a feeling heightened by the fact that there are so few female students in engineering. She spoke about the sports culture among men, in which playing basketball fosters a kind of faculty-student interaction which just doesn't happen when she knocks on a faculty member's door. She feels that she is seen first as a woman rather than a student or colleague, which makes effective working relationships difficult to achieve. Ms. Blain also observed that an enormous value is placed on aggressiveness and confrontational style in presenting work, and she feels forced to change her own "more giveand-take" style when she would rather not. Another difficulty, she said, can be faculty advisers who act like "fathers" to women who want to be taken seriously as professionals. No one of these things is big, she said, but together and over time, they erode one's self-confidence. Even though on paper she is well qualified, she has come to doubt her own abilities and has lowered her professional expectations.

Ms. Poorman said that her work in the Theology Department with the Graduate Theological Union and Women in Theology has qualified her to represent not only her

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own experience as a graduate student but also the experiences of 50 women in graduate theology programs. She said that even when they have spoken to her "with anger bordering on rage," it has always been with the hope that speaking out could lead to change. Women are deeply offended, Ms. Poorman said, by the commonly expressed assumption that any success they achieve, from being admitted to the program to passing exams, is due to preferential treatment. In the classroom, she said, the primary experience is of invisibility; either women's contributions are ignored or the subject is changed after they have spoken. Women are more frequently interrupted, less frequently called by name, seldom acknowledged as the contributor of a fine idea, and often asked for the "women's viewpoint" - as if there is one. It is often assumed that they will work on the feminist dimensions of theology, but those areas are frequently less respected, and are consequently marginalized. Women's self-esteem suffers greatly during course work, she said, and the hesitancy with which they speak in class betrays their insecurity. But they are caught in a bind, she said. Women who speak with confidence are accused of being "feminazis," or too male.

In their relationships with their mentors, Ms. Poorman said that women have to be more assertive than their male counterparts and that they are often offended by sexist comments about their dress, appearance and childrearing activities. Women are criticized for having children while they are in the program; men, on the other hand, are praised. She also said seven women told her that they have been sexually harassed by their mentors; the microinequities allow such harassment to exist and continue. Noting that some women in theology are ordained ministers, she said that their pastoral ministerial roles are ignored and diminished while they are here. She also cited persistent use of exclusive language and extreme clericalism at Notre Dame. Finally, she called the pervasive feeling of isolation the most common experience of women at Notre Dame.

Ms. VanBebber said that her response when she was invited to speak on this panel was, "Hallelujah! For the first time, someone really wants to know." She said that no women have graduated with a Ph.D. in sociology during the five years she has been in the doctoral program even though there have been women ahead of her, and she has developed "this weird fear" that she won't finish either. She said that pursuing her special interest in sociological theory was hampered by course work which was limited to the study of male European authors. Her repeated requests for the inclusion of women and blacks were met with outright refusal, she said, and to pursue her interest she was forced to do twice as much work. Ms. VanBebber also criticized the unfair assumption that beauty equals dumb and ugly equals smart. After sweeping through her

first two years with distinction, she said, she knew that her record was at least equal to that of the student chosen to receive the department's best student award. Trying to figure out why she was not chosen, she concluded that she, with her blond highlights, attractive jeans and cheerful disposition, was perceived as being less capable. She darkened her hair, started wearing scruffy clothes, adopted a burdened and harried demeanor, and the next year she got the award. Of course, she said, the new image might not have been a factor — but she got the same message about appearance more directly from a faculty member at Duke when she applied for a job. Ms. VanBebber also considers the sports milieu a discriminatory barrier. At Ohio State, she said, the men walked off the golf course rather than play on a team with her. At Notre Dame, when she tried to join in a basketball game, the men wanted to know how well she shoots.

Prof. Youens recalled being outraged by the "tired old slur" from a fellow graduate student who asked her how a woman musicologist is like a dancing bear. "You don't look for quality in the performance," he said, "you just marvel that it can be done at all." But the real problem for women in graduate school, she said, was not boorish male graduate students but advisers, who had the power to affect one's career. They sharply differentiated between the men and women. For example, one woman at her university who became engaged as a graduate student was immediately dismissed from the doctoral program because she no longer needed the degree, they said; yet a man who became engaged was praised for doing something which would enhance his career. The few women (three in 12 years) who survived the "adviser-protector" system were severely criticized for their incorrect style and approach to scholarship. As a young professor being reviewed for tenure at another university, she was told that her literary writing style and interest in interdisciplinary issues not yet sanctioned by male authority were not "real musicology." Far from becoming an intellectual snob, she said, she was certain that her degree was only a veneer over the true state of cretinism beneath the surface. To this day, she said, her former graduate studies director, who is not in her field, "corrects" in red ink everything she writes and sends it to her, unsolicited and without a note. With mingled feelings of anger and loss over the time it took her to reach "safe haven" here, Prof. Youens said she feels an urgency to change the academic climate for today's women.

The first college graduate in her family, Prof. Martin said that when she earned her doctorate, her family was very proud of her accomplishments, and she was happy to become part of an admirable profession. But since then, she said, her experience has been demoralizing. There are very few women in science at Notre Dame, and she said that women who are interested in moving through to

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higher levels in science are concerned that they will not be recognized as professionals. She questioned why the graduate program in her department has lost 10 women but only two men. The women come in very enthusiastic, she said, and leave very dejected. Those who are here feel very isolated. Prof. Martin said that as she tries to rebuild her own eroded self-confidence, it helps that both undergraduate and graduate women thank her for being here and for being able to understand what they're going through. She said that denigrating comments from male colleagues have ranged from insinuating that women receive special consideration in tenure decisions to questioning why women think they have to dress like men. She has heard all of the comments made by the other panelists from women in biology, she said; she hopes the discussion will help to make things better for all women at Notre Dame.

Saying that she too had experienced everything the other panelists described, Prof. Gray tried to sum up the discussion. These inequities create a hostile environment, she said, and they fail to foster excellence in a positive way. Recruiting and retaining female students and faculty has been difficult, she said, and there are problems with promotion. Prof. Gray said that these subtle experiences are not obvious to anyone but those who suffer them, and she observed that it is easier to recognize a problem when it's far afield than when it's here at home. Another obstacle is the perception that "women" have the problem - and so it's dismissed. She said the first step in addressing these subtleties is to recognize that the problem exists; her personal experience is that there are many good things about science and engineering here, but there are also rough spots. Secondly, to welcome women as full partners requires change by both men and women, she said. No single factor explains the challenges; gender is only one. She ended by wondering if too much energy is spent negatively instead of being focused in creative interactions.

After thanking all of the panelists because he had learned a lot by listening to them, Prof. Fuchs noted that some of the problems could have been faced by either sex; he asked the panelists how to distinguish between a gender problem and an individual problem. Dr. Turpin said she has heard female graduate students say that they feel ignored when they try to bring a problem to the department chair's attention. One thing that can be done is to start listening to them.

Prof. Newman said it is important to learn how to identify the inequities. For example, a male colleague noticed that in the minutes of faculty meetings, men were always referred to by their last name and women, by their first name. She called the recognition of this belittling practice a moment of awareness. She suggested that everyone

can work on becoming aware of such inequities in themselves and then move to the second stage, eliminating them. Acknowledging that it's a long process, she said she has been working on it for herself for five years. She said she was at a meeting of women physicists at which 50 percent of the women answered affirmatively when asked if they had been sexually harassed during their professional career.

Ms. Blain said that when she suspects her adviser's behavior toward her is a problem because she's a woman, she asks herself how he has treated male students in similar situations.

Dr. Turpin said one inequity which can immediately be eliminated is denying married women stipends because it is assumed that their husbands will support them. From this differential treatment, women assume something is wrong with them, that they're not good enough. Prof. Gray and others immediately questioned the legality and the wisdom of such a practice and asked if it is widespread. Dr. Turpin responded that it is not common but it does happen. The stories she hears about women who have children are among the most painful, she continued. Men have received special consideration for assuming child care responsibilities when women, whose daily responsibility for child care is simply routine, feel they can't even ask.

Referring to the list of microinequities at Notre Dame, Prof. Attridge asked if the experience of exclusion is widespread here. Dr. Turpin said she has heard it from some women, but she does not know how common it is.

Prof. Fuchs said he wanted to pursue some of the ideas in the Margolis article, and a discussion ensued on the dynamics of confrontation and competition in the classroom. Prof. Attridge noted that challenging ideas in the classroom is appropriate and necessary; he wondered if it was a matter of students learning to use an academic convention. Ms. Poorman objected that not all confrontation is good and healthy, and suggested that a balance might be struck between the values of competition and consensus.

Prof. O'Brien said she wanted to bring the discussion back to the topic of inequities in the environment. She described many women's feeling that they must keep half of their lives secret and said we need to talk about how to open up the environment here so that women can speak more honestly. She suggested brainstorming about how to further this process and asked if it would be helpful to take it to the collegiate level.

Mr. Miller said he intends to report back to the University's Academic Affirmative Action Committee, of



which he is a member. He said he thinks the situation calls for awareness if it is to be changed.

Ms. VanBebber offered two suggestions for departments. First, she said, appoint someone whom the graduate women can talk to. It doesn't have to be a woman, she said, but it must be someone well-respected in the department. Second, help graduate students. Co-authorship, for example, helps all kinds of things, from placement to self-esteem.

Prof. O'Brien said she distributed some articles on this topic to her department's affirmative action committee. They have become aware of possible gender bias in TCEs, sexist comments directed toward women, and other such problems. At least now we are able to say to women interviewing here that yes, the department is aware of difficulties, she said; even though the problems are not solved, the department takes issues of social justice and gender bias seriously.

Dr. Turpin offered help to anyone wanting to set up a similar discussion at the college or department level. Prof. Fuchs asked for a report back in a year to see if things are improving. Prof. Kantor asked for quantitative data, such as retention figures. Ms. Francis mentioned GSU activities in this area over the last five years, such as the creation of the Women's Resource Center.

The meeting was adjourned at 5:25 p.m.

Current Publications and Other Scholarly Works

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

COLLEGE OF ARTS AND LETTERS

Art, Art History and Design

Pyne, Kathleen A.

K.A. Pyne. 1993. Evolutionary Typology and the American Woman in the Work of Thomas Dewing. *American Art* 7(Winter):12-29.

Core Course

Johansen, Ruthann K.

R.K. Johansen. 1993. Flannery O'Connor: The Artist as Trickster. *The Flannery O'Connor Bulletin* 21:119-139.

R.K. Johansen. 1993. Who Is a Native Son? The Legacies of Exile and Flight in United States Experience. *Journal of Thought* 28(1&2):33-47.

Economics

Kim, Kwan S.

K.S. Kim. 1993. Economic Implications of NAFTA for East Asia. Pages 55-75 *in*, R.G. Rich, Jr., ed., AFTA after NAFTA. Korea Economic Institute for Princeton University, Princeton, New Jersey.

Mirowski, Philip E.

- P.E. Mirowski. 1994. Review of Economics, Bounded Rationality and the Cognitive Revolution, by H. Simon. *Southern Economic Journal* 60(January):786-787.
- P.E. Mirowski. 1993. The Goalkeeper's Anxiety at the Penalty Kick. Pages 305-349 *in*, N. De Marchi, ed., Non-Natural Social Science: Reflecting on the Enterprise of More Heat than Light. Duke University Press, Durham, North Carolina.
- P.E. Mirowski. 1993. Review of Rise of Financial Capitalism, by L. Neal. *Business History Review* 67(Spring):170-172.

Wolfson, Martin H.

M.H. Wolfson. 1993. The Evolution of the Financial System and the Possibilities for Reform. Pages 133-155 *in*, G.A. Dymski, G. Epstein and R. Pollin, eds., Transforming the U.S. Financial System: Equity and Efficiency for the 21st Century. M.E. Sharpe, Inc., Armonk, New York.

Government and International Studies

Johansen, Robert C.

R.C. Johansen. 1993. Unilateral Initiatives. Pages 507-519 *in,* Encyclopedia of Arms Control and Disarmament, Volume 1. Scribners, New York, New York.

Leege, David C.

See under Sociology; Welch, Michael R. 1993. Pages 235-254 *in*, Rediscovering the Religious Factor in American Politics. M.E. Sharpe, Armonk, New York.

Väyrynen, Raimo

R. Väyrynen. 1993. Territory, Nation State, and Nationalism. Pages 159-178 *in*, J. Iivonen, ed., The Future of the Nation State in Europe. Edgar Elgar: Aldershot.

Romance Languages and Literatures

Douthwaite, Julia V.

J.V. Douthwaite. 1993. Review of Dangerous Truths and Criminal Passions: The Evolution of the French Novel, 1569-1791, by T. DiPiero. *Studies in the Novel* 25(4):476-480.

Sociology

Christiano, Kevin J.

R. Wuthnow, K. Christiano and J. Kuzloski. 1994.
Religion and Bereavement: A Conceptual
Framework. Pages 245-262 in, R. Fulton and R.
Bendiksen, eds., Death and Identity (Third Edition).
The Charles Press, Philadelphia, Pennsylvania.
Welch. Michael R.

M.R. Welch. 1993. Participation and Commitment Among American Catholic Parishioners. Pages 324-345 *in*, D.A. Roozen and C.K. Hadaway, eds., Church and Denominational Growth. Abingdon Press, Nashville, Tennessee.

M.R. Welch, D.C. Leege, K.D. Wald and L.A. Kellstedt. 1993. Are the Sheep Hearing the Shepherds?: Are Perceptions Congregational Responses, and Political Communication Processes. Pages 235-254 in, D.C. Leege and L.A. Kellstedt, eds., Rediscovering the Religious Factor in American Politics. M.E. Sharpe, Armonk, New York.

Theology

Bradshaw, Paul F.

P.F. Bradshaw and B. Spinks, eds. 1994. Liturgy in Dialogue. Society for Promoting Christian Knowledge, London, United Kingdom. x + 225 pp. Krieg, Robert A., CSC

R.A. Krieg, CSC. 1994. Romano Guardini: Forerunner of Vatican II. *America* 170(4):24-25.

LaCugna, Catherine M.

C.M. LaCugna. 1993. Review of The Spirit of Life: A Universal Affirmation, by J. Moltmann. *Theological Studies* (December):755-756.

Nevrey, Jerome H., SJ

J.H. Neyrey, SJ. 1993. Clothing, Deception, Dyadism, Equivocation, Group Orientation, Nudity, Wholeness. J.J. Pilch and B.J. Malina, eds., Biblical Social Values and Their Meanings. A Handbook. Hendrickson, Peabody, Massachusetts.

Porter, Jean

J. Porter. 1994. Openness and Constraint: Moral Reflection as Tradition-Guided Inquiry in Alasdair MacIntyre's Recent Works. *Journal of Religion* 73(4):514-536.

Whitmore, Todd D.

- T.D. Whitmore. 1993. Moral Methodology and Pastoral Responsiveness: The Case of Abortion and the Care of Children. Theological Studies 54:316-338.
- T.D. Whitmore. 1993. Immunity or Empowerment? John Courtney Murray and the Question of Religious Liberty. *Journal of Religious Ethics* 21(2):247-273.

COLLEGE OF SCIENCE

Chemistry and Biochemistry

Creary, Xavier

X. Creary. 1993. C-Azidodiazirines in the SRN1 Reaction of Azide Ion with Arylchlorodiazirines. Further Insights into Reaction Mechanism. *Journal of Organic Chemistry* 58:7700-7708.

Miller, Marvin J.

A. Ghosh and M.J. Miller. 1993. Synthesis of Novel Citrate-Based Siderophores and Siderophore-ß-Lactam Conjugates. Iron Transport-Mediated Drug Delivery Systems. *Journal of Organic Chemistry* 58:7652-7659.

Mathematics

Sommese, Andrew J.

M.C. Beltrametti, M. Schneider and A.J. Sommese. 1994. Ein-Lazarsfeld Criterion for Spannedness of Adjoint Bundles. *Mathematische Zeitschrift* 214:593-599.

Physics

Blackstead, Howard A.

H.A. Blackstead and G.A. Kapustin. 1994. High Field Temperature Dependent Transport in Polycrystalline T1-Ba-Ca-Cu-O. *Physica C* 219:109-113.

H.A. Blackstead, D.B. Pulling and H. Sato. 1993. Flux-Flow and Phase-Slip Resistivity in Two Phase Polycrystalline Bi_{1.6}Pb_{0.4}Sr_{1.7}Ca₂Cu₃O_x. *Physica Status Solidi (a)* 140:509-525.

Pulling, David B.

See under Blackstead, Howard A. 1993. *Physica Status Solidi (a)* 140:509-525.

COLLEGE OF ENGINEERING

Aerospace and Mechanical Engineering

Sen, Mihir

M.A. Stremler, D.R. Sawyers and M. Sen. 1994. Analysis of Natural Convection in a Rotating Open Loop. *Journal of Thermophysics and Heat Transfer* 8(1):100-106.

N. Acharya, M. Sen and H.-C. Chang. 1994. Thermal Entrance Length and Nusselt Numbers in Coiled Tubes. *International Journal of Heat and Mass Transfer* 37(2):336-340.

Yang, Kwang-tzu

D. Mukutmoni and K.T. Yang. 1994. Pattern Selection for Rayleigh-Benard Convection in Intermediate Aspect Ratio Boxes. Pages 349-354 in, S.P. Sukhatme, V.V. Raj, R.K. Shah and V.M.K. Sastri, eds., Proceedings of the First Indian Society of Heat and Mass Transfer (ISHMT) American Society of Mechanical Engineers Heat and Mass Transfer Conference (ASME). Vedams Books International, New Delhi 110 005, India.

Chemical Engineering

Chang, Hsueh-Chia

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Civil Engineering and Geological Sciences

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COLLEGE OF BUSINESS ADMINISTRATION

Management

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LAW SCHOOL

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RADIATION LABORATORY

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Awards Received and Proposals Submitted

In the period January 1, 1994, through January 31, 1994

AWARDS RECEIVED

Category	Renewal		New		Total	
0 ,	No.	Amount	No.	Amount	No.	Amount
Research	9	1,105,930	5	463,223	14	1,569,153
Facilities and Equipment	2	36,000	1	7,050	3	43,050
Instructional Programs	0	0	0	0	0	0
Service Programs	0	0	0	0	0	0
Other Programs	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	11	1,141,930	6	470,273	17	1,612,203

PROPOSALS SUBMITTED

Category	Renewal		New		To	Total	
	No.	Amount	No.	Amount	No.	Amount	
Research	5	1,282,831	46	16,183,321	51	17,466,152	
Facilities and Equipment	1	35,771	4	235,494	5	271,265	
Instructional Programs	1	9,583	7	1,504,834	8	1,514,417	
Service Programs	0	0	0	0	0	0	
Other Programs	<u>0</u>	<u>0</u>	<u>2</u>	1,068,511	<u>2</u>	1,068.511	
Total	7	1,328,185	59	18,992,160	66	20,320,345	

Awards Received

In the period January 1, 1994, through January 31, 1994

AWARDS FOR RESEARCH

Aerospace and Mechanical Engineering

Renaud, J., Batill, S., et al.

Multidisciplinary Design Technology Development

NASA - Langley Research Center

\$196,084

12 months

Biological Sciences

Grimstad, P. Arbovirus Surveillance Laboratory Service Indiana State Department of Health \$26,367 12 months Craig, G. Vector Competence for La Crosse in Aedes National Institutes of Health \$374,071 12 months Kulpa, C. Biodegradation of TNT and Petroleum Constituents Argonne National Laboratory \$105,583 12 months Saz. H. Intermediary Metabolism of Helminths National Institutes of Health \$225,319 12 months Johnson, A. Relationship of TGF/EGF, Gonadotropin Receptors (R) Department of Agriculture \$168,639 24 months

Civil Engineering and Geological Sciences

Spencer, B.
Supplement NSF Grant BCS 93-01584
National Science Foundation
\$21,500
12 months

Chemical Engineering

Varma, A.

REU Supplement

National Science Foundation

\$5,000

29 months

Optimal Catalyst Activity Distributions in Pellets

Union Carbide

\$22,500

12 months

Chemistry and Biochemistry

Fehlner, T.

Main Group Transition Element Clusters
National Science Foundation
\$120,090 12 months

Physics

Furdyna, J., Dobrowolska-Furdyna, M.

II-VI Semiconductors NSF/MRG
Purdue University
\$148,000 18 months

Bunker, B.

Materials Research Collaborative Access Team (MRCAT)
Amoco Chemical Research Center
\$75,000

X-Ray Studies of II-VI Semiconductor Interfaces and
Alloys
Department of the Navy
\$80,000 72 months

Theology

Poorman, M.
Christian Ethics and Pastoral Practice
Association of Theological Schools
\$1,000 4 months

AWARDS FOR FACILITIES AND EQUIPMENT

Electrical Engineering

McGinn, P., Miller, A.
Image Analysis System
Purdue University
\$24,000 24 months

Physics

Ruggiero, S.
Far Infrared Responsivity of High-Tc Superconductor Devices
Purdue University
\$7,050
12 months
Blackstead, H.
Microwave Dissipation in High Temperature
Superconductors
Purdue University
\$12,000
48 months

THE GRADUATE SCHOOL Office of Research

Proposals Submitted

In the period January 1, 1994, through January 31, 1994

PROPOSALS FOR RESEARCH

Aerospace and Mechanical Engineering

Schmid, S.

Surface Roughness Evolution in Manufacturing

Processes

National Science Foundation

\$500,000

60 months

Optimum Lubricants in Metal Forming

National Science Foundation

\$217.375

36 months

Research Initiation and Gift-In-Kind Proposal to SME

Foundation

SME Education Foundation

\$33.806

12 months

National Science Foundation Young Investigator 1994

National Science Foundation

\$500,000

60 months

Atassi, H., Jumper, E., et al.

Forced Vibration: Sweep Effect

SCERDC

\$748,453

36 months

Mason, J.

Research Initiation Award: Punching and Blanking

National Science Foundation

\$268,654

36 months

Renaud, J.

National Science Foundation Young Investigator 1994

National Science Foundation

\$500,000

60 months

Thomas, J.

National Science Foundation Young Investigator 1994

National Science Foundation

\$500,000

60 months

Corona, E.

NSF Young Investigator Award

National Science Foundation

\$500,000

60 months

Biological Sciences

Molecular Genetics of the Helicoverpa Zea NPV

Department of Agriculture

\$471,204

36 months

Gene Transfer in Lepidoptera

Department of Agriculture \$489,204

36 months

Feder, J.

Genetics of Rhagoletis

Department of Agriculture

\$327,430

36 months

Johnson, A.

Plasminogen Activator and Steroidogenesis During

Department of Agriculture

\$39,793

8 months

Saz. H.

Intermediary Metabolism of Helminths

National Institutes of Health

266.981

12 months

Kulpa, C.

Biodegradation of MTBE

Amoco Chemical Research Center

\$238,597

24 months

Civil Engineering and Geological Sciences

Pyrak-Nolte, L.

National Science Foundation Young Investigator 1994

National Science Foundation

\$500,000

60 months

Silliman, S.

Particle Transport through Heterogeneous Porous Media

Department of Energy

\$20,000

12 months

11 months

60 months

Kirkner, D.

Nonlinear Analysis of Flexible Pavement Systems

Department of the Army

\$72,158

Babic, M. National Science Foundation Young Investigator 1994

National Science Foundation

\$500,000

Makris, N. NYI-1994

National Science Foundation

\$500,000

60 months

Gray, K., Schmelling, D.

Role of Reduction in Photocatalysis of Nitroaromatics

Henkel Corp.

\$94,703

24 months

Chemical Engineering

Hill. D.

National Science Foundation Young Investigator 1994

National Science Foundation

\$500,000

60 months

Chemistry and Biochemistry

Castellino, F., Prorok, M.

Properties of Synthetic Peptide Analogs of Protein C

Domains

American Heart Association - Ind.

\$66,000

36 months

Miller, M. National Science Foundation Young Investigator 1994 Siderophores, Analogs and Bioconjugates: Synthesis National Science Foundation and Study \$500,000 60 months National Institutes of Health Lumsdaine, A. \$317,429 12 months Next Generation Scalable Parallel Libraries Keller, J. Mississippi State University National Science Foundation Young Investigator 1994 \$568,606 36 months National Science Foundation Young Investigator 1994 National Science Foundation 60 months \$500,000 National Science Foundation Jacobs, D., Morris, J. 60 months \$500,000 Reactive Scattering Dynamics of NH on H-Si(111)-(1X1) Brockman, J. Henkel Corp. National Science Foundation Young Investigator 1994 \$93.560 24 months National Science Foundation Smith, B. \$500,000 60 months National Science Foundation Young Investigator 1994 National Science Foundation **Economics** \$500,000 60 months Jacobs, D. Marsh, L., Nesiba, R. Energetic and Steric Effects in Ion/Surface Reactive **Doctoral Dissertation Grant** U.S. Housing and Urban Development Department of the Air Force \$15.000 13 months \$551,222 36 months Howes, C. Castellino, F. The Spatial Array of Industries Plasminogen Mutagenesis National Science Foundation National Institutes of Health \$103,903 24 months \$495,169 12 months Castellino, F., Christiansen, W. **Electrical Engineering** Structure-Function Relationships of Protein C American Heart Association - Ind. \$35,000 36 months National Science Foundation Young Investigator 1994 Thomas, J., Kavanagh, R. National Science Foundation Photochemical Processes at the Solid-Liquid Interface \$500,000 60 months Henkel Corp. Stevenson, R. \$94,007 24 months National Science Foundation Young Investigator 1994 Castellino, F., Grella, D. National Science Foundation Site Directed Mutagenesis of Human Plasminogen \$500,000 60 months Lent, C., Porod, W., et al. American Heart Association - Ind. \$39,600 Coherent Electronics 24 months Department of the Air Force **Computer Science and Engineering** \$663,312 36 months Cohn. D. Physical Education Models and Mechanisms for Flexible Systems Software Advanced Research Projects Agency Gelfman, M. Individually Designed Exercise Programs \$1,024,994 36 months Department of Education Chen, Z. \$152,893 National Science Foundation Young Investigator 1994 12 months National Science Foundation \$500,000 **Physics** 60 months Research Initiation Award National Science Foundation Rettig, T., Hahn, J. Spiral Waves in a Planetesimal Disk \$180,681 36 months Sha, H. Jet Propulsion Laboratory System Architecture Designs for Multi-Dimensional \$18,980 12 months **Applications**

National Science Foundation

36 months

\$180,662

Psychology

Radvansky, G.

National Science Foundation Young Investigator 1994

National Science Foundation

\$500,000

60 months

Buyer, L., Anderson, D.

Dual-Context Theory

National Science Foundation

\$251,006

36 months

Borkowski, J., Whitman, T., et al.

Precursors of Retardation in Children with Teen Mothers

National Institutes of Health

\$183,252

12 months

Sociology

Weigert, A.

Comparing Scientific and Religious Paradigms

National Science Foundation

\$142,518

9 months

PROPOSALS FOR FACILITIES AND EQUIPMENT

Aerospace and Mechanical Engineering

Stanisic, M., Nelson, R., et al.

Purchase of a CNC Vertical Milling Machine

National Science Foundation

\$55,000

12 months

Chemical Engineering

Varma, A.

Engineering Research Equipment

National Science Foundation

\$52,165

12 months

Brennecke, J.

Time-Resolved Fluorescence Spectrometer

National Science Foundation

\$62,210

12 months

Electrical Engineering

Berry, W., Hall, D.

Titanium Sapphire Laser Facility

National Science Foundation

\$66,119

12 months

Physics

Cason, N., LoSecco, J., et al.

Research in High Energy Physics

National Science Foundation

\$35,771

12 months

PROPOSALS FOR INSTRUCTIONAL PROGRAMS

Aerospace and Mechanical Engineering

Renaud, J., Skaar, S., et al.

Proctor and Gamble Curriculum Development

Proctor and Gamble

\$270,665

36 months

Anthropology

Sheridan, S.

Human Osteology

Lilly Endowment, Inc.

\$5,000

3 months

College of Business Administration

Matta, K.

Proctor and Gamble Fund Curriculum Development

Grant Program

Proctor and Gamble

\$216,900

36 months

Grazin, I.

N.D. Center for East European Business and Law

U.S. Information Agency

\$280,260

12 months

Biological Sciences

Fuchs, M.

Integration of Introductory Biology and Chemistry

Department of Education

\$722,009

36 months

Lodge, D.

REU Supplement

National Science Foundation

\$9,583

12 months

Psychology

Day, J.

Race Talk

Lilly Endowment, Inc.

\$5,000

3 months

Theology

Kyan, M.

Responsible Stewardship: Christianity and Future of

Earth

Lilly Endowment, Inc.

\$5,000

3 months

PROPOSALS FOR OTHER PROGRAMS

Institute for International Peace Studies

Hayner, A.
Balkans Peace Center: Training and Program
Development
U.S. Information Agency
\$117,961
18 months

Institute for Urban Studies

Smith, R., Hay, D.
Notre Dame/Affiliated Universities Network
Department of Education
\$950,550
56 months



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