

# Notre Dame Report

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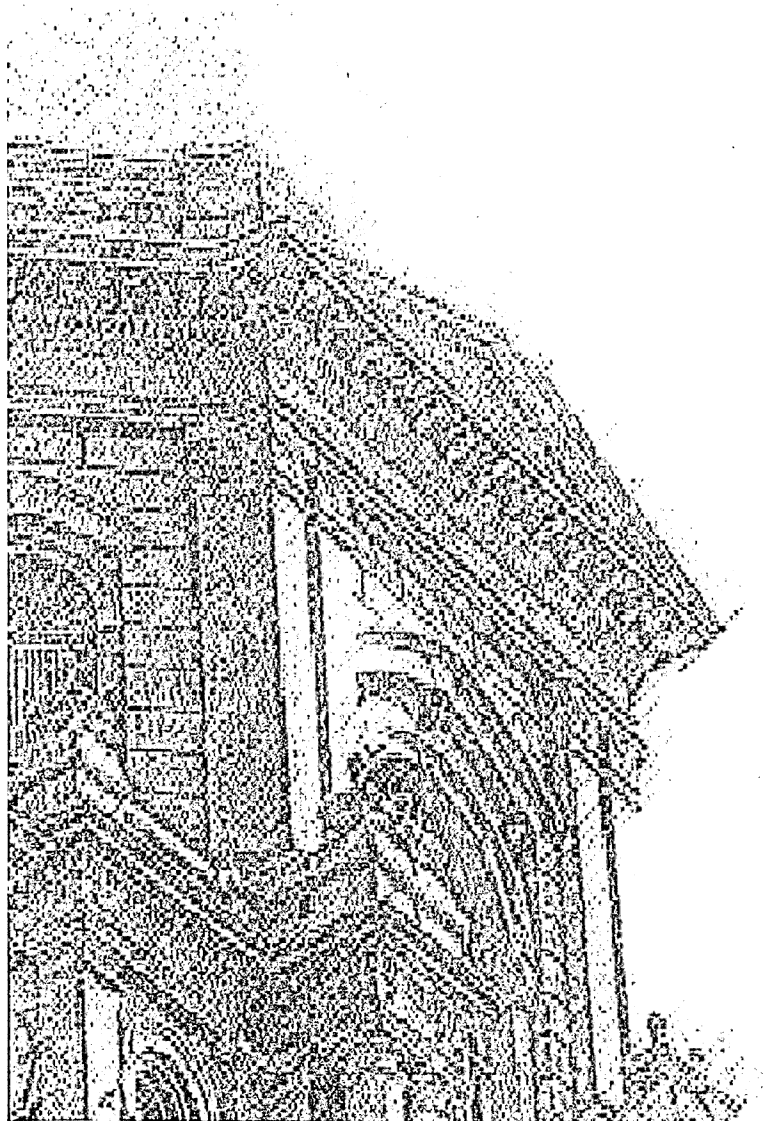
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# The University

## Steinfels to Receive Laetare Medal

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Peter and Margaret O'Brien Steinfels have been awarded the Laetare Medal for 2003. They will receive the medal during Commencement exercises on May 18.

## Economics Department to be Reorganized

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The Academic Council has voted to approve the proposed reorganization of the existing Department of Economics into two distinct departments. The existing program will be renamed the Department of Economics and Policy Studies, with a heterodox or less quantitative approach to the study of economics. The new department, focusing on mainstream mathematical or neoclassical economics, is to be known as the department of Economics and Econometrics.



# Faculty Notes

## Honors

**Asma Afsaruddin**, assistant professor of Arabic and Kroc Peace Institute fellow, was elected to the board of directors of the Center for the Study of Islam and Democracy, Washington, D.C., and was awarded a research grant by the Harry Frank Guggenheim Foundation for 2003–2004.

**Kevin Hart**, professor of English, was appointed to the editorial board of *Journal for Cultural and Religious Theory*.

**Jennifer Herdt**, associate professor of theology, was elected to the board of directors of the Society of Christian Ethics, and was named to the editorial board of the *Journal of Religious Ethics*, class of 2009.

**Mary Catherine Hilkert**, associate professor of theology, was appointed to the board of directors of *Concilium* for a four-year term.

**Nathan Mitchell**, professional specialist and associate director in the Center for Pastoral Liturgy and concurrent associate professional specialist in theology, was presented with a Festschrift titled *ARS LITURGIAE: Worship, Aesthetics, and Praxis: Essays in Honor of Nathan D. Mitchell*, C.V. Johnson, ed. (Chicago: LTP, 2003) honoring his contributions to the field of liturgical studies over the past 30 years.

**Wolfgang Porod**, the Freimann Professor of Electrical Engineering and director of the Center for Nano Science and Technology, was named a distinguished lecturer for the IEEE Engineering in Medicine and Biology Society.

**John P. Welle**, professor of Romance languages and literatures, concurrent professor of film, television, and theatre, and Nanovic Institute fellow, was named to the advisory board of Project Logos, an interdisciplinary center for creative writing at St. John's Univ. and the College of St. Benedict in Minnesota; and was named to the editorial board of *Italian Culture*, the journal of the American Association for Italian Studies.

## Activities

**Asma Afsaruddin**, assistant professor of Arabic and fellow in the Kroc Peace Institute, gave the invited talk "Knowledge, Piety, and Religious Leadership in the Late Middle Ages: Reinstating Women in the Master Narrative" at the symposium "Sisters: Women, Religion, and Leadership in Christianity and Islam" held at the Catholic Theological Union, Chicago, March 19–20; and presented the invited paper "The Historical Context of Hadith" and took part in a roundtable discussion and a concluding panel at the conference "Critical Islamic Reflections: Muhammad the Prophet in the Academy" at Yale Univ., New Haven, April 5–6.

**Peri E. Arnold**, professor of political science, presented "Effecting a Progressive Presidency: Roosevelt, Taft, and the Pursuit of Strategic Resources" to the American politics colloquium of Princeton Univ.'s Dept. of Politics, March 27; and "Managing Scarcity: The Development of Water Policy in the American West" to a meeting of the International Institute of Administrative Science's working group on the history of administration, cosponsored by the IIAS and the Univ. of Malta, April 4–6.

**Kathleen Biddick**, professor of history and currently Fulbright Scholar at Media Lab Europe, Dublin, gave an invited keynote talk "The Shock of the Digital" at the Postgraduate and Research Open Day at the National Univ. of Ireland-Maynooth, March 28; and an invited lecture "Discipline, Colony, Punish" at "Moving On 2: Irish Research Seminar," April 5, St. Patrick's College, Dublin.

**Jacqueline Vaught Brogan**, professor of English, organized and presented a conference for the American Literature Association on "20th Century American Poetry: Developments and Definitions" in Long Beach, Calif., March 13–16.

**Lawrence Cunningham**, the O'Brien Professor of Theology, presented an invited lecture "Dialogue and Contemplation" at Centro Pro Unione, Rome, March 10.

**Jean A. Dibble**, associate professor of art, presented "Do We Stay or Do We Go?" at the annual Southern Graphics Council

conference at Boston Univ., April 3; and was invited to be the juror for the annual "Social Justice Exhibition" at the Colfax Cultural Center in South Bend, March 21.

**Paquita Friday**, assistant professor of accountancy, presented "The Effect of Macroeconomic Changes on the Value Relevance of Accounting Information: The Case of Mexico and the 1995 Financial Crisis," written with E. Gordon-Rutgers, at the AAA International Accounting Section midyear meeting in Orlando, Feb. 8; and "The Financial Performance, Capital Constraints, and Financial Reporting Environment of Cross-listed Firms: Evidence from Mexico," written with **Thomas J. Frecka**, the Lizzadro Professor of Accountancy and director of the Masters in Accountancy Program, at the Univ. of Tennessee Research Seminar Series, March 28.

**Richard W. Garnett**, associate professor of law, presented "The Blaine Amendments and the Purpose of Education" at a conference sponsored by the Pew Forum on Religion and Public Life and *The First Amendment Law Review*, at the Univ. of North Carolina School of Law, March 28; and served as an invited commentator at a conference sponsored by the Brookings Institution on "Regulating School Choice to Promote Civic Values: What Can the U.S. Learn from the Experience of Other Nations?" in London, Apr. 10-12.

**Thomas Gresik**, professor of finance and Kellogg Institute fellow, presented "Delegation and Asymmetrically Informed Principals," written with E. Bond, at the Univ. of Iowa, in December.

**Rev. Daniel Groody, C.S.C.**, assistant professor of theology, presented "The Option for the Poor and the Liberation of the Heart," Saint Mary's College, March 23; "*Juan Diego: Modelo De Conversión*," Los Angeles Religious Education Congress, March 1; "*Imigración y Espiritualidad*" at the same conference, Feb. 28; "Undocumented Migration and Christian Spirituality," Center for Social Concerns Mexico/Mexican American Seminars, Notre Dame, Feb. 5; "A Theological Approach to Immigration," South Valley Academy, Albuquerque, Jan. 31; and "Mexican Immigration and Christian Spirituality," Sigfried Hall Lecture Series, Notre Dame,

March 19, and Alumni Hall Lecture Series, Notre Dame, March 26.

**Jennifer Herdt**, associate professor of theology, presented "Locke, Martyrdom, and the Disciplinary Power of the Church" at the Society of Christian Ethics annual meeting, Pittsburgh, Jan. 12.

**Prashant V. Kamat**, professional specialist in the Radiation Laboratory, presented "Combining Light and Sound to Modulate Photochemical Processes at TiO<sub>2</sub> Surface," written with J. Peller and **Olaf Wiest**, associate professor of chemistry and biochemistry; "Incorporation of Electroactive Metal Species in Humic Acid Membranes," written with K. Vonodgopal and V. Subramanian; and "Semiconductor Nanostructures for Detection and Degradation of Low Level Organic Contaminants from Water," written with R. Huhen and R. Nicolaescu, all at the annual meeting of the American Chemical Society, New Orleans, March 23-27.

**William M. Lies, C.S.C.**, executive director of the Center for Social Concerns, presented "A Clash of Values: Church and State and Public Relations in the 1990s Democratic Chile" at the Latin American Studies Association 2003 convention, Dallas, March 27.

**Cynthia K. Mahmood**, associate professor of anthropology, presented "Immigration, Security, and Terrorism: A Spurious Connection?" at the Canadian National Metropolis Conference, Edmonton, March 23; and an invited presentation "Clash of Civilizations or Social Capital: Religion in a Plural World" to a Canadian government forum in Ottawa, March 18.

**James J. Mason**, associate professor of aerospace and mechanical engineering, presented "Temperature Fields in Orthogonal Machining" at the 2003 NSF Design, Service and Manufacturing Grantees and Research Conference, Birmingham, Jan. 6-9; and an invited lecture "Bending and Springback in Laminated Steels" to the Materials Interest Group at the Univ. of Illinois, Urbana-Champaign, March 7.

**Rev. Richard P. McBrien**, the Crowley-O'Brien Professor of Theology, presented "Challenges Facing the Church" at the Voice of the Faithful meeting, Aquinas College, Grand Rapids, Feb. 27; "The Future of the Church: Challenges in the New

Millennium" to the Association of Coordinators and Religious Educators of the Archdiocese of St. Paul and Minneapolis, St. Joseph's Church, New Hope, March 3; "Shared Authority and Co-Responsibility in the Church" at the Faithful St. Louis meeting, March 22; and "Challenges Facing the Church Today" for the Epiphany Group, Tulsa, March 30.

**Patrick Murphy**, professor of marketing, presented "Business Ethics in the 21st Century" to the Notre Dame Club of San Jose/Silicon Valley, as part of the Hesburgh Alumni Lecture Series, March 11.

**Rev. Jerome H. Neyrey, S.J.**, professor of theology, presented "Male Sexuality in the Bible" at the Franciscan Novitiate in Chicago, March 1; "Honoring the Dishonored: The Cultural Edge of Jesus' Beatitudes" at the Notre Dame Alumni Club of Jacksonville, March 4; and "God, Benefactor and Patron in Antiquity: Insights from Cultural Anthropology" at the Context Group annual meeting, March 16.

**Wolfgang Porod**, the Freimann Professor of Electrical Engineering and director of the Center for Nano Science and Technology, was an invited plenary speaker at the 27th annual Great Lakes Biomedical Conference, Racine, Wisc., April 4, where he presented "Overview and Challenges of Nanotechnology" and "Advances of Nanotechnology: Nanotransistors and BioSensors."

**Karen Richman**, assistant professor of anthropology and Kellogg Institute fellow, presented "Migration and the Protestant Devil in the Haitian Diaspora" to the panel "Does God Know Borders? The Roles of Religion in Transnational Migrants' Lives" at a conference of the Latin American Studies Association, in Dallas, March 29; and "Anthropological Perspectives on the Old Testament" to the "Old Testament Survey," Full Gospel Christian Assemblies International, Hazel Crest, Ill., Feb. 28.

**Robert P. Sedlack Jr.**, assistant professor of design, presented "Graphic Identities: The Process and Product of Logo Development" as an invited speaker for the Society of Technical Communicators, South Bend, March 26.

**Dan Sheerin**, professor of classics and concurrent professor of theology,



presented "Johann Oecolampadius as 'Erasmicus'" in the session "Erasmus in the Reformation: From Vulgate to Vernacular" at the annual meeting of the Renaissance Society of America, Toronto, March 27–29.

**Eugene Ulrich**, the O'Brien Professor of Theology, presented four lectures in Grand Rapids in connection with the Dead Sea Scrolls exhibit in the public museum there: (1) "The Biblical Text and Canon in the late Second Temple Period" at the Midwest meeting of the American Oriental Society and the Society of Biblical Literature; Feb. 21; (2) "The Impact of the Dead Sea Scrolls on Our Bible" (plus guiding a tour of the exhibition), Feb. 25; (3) "A Learning Lunch," Feb. 26; and (4) "The Text and Canon of the Hebrew Scriptures at the Time of Hillel and Jesus" at the Calvin Theological Seminary and Adult Education Seminar, Feb. 26.

**Raimo Väyrynen**, professor of political science, senior fellow of the Kroc Institute, and Nanovic Institute fellow, presented "Globalization, Sovereignty, and Humanitarian Emergencies" at the conference on "Catastrophes in the Age of Globalization" organized by the van Leer Institute and the Univ. of Tel Aviv Univ., Tel Aviv, Jan. 6–8; "Finnish RandD System in the Context of the European Research Area" at the Univ. of Tartu, Estonia, Jan. 31; "Force and Society: Towards a Social Theory of War" at the 44th annual convention of the International Studies Association, Portland, Oreg., Feb. 26 through March 1; and "Political Power, Accountability, and Global Governance" for the Joint Sessions of the European Consortium for Political Research, Edinburgh, March 29 through April 2.

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

**John P. Welle**, professor of Romance languages and literatures, concurrent professor of film, television, and theatre, and Nanovic Institute fellow, presented "Makers of Mourning and Ruin: Discourse on

the Italian Diva" at the annual conference of the Society for Cinema and Media Studies held in Minneapolis, March 6–9.

**Randall Zachman**, associate professor of theology, presented "The Problem of Evil in Augustine, Gregory of Nyssa, Kant, and Barth," as part of the adult education course at Sunnyside Presbyterian Church, South Bend, February through March; and "The Meaning and Use of the Sacraments in the Roman Catholic, Lutheran, and Reformed Traditions," First Presbyterian Church, South Bend, Lent, 2003.

## Publications

**Peri E. Arnold**, professor of political science, published "The Office of Management and Administration" with B.H. Patterson Jr. and C.E. Walcott, in *The White House World: Transitions, Organization, and Office Operations*, M. Joynt Kumar and T. Sullivan, eds. (College Station: Texas A&M Univ. Press, 2003): 279–307.

**Joseph Blenkinsopp**, the O'Brien Professor Emeritus of Old Testament Studies, published *Isaiah 56–66. A New Translation with Introduction and Commentary. Anchor Bible 19B* (New York: Doubleday, 2003): xvi + 348.

**Lawrence Cunningham**, the O'Brien Professor of Theology, published "The Reception of Vatican II" in *U.S. Catholic* (April): 39; "Josephine Bakhita" in *St. Anthony Messenger* (February): 57; and "Religion Book Notes" in *Commonweal* cxxx, No. 6 (March 28): 28–30.

**Mary R. D'Angelo**, associate professor of theology, published "Early Christian Sexual Politics and Roman Imperial Family Values: Rereading Christ and Culture" in *Papers of the Henry Luce III Fellows in Theology*, 6th Ed. (Pittsburgh: Association of Theological Schools, 2003): 23–48.

**Rev. Brian Daley, S.J.**, the Huisking Professor of Theology, published "The Fullness of the Saving God: Cyril of Alexandria on the Holy Spirit" in *The Theology of St. Cyril of Alexandria*, T.G. Weinandy and D.A. Keating, eds. (London: T. and T. Clark, 2003): 113–148; and "Divine Transcendence and Human Transformation: Gregory of Nyssa's Anti-Apollinarian

Christology" in *Re-Thinking Gregory of Nyssa*, S. Coakley, ed. (Oxford: Blackwell, 2003): 67–76.

**Roberto DaMatta**, the Rev. Joyce Professor of Anthropology, had a translation of his book *Carnivals, Rogues, and Heroes* (Notre Dame Press, 1991) published in Spanish as *Carnavales, Malandros y Héroes* by Fondo de Cultura Económica of Mexico; and published "*Carnavales, Desfiles y Procesiones*" in *Revista de Historia Inter-nacional (ISTOR) of the History Division of CIDE, México* 2, No. 9 (2002): 30–54.

**Michael S. Driscoll**, the Tisch Family Professor of Theology, published "Mozart and Marriage: Ritual Change in Eighteenth-Century Vienna" in *Ars Liturgiae: Worship, Aesthetics and Praxis: Essays in Honor of Nathan. D. Mitchell*, C.V. Johnson, ed. (Chicago: Liturgical Training Program, 2003): 77–97.

**Keith J. Egan**, adjunct professor of theology, had 11 articles from the 1967 edition and the 1974 Supplement republished in *The New Catholic Encyclopedia Second Edition* (New York: Gale Group with Catholic Univ. of America, 2003).

**Rev. Daniel Groody, C.S.C.**, assistant professor of theology, published "The Way of the Crossing," *The Examined Life, U.S. Catholic* (April); "The Drama of Immigration and the Cry of the Poor: The Voices of 'Alambrista' Yesterday and Today," *Footprints in the Sand: Mexican Immigration from an Interdisciplinary Perspective*, D. Carrasco and N. Cull, eds. (Univ. of New Mexico Press, 2003); and a review of *John XXIII* by Thomas Cahill, *Catholic Studies Online*.

**Kevin Hart**, professor of English, published a review of *Toward a Postmodern Christian Faith*, by M. Westphal, in *Modern Theology* 19, No. 3 (2003): 444–446.

**Mary Catherine Hilkert**, associate professor of theology, published "Preaching Words of Grace" in *Listening* 38, No. 1 (Winter): 7–20; and "The Impact of Vatican II" in *Vatican II: Forty Personal Stories*, W. Madges and M.J. Daley, eds. (Mystic, Conn.: Twenty-Third Publications, 2003): 208–211.

**Paul W. Huber**, associate professor of chemistry and biochemistry, published

"VgRBP71 Stimulates Cleavage at a Polyadenylation Signal in Vg1 mRNA, Resulting in the Removal of a *cis*-Acting Element that Represses Translation," written with N.G. Kolev, *Molecular Cell* 11 (March): 745-755.

**Maxwell Johnson**, professor of theology, published "Eucharistic Reservation and Lutheranism: An Extension of the Sunday Worship?" in *Ars Liturgiae: Worship, Aesthetics and Praxis: Essays in Honor of Nathan D. Mitchell*, C.V. Johnson, ed. (Chicago: Liturgy Training Publications, 2003): 27-54.

**Prashant V. Kamat**, professional specialist in the Radiation Laboratory, published "Charge Distribution between UV-Irradiated TiO<sub>2</sub> and Gold Nanoparticles: Determination of Shift in the Fermi Level," written with M. Jakob and H. Levanon, *Nano Letters* 3, No. 3 (2003): 353-358.

**Kwan S. Kim**, professor of economics and fellow of the Kellogg Institute, published "Global Economic Integration and Labor Markets" in *Proceedings of the Eleventh Annual Conference on Responsibilities of Developed Countries in the Global Village* (Bloomsburg, Penn.: Global Awareness Society International, 2003): 116-126.

**Scott P. Mainwaring**, the Conley Professor of Political Science and Kellogg and Kroc Institutes fellow, published "The Nationalization of Parties and Party Systems" with M.P. Jones, *Party Politics* 9, No. 2 (2003): 139-166.

**James J. Mason**, associate professor of aerospace and mechanical engineering, published "Dynamic Stress Intensity Factor Due to Concentrated Loads on a Propagating Semi-infinite Crack in Orthotropic Materials" with C. Rubio-Gonzalez, *International Journal of Fracture* 118, No. 1 (2002): 77-96.

**Rev. Richard P. McBrien**, the Crowley-O'Brien Professor of Theology, published "*Modelli lontani e clericali*" in *Jesus XXIV* (Nov.): 60-61.

**Ralph McInerny**, the Grace Professor of Medieval Studies, director of the Jacques Maritain Center, and professor of philosophy, published "The End of Philosophy" in *Anuario Filosófico XXXV*, No. 3 (2002):

677-693; and "Rexford Drive," a poem, in *The Evansville Review XIII* (2003): 63.

**Rev. John P. Meier**, the Warren Professor of Catholic Theology, published "The Historical Jesus and the Historical Law: Some Problems within the Problem," *Catholic Biblical Quarterly* 65 (2003): 52-79.

**Juan Migliore**, professor of mathematics, published "The Weak and Strong Lefschetz Properties for Artinian  $k$ -Algebras," written with T. Harima, U. Nagel, and J. Watanabe, in *Journal of Algebra* 262 (2003): 99-126.

**Peter R. Moody Jr.**, professor of political science, edited and wrote the introduction to *China Documents Annual, 1998: Marking Time* (Academic International Press, 2003).

**Lenny Moss**, assistant professor of philosophy and Nanovic Institute fellow, published "One, Two (Too?), Many Genes?" in *The Quarterly Review of Biology* 78 (2003): 57-67.

**Eugene Ulrich**, the O'Brien Professor of Theology, published "Two Perspectives on Two Pentateuchal Manuscripts from Masada," in *Emanuel: Studies in Hebrew Bible, Septuagint, and Dead Sea Scrolls in Honor of Emanuel Tov*, S.M. Paul, et al., eds. (Leiden, The Netherlands: Brill, 2003): 453-464; "*Quelle lumière les rouleaux de la mer Morte ont-ils jetée sur la Bible?*" in *Les manuscrits de la mer Morte*, F. Mébarki and É. Puech, eds. (Rodez, France: Éditions de Rouergue, 2002): 133-141; "The Notion and Definition of Canon" in *The Canon Debate*, L.M. McDonald and J.A. Sanders, eds. (Peabody, Mass.: Hendrickson, 2002): 21-35; and "The Text of the Hebrew Scriptures at the Time of Hillel and Jesus" in *Congress Volume Basel 2001. Supplements to Vetus Testamentum* 92, A. Lemaire, ed. (Leiden, The Netherlands: Brill, 2002): 85-108.

**Edward Vasta**, professor emeritus of English, published a short story "Takeover" in *InterText*, No. 56 (Spring): 11-16.

**Raimo Väyrynen**, professor of political science, senior fellow of the Kroc Institute, and Nanovic Institute fellow, published "Challenges to Preventive Action: The Cases of Kosovo and Macedonia" in *Conflict Prevention. Path to Peace or Grand Illusion?* D. Carment and A. Schnabel,

eds. (Tokyo, New York, Paris: The United Nations Univ. Press, 2003): 47-69; and "A New Interpretation of the Kekkonen Era" in the *Yearbook of Finnish Foreign Policy 2003* (Helsinki: The Finnish Institute of International Affairs, 2003): 111-118.

**John A. Weber**, associate professor of marketing, published "Helping Professional Sales Teams Self Discover More Ethical Selling Practices," in the *Proceedings of the 2003 Joint Conference of the Institute for the Study of Business Markets and the Center for Business and Industrial Markets*.

**John P. Welle**, professor of Romance languages and literatures, concurrent professor of film, television, and theatre, and Nanovic Institute fellow, published the essay "The Last Days of Italian Silent Film: George Kleine's Correspondence with Henrietta Delforno and the Crisis of the 1920s," in *Incontri con il cinema italiano*, A. Vitti, ed. (Caltanissetta: Salvatore Sciascia Editore, 2003): 45-68.

**Olaf Wiest**, associate professor of chemistry and biochemistry, published "Substituent Effects in the Vinylcyclopropane Radical Cation Rearrangement: A Computational Road to a New Synthetic Tool" with J. Oxgaard, *European Journal of Organic Chemistry* (2003): 1454-1462.

# Administrators' Notes

## Publications

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Alan S. Bigger, director of Building Services, published "Beyond Television Commercials: Change, A Matter of Choice" with L.B. Bigger, *Executive Housekeeping Today* 24, No. 4 (April): 6-8.

# Documentation

## Academic Council

November 26, 2002

**Members Present:** Rev. Edward Malloy, C.S.C., Nathan Hatch, John Affleck-Graves, Rev. John Jenkins, C.S.C., Carol Ann Mooney, Jeffrey Kantor, Rev. Mark Poorman, C.S.C., Frank Incropera, Eileen Kolman, Joseph Marino, Mark Roche, Carolyn Woo, Michael Lykoudis, Jennifer Younger, John Robinson, Jay Brandenberger, Thomas Merluzzi, Albert Miller, James Ryan, Dennis Jacobs, Patricia Maurice, Thomas Noble, Joan Aldous, Brian Krostenko, Cornelius Delaney, Vittorio Hosle, Mitchell Wayne, Steven Buechler, Panos Antsaklis, Mihir Sen, Robert Bretz, Thomas Frecka, Jay Tidmarsh, Dino Marcantonio, J. Douglas Archer, Kenneth DeBoer, Ava Preacher, Anthony Hagale, Megan McCabe, Bradley Buser, Stephanie Arnett

**Members Absent:** Pit-Mann Wong, John Welle, Mary Rose D'Angelo, Sean Thornton

**Members Excused:** Rev. Timothy Scully, C.S.C., Patricia O'Hara, Patricia Blanchette, Teresa Ghilarducci, Umesh Garg

**Observers Present:** Mary Hendriksen, Dennis K. Moore, Lt. Col. David Moskiniski, Harold Pace, Daniel Saracino, Thomas Laughner

**Guests Present:** Jay Brockman, David Lodge, Thomas Noble, Ann Tenbrunsel, Catherine Zuckert

Fr. Malloy called the meeting to order at 3:05 p.m. Prof. Mooney offered a prayer.

**1. Minutes of the Meetings of September 17, 2002, and October 7, 2002.** Prof. Roche asked whether the minutes of September 17 were correct in attributing to Prof. Hatch a statement that with a faculty/student ratio of 14.9/1, Notre Dame has the same faculty/student ratio as Yale (page 6). He pointed out that in the latest U.S. News and World Report rankings, Notre Dame's ratio is listed as 12 to 1; Yale's as 7 to 1.

Prof. Hatch said that by the data he was using, the two universities do have the same faculty/student ratio.

Prof. Affleck-Graves explained that the value of the faculty/student ratio can vary according to the way each institution counts its faculty.

Prof. Roche asked why the University would not use its numbers to best advantage in reporting data to U.S. News.

Prof. Hatch said that different agencies ask institutions to report faculty in different ways. There are different categories of faculty. Teaching-and-research faculty belong to one category, but there are other regular faculty categories as well and every university has different definitions for those faculty. The ratios he used at the September meeting were based only on teaching-and-research faculty. Nevertheless, Prof. Hatch said, the question of how Notre Dame counts its faculty for U.S. News and World Report's rankings is important and should be taken up.

For the minutes of October 7, Prof. Mooney noted that the "member" who asked about the effect of changes in the University's new benefits package on graduate students or postdoctoral research associates (page 8) has now been identified as Prof. Jacobs.

With no further corrections or clarifications, the minutes of the meetings of September 17, 2002, and October 7, 2002, were approved unanimously.

**2. Proposal to Rescind the Resolution on Course Scheduling Passed in April 2002.** In an effort to distribute courses at the University more evenly over the class week, members of the Academic Council voted at the meeting of April 30, 2002, to shift all Monday/Wednesday classes—both 50-minute classes and 75-minute classes—to Wednesday/Friday, as well as to shift all Friday tutorials to Monday. Prof. Kolman, chair of the Undergraduate Studies Committee, said faculty members throughout the University have pointed out many unintended consequences of the vote. Thus, a subcommittee chaired by Prof. Preacher has reviewed the April 30 action and is bringing forth a proposal to rescind the April vote.

Prof. Preacher said that a sentence added to the motion at the April 30 meeting that "all classes now being taught on Friday only, or as a Friday tutorial, be changed



to Monday" was added to the proposal without the knowledge of Undergraduate Studies Committee members or an opportunity for discussion. Furthermore, as passed, the motion did not solve the problem the committee set out to solve, which is the inefficient use of classroom space. Rather, it simply shifted Friday's problem to Monday. Considering that, along with comments by the University community of numerous difficulties the shift would cause—for example, its effects on tutorials, physical education rotations, travel for athletic teams, and the scheduling of graduate courses and programs—the committee is now asking the Council to rescind its vote.

Prof. Roche said that the second and third paragraphs of the April 30 motion—calling for a standing committee to review classroom scheduling issues and for the Registrar to compile data indicating how the University as a whole as well as each college, school, and department has performed in scheduling—could, in principle, be retained. If the Council does choose to rescind its April 30 action, he would like to see the Undergraduate Studies Committee develop some alternative scenarios to handle the current scheduling problem. In this endeavor, the data on classroom scheduling called for in the original motion could be helpful.

Prof. Preacher affirmed that the Undergraduate Studies Committee plans to study the classroom scheduling issue and then return to the Council by the end of this academic year with an altered proposal that will, in fact, solve the problem it needs to solve.

Prof. Hatch said it is very important that Dr. Pace have a faculty committee to examine the whole range of issues related to classroom scheduling. He intends to appoint such a committee if the Council does not form one. He will wait to do so, though, in light of the Undergraduate Studies Committee's intent to return with a formal proposal that includes language similar to the second and third paragraphs of the April 30 proposal.

Prof. Preacher said that the committee is not unhappy with the second and third parts of the April 30 proposal. Members feel, however, that it will make for a better

proposal all around if they include all actions related to the issue in one complete package.

A motion was made and seconded to rescind the action regarding course scheduling made at the April 30, 2002, meeting. Fr. Malloy called for a vote, which was unanimous in favor of rescinding the action.

**3. Curriculum Review Committee:** Presentation and Discussion of Current Draft Proposals. As part of the University's strategic planning process, Prof. Nathan Hatch, Provost, convened a Curriculum Review Committee in the Fall of 2001. He named its members as: Fr. John Jenkins, C.S.C., chair; Profs. Jay Brockman, Eileen Kolman, David Lodge, Thomas Noble, Ann Tenbrunsel, and Catherine Zuckert; and as the Committee's student member, the Academic Commissioner for Student Government—Melissa Rauch (for 2001-2002) and James Ryan (for 2002-2003).

Fr. Jenkins briefly sketched the Curriculum Review Committee's process to date. After several initial meetings, committee members met with many groups on campus, including the Provost's Advisory Committee, the deans, the Provost Office Group, and various college councils. [The draft curricular proposals are found at Attachment A]. After listening to suggestions and concerns about the curriculum from these groups, committee members met to focus their ideas. They chose to concentrate on three main areas: (1) the enhancement of general education in math, science, and technology; (2) the enhancement of education in ethics; and (3) the exploration of the possibility of a standing curriculum committee, along with the creation of explicit rationales for University requirements and greater opportunities for undergraduate research. Next, committee members divided themselves into three subcommittees to work on the three chosen areas. In order to gain the widest and best expertise in their deliberations, they invited other faculty and students to join them. Each of the subcommittees produced a set of proposals and recommendations which, after some changes were made on the basis of discussions in the full Undergraduate Studies Committee, are presented to the full Academic Council

today for members' comments and suggestions. Fr. Jenkins stressed that the purpose of this discussion in Academic Council is to gather comments and suggestions to assist the Curriculum Committee as it works toward a final draft.

Prof. Hatch thanked the members of the Curriculum Review Committee for their work on a difficult and complex task—one, he said, which the University takes up possibly once a decade. He then reemphasized the fact that the purpose of today's discussion is only to gather comments and suggestions on the current draft proposals.

Fr. Jenkins acknowledged that any discussion of the curriculum excites a great deal of interest, even passion. He said he has no doubt this will be true of today's discussion as well. The purpose all must keep in mind throughout this and subsequent discussions is that our goal is to provide Notre Dame students with the best education possible. The University's general education requirements are what brings the whole university together as a university, for they are requirements for all undergraduates. Thus, these requirements are of interest to all faculty and students, whatever their college or department.

Fr. Jenkins said that after hearing members' comments and suggestions, the committee will work on a final draft to be sent to the Undergraduate Studies Committee. After that committee completes its work, the proposals will return to the Academic Council for further discussion and a vote. Fr. Jenkins said that during study days this semester the committee will hold a faculty forum to gather even more comments on its proposals. At some point, he hopes to hold a similar forum for students.

*(a) Proposal 1: Create Incentives to Increase Faculty Engagement in General Education.*

Prof. Brockman introduced this proposal, in which the committee urges the Provost, deans, department chairs, and other administrators "to ensure that time, money, resources and weight in the promotion process be devoted to developing and delivering quality general education courses." He said that first-rate, innovative courses in the general education requirements can only be offered to students when the faculty who teach them are fully engaged in the process of creating these

courses and giving them their best. To a large degree, such an effort requires innovative activities—for example, exploring the links between certain disciplines and between different colleges. The University would like the most creative people on campus to create and teach these courses. The faculty have built significant careers, or are in the process of doing so. Yet, Prof. Brockman said, to create strong general education offerings, the University is asking them to devote a significant chunk of their time to being generalists. And the process of creating excellent, innovative courses involves much more than developing a course for one semester, teaching it, and then walking away. Instead, it requires faculty to open their eyes and ears more than they would in a course directly in their speciality, as well as to anticipate that the class may not work quite as planned the first time around. They may need to solicit feedback from students and then make various adjustments.

Given the time and energy required, Prof. Brockman continued, the Committee is asking University administrators at many levels to work out a plan that guarantees an appropriate support structure for faculty who teach general education courses. Not only would this prevent faculty from viewing engagement in general education courses as putting their careers on hold, it would encourage the teaching of these courses as an opportunity to help build a career. The strategy, he said, is to get upwardly mobile faculty members involved in general education courses and then avoid a situation in which the faculty member is penalized—either by a department or by the central administration—because, at first blush, the teaching activities are not directly aligned with a department's immediate goals.

Prof. Antsaklis asked what level courses the committee is pinpointing. Are these courses for juniors, seniors, or only first-year students?

Fr. Jenkins replied that the term "general education" requirements refers to the suite of courses that are required by the University of all students. While most general education courses are probably taken in the first year, they may be taken during any of a student's four years at Notre Dame.

Prof. Kolman added that currently there are prescriptions for the general education courses first-year students take. Most of first-year students' courses do satisfy general education requirements. There are many requirements, however, that are fulfilled by students later. For instance, the second philosophy requirement is always fulfilled after the first year. And, as will be discussed later, the committee is calling for greater flexibility in the year in which students can fulfill their math and science requirements.

Prof. Incropera said that he was very supportive of the Review Committee's proposal and thinks it is a step in the right direction. Giving administrative support to faculty who want to invest time in general education courses is very important. He noted, however, that the committee still requires students to fulfill 9 of their 12 credits in math and science during the first year [Proposal 4 III]. That strikes him as somewhat inflexible. It might be better to engage students at a higher level intellectually by allowing them to take courses in their sophomore, junior, or senior year. Thus, he would advocate more flexibility in the year of the required course.

(b) *Proposal 2: Establish a Standing Curriculum Committee.* The second of the Review Committee's proposals is to establish a standing Curriculum Committee at Notre Dame. Prof. Noble explained that when committee members began their deliberations fifteen months ago, they discovered very quickly that while Notre Dame's curriculum has been reviewed and amended many times over a long span of years, it has always been done in the context of a special situation, a special committee, a special group, or a special process. Even though University-required courses constitute approximately one-third of each student's education, there has never been a body specifically charged with responsibility for these courses—that is, with thinking about the requirements, promoting them, reflecting on them, or assessing the University's "core" of general education. Thus, the Review Committee proposes that the University establish a standing Curriculum Committee with a focus on the general education requirements. Its mission would be to advocate, promote, and reflect on the University

requirements, as well as to invite departments, schools, or even individuals to reflect on the rationales for general education courses. Questions the Curriculum Committee might address are: What is the University trying to accomplish with its general education courses? Why? Do the courses fit the needs, goals, and aspirations for general education? Prof. Noble added that the proposal includes a provision that the committee report to the Provost on an annual basis to provide for continuing reflection on the state of general education at Notre Dame, as well as to provide a certain measure of accountability.

Prof. Roche said that he supports the idea of a standing Curriculum Committee, as well as the idea that each college is represented on the committee even if it is not offering courses that fulfill the general education requirements. He is concerned, however, that given the committee's power to approve or not approve such courses, there may be insufficient representation from disciplines in which the requirements are satisfied. As the proposal is written now, of the eight-member committee only three are from the College of Arts and Letters; yet, two-thirds of general education requirements are in Arts and Letters. It might make more sense to establish membership on the committee by the size of each college's faculty or the proportion of general education credit hours each college provides. Even under those more restrictive measures, however, he would recommend that five members from Arts and Letters sit on the committee—one from the Social Sciences, one from the Arts, and three from the Humanities. Humanities courses alone satisfy about two-thirds of the general education requirements.

Prof. Roche continued that he was in favor of the procedure for the approval of courses set forth in Section III of the proposal. It is important to have a rationale for the general education requirements. To date, that has been left largely to the discretion of individual departments. Particularly in the context of what we have learned about assessment, departments should articulate the rationale for courses and what they expect students to achieve in them. He also supports the accountability measures

incorporated into the proposal. They have been lacking in the past.

Further, Prof. Roche said, he supports the market mechanism the proposal establishes—for example, that someone in Engineering could teach a course on energy that would fulfill a science requirement. It would lead to exciting, new offerings. He would like to see the political philosophers be allowed to teach courses that might satisfy the philosophy requirement. While that might mean the Philosophy Department would lose some of its general education slots, the department could, presumably, offer courses in mathematical logic that would satisfy the mathematics requirement. Thus, instead of the current monopoly, departments would be encouraged to offer courses that attract students, thereby justifying retention of their faculty lines or even growth in faculty lines.

Prof. Roche concluded his comments by saying that he did have some concern about the pace of approval of courses. He recommends some mechanism for quick approval of courses that might meet a general education requirement proposed by newly hired faculty or visiting faculty. Otherwise, there may be a shortage of offerings in one area or another.

Prof. Marino said that he understands Prof. Roche's desire to have the number of representatives on the standing Curriculum Committee correlate with the number of general education courses offered by each college. Yet, rather than dwelling on how many representatives are on the body from each college, he would favor individual colleges endorsing certain courses and certain requirements. He sees nothing in the proposal outlining some flow of recommendations from the colleges to the standing committee. It might be possible to end up with an unwieldy number of committee members arguing about subjects in which none of them are experts. He would prefer that the recommendations for courses come from the colleges and that the members of the committee function more as an oversight committee.

Prof. Jenkins asked Prof. Marino to clarify whether he thinks the colleges should provide the rationale for the courses, the names and descriptions of the courses, or both.

Prof. Marino replied that the colleges should provide both. Now, each college council approves courses and modifications to the curriculum within its college. If that mechanism is removed, there will be a large disconnect. He clarified that he does favor the creation of a University Curriculum Committee.

Prof. Buechler said there are many good ideas in the proposal, particularly the establishment of rationales for the courses colleges select to fulfill general education requirements and the subsequent review by the proposed Curriculum Committee of course syllabi. He would, however, propose an alternative for Section II ID of the proposal—approval of courses taught by faculty outside a “designated” department [defined in Section III C as the department or college “which traditionally offer[s] courses which fulfill a university requirement”]. He suggests cross listing, which is the procedure used now. Cross listing would ensure that the departments and colleges involved have given their approval to a course, with the Curriculum Committee giving a final endorsement. As the proposal is written, he is concerned that the committee might make the final determination of whether a course should count for a general education requirement when the department that is charged with fulfilling it says the course is not actually at the appropriate level.

Prof. Woo said that while she supports the idea of a committee to oversee University requirements, the difficulty is pinpointing what exactly the committee should do. For example, in Section I of Proposal 2, it is said that the committee will “oversee” the instruction that goes on in general education classes. There can, however, be vastly different levels of oversight. She wonders what exactly is intended in this case. Section I of Proposal 2 also states that the proposed Curriculum Committee will “take up other curricular and educational issues which are relevant to undergraduates across the university.” Again, that statement is very broad. It sounds as if the committee would be authorized to take up everything related to the undergraduate experience.

As for Section III of the second proposal, “Procedures for approval of courses that fulfill university requirements,” Prof.

Woo said she is concerned about how the oversight role of the proposed committee will be linked to actual implementation. While the Curriculum Committee would be charged with “promoting the creation of interdisciplinary, multidisciplinary, and linked courses,” what is the engine that would implement that charge? Further, Prof. Woo said, as Prof. Buechler has noted, the proposal fails to specify when the committee could overrule a department. While there may be some occasion for overruling a department, it is not clear from the proposal when and how readily that mechanism should be invoked.

Fr. Jenkins responded that the language in Section I of the second proposal is intended only to summarize what is delineated in more detail in Sections III and IV. Does Prof. Woo think the role of the proposed Curriculum Committee is unclear in those later paragraphs as well?

Prof. Woo responded that the summary in Section I is much broader than the procedures outlined in Section III.

Prof. Robinson suggested that the committee amend Proposal 2 to indicate that rather than giving the Curriculum Committee total authority over the approval of courses that fulfill a University requirement, the committee's responsibilities should include “working with” the department in which “a requirement is traditionally housed” to approve courses. Such language could be inserted in Sections I and IIIB of Proposal 2. As such, the proposal would not say what to do in case of a disagreement between the committee and a department, but it would incorporate the idea that the committee's task is to collaborate rather than monitor or police.

Fr. Jenkins said that Section III of the second proposal is intended to clarify the role of the committee that is more broadly outlined in Section I. He agreed, however, that Prof. Robinson's suggestion would be a useful clarification of the intended role of departments in the approval process. What specifically, he asked, do the words “working with” entail? In its current draft, the proposal asks departments to submit a brief rationale and course syllabi to the Curriculum Committee. Does he contemplate something more?

Prof. Robinson replied that the concern is that the proposal is explicitly bypassing existing departmental and college structures, especially departmental structures. That is a major change and one that might meet some resistance. Thus, if the committee builds into its proposal ways to acknowledge the existence and relevance of departments to the work of the Curriculum Committee, it might be perceived as less revolutionary. How that would be realized in practice—for example, when there is disagreement between the committee and a department—he is not sure.

Fr. Jenkins responded that while he does not disagree with Prof. Robinson's comments, he wants to clarify that it is the departments that first generate the rationale for courses proposed to meet the general education requirements. The committee's role is then to approve or disapprove the submitted rationales. In instance when a faculty member outside a designated department or college proposes that a course fulfill a particular University requirement, the committee must consult with the chair of the designated department or an appropriate associate dean of the relevant college regarding both whether the course fulfills the rationale for the University requirement and whether the faculty member has the competence to teach the course (Proposal 2 III D).

Prof. Incropera said that as he understands the proposal, new courses first percolate up through the departments and colleges that traditionally have been responsible for them. The Curriculum Committee might decide that certain courses do not meet the general education requirements and send them back with the reasons why they do not. If, ultimately, a course cannot be modified to meet the University requirements, the department can still offer it.

Fr. Jenkins agreed with his interpretation.

Prof. Merluzzi asked whether members of the Curriculum Review Committee believe that the constituencies that support the required general education courses are not communicating well with each other so that the function of the Curriculum Committee is to better coordinate their communication.

Fr. Jenkins said that the concern of Curriculum Committee members is that there

is no rationale for the University's general education courses. Now, it is required only that students take a course in the Philosophy Department, the Theology Department, etc. The point of the proposal is that departments must articulate—in a general way—what they hope students will learn through the general education courses they offer.

Prof. Antsaklis commented that what is considered "general education" today may not be considered so in 15 or 20 years. Because it is in interdisciplinary courses where much of the growth in courses at the University will occur, he wonders how the proposal will encourage their creation and whether they will in fact meet general education requirements.

Prof. Brockman responded that part of the rationale behind the proposal was to have a body that would advocate for the creation of interdisciplinary courses. Apart from the issue of whether barriers to the creation of such courses exist, there are no resources available now to a faculty member or a group of faculty members who are thinking about putting together a course that might satisfy a general education requirement. The proposed Curriculum Committee could provide those resources and help expedite the approval and implementation process for innovative courses.

Prof. Brockman continued that there are practical implications to the proposal as well. Students in programs with few opportunities for electives—engineering, for example, or those with double majors—often cannot find room in their schedules for classes other than general education requirements. Having the opportunity to take a multidisciplinary course and, at the same time, fulfill a general education requirement would be most attractive to these students.

Prof. Delaney said he wants to make sure that an impression is not created that there is no rationale for the current general education courses. Approximately one-fifth or one-sixth of the courses offered in any given semester in the Philosophy and Theology Departments fulfill the general education requirement for these subject areas. That means, however, that many courses do not fulfill those requirements. Thus, if a student takes a course offered by the

Philosophy Department on mathematical logic, it does not fulfill the philosophy requirement—nor does a course on Kant or Aristotle or a course on the philosophy of science. The assumption is that the Philosophy Department is in the best position to know why certain courses meet the general education philosophy requirement and others do not. Theology has done the same thing. The first and second theology requirements have been built into specific courses.

Prof. Delaney continued that what makes him a bit nervous in the draft proposal is the ability of the Curriculum Committee to trump the departments. The Philosophy Department has already provided the rationale for its courses. It has partitioned them numerically so that 100- and 200-level courses fulfill the general education requirements, but 300- and 400-level courses do not. While the idea of the Curriculum committee seems perfectly reasonable, trumping the departments seems a bit odd. Furthermore, if most of the courses in the Philosophy Department itself do not satisfy the philosophy requirement, it would seem unusual for courses outside of the department to satisfy it. Thus, when courses are taught by faculty outside a designated department or college, he would advocate establishment of minimal guidelines—for example, a presumption in favor of having a Ph.D. in the area or a certain number of publications in the area. Then, he would feel a bit more comfortable about the Committee overriding a department.

Prof. Preacher said she is concerned about language that would require the Curriculum Committee to approve each course that fulfills a University requirement. Her immediate concern is the implications for transfer students. Now, Notre Dame allows courses at other universities to fulfill the general education requirements. Also, what might the proposal do to the study-abroad curricula? Will the committee have the same oversight of those courses? Their content is often not finalized until shortly before registration. If the proposal means that students could not use these courses for requirements but only as electives, that would be a major change.

Prof. Affleck-Graves spoke in favor of the proposal, saying that it would help guide

the conversation if members clarified whether the point of the general education requirements is to have students acquire a certain body of knowledge in a particular subject or whether it is to be exposed to particular sets of ideas and ways of thinking. If it is the latter, then it becomes clear that the proper course of action is to move out of departments and more into the idea that ways of thinking can be covered by many different courses. For example, the rationale for the mathematics requirement might be to have students acquire a sense of ease with or understanding of mathematics. That could be fulfilled by courses outside of traditional mathematics courses—for example, statistics, psychometrics, econometrics, stochastic calculus—all taught by a number of different yet competent faculty.

Also, Prof. Affleck-Graves commented, in a community of scholars there must be a certain amount of trust. We need to trust the proposed committee to make the appropriate judgments. He does not believe that its members would be casual about decisions and let courses through even though they do not meet requirements. After all, the committee's task would be to make sure that courses proposed for general education requirements fulfill a certain substantive motive.

(c) *Proposal 3: Create an Undergraduate Degree with Honors.* Mr. Ryan introduced the third proposal: Creating an undergraduate degree with honors—as distinct from the awarding of traditional Latin honors, which are based on students' grade point averages. He said the proposal stems from the desire of the Curriculum Committee members both to improve faculty/student interaction and to reward talented seniors who undertake a significant research project and do it well. Such projects are extremely valuable to students, as they serve as a capstone experience. Under the proposal, each department would specify the requirements for earning a degree "with honors" in its particular major. In all cases, the requirements would include "significant research which is of high quality." The Curriculum Committee would approve each department's proposed honors standards so as to ensure consistency across the University. The achievement of an honors degree would be noted on students' diplomas and transcripts.

Fr. Jenkins noted that this sort of degree is awarded at other universities.

Fr. Malloy said that currently, Notre Dame students who graduate with Latin honors are said to have graduated "with honors." How would this new kind of honor be distinguished?

Prof. Roche answered that Latin honors relates only to grade point. With the addition of the possibility of receiving an undergraduate degree "with honors," a student could graduate from Notre Dame with only Latin honors—e.g., "magna cum laude"—or, for those who complete a capstone project with distinction, only honors—e.g., "with honors in psychology"—or with both Latin and departmental honors—e.g., "magna cum laude with honors in psychology." Actually, Prof. Roche pointed out, students in Notre Dame's Honors Program can achieve both types of honors now. Honors students can graduate, for example, "summa cum laude with honors in the Arts and Sciences Honors Program."

Fr. Malloy said his only concern is the word "honors." It is a term that seems watered down or imprecise to him. Those present at the graduation ceremony or who later read a transcript might not understand the full implications of the word. While he has no suggestions for a better one, it sounds a bit like one more star on a grade-school paper.

Prof. Delaney noted that at Stanford what Notre Dame calls "Latin honors" are acknowledged by the words "with distinction." Thus, a student who graduates with a 3.8 GPA graduates "with distinction." Students who also complete an honors track in a department receive a notation on their diplomas such as "graduates with distinction with honors in Physics." Given Fr. Malloy's concern about the nature of the word "honors," perhaps the word "distinction" could be adopted at Notre Dame instead. Thus, here, on successful completion of a research track, a student could graduate "summa cum laude with distinction in \_\_\_\_\_." Also, Prof. Delaney said, at Stanford each department holds a ceremony to recognize those who do graduate with departmental honors—whatever the student's grade point average. It is left to the university to honor those with high grade point averages.

Prof. Woo said that she likes the idea of having a research track for undergraduates; however, she shares the concern that the honors designation could become, figuratively, just another credentialing star. A separate concern is that she would prefer that departments offer the research track option to more than the top five percent of the class. While she believes there should be some entry requirements for the research track, it should be available for students in the top 20, top 15, or top 10 percent of the class who say that they would like to explore what research in an academic career may be like.

Prof. Merluzzi said that he thinks it is important for the proposed Curriculum Committee to oversee the awarding of honors throughout the University. Honors students in his department work very hard. Their research projects culminate in manuscripts very much like what faculty members produce for submission for publication. These students are distinguished from their peers in that respect. Students in other departments might do research in a lab and at the end of the day go home with no further responsibility for the project. Honors students should do something well above that. Thus, it is important that the proposed Curriculum Committee discover and oversee the standards for each department.

Prof. Preacher pointed out that there is a difference between a degree with honors—Latin honors—and a major with honors—which is what the committee is proposing. Now, Latin honors are noted on students' diplomas, while honors in departments are noted on students' transcripts. There would be less confusion if the committee referred to its research-track proposal as "a major with honors."

Fr. Jenkins said the motivation behind the proposal is to signal to students that the University cares about more than their GPA. The point is to indicate to them that undertaking a major project with a faculty member and doing research appropriate to an undergraduate deserves recognition.

Prof. Roche said that in the exit survey the University conducts, Notre Dame tends to score low vis-a-vis its peers in the number of undergraduates who are involved in some kind of capstone research project.

Awarding this kind of degree would provide an incentive to students and a window onto an experience that seems to be underdeveloped at Notre Dame.

Prof. Robinson said that, again, this proposal allows rather starkly for the possibility of conflict between the proposed University Curriculum Committee and departments. As the proposal is written, the Curriculum Committee approves the standards for each department for the awarding of a degree with honors. While perhaps the committee's role is merely to rubber stamp departments' standards, theoretically, it could trump the departments' judgments of what constitutes good research by a senior. It would seem a bit odd for a committee composed mostly of non-psychologists to be able to overrule the Psychology Department on its determination of that standard. Perhaps this goes back to the trust Prof. Affleck-Graves mentioned that should prevail in any academic community; nevertheless, the Curriculum Committee should probably build some tie-breakers into the system for situations when disagreement occurs.

Fr. Jenkins responded that first, the point of giving the proposed Curriculum Committee oversight of departments' honors standards is to ensure continuity across departments. Merely working in a lab should probably not be sufficient to earn an undergraduate degree with honors. Second, there are other models in the University for giving the judgments of non-specialists some deference. For awarding of tenure and promotion, cases come through a committee of faculty from various departments who evaluate research, teaching, and service in a field that is not their own. The point is to have a body that will provide some oversight—not absolute, for the departments have primary input—of whether certain standards are appropriate and whether they have been met. The same model can be used for the proposed Curriculum Committee.

Prof. Woo said she believes that every student in every major should undertake a capstone research experience. In fact, she recalls seeing such a proposal in earlier Curriculum Committee discussions. This is different than what the Review Committee is advocating, which is a research track in every major. She supports that

idea as well, for Notre Dame graduates tend not to go to graduate school except to the professional schools—law, business, and medicine. In fact, the percentage of Notre Dame students who undertake graduate school in other fields is very low relative to the University's peers. If students had an earlier exposure to academic research, the percentage might rise.

Prof. Incropera cautioned against assuming that all capstone projects have a research component. It involves the design and development of an artifact. He said that in engineering all students have a required capstone project, but it is disconnected from research. He is more in favor of the notion of a research track, where students so inclined can begin as early as the first or second year to become involved at some level in the research process.

(d) *Proposal 4: Improve the Mathematical and Scientific Literacy of Our Non-Technical Students.* Prof. Lodge introduced the fourth proposal—improving the mathematical and scientific literacy of Notre Dame's "non-technical students"; that is, students who do not have specific science and math requirements for their major. This subset of the University's students generally numbers from 200 to 300, but it is never more than 500.

Currently, Prof. Lodge said, non-technical students are required to take two courses in mathematics and two in science. To fulfill these requirements, they have the following options: For science requirements, there are 14 courses available in 20 sections. Enrollment in the courses varies between 25 and 250 students. More than half—64%—of the enrollments for non-technical students are in biology. The class size of three biology courses are over 100; three others are over 200. The average size is 92. The Mathematics Department offers fewer courses to non-technical students, but the sections in its offerings are smaller. The average class size in mathematics courses is 47 students.

Prof. Lodge said that it has been a challenge for both the College of Science and the Mathematics Department just to have these courses. Members of the Curriculum Review Committee have a strong sense that there is a need for improvement in the number of courses, the variety of the

offerings, and the quality of the courses in terms of meeting the interests of students. They believe that mathematics for Arts and Letters students should be designed to enhance problem solving, critical thinking, rational decision making, and appreciation of mathematics. Science, both natural and applied, for Arts and Letters and Business students should be designed to enhance understanding of the physical and biological universe and its application to human needs.

Prof. Lodge continued that his Curriculum Review Committee subcommittee has devised several proposals to help solve the problems members have identified. One is contained in Proposal 4, Section II: Develop Courses that Integrate Sciences, Mathematics and the Humanities. This section contains many of the ideas introduced by Prof. Brockman today in conjunction with the first of the Curriculum Committee's proposals: the need to offer incentives for the creation of general education courses that are more creative—particularly interdisciplinary courses. Other suggestions set forth in that section are linked courses, team-taught courses, credit-bearing lecture series, integrated capstone experiences, and one-credit topical courses.

Prof. Lodge said that it is the Curriculum Committee's belief that students have a great interest in seeing connections between disciplines. Yet, given the current structure in the departments and colleges, it is often quite difficult for faculty to develop courses that do not narrowly meet the needs of the department's offerings for its majors. Thus, the committee is urging that the University offer incentives, or at least make it possible for faculty to join together—even across colleges and departments—to create courses that are interdisciplinary in nature and that promote not only a research agenda but a teaching agenda—even for the University's students in non-technical majors. Prof. Lodge concluded by drawing attention to what he said may be an understatement—the last sentence of Section II: "Development of these courses will require new resources."

Prof. Marino said that Section II of Proposal 4 incorporates all the things that he and others are concerned about in terms of oversight. Who is deciding what "science" is? Who is deciding what "mathematics"



is? It is clear, he said, that the College of Science and the council in that college believe that the science requirement should remain as it is. While Section II is a compilation of what the committee believes, it is not what the College of Science wants.

Prof. Incropera asked Prof. Marino if he is opposed to expanding the science requirements beyond the natural sciences to include the applied sciences.

Prof. Marino said he was not; however, the examples given in the last paragraph of Proposal 4, Section II for multidisciplinary courses—sustainable development, ethical issues in the environment, or genetics and ethics—are not all very compelling to him in terms of how they were described. There already is a requirement for ethics. These courses do not constitute science courses.

Prof. Jacobs said that the difficulty with the proposal is that it provides very specific recommendations on how mathematics and science requirements are to be met but fails to set forth an accompanying rationale. Yet, the whole premise of the proposed Curriculum Committee—and it is a good one—is that we start the educational process by articulating what it is we want our students to achieve. Philosophers, theologians, scientists, mathematicians—all would probably agree that whatever the area, the point is to expose students to a way of thought. Scientists view the world from a certain perspective—they make observations, develop models and hypotheses, and then test those with experiments. Conveying the scientific way of thought to students is not possible though all types of courses. Thus, while a course such as "Ethics and the Environment" may be a very valuable course, it may not meet the rationale for a general education science course. Without having the rationale of the science requirement in front of us, it is difficult to measure and evaluate how well particular types of courses meet it.

Prof. Jacobs continued that the same criticism applies to the committee's treatment of the mathematics requirement. First, we need to examine what it is we want our students to achieve in terms of mathematical literacy, etc. Then we must ask whether that level can be met with a single course in mathematics or whether it requires two. It is difficult to make that assessment

without knowing the rationale for the mathematics requirement.

Prof. Incropera commented that the rationale articulated by Prof. Jacobs is a very good one—if you happen to be a science or an engineering major. The discussion here, though, centers on courses that would be offered to students in the Colleges of Arts and Letters and Business. An equally valid rationale for these students would be context. That is, to try to explain basic scientific principles in the context of things that have meaning in their lives—whether that is public policy, ethics, social justice, or economics. That is where he sees some compelling needs being met by the proposed integration of science, mathematics, and the humanities. Perhaps students who have very low levels of interest in mathematics and science gain a better understanding of the role of science and technology in their lives by courses that are relevant to their concerns. As a result of these courses, they may make personal decisions or be able to provide leadership on decisions made by organizations of which they are a part later on in their lives. Thus, a different rationale for science and mathematics courses exists for students in non-technical fields.

Prof. Incropera said he could use his own experience as an example. As both an undergraduate and a graduate student, he took probably a dozen mathematics courses. With all due respect to the outstanding mathematicians at M.I.T. and Stanford who taught him, he gained more from the applied mathematics courses taught by engineers—for they were actually using mathematics in applications that were of interest to him. The point is that context is extremely important. He would not undervalue it.

Prof. Merluzzi said that he, too, believes it is important to recognize teaching science as teaching a way of thought. In the College of Arts and Letters, the Department of Psychology has its foundation in science and uses scientific methodology. Thus, the notion that science does not exist in Arts and Letters is somewhat of a mistake. Psychologists consider themselves very much aligned with the scientific tradition.

Prof. Aldous said that in her research as a sociologist, the field of statistics is very important. For example, currently she is

examining how much overlap there is in various immigrant groups on their math and English achievements and how that overlap is affected by particular family backgrounds. Thus, certain fields, particularly those in the social sciences, already integrate science and mathematics. Many Arts and Letters students want nothing to do with mathematics; yet, if they are nudged into that field through the social sciences, it becomes interesting to them. This might occur with a political science major who is interested in voting behavior. Creative courses taught by good teachers will make mathematics interesting to non-technical students.

Prof. Brockman said that there was no intent on the part of Curriculum Committee members to "dumb down" science and mathematics. Instead, they are asking more of faculty. They are asking specialists in a given area to adopt more of a generalist viewpoint—not in order to make science and mathematics "taste better," but to make these subjects more relevant to their own interests. That is a challenge.

Prof. Wayne said he is struck today, as he has been in various conversations over the last ten months, at how asymmetrical the discussion is. A typical science student is required to take eight courses in the College of Arts and Letters, plus a language course; yet, a typical Arts and Letters student takes two math and two science courses. While there are many discussions of the "relevance" of mathematics and science, no one ever asks the same question of Arts and Letters courses. What if they are not interesting to the science students? Why are we not asking how to make Arts and Letters courses "relevant" to science students? The conversation is always in one direction.

Prof. Brandenberger commented that he agrees the point is to educate students broadly—that is, to give them a broad view of the different ways of thinking about the world and about themselves. It is not too much to ask them to take four courses outside of their college.

Prof. Woo said that it is fair to say it is possible to have a logic course offered by the Philosophy Department, a quantitative course with context offered in any of the social sciences, or a very good applied

math class offered in Engineering. The question is: Who gets to decide whether the course meets a general education requirement? Is it the University Curriculum Committee or the department that makes that judgment?

Prof. Kolman then addressed Section III of Proposal 4 dealing with restructuring the general education requirements in Mathematics and Science. She said that there are five aspects of this section to bring to members' attention.

First, instead of counting the number of courses students take, the committee proposes counting credit hours. This would allow the creation of more innovative topical courses that could be one- or two-credit courses a student could put together in a creative way to satisfy the general education requirements.

Second, Prof. Kolman continued, current University requirements call for students to take their two math and two science courses during their first year. The committee proposes introducing more flexibility and requiring students to take 9 of the 12 required credit hours in their first year, leaving them some room to pursue another topic that may interest them.

Third, students in topical science courses do not currently have any lab experience. Committee members are hopeful that when the new Science Learning Facility is completed a good number of the topical science courses might have some lab experience connected with them.

The fourth area the proposal addresses is expansion of the term "science." Currently, most of the general education courses that fulfill the science requirement are in the natural sciences. The committee would like to see the area of science expanded so that students could fulfill their science requirement by choosing courses either in the natural sciences or the applied sciences—which are generally offered in the College of Engineering.

Prof. Kolman continued that the fifth issue is the math requirement for Arts and Letters students who are not following a pre-professional track. All other students have a specific math requirement associated with their major. For example, a student who begins as a Business intent will

take two semesters of calculus. Because many students begin their studies at Notre Dame in programs with a specific mathematics requirement, there is a maximum of 500 students with no specific math requirements each year, but more typically, between 200 and 300 students. For these students, the committee is proposing a one-course math requirement, with a fourth course taken either in math or either natural or applied science. The point is to give students flexibility in areas that match their interests and the opportunity to see things in context. In addition, there are and will be more courses offered in the science area, especially when applied science courses are available as options.

Prof. Merluzzi reiterated that psychology courses should be included in the category of "applied sciences." While he cannot speak for Sociology, Psychology looks at itself as consistent with departments in the College of Science. Also, given the Review Committee's intent to offer students greater flexibility, he asked why it proposes the option of three science courses and one math course but not three math courses and one science course.

Prof. Buechler agreed with previous speakers that it is not too much to ask students to take four or even five courses outside of their college. Furthermore, he favors retaining the current math requirement. It is a bad time to lower the requirement. Whenever the president or a high government official speaks of the state of education in the United States, they speak of the poor education many receive in math and science. Anyone who has a college degree ought to have been exposed to calculus at some time. While calculus is faulted occasionally as being inappropriate for non-technical majors, it is one of crowning achievements of modern man. Of course, many students take calculus in high school. Thus, they should be offered options relevant to their future careers.

As for statistics, Prof. Buechler continued, It is unfortunate, but many popular statistics courses are taught by asking students to go to the newspaper and find articles that use statistics incorrectly. Journalists, lawyers, policy makers—these are just three professions in which statistics are important. Taking only a few courses will not enable students to achieve a high level

of proficiency, but they can at least become intelligent consumers of mathematics and statistics and lay the foundation for the realization that both may be useful in helping solve some of the problems that may come across their desks in the future. The point is that we want our students to learn to ask questions.

Prof. Buechler said that while the Mathematics Department does not have all the courses in place right now to accomplish this goal, it is not standing still either. A logic class was introduced a few years ago; an introductory statistics class will begin this spring. Other courses in what may be called "decision analysis" will come on board soon.

(e) *Proposal 5: Enhancing Education in Ethics.* Prof. Tenbrunsel introduced the committee's final proposal: Enhancing Education in Ethics. She said that while there was agreement among the Curriculum Committee members that ethics was an issue that deserved attention, there was disagreement among subcommittee members about how to best implement that objective—specifically, whether Notre Dame needed to enhance its education in ethics, whether or not it could enhance its education in ethics, and whether or not it made sense to do so within certain schools.

Given that disagreement, the current draft states that a distinctive and central feature of a Notre Dame education is the attention given to ethics and the development of character and that the current emphasis should be enhanced. It recommends that in conversation with the Departments of Philosophy and Theology, the University should make some standard instruction in ethics a significant and formal part of required philosophy and theology courses—specifically, that approximately 20% of each introductory course in these departments should be devoted to ethics. Further, the proposal urges the creation of an appropriate vehicle for achieving greater awareness of the initiatives taken in ethics education across the University, greater understanding of the ways in which one academic unit can assist another, the creation of synergies among units, and the fostering of an attitude of cooperation and mutual support across the University on this important issue with regard to both tracking and research.



Prof. Roche said to return to Prof. Wayne's comments, not only should Arts and Letters students find context and meaning in their mathematics and science courses, but mathematics and science students should find meaning in Arts and Letters. Thus, he supports the move to greater ethics education. He has heard from Prof. Kolman, as well as from students anecdotally, that there are an insufficient number of ethics courses included among the courses available to fulfill the second requirement in both philosophy and theology, especially given the integration of ethics into the curriculum in some of the professional schools.

Prof. Roche said that his main concern is with the recommendation that 20% of each introductory course must be devoted to ethics. The Theology faculty spent a great deal of time working through the different options for their introductory courses. They have reconfigured those courses rather dramatically, and they do not have much of an ethics component—if any at all. He proposes instead that at least one-third of the introductory philosophy course would introduce ethics from three different perspectives. Every student would then, having taken that first philosophy course, have some acquaintance with Aristotle, Kant, and Mill (for example), and the principles that undergird their theories. Also, the Philosophy Department should be encouraged, as the Curriculum Committee has done elsewhere in its proposal, to offer more courses at the 200 level that have some ethical component, so as to find that reciprocity in terms of context that Prof. Incropera articulated so well.

Prof. Delaney said he would estimate that at least one-quarter of most of the introductory philosophy courses consists of ethics—possibly a third—which is by far the easiest way for students to grasp philosophical issues. Probably half of the 200-level courses the department offers are in ethics. If more ethics courses are offered, they will most likely replace religion or religion and human nature courses, because probably half of the 200-level courses are only in three areas: ethics (various kinds of theoretical and applied ethics courses), philosophy of religion, and “the distinctiveness of man.”

Prof. Incropera said he would like to speak with the voice of the customer—the customer being Notre Dame students. The College of Engineering is embarking on a major initiative in which ethics will be integrated into the curriculum to try to weave it into the fabric of its course offerings. In doing that, he would very much like engineering students to have some theoretical foundation in ethics, but the college cannot afford the luxury of having engineering students take an additional ethics course after their already-required two theology and two philosophy courses. Can there be some assurance that when his students take a core philosophy or theology course that they will receive some underpinning in theoretical ethics?

Prof. Delaney answered that in any given semester, the Philosophy Department offers fifteen sections of ethics at the 200 level. That is where his engineering students will receive their introduction to theoretical ethics.

Prof. Robinson said he thinks it is a mistake to believe that learning about Kant, Aristotle, and Mill is in some significant way assisting students in making good ethical decisions. While we want Notre Dame graduates to be good people, it is naive to think they will learn that in an ethics class is which Mill's utilitarianism is shown to be better than Benton's—whether the content of ethics in the course is set at 25% or 35%.

Prof. Woo said that of all the Curriculum Committee's proposals, she found the fifth to be disappointing. It does not take the University out of the status quo. The first paragraph of Proposal 5 states in a very gentle way that despite the University's current two-course requirement, “[s]till, the ethical component of the courses as presently offered do not always provide a common, consistent foundation of knowledge on which subsequent instruction, inquiry and conversations can build. Some students leave these courses with a sound rudimentary knowledge of ethical theory and issues, while others lack such an understanding.” That is a very understated way of addressing a problem that did not go away in the Curriculum Committee discussions. Repeatedly, it was articulated

that there must be more attention to ethics. The response of the Curriculum Committee was to recommend that 20% of each introductory theology and philosophy course be devoted to ethics. Yet, Prof. Delaney has just said that, already, probably 25 to 30% of introductory philosophy courses concern ethics. Thus, the committee is advocating only the status quo. She still does not feel assured that students will receive the necessary foundation when they emerge from introductory courses.

Prof. Woo said she would also like to return to the issue of trust. Should the Curriculum Committee decide the content of the courses should it be handled through collaborative conversations between departments? It was a very positive experience when the College of Business approached the Mathematics Department and said it needed the math courses for business majors to address certain topics so as to lay the foundation for higher level business courses in economics and finance. The Mathematics Department responded in a wonderful way—and both departments were happy. She is concerned that if departments go too readily to a University Curriculum Committee they will bypass the type of very constructive conversations between departments and colleges that should take place. She would like to have some mechanism in place to encourage that kind of collaborative conversation.

(f) Conclusion. Prof. Kolman clarified that the committee will revise its draft proposals after today's discussion and then turn its work over in January to the Undergraduate Studies Committee. It will be the job of that committee to prepare a final proposal for presentation to the Academic Council. She expects the finished proposal will come before the Council in the latter part of the second semester.

**4. Recognition of Prof. Dennis Jacobs.** Fr. Malloy congratulated Prof. Dennis Jacobs of the Chemistry Department both for his recognition as the 2002 United States Professor of the Year for research and doctoral institutions and the extraordinary presentation he made at the award ceremony. The award is sponsored by the Carnegie Foundation for the Advancement of Teaching and is directed by the Council for Advancement and Support of Education.

## 5. Committee Reports

(a) *Graduate Studies Committee.* Prof. Antsaklis reported that the committee continues its work on health insurance for graduate students. It is also discussing the role of the committee in relation to the Graduate Council.

(b) *Faculty Affairs Committee.* Prof. Mooney reported for Prof. Ghilarducci that committee members are working on a proposal for University holidays, salary disclosure issues, and faculty disciplinary procedures. Prof. Merluzzi added that in terms of the faculty grievance procedure, members are looking at AAUP guidelines and trying to align Notre Dame's procedures more closely with them.

(c) *Undergraduate Studies Committee.* Prof. Kolman said that the major work of this committee will be the proposal to revise the general education requirements.

There being no further business, Fr. Malloy adjourned the meeting at 5:05 p.m.

Respectfully submitted,

Carol Ann Mooney  
Secretary

## University Committee on Women Faculty and Students

February 20, 2003

**Members present:** Teresa Godwin Phelps (chair), Joan Aldous, Charlotte Ames, Patricia Bellia, Mary Rose D'Angelo, Megan Markey, Barbara Mangione, Maura Ryan, Katherine Spiess

**Members absent:** Jennifer Anthony, Elizabeth Bishop, Patricia Maurice, Carolyn Nordstrom, Martiqua Post, Carol Tanner

**Guests:** Judy Fox, Associate Professional Specialist, Legal Aid Clinic, University of Notre Dame Law School

**Observers:** Mary Hendriksen, Reporter

Prof. Phelps called the meeting to order at 3:05 p.m.

**1. Minutes approved:** The minutes of the meeting of January 24, 2003, were approved without amendment.

**2. Equity in compensation for women faculty members:** Throughout the year, Committee members have been discussing their concerns about equity in compensation for women faculty members. After Prof. Ryan reported at the December meeting that plans for an audit of faculty salaries are underway in the Office of the Provost, members have discussed their role in its design and implementation.

On behalf of the Committee, Prof. Phelps sent a letter to Nathan Hatch, Provost, on February 12, 2003, providing him with various recommendations for the audit. The letter states that there is a widely shared perception among Notre Dame faculty members that gender bias in salary decisions exists at the University and that this perception damages morale and interferes with hiring and retaining women. It goes on to say that gender equity is a complex problem that requires multiple strategies. One strategy demonstrated by business research to be the simplest and most effective method of addressing inequity in salaries is a policy of transparency in salaries. Providing training that enables department chairs to recognize gender equity problems is also an important approach. Recognizing, however, that both these strategies would require major changes in the University's corporate culture, the letter recommends an intermediate step: institution of an annual review of salaries conducted by a committee in which the faculty has confidence.

Also in the letter, Prof. Phelps asked that Prof. Hatch act during the Spring 2003 semester to appoint a committee charged with designing and implementing such a review. It is the Committee's view that the audit should include all regular faculty salaries and that the University conduct it in accordance with recommendations from the American Association of University Professors. In addition to representatives from the Office of the Provost, the letter asked that the audit committee include at least one elected faculty member designated by the UCWFS and elected faculty representation from other relevant bodies, such as the Academic Council and the Faculty Senate. Finally, the letter asks that the audit committee report to the UCWFS on its progress in a timely manner.

At the meeting today, Committee members discussed the importance of the words "regular faculty" in their letter to the Provost. Members said it was used to emphasize that concerns with salary equity extend to research faculty, library faculty, and special professional faculty—as well as to teaching-and-research faculty.

Members said that before taking any more action on recommendations for the audit, they will wait for Prof. Hatch's response.

**3. Discussion of the status of female special professional faculty at the University—Prof. Judy Fox, Legal Aid Clinic, Notre Dame Law School:** In connection with its work on salary equity for women faculty members at the University, Committee members have discussed the particular concerns of the University's special professional faculty (SPF). In addition to equity in compensation with their male counterparts, these concerns extend to issues of status, faculty rights and privileges, and working conditions.

Prof. Fox, an associate professional specialist who is a clinician at the Legal Aid Clinic of the Notre Dame Law School, was invited to the Committee's meeting today to give her perspective on the issue. In her position at the Clinic, Prof. Fox runs a full-time legal practice—working one-on-one with students and clients in the practice of law. In addition, she teaches "stand up" classes (traditional classroom classes) in domestic violence, ethics, and legal aid.

Prof. Fox explained that her particular concern is that there are no standards and, therefore, much ambiguity in several critical areas—workload, teaching load, leave, summer responsibilities, vacation, contract renewal or termination—for the SPF. In her own case, two clinicians resigned in May of 2001 to take other positions. A third clinician retired in December of 2001, and the Clinic's administrative assistant retired that month as well. Prof. Fox assumed the teaching, administrative, secretarial, and legal responsibilities of these four people until the Law School hired a new director and he began work in July 2002. This led to a tremendous workload. To fulfill her professional responsibilities as a member of the bar, she worked 18 months—including weekends and holidays—with hardly a day off.

Prof. Fox said that when she questioned the situation, Human Resources informed her that faculty members were not under its jurisdiction. Yet, when she turned to the Provost's Office for help, she discovered that there are no standards for the workload of the SPF. This, she said, is in contrast to the teaching-load standard every department at the University has for its teaching-and-research faculty. When there are no standards, there is no option to protest a situation in which unfairness occurs without placing one's job in jeopardy. Thus, essentially, for the SPF, there is no option to refuse more work.

In addition, Prof. Fox continued, no standards exist for the SPF for summer workload, vacation and leave, and contract renewal or termination. These are all issues, she said, that concern SPF in addition to the major issue of compensation—that is, whether women SPF as a class are generally compensated differently than their male SPF counterparts. And, as to this issue, she said that she believes the differential in salary between male and female special professional faculty is more dramatic than that between male and female teaching-and-research faculty.

Prof. Fox also said that there is ambiguity in other matters affecting the SPF. For instance, some SPF have been told unequivocally that they are not accorded the rights associated with the term "academic freedom"; however, SPF in other colleges have been assured that they are accorded that right. Prof. Fox said that regardless of what rights the *Academic Articles* give to the SPF, telling some members of the faculty that they have no academic freedom has a chilling effect. Prof. D'Angelo commented that unless all instructional faculty at the University are accorded academic freedom, the quality of education at the University is undermined. Prof. Phelps agreed, saying that students suffer when some of their faculty are not accorded this most basic right. She said that the implications of restricting academic freedom to teaching-and-research faculty are large when the number of instructional faculty in the category of "special professional faculty" continues to grow at a rapid pace.

Members discussed as well how the fact that SPF can essentially be fired "at will" affects the issues under discussion today.

SPF have contracts that are, in most cases, renewed annually. Under the current *Academic Articles*, the University may choose to terminate the services of an SPF member by giving him or her six months notice. Art. III, Sec. 3(d). Several members said that this provision was at the crux of the problem: lack of job security affects workload issues, academic freedom, issues of compensation, and the ability to initiate the University's established grievance procedures. Prof. Fox said that there should be a grievance procedure available to members of the SPF that does not put one's job in jeopardy. Some Committee members agreed, saying that even if the *Academic Articles* provide SPF with a grievance procedure, it is not useful if hiring occurs "at will."

Committee members concluded that much of the problem with the lack of standards and ambiguity surrounding the rights of the SPF can be traced to the wide diversity of positions included in the SPF category—instructional, research, and administrative. The SPF category has come to be a catch-all category. While AAUP rules govern faculty in the teaching-and-research category, SPF have no such protection. Neither are they accorded any of the protections accorded to staff members. That, said Prof. Fox, is precisely the problem.

Prof. Phelps said that given the Committee's mandate, it would be important to determine the number of male and female SPF employed at the University, particularly the number and percentage of women SPF who have instructional positions. In addition to using these figures to examine issues of equity in compensation, if the University's policies or lack of policies on such issues as workload and academic freedom affect women disproportionately, there would be clear problems. Also, any information collected on the number and percentage of women in instructional positions should be conveyed to Prof. John Affleck-Graves, an associate provost, who will begin this spring to chair a University-wide committee on the SPF.

**4. Input of the Committee on the University's strategic plan:** The University is in the final stages of constructing a ten-year strategic plan. At the January meeting, members volunteered to investigate how specific colleges incorporated evidence of

a commitment to gender, racial, and ethnic diversity among faculty and students and concrete measures for achieving it into their own strategic plans. After having made that review, members reported at today's meeting that there were few, if any, references to diversity within the individual colleges' plans. What language there was seemed largely aspirational in tone and appeared to be limited to racial or international diversity.

Prof. Ryan said that as part of the feedback the various units are to receive, it is critical that they be instructed to include specific goals and targets in their strategic plans for achieving gender diversity within the faculty, including positions of endowed chairs. She said that departments, schools, and colleges need guidance both on how to set goals and how to move from aspirations to goals.

Prof. Phelps has already written a letter to the Provost in December of 2002 expressing the Committee's concern that the University's strategic plan include a commitment to recruiting women faculty and to increasing the number of women and minority students in majors in which they are underrepresented. Prof. Hatch replied that he considered the issue of gender diversity to be of significant importance to the overall plan. Members decided that on their behalf Prof. Phelps will write a second letter to the Provost asking that the strategic plan include this commitment as well as specific initiatives to accomplish it. She will circulate a draft in the next few weeks.

#### **5. Subcommittee on eating disorders:**

Ms. Markey reported on her meeting with Meredith Foley, president of the Women's Resource Center (WRC). Ms. Foley informed her that the WRC is not able to have trained counselors—whether trained students or professionals—on site to assist students with this widespread campus health problem. Instead, the office is able only to make referrals to the Counseling Center, where a long waiting list exists, or to other resources, such as off-campus counselors. Ms. Foley told Ms. Markey that the WRC's request for funding to hire counselors to deal with eating disorders was refused at least partially on the basis that the University would not be able to control what the counselors might say.

Ms. Markey also met with representatives of the group A Life Uncommon. One goal of this student group is to have a half-day training at the orientation for rectors and resident assistants so that they can guide students in seeking help with eating disorders. Allie Swiacki, a leader of A Life Uncommon, will attend the March 27 meeting of the Committee.

Prof. Phelps reported for Ms. Anthony, a member of the subcommittee. Ms. Anthony investigated how the University of Colorado, her undergraduate institution, deals with eating disorders. A section of that university's web site devoted to its health center directs students to various web sources as well as to counseling services. Ms. Anthony suggested establishment of an intermediary center on campus to help students, as well as a public information campaign—similar to the campaigns conducted for sexual assault.

Prof. D'Angelo noted that at Notre Dame, it is the Counseling Center's webpage that deals with eating disorders.

**6. Sexual harassment through the existence of a hostile environment:** Prof. D'Angelo is drafting a letter recommending measures the University could institute to educate both students and faculty on what constitutes sexual harassment in a university setting and how to seek recourse when it occurs. Prof. Ryan suggested that the letter should be addressed to Fr. Mark Poorman, C.S.C., Vice President of Student Affairs; Carol Mooney, Vice President and Associate Provost; and Rhonda Brown, Director of Institutional Equity. All three would have a responsibility for and interest in this issue.

There being no further business, the meeting was adjourned at 4:45 p.m.

## University Committee on Libraries

January 23, 2003

The meeting was called to order at 3:30 p.m. in Room 222A Hesburgh Library by Director of Libraries Jennifer Younger in the absence of chair Walter Pratt. Also in attendance were Wesley Calvert, Felipe Hernandez, Mark Pilkinton, Marsha Stevenson,

David Smith, Gordon Wishon, Jennifer Younger, and secretary Melodie Eiteljorge.

The minutes of the meeting of November 21, 2002 were approved as written.

### Director's report

- Library celebration September 18, 2003 and November 7, 2003:

We are in the preliminary planning process for two celebrations. The first is the opening of the basement, scheduled for Thursday, September 18. The second is a dedication of the basement with the Advisory Council, scheduled for the afternoon of November 7.

- New associate director:

Associate Director for User Services Nigel Butterwick will begin work on March 8.

- Hesburgh Library basement renovation:

The renovation is on schedule. One obstacle is that funding for microfilm cabinets was not included in the budget. We are looking at options for funding to acquire the cabinets.

- Report on library strategic plan to PAC, January 22:

The Provost Advisory Council met on January 22 and discussed strategic plans from the various colleges. A summary of the library's report was distributed and is included at the end of these minutes. Younger noted particularly the strategic challenges facing the library, of which the first three are both complementary and conflicting in nature. They are:

- achieving excellence in meeting information needs across all disciplines and in providing services to all campus constituencies
- building rich and unique research collections in areas that support Notre Dame's aspirations to be a scholarly destination
- defining our role and place within the global network of research libraries in acquiring, cataloging and preserving the record of scholarship for future generations
- creating a Catholic identity in a research library

She described these challenges as complementary because by achieving excellence

in meeting information needs across all disciplines, we will in some subject areas build rich and unique research collections as the means of meeting information needs, and thus define our place within the global network of research libraries. The challenges are conflicting in nature because research libraries build comprehensive collections not only as the primary means for meeting the information needs of current campus faculty and students, but also because it is our *raison d'être*. Research libraries exist to acquire and preserve the intellectual heritage and culture of the world, a commitment research libraries have made for the last century. However, for Notre Dame as for many other research libraries, the goal of building comprehensive, rich and unique research collections in all disciplines is no longer affordable. Thus we have described two goals—meeting current information needs and building rich research collections—and in partnership with academic departments and colleges, will make choices that appropriately distinguish between and align library goals with department and college needs.

### Monographs and serial costs in ARL libraries, 1986–2001

Younger referred to documentation on monograph and serial costs in ARL libraries from the Association for Research Libraries' web site at: <http://www.arl.org/stats/arlstat/graphs/2001/2001t2.html>. Data shows that median serial unit cost declined from a high of over \$300 to slightly less than \$280. One contributing factor could be consortial licensing arrangements for electronic journals where the cost of the licenses is spread among participating libraries.

### State of the Library, January 9, 2003

Younger presented her third annual state of the library address to library faculty and staff on January 9. Overall, the library is in excellent shape though there is a major cloud on our horizon. That cloud is the combined effect of decreasing income and continuing high inflation in the costs of books and serials. It challenges our capacity to meet the information needs of faculty and students because, despite our best efforts in managing our financial resources, the rate of inflation outpaces the rate of increase in our annual income with the

completion of the post-Colloquy funding and downturn in the economy. The result is that we have both fewer dollars and significantly less purchasing power with which to meet the information needs.

In the past year, we conducted many assessments, including the LibQUAL+ survey, focus groups and interviews with department chairs. We have acted on their advice and taken numerous steps to enhance services, including redesign of library catalog pages and our web site. The full report will be sent to all UCL members.

#### Library priorities and strategies for FY03/04 budget

Younger reported that, because of the current economic situation, we expect a five percent budget cut for the next fiscal year. We are modeling 50% of those cuts from the non salary budget and 50% from the salary budgets, which would mean a reduction in faculty and staff positions and a cut in student assistant hours.

The Library Administrators and Managers Group (LAM) met in December, 2002 and January, 2003 and discussed action priorities. Younger would now like advice from UCL regarding next steps in discussions with deans, department/college library committees, and department chairs regarding library budget cuts for 03/04. Her purpose will be to discuss library priorities and strategies for budget cuts for FY03/04, particularly as these cuts will affect library collections and information resources, and second, collaboration between the colleges and the library on proposals for library collection and information resources in the University capital campaign. When scheduled, such meetings will include the appropriate people from the library, especially those who have collection development and liaison responsibilities to a department, center, institute or college. Younger asked LAM members to identify which departments and colleges have a department/college library committee or department/college library liaison.

Wishon noted that the Office of Information Technology is taking the same approach, working with colleges and deans to get a sense of where OIT priorities fit in with their planning. There was a general consensus that this is a good approach. Smith stressed the importance of getting

departmental perspectives as well as those of deans and college administrators.

Younger reported that copying and printing have become cost issues in the library for different reasons. For printing, it is the increase in the volume of printing that is increasing costs. For copying, it is the decrease in volume that is reducing revenue, necessitating changes to reduce costs and/or increase revenue to continue this as a self-sustaining operation. We are looking at options, including reducing color printing for library users and limiting the volume of printing for non Notre Dame patrons. We will be working with the OIT to determine the feasibility of including printing done in library locations in the quotas for individual student printing. Some other options include reducing the number of copy machines in the tower, cutting back on copy center services, and raising the cost of copying. Graduate student representative Wesley Calvert stated that he believes students would consider a price increase their least desirable solution. Fewer machines and less service would be preferable to a price increase, and color copying is not generally needed in his work.

Wishon added that the OIT is dealing with these same issues. For the next meeting he will bring some statistics printing volume.

#### Other Announcements

Stevenson distributed bookmarks advertising "My ILL Account", which enables patrons to check the status of their interlibrary loan requests online. The Web site is at <http://www.nd.edu/~ill>.

Stevenson also noted that UCL discussed the recall process at an earlier meeting. Since then staff did a sample of 139 requests and found that 3/4 were back within two weeks, on schedule. The majority of those not returning a recalled book were faculty members. Pilkinton noted that these might be people who are on leave. He suggested we focus our education efforts on the 25% who do not respond to provide more information on the process.

Stevenson also reported that we will get new windows on floors 4-14 of the Hesburgh Library between May 20 and November 1. All carrel holders will be notified in advance as the window replacement project moves throughout the building.

Stevenson also noted that the second floor of the Hesburgh Library has been configured for wireless computer use, and the basement will be wireless when opened. Next we will work on the first floor and eventually the tower and the branch libraries.

There being no further business, the meeting adjourned at 4:50 p.m.

Respectfully submitted,

Melodie Eiteljorge

Secretary

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#### **Summary Report to Provosts Advisory Committee (PAC) on the Report on University Libraries Strategic Planning, November 7, 2002**

Jennifer Younger

January 23, 2003

The Report on University Libraries Strategic Planning, November 7, 2002 has 8 sections:

- Section 1. Vision and aspirations, strategic challenges, rankings and right size
- Section 2. Overview of strategic areas
- Section 3. Facilitator of learning and teaching
- Section 4. Center for research and scholarship
- Section 5. Intellectual commons
- Section 6. Creative and knowledgeable organization
- Section 7. Rationalization and redirection of existing resources
- Section 8. Assessment of library services, collections, information resources and facilities

Great research libraries have for years been known by their most distinguished, complete or unique collections. Today, however, greatness comes from many roles:

- distinguished research collections and access to information resources
- services that connect users to library resources and enhance scholarly productivity
- support for the development of teaching and learning activities

- fostering of intellectual engagement, an intellectual commons

- an agile and knowledgeable organization one step ahead of its users

- and, at Notre Dame, support through collections and services for the Catholic intellectual heritage and an expression of the Catholic identity of Notre Dame

We face several strategic challenges, of which the first three are both complementary and conflicting in nature. They are:

- achieving excellence in meeting information needs across all disciplines and in providing services to all campus constituencies

- building rich and unique research collections in areas that support Notre Dame's aspirations to be a scholarly destination

- defining our role and place within the global network of research libraries in acquiring, cataloging and preserving the record of scholarship for future generations

- creating a Catholic identity in a research library

The challenges are complementary because by achieving excellence in meeting information needs across all disciplines, we will in some subject areas the build rich and unique research collections as the means of meeting information needs, and thus define our place within the global network of research libraries. The challenges are conflicting in nature because research libraries build comprehensive collections not only as the primary means for meeting the information needs of current campus faculty and students, but also because it is our *raison d'être*. Research libraries exist to acquire and preserve the intellectual heritage and culture of the world, a commitment research libraries have made for the last century. However, for Notre Dame as for many other research libraries, the goal of building comprehensive, rich and unique research collections in all disciplines is no longer affordable. Thus we have described two goals—meeting current information needs and building rich research collections—and in partnership with academic departments and colleges, will make choices that appropriately distinguish between and align

library goals with department and college needs.

The right size for the library is largely a function of University goals for graduate programs and faculty research. More funding is needed to support graduate programs and research than is needed to support undergraduate learning and research. It is a critical issue because the recent University investments might suggest the job is done. However, the aspirations of Notre Dame to attain greater stature as a teaching *and research* university will require additional funds for library collections, information resources, services, people and space. Moving up in the rankings would reflect to the academic community the seriousness of Notre Dame's ambitions.

We have articulated four areas of library responsibilities.

### 1) Facilitator of learning and teaching

Academic programs at the University are changing in curricular content and instructional styles. Information technologies are changing classroom instruction and learning; the Web is dramatically expanding the availability of information. To help prepare students for their academic studies and employment in the information age, the Libraries will teach information seeking skills and concepts in classes and in the library. The Libraries will seek to:

- 3.1 endow the undergraduate library experience
- 3.2 integrate library services into the delivery of courses
- 3.3 create a digital visual resources collection
- 3.4 develop services to Notre Dame alumni
- 3.5 endow positions for library faculty in areas of University priorities
- 3.6 provide enhanced data services

### 2) Center for research and scholarship

Physical and virtual library collections and library services ensure that information and sources of scholarly knowledge are provided to our faculty, staff and students. Recognizing that faculty and student needs change over time, the library will establish goals in partnership with colleges

and departments for the appropriate mix of building library collections, including subscriptions to information resources, and borrowing or purchasing information on request. Differentiating between various means of meeting information needs is a worthy goal on its own recognizance and will assist us to deliver information in the most cost-effective manner. Nevertheless, additional financial resources are absolutely required. The costs of journals have completely outstripped our ability to maintain the subscriptions considered necessary by our faculties, while simultaneously decreasing the acquisition of books and limiting our ability to seek special opportunities for unique acquisitions.

In our interviews of academic department chairs, faculty in 37 departments identified collection growth as a high priority for the library. We wrote the statements of need in broad terms only. We will build on our partnerships with colleges and departments, developed a joint statement of needs and proposals for additional funding. The integration of the assessment and prioritizing of library needs by the Law School in its strategic plan is a good model. The Libraries will seek to:

- 4.1 build research collections on existing strengths
- 4.2 build library collections, provide access to information resources, and deliver resources on request
- 4.3 capitalize new areas of faculty research through additional funds for library collections and information resources or document delivery
- 4.4 add a library component to each new endowed Notre Dame professorship

### 3) Intellectual commons

The library should provide a secure, comfortable, and useable environment for students. The library should serve as a meeting place for faculty and students. Housing and preserving four hundred thousand volumes off-campus will extend the life of current library space for about six years beyond the current projection of mid-2009, which is the date when the effective shelving capacity (80%) will be reached. The Libraries must participate in creating a managed repository for digital library collections, eScholarship, research data, federal and



corporate data, pre-prints, and access to electronic resources in collaboration especially with OIT and the Office of Research. Towards that end, the Libraries will seek to:

- 5.1 complete the renovation of Hesburgh Library
- 5.2 renovate the branch libraries
- 5.3 incorporate off-site storage into the plan for meeting space needs through 2015, and develop plans for meeting long term space needs after 2015
- 5.4 establish a digitization center, a digital library, and an institutional data repository

#### 4) Creative and knowledgeable organization

The University Libraries needs a body of highly knowledgeable, creative and diverse library faculty and staff. Towards that end, the Libraries will seek to:

- 6.1 endow the Librarian-in-Residence program
- 6.2 endow the new diversity initiative, the Summer Program
- 6.3 bring librarians or masters degrees students to the libraries at Notre Dame

#### Rationalization and redirection of existing resources

While we believe some modest growth in library faculty and staff over the next decade is necessary, we also see significant potential to redirect our time and talents into those activities most important to us as well as to library users. We have identified four major avenues of pursuit that will help us redirect our collective energies to more important activities. They are:

- 1) Reduce processing activities associated with handling print or microform journals, and government documents.
- 2) Leverage technology to increase library staff and faculty productivity, e.g., use improved software for web page creation.
- 3) Expand library services that empower users, such as the ability to check the status of interlibrary loan (ILL) requests or renew books.
- 4) Create a culture of assessment that regularly evaluates the usefulness of specific library services and how to make library operations more cost-effective.

#### Assessment of library services, collections, information resources and facilities

We have used multiple opportunities and methods for assessing the Libraries performance over the last five years. These include focus groups with faculty and students in planning the renovation of Hesburgh Library, library instruction workshops, and web based access to library resources, discussion with the University Committee on Libraries (UCL) on courses of action, as part of the regular University academic unit review cycle, a self study last year. In its Report dated November 26, 2001, the Review Committee made recommendations for developing library holdings, cultivating a greater role in the development of teaching and learning in the University, affirming the need for library space, and developing an experimental program with the faculty in the area of scholarly communication, all of which are "necessary for Notre Dame's library to be in a position to support a strong program of research" (p. 1). These documents are available to library staff via the library web site at: <http://www.nd.edu/~adminoff/2001selfstudy/selfstudy2001.htm>.

In April 2002, 183 Notre Dame faculty, 308 undergraduate students, and 255 graduate students responded to a nationally developed, tested and administered survey about our library. Notre Dame faculty rated library performance as substantially below their expectations on three of the four dimensions: 1) access to information (the completeness of journal titles, comprehensive print collections, 2) library as place and 3) personal control (availability of electronic resources from home or office and easy to use web site and other access tools). Undergraduates were satisfied; graduate students were less satisfied than undergraduates on the completeness of book and journal collections, timely delivery of material requested via interlibrary loan, and remote access to library electronic resources. Overall, when the scores from all groups average into one score, there is a solid level of satisfaction with the library, with particularly high scores on the fourth dimension of quality of service to library users.

## University Committee on Libraries

February 21, 2003

The meeting was called to order at 7:30 a.m. at Café DeGrasta by Chairman Walter Pratt. Also in attendance were John Adams, Harvey Bender, Wesley Calvert, Stephen Dumont, Roger Jacobs, Marsha Stevenson, Stephen Silliman, David Smith, John Weber, Gordon Wishon, Jennifer Younger, guests Gay Dannelly and Dan Marmion, and secretary Melodie Eiteljorge.

The minutes of the meeting of January 23, 2003, were approved as written.

#### Director's report:

- Michael Keller, university librarian at Stanford, will be on campus to give two presentations on April 24.
- The Advisory Council for University Libraries meets April 24-25.
- Younger's State of the Library address, January 9, 2003 was distributed to the committee prior to the meeting.
- It is once again time to establish a Foik Award Committee. Any committee members who are willing to serve should contact Younger.

Update on library options—Dan Marmion, and Statistics on student printing—Gordon Wishon. Desired outcome: learn what the average use is of the assigned quota and what options this might suggest for tying in student printing in libraries with this quota.

Marmion reported that the Libraries are investigating technology in regard to printing. In Hesburgh Reference and in the Business Information Center (BIC), we began a two-step process last fall. The first step is to send a print job to the print queue, the second to release it from the printer. In addition, the BIC took another step and tied public computers into the quota system. They concluded that it is possible to apply this technology to the Libraries. The next question is policy issues. Would this require an adjustment in the quota? We will look at this over the next few months.

Marmion also noted that we have an extensive amount of printing done by people outside Notre Dame. We are looking for ways to allow them to print but to charge them for it.

Weber asked about the possibility of using CD burners to allow people to save files. Stevenson replied that we are using that technology in the microtext department. Machines with that capability are expensive, and we have only three at this time. Dumont added that people with Notre Dame afs accounts can save files to their afs space.

Adams suggested that we charge for CDs rather than give them away and that we sell the equivalent of copy cards for printing to outside users.

Dumont asked who will be setting the policy on printing. Marmion responded that the Libraries will work in conjunction with the OIT. Wishon added that UCCIS set the previous policy and that this is a subject of interest to them.

Wishon next reported on use statistics, which suggest we need to make an adjustment in the quota. He does not yet have last fall's statistics, but he was able to provide an examination of spring 2002 print patterns.

Currently the quota is 1000 pages per academic year. The following statistics are based on one semester. These statistics are for undergraduates only:

- 50% of students used fewer than 200 pages for the one semester.
- 84% used fewer than 400 pages.
- 96% used fewer than 600.
- 99.3% used fewer than 800.
- Less than 1% of students used the entire quota.

Younger noted that these statistics do not include printing in the library.

Stevenson added that increased use of electronic reserves is a big issue and one that will impact the statistics.

Dumont asked if there is any way to break down statistics on electronic print requests vs. self generated. Wishon replied that he doesn't believe that is possible with the mechanism in place.

Pratt stated that it seems the goal would be to decrease the quota rather than increase it. Jacobs disagreed, noting that the shift to digital resources and not having material available in paper format forces the use of electronic, which increases printing.

Wishon stated that he is aware of the fact that we are forcing changes. He does not want to erect barriers that are too difficult to overcome.

Adams suggested that another perspective is that we are providing more access and that our role is to provide content, not the ability to print it out.

Stevenson noted that making information available on a screen is not the same as providing it in print form. The reading experience is much different.

Wishon stated that the intention of a quota system is not to recover or shift costs. It is merely to control cost and printing behavior. Marmion added that it eliminates waste.

Bender noted that we should be mindful of tuition and that printing is a small part of the experience of attending the University. Jacobs recalled that some time back UCCIS added a surcharge and built it into tuition for technology, including printing.

Dumont pointed out that we do not provide free photocopies. Why should we provide free printing?

Younger stated that she would like the library to be part of a campus system and that she will work with Gordon Wishon. The library wants to reduce its dollar costs associated with printing in the library, but not necessarily to eliminate all support for printing.

Silliman suggested that increasing printing quotas could be handled in the same way we handle increasing afs space. It could be done upon request for those few who need it.

Library priorities and strategies for managing a 5% cut in FY03/04 budget. Desired outcome: UCL advice on meetings with college deans, department chairs, UCL members and department library committees/liaisons

Younger noted that time was short because of the meeting at 8:00 between UCL members and the Director of Libraries Review

Committee. Thus, she prepared and sent her comments in advance:

"I have reported to the library staff and faculty on the budget cuts for the library and more specifically on our plans for budget cuts that will come from the library salary budget. We will do our best in regard to maintaining library services, operations and collections/access to information in the context of our strategic plan, budget cuts and maintaining reasonable work loads for staff. As is being done in colleges, departments and other campus units, we will have to modify library services in accordance with new realities.

The budget instructions for the library confirm the cuts to our budget: 5% in the unrestricted (University allocation) and 3.5% (projected average in restricted funds) which together is a total cut of about \$740K. Therefore, our library plans emphasize that we will set priorities for tough times. The first priority is "Honor commitment to library staff and faculty for jobs, recognition and salaries." We are committing to employment for all individuals, but will hold some positions vacant to stay within budget and offer opportunities for voluntary (and temporary) reductions in schedules.

We have modeled a 5% cut in the library collections budget and will be discussing how to accomplish that in multiple forums over the next several months, including the Libraries' Collection Development Committee and forums, UCL meetings, and in meetings with colleges and departments. Gay Dannelly and the Libraries' Collection Development Committee have announced one measure that will be effective this spring. To contain costs and maintain content, we are changing our BNA (North American general) approval plans to accept trade paperback bound books instead of cloth hardbound books when the two are published simultaneously. If the cloth edition is the only option or is published several weeks before the paper edition is available, we will then take the cloth edition. On an annual basis, we anticipate dollar savings of over \$30,000 even though we will bind any oversized or unusually long books received in the trade paperback version. Other libraries that have made this change have substantiated the feasibility of this approach in maintaining content,



facilitating use and providing for preservation appropriately. Also, subject librarians, particularly in those disciplines where the materials are hard hit by inflation continue to seek ways to meet information needs effectively and are discussing proposals for buying fewer books in those areas."

Jacobs suggested that UCL discuss the possibility of writing to the provost in regard to the effect of a 5% cut in the collections budget and whether the collections budget should be spared from a cut. Younger agreed to put this on the March agenda.

At 8:00 a.m., the Director of Libraries Review Committee joined the elected members of UCL.

Respectfully submitted,

Melodie Eiteljorge

Secretary

**Awards and Proposal Summary**

03/01/2003 to 03/31/2003

**Awards Received**

Category	No.	Amount
Research	30	\$7,561,552
<b>Total:</b>	<b>30</b>	<b>\$7,561,552</b>

**Proposals Submitted**

Category	No.	Amount
Research	46	\$16,897,031
Instructional Programs	1	\$24,998
<b>Total:</b>	<b>47</b>	<b>\$16,922,029</b>

**March 2003 Cumulative summary****Awards Received**

	07.01.2000 - 03.31.2001		07.01.2001 - 03.31.2002		07.01.2002 - 03.31.2003	
Category	No.	Amount	No.	Amount	No.	Amount
Research	317	\$43,652,552	279	\$35,388,060	258	\$43,902,214
Facilities and Equipment						
Instructional Programs	10	\$994,582	10	\$1,232,702	10	\$1,333,710
Other Programs	1	\$25,000				
Service Programs						
<b>Total:</b>	<b>328</b>	<b>\$44,672,134</b>	<b>289</b>	<b>\$36,620,762</b>	<b>268</b>	<b>\$45,235,924</b>

**Proposals Submitted**

	07.01.2000 - 03.31.2001		07.01.2001 - 03.31.2002		07.01.2002 - 03.31.2003	
Category	No.	Amount	No.	Amount	No.	Amount
Research	438	\$191,118,133	520	\$181,286,862	435	\$124,893,919
Facilities and Equipment						
Instructional Programs	1	\$11,500	8	\$4,754,785	8	\$3,278,078
Other Programs						
Service Programs						
<b>Total:</b>	<b>439</b>	<b>\$191,129,633</b>	<b>528</b>	<b>\$186,041,647</b>	<b>443</b>	<b>\$128,171,997</b>

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

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

# Research

## Awards Received

March 1, 2003, through March 31, 2003

### Awards for Research

#### ACE Educational Outreach

Nuzzi, Ronald J.; Johnstone, Joyce V.

Catholic School Leadership Initiative

Private Funding

\$860,352

36 months

#### Aerospace and Mechanical Engineering

Powers, Joseph M.; Paolucci, Samuel (Center or Institute)

Multiscale Modeling of Combustion of Energetic Materials

Los Alamos National Laboratory

\$128,063

17 months

Schmid, Steven R.

Chatter Suppression Through Optimization of Emulsion

Lubricants

Corporate Funding

\$17,078

14 months

Skaar, Steven B.

Autonomous Robotic Bag Stacking System

Corporate Funding

\$72,000

24 months

#### Biological Sciences

Boyd, Sunny K.

Neuropeptide Modulation of a Vocal Motor Pathway

National Science Foundation

\$103,258

12 months

Collins, Frank Hadley (Center or Institute)

Cloning of Plasmodium-Refractoriness Genes in A.Gambiae

National Institutes of Health

\$300,088

12 months

D'Souza-Schorey, Crislyn (Center or Institute)

The Role of ARF6 in Cell Division

Private Funding

\$150,000

36 months

Ferdig, Michael T. (Center or Institute)

Genetic Control of Cross-Resistance in Plasmodium Falciparum

National Institutes of Health

\$347,000

60 months

Johnson, Alan L.

Cellular Determinants of Differentiation versus Apoptosis in Avian Granulosa Cells

National Science Foundation

\$135,600

36 months

Lodge, David M.

Year Two - IISG Graduate Fellowship for John Drake

Purdue University

\$3,000

22 months

Olson, Kenneth R. (Center or Institute)

Developing a Non-Mammalian Model for the Study of Hypoxic Vasoconstriction

I.U. School of Medicine

\$33,500

12 months

Olson, Kenneth R. (Center or Institute)

Physiology of Trout Natriuretic Peptides

I.U. School of Medicine

\$107,395

13 months

Vaughan, Kevin T.

Regulation of Cytoplasmic Dynein Targeting

National Institutes of Health

\$228,690

48 months

#### Chemical Engineering

Maginn, Edward J.; Kulpa, Charles F.; Stadtherr, Mark A.;

Lamberti, Gary A.; Brennecke, Joan F.

Pyridinium-Based Ionic Liquids-New Non-volatile Solvents for Industrial Applications

21st Century Research and Technology Fund

\$1,363,099

24 months

Chang, Hsueh-Chia

Effects of Local Interfacial and Flow Dynamics on Foam Drainage and Coarsening

National Science Foundation

\$119,970

36 months

McGinn, Paul J. (Center or Institute)

Combinatorial Development of Catalysts for Use in Diesel Soot Particulate Traps Employing Microwave Heat

Corporate Funding.

\$60,000

6 months

**Palmer, Andre F.**

Engineering Artificial Cells  
National Science Foundation

\$74,886 33 months

**Fehlner, Thomas P.**

Systematic Metallaborane Reaction Chemistry  
National Science Foundation

\$150,000 12 months

**Jacobs, Dennis C.**

Dynamics of State-Selected Ion/Surface Reactions  
National Science Foundation

\$170,000 60 months

**Ploplis, Victoria A, (Center or Institute)**

Thrombolysis and Atherosclerosis in Neutrophil Elastase-Deficient Mice

Private Funding

\$143,000 36 months

**Serianni, Anthony S.**

NMR Studies of Biologically-Important Oligosaccharides  
National Institutes of Health

\$228,690 24 months

**Sevov, Slavi C.**

Frameworks of Transition Metals and Multifunctional Linkers  
National Science Foundation

\$100,000 36 months

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**Civil Engineering and Geological Sciences**


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**Kurama, Yahya C.**

CAREER: Seismic Behavior and Design of Non-Emulative  
Precast Concrete Buildings with Supplemental Passive Energy  
Dissipation.

National Science Foundation

\$10,000 54 months

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**Electrical Engineering**


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**Costello, Daniel J.**

Error Control Coding Techniques for Space and Satellite  
Communications

National Aeronautics and Space Administration

\$65,000 24 months

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**Mathematics**


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**Alber, Mark S.; Izaguirre, Jesus A.**

Biocomplexity - Multiscale Simulation of Avian Limb  
Development

Indiana University Bloomington

\$606,829 36 months

**Diller, Jeffrey A.**

Complex Dynamics in Higher Dimensions  
National Science Foundation

\$35,386 36 months

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

Conference: Partial Differential Equations and Applications  
National Science Foundation

\$20,000 12 months

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**Office of Information Technologies**


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**Bellina, Brendan T.; Wishon, Gordon D.**

Supporting Research and Collaboration through Integrated  
Middleware

Private Funding

\$9,468 16 months

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**Theology**


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**Zachman, Randall C.**

The Living Icons of God: Manifestation and Proclamation in the  
Theology of John Calvin

Private Funding

\$45,200 23 months

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**Walther Cancer Research Center**


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

Molecular Medicine II: Hormone Dependent Cancers

Department of Army

\$1,874,000 25 months

## Proposals Submitted

March 1, 2003, through March 31, 2003

### Proposals for Research

#### Aerospace and Mechanical Engineering

**Bowling, Alan P.**

Dynamic Performance of Cable-Driven Robotic Systems

National Science Foundation

\$485,281

36 months

**Roeder, Ryan K.**

Hydroxyapatite Whisker Reinforced Biomaterials

National Institutes of Health

\$136,375

12 months

**Thomas, Flint O.; Corke, Thomas C.**

Active Control of Shock Waves for Supersonic Inlets Using Phased Plasma Actuators

Department of the Air Force

\$351,232

36 months

#### Art, Art History and Design

**Rhodes, Robin F.**

The Greek Stone Architecture at Corinth

1984 Foundation

\$5,000

9 months

#### Biological Sciences

**Besansky, Nora J.**

Genetics of *Anopheles funestus* Populations

National Institutes of Health

\$403,280

12 months

**Feder, Jeffrey L.**

Initiating an International Collaboration to Study the Genetics of Mexican *Rhagoletis Pomonella*

National Science Foundation

\$6,408

12 months

**Lamberti, Gary A.**

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

U.S. Forest Service

\$20,222

60 months

**Lamberti, Gary A.; Maurice, Patricia A.; Lodge, David M.**

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

University of Oregon

\$332,877

30 months

**Narvaez, Carmen J.**

Vitamin D Regulation and Bone Metastasis

Department of Army

\$111,375

12 months

**Severson, David W.**

RFLP Mapping of Plasmodium Refractory Genes in Mosquitoes

National Institutes of Health

\$297,000

12 months

**Tank, Jennifer L.; Rosi-Marshall, Emma**

Inputs of Foliage and Pollen from Bt Corn to Streams in the Agricultural Midwest: An Ecological Risk Assessment

Department of Agriculture

\$374,271

36 months

**Tenniswood, Martin; Flanagan, Louise**

Relevance of Homotypic and Heterotypic Signaling in Tumor Progression

Department of Army

\$104,100

12 months

**Vaughan, Kevin T.**

Organelle Search-Capture and Dynactin Regulation

American Cancer Society

\$857,476

48 months

#### Center for Pastoral Liturgy

**Kroeker, Charlotte**

"Four Loves: Themes and Variations in Dance," Performance and Lecture

Indiana Arts Commission

\$24,490

6 months

#### Chemical Engineering

**Ostafin, Agnes E.; McCready, Mark J.; Brockman, Jay B.**

Towards a New Chemical and Biomolecular Engineering Curriculum

National Science Foundation

\$6,000

3 months

**Ostafin, Agnes E.**

Aging of Macromolecular Assemblies  
National Institutes of Health

\$74,250 12 months

**Ostafin, Agnes E.; Chang, Hsueh-Chia**

Sensors: Detection of In Vivo Oxidant Level Using Circulating  
Nanosensors

National Science Foundation

\$1,554,007 48 months

**Varma, Arvind; Bunker, Bruce A.; Maginn, Edward J.; Meisel, Dan; Sevov, Slavi C.; Kamat, Prashant V.; Bentley, John J.**

Carbon Nanostructures for New Generation Catalysts

Department of Energy

\$1,652,175 36 months

**Basu, Subhash C.; Kamat, Prashant V.; Miller, Albert E.**

Sensors: Networked Biosensors in Bacterial Detection

National Science Foundation

\$749,112 36 months

**Castellino, Francis J.**

Blood Coagulation Protein-Metal Ion-Lipid Interactions

National Institutes of Health

\$414,801 12 months

**Huber, Paul W.**

Summer Undergraduate Research Fellowship Program

National Institute Standards and Technology

\$6,700 4 months

**Meisel, Dan; Chipman, Daniel M.; Hug, Gordon L.; Bentley, John J.; Carmichael, Ian C.**

The Nox System in Homogeneous and Heterogeneous Nuclear  
Waste

Department of Energy

\$716,321 36 months

**Sevov, Slavi C.**

Solid-State Chemistry of Reduced and Mixed-Valence Transition-  
Metal Zintl Phases of the Pnictogens

Private Funding

\$120,000 42 months

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**Civil Engineering and Geological Sciences**


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**Burns, Peter C.**

Linking Uranium Chemical Speciation and Microbial Reductive  
Bioavail

Department of Energy

\$860,950 36 months

**Burns, Peter C.**

Identification of Biogeochemical Processes and Mineralogies for  
Immobilization of Uranium

Cornell University

\$219,673 36 months

**Maurice, Patricia A.; Laneman, J.N.; Lemmon, Michael D.; Talley, Jeffrey W.; Ostafin, Agnes E.**

Sensors: An Embedded Sensor Network for Environmental  
Monitoring of the Hydrology and Ecology of Freshwater Lakes  
and Streams (Naiades)

National Science Foundation

\$2,498,480 60 months

**Silliman, Stephen E.; Neal, Clive R.**

Integrated Aquifer Analysis: Chemical and Biological Fingerprints  
in Support of Parameter Estimation of a Groundwater Model of  
St. Joseph Aquifer System

U.S. Geological Survey

\$170,085 36 months

**Talley, Jeffrey W.**

Exploratory Phase: Degradation of DDT by Zero-valent Iron in a  
Sediment Impacted Aqueous Environment

National Science Foundation

\$96,647 24 months

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**Computer Science and Engineering**


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**Freeland, Joseph C.**

Epics Consortium

Purdue University

\$22,000 12 months

**Izaguirre, Jesus A.**

Scalable Mathematical and Computational Models for  
Biomolecular Modeling

National Science Foundation

\$18,750 3 months

**Izaguirre, Jesus A.**

NIST Summer Undergraduate Research Fellowship Program  
(SURF)

National Institute Standards and Technology

\$4,000 3 months

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

Research Experiences for Undergraduates

National Science Foundation

\$12,000 3 months

**Striegel, Aaron; Izaguirre, Jesus A.**

GRIM: Grid Resource Interface Management Middleware

National Science Foundation

\$444,737

36 months

### **Economics**

**Beckman, Mary P.**

Partnerships and Civic Learning in the City: The Urban Plunge and the National Youth Sports Program at the University of Notre Dame

Corporation for National and Community Service

\$82,291

36 months

### **Electrical Engineering**

**Bauer, Peter H.**

An Externally Supported Ad Hoc Sensor-Actuator Network Architecture

National Science Foundation

\$250,000

36 months

**Haenggi, Martin; Laneman, J.N.**

Sensors: Theory and Practice of Sensor Network Architectures

National Science Foundation

\$399,202

36 months

**Seabaugh, Alan C.**

Nanoelectromechanical Inertial Sensors

Central Intelligence Agency

\$299,718

36 months

### **English**

**Hammill, Graham L.**

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

National Endowment for the Humanities

\$40,000

12 months

### **Freimann Animal Care Facility**

**Suckow, Mark A.**

Russian Institutes in the Biomedical Sciences Exchange Program

National Research Council

\$5,510

4 months

**Suckow, Mark A.**

Engineered Tissue Scaffold with Anti-Adhesive Properties

Corporate Funding

\$118,800

24 months

### **German and Russian Languages and Literatures**

**Liontas, John I.**

Second Language Idiomaticity: Description, Acquisition, Pedagogy

Spencer Foundation

\$35,000

9 months

### **Institute for Latino Studies**

**Hernandez, Edwin I.**

Chicago Latino Congregation Study

Louisville Institute

\$59,620

12 months

### **Physics**

**Johnson, Walter R.**

Muffin-Tin Model for Dense Plasmas: Radiative Properties, Electron EOS, and Transport Coefficients

Lawrence Livermore National Laboratory

\$94,884

12 months

### **Political Science**

**Hero, Rodney E.**

Advocacy Focus Groups and the Latino National Survey

Private Funding

\$30,000

9 months

### **Psychology**

**Borkowski, John G.; LeClere, Felicia B.; Maxwell, Scott E.; Boker, Steven M.; McKenna, James J.**

Predicting and Preventing Child Neglect in Teen Mothers

National Institutes of Health

\$1,283,559

12 months

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

Enhancing Head Start Readiness for High-Risk Children

National Institutes of Health

\$1,048,372

12 months

### **Proposal for Instructional Program**

### **Psychology**

**Narvaez, Darcia F.; Johnstone, Joyce V.**

Character Education

Private Funding

\$24,998

12 months

## Awards and Proposal Summary

### Centers and Institutes Report

03/01/2003 to 03/31/2003

#### Awards Received

Department or Office	No.	Amount
Center for Flow Physics and Control	1	\$128,063
Center for Molecularly Engineered Materials	1	\$60,000
Center for Transgene Research	1	\$143,000
Center for Tropical Disease Research & Training	2	\$647,088
South Bend Center for Medical Education	2	\$140,895
Walther Cancer Research Center	2	\$2,024,000
<b>Total:</b>	<b>9</b>	<b>\$3,143,046</b>

#### Proposals Submitted

Department or Office	No.	Amount
Center for Children and Families	1	\$1,283,559
Center for Environmental Science and Technology	1	\$332,877
Center for Flow Physics and Control	1	\$351,232
Center for Molecularly Engineered Materials	5	\$6,528,024
Center for Social Concerns	1	\$82,291
Center for Transgene Research	1	\$414,801
Center for Tropical Disease Research & Training	2	\$700,280
Freimann Life Science Center	2	\$124,310
Institute for Church Life	1	\$24,490
Institute for Educational Initiatives	1	\$24,998
Institute for Latino Studies	2	\$89,620
Laboratory for Social Research	1	\$1,048,372
Nano Science and Technology Center	1	\$299,718
Radiation Laboratory	1	\$716,321
<b>Total:</b>	<b>21</b>	<b>\$12,020,893</b>



## Awards and Proposal Summary

### Centers and Institutes Report

07/01/2002 to 03/31/2003

#### Awards Received

Department or Office	No.	Amount
Alliance for Catholic Education	2	\$141,249
Center for Astrophysics	1	\$17,928
Center for Environmental Science and Technology	1	\$80,000
Center for Flow Physics and Control	13	\$1,058,281
Center for Molecularly Engineered Materials	3	\$93,500
Center for Orphan Drug Development	2	\$40,000
Center for Transgene Research	5	\$1,451,385
Center for Tropical Disease Research & Training	10	\$4,852,788
Freimann Life Science Center	4	\$38,536
Institute for Church Life	1	\$930,205
Institute for Latino Studies	5	\$719,512
Interdisciplinary Center for the Study of Biocomplexity	2	\$15,000
Kellogg Institute for International Studies	4	\$232,218
Keough Institute for Irish Studies	1	\$107,694
Kroc Institute for International Peace Studies	2	\$55,000
Nano Science and Technology Center	12	\$2,171,942
Nanovic Institute	1	\$13,245
Radiation Laboratory	3	\$530,000
South Bend Center for Medical Education	3	\$384,750
TRIO Programs	3	\$1,065,595
Walther Cancer Research Center	3	\$2,174,000
<b>Total:</b>	<b>81</b>	<b>\$16,172,828</b>

#### Proposals Submitted

Department or Office	No.	Amount
Center for Astrophysics	4	\$1,773,852
Center for Children and Families	1	\$1,283,559
Center for Environmental Science and Technology	1	\$332,877
Center for Flow Physics and Control	8	\$2,960,580
Center for Molecularly Engineered Materials	16	\$12,505,218
Center for Social Concerns	1	\$82,291
Center for Transgene Research	8	\$4,927,415
Center for Tropical Disease Research & Training	16	\$3,757,980
Center for Zebrafish Research	1	\$334,125
Cushwa Center for American Catholicism	2	\$150,628
Environmental Molecular Science Institute	2	\$435,062

Department or Office	No.	Amount
Freimann Animal Care Facility	1	\$5,020
Freimann Life Science Center	5	\$2,268,834
Higgins Labor Research Center	1	\$12,500
Institute for Church Life	1	\$24,490
Institute for Educational Initiatives	2	\$229,986
Institute for Latino Studies	12	\$694,107
Institute for Scholarship in the Liberal Arts	1	\$103,591
Interdisciplinary Center for the Study of Biocomplexity	2	\$762,384
Kellogg Institute for International Studies	5	\$1,740,555
Kroc Institute for International Peace Studies	1	\$15,000
Laboratory for Social Research	3	\$1,370,143
Lobund Laboratory	1	\$513,280
Mendelson Center for Sports, Character, & Community	1	\$14,866
Nano Science and Technology Center	46	\$25,104,652
Nanovic Institute	2	\$16,176
Office of Special Instructional Projects and Activities	1	\$1,625,789
Radiation Laboratory	5	\$1,787,640
South Bend Center for Medical Education	3	\$395,500
Walther Cancer Institute Chair I	1	\$194,955
Walther Cancer Research Center	7	\$3,133,815
<b>Total:</b>	<b>161</b>	<b>\$68,556,870</b>

## Awards Received

March 1, 2003, through March 31, 2003

### Awards for Research

#### Center for Flow Physics and Control

Multiscale Modeling of Combustion of Energetic Materials

Los Alamos National Laboratory

\$128,063 17 months

#### Center for Molecularly Engineered Materials

Combinatorial Development of Catalysts for Use in Diesel Soot

Particulate Traps Employing Microwave Heat

Corporate Funding

\$60,000 6 months

#### Center for Transgene Research

Thrombolysis and Atherosclerosis in Neutrophil Elastase-Deficient Mice

Private Funding

\$143,000 36 months

#### Center for Tropical Disease Research and Training

Genetic Control of Cross-Resistance in Plasmodium Falciparum

National Institutes of Health

\$347,000 60 months

Cloning of Plasmodium-Refractoriness Genes in A. Gambiae

National Institutes of Health

\$300,088 12 months

#### South Bend Center for Medical Education

Developing a Non-Mammalian Model for the Study of Hypoxic Vasoconstriction

I.U. School of Medicine

\$33,500 12 months

Physiology of Trout Natriuretic Peptides

I.U. School of Medicine

\$107,395 13 months

## Walther Cancer Research Center

Molecular Medicine II: Hormone Dependent Cancers

Department of Army

\$1,874,000 25 months

The Role of ARF6 in Cell Division

Private Funding

\$150,000 36 months

## Proposals Submitted

March 1, 2003, through March 31, 2003

### Proposals for Research

#### Center for Children and Families

Predicting and Preventing Child Neglect in Teen Mothers

National Institutes of Health

\$1,283,559 12 months

#### Center for Environmental Science and Technology

Interactive Effects of Climate Change, Wetlands, and Dissolved

Organic Matter on UV Damage to Aquatic Foodwebs

University of Oregon

\$332,877 30 months

#### Center for Flow Physics and Control

Active Control of Shock Waves for Supersonic Inlets Using Phased Plasma Actuators

Department of the Air Force

\$351,232 36 months

#### Center for Molecularly Engineered Materials

Carbon Nanostructures for New Generation Catalysts

Department of Energy

\$1,652,175 36 months

Sensors: Networked Biosensors in Bacterial Detection

National Science Foundation

\$749,112 36 months

Aging of Macromolecular Assemblies

National Institutes of Health

\$74,250 12 months

Sensors: Detection of In Vivo Oxidant Level Using Circulating Nanosensors

National Science Foundation

\$1,554,007 48 months

Sensors: An Embedded Sensor Network for Environmental Monitoring of the Hydrology and Ecology of Freshwater Lakes and Streams (Naiades)

National Science Foundation

\$2,498,480 60 months

### **Center for Social Concerns**

Partnerships and Civic Learning in the City: The Urban Plunge and the National Youth Sports Program at the University of Notre Dame

Private Funding

\$82,291 36 months

### **Center for Transgene Research**

Blood Coagulation Protein-Metal Ion-Lipid Interactions

National Institutes of Health

\$414,801 12 months

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

Genetics of Anopheles funestus Populations

National Institutes of Health

\$403,280 12 months

RFLP Mapping of Plasmodium Refractory Genes in Mosquitoes

National Institutes of Health

\$297,000 12 months

### **Freimann Life Science Center**

Russian Institutes in the Biomedical Sciences Exchange Program

National Research Council

\$5,510 4 months

Engineered Tissue Scaffold with Anti-Adhesive Properties

Corporate Funding

\$118,800 24 months

### **Institute for Church Life**

"Four Loves: Themes and Variations in Dance," Performance and Lecture

Indiana Arts Commission

\$24,490 6 months

### **Institute for Latino Studies**

Chicago Latino Congregation Study

Louisville Institute

\$59,620 12 months

Advocacy Focus Groups and the Latino National Survey

Private Funding

\$30,000 9 months

### **Laboratory for Social Research**

Enhancing Head Start Readiness for High-Risk Children

National Institutes of Health

\$1,048,372 12 months

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

Nanoelectromechanical Inertial Sensors

Central Intelligence Agency

\$299,718 36 months

### **Radiation Laboratory**

The Nox System in Homogeneous and Heterogeneous Nuclear Waste

Department of Energy

\$716,321 36 months

### **Proposal for Instructional Program**

### **Institute for Educational Initiatives**

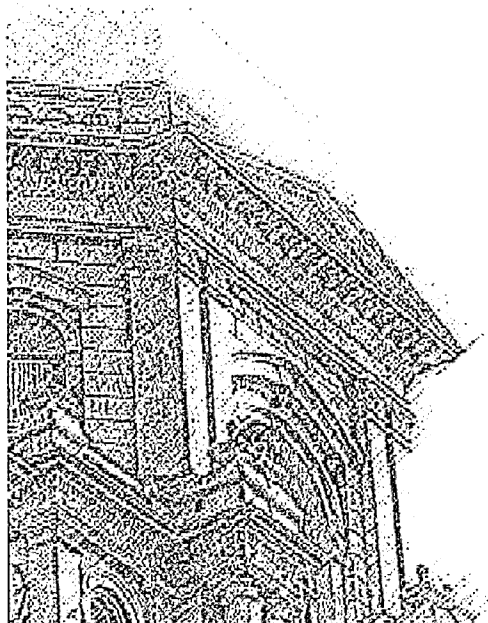
Character Education

Private Funding

\$24,998 12 months

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# Notre Dame Report



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