

IUPUI SCHOOL OF SCIENCE

DEAN'S REPORT 2004

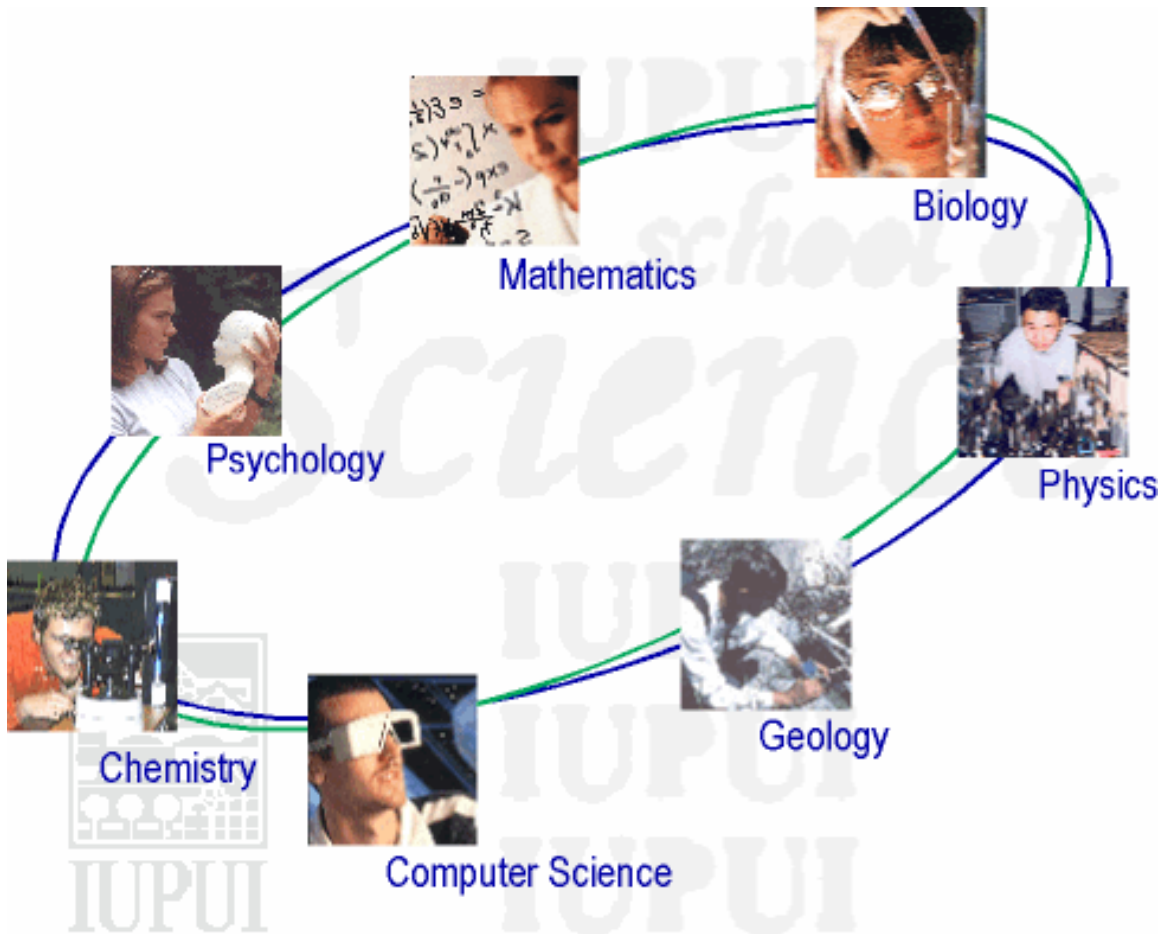


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DEAN'S MESSAGE

Charles Grosvenor Osgood (1871-1964), Holmes Professor at Princeton University, wrote "The supreme end of education is expert discernment in all things--the power to tell the good from the bad, the genuine from the counterfeit, and to prefer the good and the genuine to the bad and the counterfeit."

The mission of the School of Science is to serve and improve society by educating our students as discerning and productive citizens and leaders, and by advancing knowledge and understanding through basic and applied research. By so doing, we hope to add to the preference for the good and the genuine over the bad and the counterfeit. Our vision – what we constantly strive toward – is to be a first choice for those who wish to partake in this mission through research and academic programs of the highest quality and which serve the whole spectrum of community, state, national, and international needs.

We are guided in our mission and vision by the following set of values: commitment to success in student learning, commitment to creativity and excellence of scholarship, teaching, and service, commitment to change as a driver of creative growth, commitment to ethics, character, and credibility, and commitment to continual improvement. These values are grounded in the four transcendental experiences of human existence and their corresponding foundations of human excellence: the Intellectual (Truth), the Aesthetic (Beauty), the Moral (Goodness), and the Spiritual (Unity). These foundations comprise the unchanging core of our humanity that guides us, even as we create and respond to the material changes of an ever-evolving world.

As part of this evolution, science and science education in the 21st century will be dominated by four academic and research themes. These are computer and information technology, molecular science and technology (life sciences, biotechnology, materials science, and nanotechnology), renewable and sustainable resources (earth and environmental science), and educational access to life-long learning. These themes will find multiple linkages with one another to address complex problems, forge research in new areas, create new commercial opportunities, and increase the quality of life. The School of Science has developed a five-year Strategic Plan (2000-2005) to develop along these multidisciplinary lines, building on and connecting the existing disciplinary strengths represented by the seven departments of the School.

With best wishes,



David L. Stocum, Dean

Administration

Information: (317) 274-0625

Science Website: www.science.iupui.edu

David L. Stocum

Dean

Joseph Kuczkowski

Associate Dean for Academic
Programs & Student Development

Kim Nguyen

Assistant Dean for Enrollment
Management

Kathryn Wilson

Associate Dean for Research &
Graduate Studies

Debbie Allard

Director of Personnel/Payroll
Grants and Research

Tamekia Anderson

Secretary/Receptionist

Brenda Bishop

Director of External Affairs

Melissa Pohlman

Director of Student Rec. & Retention

Angel Campbell

Project Coordinator

Debbie Dailey

Network Systems Engineer

Mark Federwisch

Senior Network System Engineer

Stacy Fide

Animal Facilities Technician

Bob Hall

Computer System Engineer

Kimberly H. Jackson

Director of Major Gifts

Jeannette Jefferson

Administrative Secretary

Peggy Jordan

Laboratory Technician (SARC)

Christopher Konz

Director, SARC

Christina Matthies

Animal Facilities Technician (SARC)

Scott Orr

Lead Network Engineer

Florence Rogers

Director of Undergrad. Admissions

Edward Schmidt

Computer Programmer

Rosemarie Temple

Executive Assistant to the Dean

Joe Thompson

Executive Director Academic Services

Crystal York

Director of Accounts & Purchasing

Cathy Zappia

Computer Support Specialist

Departments, Centers and Special Facilities

Department of Biology, 274-0577

N. Douglas Lees, Chair

Center for Regenerative Biology and Medicine

Ellen Chernoff, Director, 274-0591

Department of Chemistry, 274-6872

Franklin A. Schultz, Chair

Center for Nanoscale Imaging

Ricardo Decca, Director, 278-7123

Computational Molecular Science Facility

Kelsey Forsythe, Director, 278-2202

Department of Computer and Information Science, 274-9727

Mathew Palakal, Chairman

Center for Visual Information and Computing

Shiaofen Fang, Director, 274-9731

Department of Geology, 274-7484

Andrew P. Barth, Chair

Center for Earth and Environmental Science

Lenore P. Tedesco, Director, 274-3693

Department of Mathematical Sciences, 274-6918

Benzion Boukai, Chair

Math Assistance Center

Patrick Frey, Director, 274-0289

Center for Statistical Consulting

Jyoti Sarkar, Director, 274-8112

Department of Physics, 274-6900

Gautam Vemuri, Chair

Center for Nuclear Magnetic Resonance

B.D. Nageswara Rao, Director, 274-6897

Department of Psychology, 274-6947

J. Gregor Fetterman, Chair

Midwest Center for Evidence Based Practices in Psychiatric Rehabilitation

Gary Bond, Director, 274-6752

Center for Therapeutic Neuroscience

Charles Goodlett, Director, 274-6772

Center for Assertive Community Treatment

Michelle Salyers, Director, 274-2904

Dean's Advisory Council

Fred F. Brames
BMT Corp.

Michelle Carroll
IUPUI , SOS Graduate
Student Council President

John Cauffman
Centillion Data Sys., Inc.

Howard F. Creveling
Rolls Royce (R)

Mitchell Daniels, Sr.
Dow Chemical Company (R)

Andrew Emerson
Indpls. Life Insurance (R)

Janet Hock
IUPUI, Dept. of Anatomy
School of Medicine

Stephen J. Jay
IUPUI, Dept. of Public Health
Regenstrief Center

David Klinkose
Office of the Mayor

Shanit Lall
Undergraduate Rep.

Vincent Liu
Telamon

Gerald C. Michael*
IBMT (R)

Steven Neal
Eli Lilly Corp.

William Orr
AT & T Bell Lab (R)

James Patten
Cummins Engine Company

Deborah Peters
QEPI

Ronald L. Pitzer
Eli Lilly and Company

Paul L. Raikes
Raikes Advertising Agency

Jim Renga
Dow AgroSciences

Delbert J. Shuh
IBMT

Barbara E. Simpson
Eli Lilly and Company (R)

Philip R. Taylor
Cummins Engine Co.

Eric Tinsley
Premier Solutions, Inc.

Joseph Toussaint
PPI LLC

Susie Wiesinger
SOS Staff Council

*Chairman of the DAC
(R) Retired

ALUMNI ASSOCIATION BOARD OF DIRECTORS

Claire Baker '70, '75
Brebeuf Jesuit Preparatory School

Dee DeGraw '87
Ameritech, retired 1999

Roberta Fowler '77
Eli Lilly & Company

Cindy Kirkpatrick '90
IUPUI Dept. of Mathematical Sciences

Heidi Moegerle '83
Attorney at Law

Deborah Pope '77, '79

Casey Reagan '99
First Indiana Bank

Eric Tinsley '82, '86
Quest Information Systems

David White '72, '74
David White & Assoc.
Fin. Planning Center

Ed Brizendine '93
IUPUI, Dept. of Medicine

Sherry Fetterman '01
Humane Society of Indianapolis

Jim Hutchins '94
Member Data Services, Inc.

Bill Kuntz* '84, '86
Baker & Bodwell, P.C.

Doug Overbay '74
Stevens Van Lines

Rebecca Qualy '78
Eli Lilly & Company

Carl Sobieralski '96
Indiana State Police Lab

Cheyenne Walker '97
MSD Perry Township

Lorraine Wright '91**
Indiana Department of
Environmental Management

** President*

*** Vice President*

SCHOOL OF SCIENCE DEAN'S REPORT 2004

FACULTY

NUMBERS BY EMPLOYMENT TYPES

| | |
|------------------------|------------|
| Full-time | |
| Tenure Track | 118 |
| Lecturer | 30 |
| <u>Total full-time</u> | 148 |
| Associate | <u>87</u> |
| TOTAL SCHOOL: | 235 |

PROMOTION IN RANKS

To Professor

| | |
|-----------------------------|-------------------------|
| Dring Crowell, Biology | Zhe-Yu Jeff Ou, Physics |
| Gabriel Filippelli, Geology | Simon Rhodes, Biology |

TO ASSOCIATE PROFESSOR

| | |
|---------------------------|--------------------------|
| Dennis Devine, Psychology | Jovier Evans, Psychology |
|---------------------------|--------------------------|

NEW HIRES-FALL 2004

Marcos Betancourt, Physics/ Assistant Professor
Patricia Clark, Biology/Lecturer
Jake Chen, School of Infomatics & SOS Computer Science/ Assistant Professor
Charlene Christie, Psychology/ Assistant Professor
Yuanshun Dai, Computer Science/ Assistant Professor
Duane Farris, Mathematics/Lecturer
Pierre-Andre Jacinthe, Geology/ Assistant Professor
Jayanthi Jacob, Chemistry/Lecturer
Bruce Kitchens, Mathematics/ Associate Professor
Mario Kupries, Computer Science/ Assistant Professor
Fang Li, Mathematics/ Assistant Professor
Lin Li, Geology/ Assistant Professor
Anna Malkova, Biology/ Assistant Professor
Christopher Parks, Mathematics/Lecturer
Leonid Rubchinsky, Mathematics/ Assistant Professor
Jay Siegel, Dir. Forensic and Investigative Science, Professor of Chemistry
Martin Vaughan, Biology/Lecturer

Phillipe Vidon, Geology/ Assistant Professor
Luoding Zhu, Mathematics/ Assistant Professor

RETIREMENTS

Erv Boschmann, Chemistry Andrew Olson, Computer and Information Science
Florence Juillerat, Biology Richard Patterson, Mathematics
Jon Luke, Mathematics Frederick Thatcher, Physics
David Nurok, Chemistry

RESIGNATIONS

Eliot Atekwana, Geology
Estella Atekwana, Geology
William Moser, Chemistry
Michael Yurko, Physics

AWARDS AND RECOGNITIONS

SCHOOL OF SCIENCE AWARDS

Academic Advising Award

Robert D. Rigdon (Mathematical Sciences)

Associate Faculty Award

John T. Osborne (Mathematical Sciences)

Bernie Morrel Teaching Award

Robert Koshmann (Mathematical Sciences)

Full-Time Lecturer Award

Robert W. Yost (Biology)

Research Award

Martin Bard (Biology)

Service Award

Dring N. Crowell (Biology)

Teaching Assistant Award

Jay T. Hardin (Mathematical Sciences)

Teaching Award

Bart Ng (Mathematical Sciences)

Science Medal of Distinction

The Science Medal of Distinction, the highest award given by the School of Science, was presented to Dr. Iqbal A. Niazi, New Delhi, India, for his pioneering work on the effects of vitamin A on regenerating systems.

UNIVERSITY AWARDS

Glenn W. Irwin, Jr. Research Award

Clifford E. Dykstra (Chemistry)

The Trustees Teaching Award

The Trustees Teaching Award honors individuals who have a positive impact on learning through the direct teaching of students, especially undergraduates.

Ruth D. Allen (Biology)

Judy E. Carlson (Mathematical Sciences)

Ricardo S. Decca (Physics)

Shiaofen Fang (Computer Science)

Andrew J. Harris (Computer Science)

John F. Kremer (Psychology)

Stephanie E. Sen (Chemistry)

R. Jeffrey Swope (Geology)

STAFF

NUMBERS AND DISTRIBUTION

| | | |
|------------------|-----------|---|
| Biology | 7 | |
| Chemistry | 8 | |
| Computer Science | 4 | |
| Geology | 6* | Includes staff of the Center for Earth & |
| Mathematics | 7 | Environmental Science |
| Physics | 4 | |
| Psychology | 7 | |
| Dean's Office | 18* | Includes staff of the Animal Resources Unit |
| SCHOOL | 61 | |

NEW HIRES

| | |
|-------------------------------|-----------------------------------|
| Louise Conrad, Geology | Melissa Pohlman, Dean's Office |
| David Debon, Computer Science | Kara Salazar, Geology |
| Paul Hancock, Psychology | Lora Shrake, Geology |
| Lisa McVicker, Mathematics | Nicole Wittlief, Computer Science |

RESIGNATIONS

| | |
|----------------------------------|-------------------------|
| Marie Chastain, Mathematics | Ted Schmidt, Psychology |
| Cynthia Lester, Computer Science | |

AWARDS AND RECOGNITIONS

SCHOOL OF SCIENCE AWARD

Partners in Education Full-Time Staff Award

Sharon L. Fricke (Chemistry)

UNIVERSITY AWARD

“Empower Embody Embrace” Outstanding Woman Staff Leader

Venecia Medina (Mathematical Sciences)

STUDENTS

NUMBERS AND DISTRIBUTION

Enrolled Majors (Fall 2003)

| Departments | Baccalaureate | Master | PhD | TOTAL |
|------------------|---------------|------------|-----------|-------------|
| Biology | 403 | 63 | 5 | 471 |
| Chemistry | 144* | 34 | 7 | 185 |
| Computer Science | 197** | 65 | 2 | 264 |
| Geology | 31 | 3 | -- | 34 |
| Mathematics | 59 | 46 | 14 | 119 |
| Physics | 20 | 8 | 4 | 32 |
| Psychology | 470 | 20 | 35 | 525 |
| Undecided | <u>9</u> | <u>0</u> | <u>0</u> | <u>9</u> |
| SCHOOL | 1333 | 239 | 67 | 1639 |

* includes 6 Associate of Science students

** includes 36 certificate program students

Graduates (August 2003- May 2004)

| Departments | Undergraduate | Graduate | TOTAL |
|------------------|---------------|------------|------------|
| Biology | 39 | 44 | 83 |
| Chemistry | 17 | 11 | 28 |
| Computer Science | 22 | 17 | 39 |
| Geology | 6 | 3 | 9 |
| Mathematics | 9 | 10 | 19 |
| Physics | 3 | 2 | 5 |
| Psychology | <u>92</u> | <u>15</u> | <u>107</u> |
| SCHOOL | 188 | 102 | 290 |

STUDENT AWARDS AND RECOGNITIONS

DEPARTMENT AWARDS

Biology

LaTasha M. Miller

Tah Tah Self Achievement Award

Brandon J. Anderson

Outstanding Undergraduate Research Award

| | |
|--------------------|--|
| Justin J. Kosiba | Outstanding Academic Achievement Award – B.S. Program |
| Leslie A. Muldoon | Richard O. McCracken Memorial Scholarship |
| Laura K. Platt | Ronald E. Kirk Memorial Scholarship for an Outstanding Freshman |
| Aaron A. Santer | Outstanding Graduate Research Award |
| Jesse J. Savage | Elizabeth Steele Creveling Memorial Scholarship |
| Kellie F. Speckman | Outstanding Academic Achievement Award – B.A. Program |
| Brooke E. West | Outstanding Graduate Research Award |

Chemistry

| | |
|-----------------------|--|
| Cole T. Duncan | Scott Alan Kent Memorial Scholarship |
| John T. Fields | Frank J. Welcher Award |
| Nickolas R. Frechette | Patricia A. Boaz Award |
| Holly A. Hutchings | Loren T. Jones Memorial Scholarship |
| Jeremiah A. Kiger | Outstanding Undergraduate Analytical Chemistry Student Award |
| Nabilah A. Rontu | American Institute of Chemists Student Research and Recognition Award |
| Mark S. Sage | Loren T. Jones Award |
| Eric M. Woerly | C.R.C. Freshman Chemistry Achievement Award |

Computer and Information Science

| | |
|---------------------|--|
| Adam R.-C. Fletcher | Gersting Award for an Outstanding Undergraduate Student |
| Long Fang | Gersting Award for an Outstanding Graduate Student |

Geology

| | |
|---------------------|---|
| Kenneth L. Brown | Geology Alumni Scholarship |
| Emerson F. Palmer | Indiana Geology & Gem Soc. Scholarship |
| Jennifer A. Sembach | Academic Achievement Award |
| J. Jeremy Webber | Center for Earth and Environmental Science Engaged Scholar Award |

Mathematical Sciences

| | |
|----------------------|---|
| Adam R. Baker | Outstanding (Undergraduate) Achievement Award |
| Lauren N. Bedrick | Anna K. Suter Memorial Scholarship |
| Holly M. Carson | Anna K. Suter Memorial Scholarship |
| Jay T. Hardin | Igor Kuznetsov Outstanding Graduate Student Teaching Award |
| Bobby W. Ramsey, Jr. | Outstanding Graduate Student |
| Derek D. Scott | Anna K. Suter Memorial Scholarship |
| Thomas J. Sinclair | Anna K. Suter Memorial Scholarship |
| Emily L. Stant | Anna K. Suter Memorial Scholarship |

Physics

| | |
|-----------------------|---|
| Francis R. Bowen | D. J. Angus-Sciencetech Most Improved Physics Student Scholarship |
| Michael E. Carter | Outstanding Physics Graduate Student |
| Christopher R. Jamell | Forrest Meiere Prize for Outstanding Undergraduate Physics Major |
| Jordan M. Miller | University Physics Award |

Psychology

| | |
|------------------------|--|
| Elizabeth R. Clendenen | Psi Chi Scholarship |
| Brett T. Clayton | Robert G. Neel Award |
| Raven E. Cuellar | Undergraduate Research Award |
| Krista E. Jansen | Outstanding Industrial/Organizational Graduate Student Award |
| Rebecca S. Lancaster | Clinical Rehabilitation Ph.D. Student Award |
| Teresa A. Powrozek | Paul J. McKinley Psychobiology of Addictions Ph.D. Student Award |
| Jamie R. Schroeder | Robert G. Neel Award |
| Jessica L. Wisler | Robert I. Long Award |
| Jessica L. Wisler | Robert G. Neel Award |
| Stacey E. Woodrome | Arnold M. Quittner Dissertation Award |

SCHOOL OF SCIENCE AWARDS

John D. Barnwell Scholarship

Filipe A. Sobral (Biology and French)

This scholarship is a tribute to Dr. John D. Barnwell, who not only made significant contributions to science and teaching, but also to music, literature and poetry. It is awarded annually to a School of Science student who has effectively integrated both the sciences and the arts into his or her undergraduate career.

Frank G. Lambertus Scholarship

Thomas J. Sinclair (Mathematical Sciences)

In 1990, Mrs. Ernestine Lambertus established an endowed scholarship in memory of her husband, Frank, who was an advisor to the dean and an advocate for working science students. This scholarship is awarded to a student who demonstrates significant academic improvement over the previous year and who works while studying science at IUPUI.

Robert W. Tuveson Scholarship

LaTasha M. Miller (Biology)

Robert W. Tuveson was very active in providing summer research experiences for students in his biology laboratory. Upon his passing in the early '90s, Mary Ellen Tuveson and David L. Stocum established the Robert W. Tuveson Memorial

Scholarship. The award is given to a student majoring in the biological sciences. Consideration is given to financial need, academic performance and future promise.

D.J. Angus-Sciencetech Science Scholar

Jasmine N. Sherwood (Psychology)

Established by the D. J. Angus-Sciencetech Education Foundation in 2002, this scholarship recognizes outstanding academic achievement from an underclassman who has graduated from a high school within the nine-county area around Indianapolis.

The Indianapolis Project SEED Scholarship for Beginning and Continuing Science Majors

David P. Drennan (Chemistry)

Neil E. Jain (Biology)

For many years, Dr. Rosanne Bonjouklnain has been an active member in the Indiana Section of the American Chemical Society Project SEED summer research program for high school juniors. In 1999, she established this four-year renewable scholarship for former participants of the program.

The School of Science Alumni Association Outstanding Science Student Scholarship

Quratulain Saeed (Biology)

Huong "Victoria" T. Vu (Biology)

The School of Science Alumni Association founded its Outstanding Science Student Scholarship, a scholarship that was made possible by annual gifts from Science alumni, to recognize students who excel in the face of personal challenges. Each year, the association looks for science undergraduates whose responses to real-life obstacles have shaped their educational careers. Quratulain and Victoria are outstanding examples of the perseverance and dedication that this award is designed to recognize.

Student Council Award

Sarah M. Powell (Mathematics)

The Student Council Award was created to allow students to recognize one of their outstanding senior peers. Nominees were judged by the Undergraduate Student Council on the basis of their scholarship, research, involvement in school and community activities, and perseverance.

Dean's Scholars, Beginning Science Majors

Heather M. Fisher (Physics)

Sarah K. Needy (Geology)

India R. Johnson (Biology)

Laura K. Platt (Biology)

Dean's Scholars, Continuing Science Majors

Raven E. Cuellar (Psychology)

Travis R. Silvers (Computer Science)

John J. Harris (Biology)

Daniel S. Terry (Computer Science)

Tamara M. McPeck (Biology)

Vera Vavinskiy (Computer Science)

Amy B. Miller (Psychology)
Yousef Mohammadi (Biology *and* Chemistry)

Jessica L. Wisler (Psychology)

Dean's Scholars Continuing Science Majors (Renewed)

| | |
|--|--|
| John Bivens (Comp. Scie., Math, <i>and</i> German) | Bilal Omery (Biology) |
| Philip Chapman (Geology) | Jennifer Phan (Psychology) |
| Patrick Corrigan (Computer Science) | Mark Phelps (Computer Science) |
| Adam R.-C. Fletcher (Computer Science) | Sarah I. C. Reyes (Biology) |
| Marion S. Greene (Psychology) | Mark S. Sage (Chemistry) |
| Neil E. Jain (Biology) | Liby Sebastian (Computer Science) |
| Nicholas S. Lewis (Computer Science) | Thomas J. Sinclair (Mathematics) |
| Lydia Lyshevski (Computer Science) | Filipe A. Sobral (Biology <i>and</i> French) |

UNIVERSITY AWARDS

Academic Excellence Scholars (New and Renewed)

| | |
|---------------------------------------|---------------------------------------|
| Kandice M. Albertson (Biology) | Douglas E. Latino (Biology) |
| Jonathan E. Bendinger (Chemistry) | Michael A. Mann (Chemistry) |
| Corrie J. Bilke (Biology) | John R. Martin (Chemistry) |
| John W. Bivens (Computer Science) | Greg R. McCreary (Chemistry) |
| Kendra L. Carey (Biology) | Grace K. Metzler (Psychology) |
| Ashley L. Carter (Biology) | Charles J. Murray (Mathematics) |
| Philip M. Chapman (Geology) | Hai V. Nguyen (Biology) |
| Elizabeth R. Clendenen (Psychology) | Andrew T. Nimry (Biology) |
| Katherine M. Delph (Biology) | Jeremiah E. Nyhuis (Computer Science) |
| Jeffery W. Doughty (Computer Science) | Bilal M. Omery (Biology) |
| Amanda L. Eads (Computer Science) | Andrea M. Paal (Biology) |
| Carly E. Everson (Biology) | Tiffany A. Pardo (Biology) |
| Heather M. Fisher (Physics) | Janette M. Pérez (Biology) |
| Brenda L. Fogolin (Biology) | Jennifer Phan (Psychology) |
| Christine L. Furey (Biology) | Andrew R. Picek (Computer Sci) |
| Alaina B. Gemelas (Biology) | Laura K. Platt (Biology) |
| Sarah Gossett (Biology) | Stephanie S. Price (Biology) |
| Katrina A. Grayam (Chemistry) | Tanya M. Robaska (Biology) |
| Amanda M. Grimes (Biology) | Antonio Sablan (Biology) |
| Kathleen A. Grunden (Biology) | Eric S. Schroeder (Biology) |
| Kimberly M. Hahn (Biology) | Derek D. Scott (Mathematics) |

Academic Excellence Scholars (New and Renewed) continued:

| | |
|-------------------------------------|---|
| Kristina M. Hammond (Biology) | Thomas J. Sinclair (Mathematics) |
| Josephine J. Harris (Biology) | Filipe A. Sobral (Biol <i>and</i> French) |
| Emily S. Hector (Biology) | Matthew B. Stone (Computer Sci) |
| Kyla R. Henke (Biology) | Christopher R. Stringer (Biology) |
| Jacob Hoffman (Computer Science) | Nicholas I. Tarvin (Biology) |
| Tanya M. Jacob (Biology) | Brandon K. Waldrop (Biology) |
| Robert A. Jester (Computer Science) | Rehan S. Yazdani (Chemistry) |
| India R. Johnson (Biology) | |

Robert D. Larsen (Psychology)

Adult Outstanding Scholars

Amy B. Miller (Psychology)

Mark S. Sage (Chemistry)

Alpha Lambda Delta, Freshman Honoraries

Farwa Abid (Biology)

Yehia M. Fouad (Biology)

Christopher O. Audu (Chemistry)

Sarah K. Needy (Geology)

Dana M. Awad (Chemistry)

Laura K. Platt (Biology)

Drew A. Boyd (Psychology)

Maria E. Ramirez (Psychology)

Jared A. Byczko (Biology)

Derek D. Scott (Mathematics)

Katherine A. Carr (Biology)

Peter D. Terew (Biology *and* Psych.)

Alec P. Cawfield (Psychology)

Kristen K. Walker (Computer Sci.)

Katherine M. Delph (Biology)

Eric M. Woerly (Chemistry)

Amanda L. Eads (Computer Science)

America Reads Scholar

Sara E. Baize (Psychology)

Army ROTC Scholars

Adam G. Blevins (Psychology)

Heather A. Irwin (Biology)

Adrienne M. Cadenas (Biology)

Douglas E. Latino (Biology)

Brandon I. Eiler (Chemistry)

Assist Scholar

Rachel E. Troyer (Geology)

Norman Brown Minority Achievers

Anthony R. Gutierrez (Chemistry)

Kimberly M. Smith (Psychology)

April D. Malone (Psychology)

Laura M. Wharton (Biology)

Bilal M. Omery (Biology)

Campus and Community Life Award

Kristin M. Ryker (Psychology)

Robert E. Cavanaugh Scholar

Raven E. Cuellar (Psychology)

Chancellor's Scholar Award

Amanda R. Valse (Biology)

Community Service Scholars

William S. Canatsey (Psychology)

Janette M. Pérez (Biology)

Christina M. Lund (Biology)

Margaret A. Cook Foreign Study Award

Kristin Byers (Chemistry *and* German)

Dean of Faculties Scholars (New and Renewed)

Mai Aburashed (Biology) Erin K. Severa (Psychology)
Brandon J. Anderson (Biology) Amber N. Smith (Biology)
Amber B. Baig (Biology) Virginia M. Stoltz (Chemistry)
Timothy E. Baughman (Mathematics) Radu Taflan (Biology)
Tequita M. Booker (Biology) Sarah A. Ventimiglia (Psychology)
Kari A. Brinsley (Biology) Laura M. Wharton (Biology)
Jessica R. Brokering (Psychology) A. Danielle York (Psychology)
Kristin Byers (Biology) Yujie Zhan (Computer Science)
Erin E. Chappell (Psychology) Christopher L. Arrington (Chemistry)
Keya Dave (Computer Science) Devanshu Chowdhary (Biology)
David P. Drennan (Chemistry) Mark A. Coffey (Biology)
Julie D. Earwood (Biology) William R. Cornelius (Mathematics)
Laura D. Eberhardt (Biology) Jeanette L. Fabian (Chemistry)
Emily M. Eck (Biology) Erica R. Farmer (Biology)
Nicole K. Fohey (Geology) Jessica L. Friedrich (Biology)
Jeremy R. Ford (Biology) Aiman A. Haqqani (Biology)
Nathan A. Furr (Chemistry) Kristin L. Harasty (Psychology)
Sarah L. Heath (Biology) Jennifer R. Hostetler (Biology)
Anika H. Hughes (Psychology) Heather A. Irwin (Biology)
Neil E. Jain (Biology) David C. Kettler (Physics)
Kristin M. Jardot (Psychology) James S. Lindsey (Chemistry)
Mica D. Kleber (Biology) Justin T. Reuter (Psychology)
Ryan J. Kough (Chemistry) Kathryn M. Reuter (Biology)
Katherine L. Lucas (Psychology) Jennifer L. Saba (Biology)
Christina M. Lund (Biology) Laura E. Schwaner (Chemistry)
Amanda E. Manlief (Biology) Taylor J. Shafer (Biology)
Daniel E. Minner (Chemistry) Emily A. Sparlin (Biology)
Mark A. Phelps (Computer Science) Bonnie G. Stevenson (Biology)
Terra E. Query (Chemistry) Emery E. Watson (Psychology)
Nabilah A. Rontu (Chemistry)
Alena M. Sentir (Psychology)

Dean's Recognition Scholars

Michael D. (Psychology) Brandon M. Ford (Biology)
Cole T. Duncan (Chemistry) Yehia Fouad (Biology)
Anna M. Kovalenko (Biology) Anthony R. Gutierrez (Mathematics)
Bryan M. Leonard (Mathematics) Kelly L. Hart (Biology)
Luby Sebastian (Biology) David F. Horning (Biology)
Punam C. Shah (Psychology) Joshua A. Houchin (Psychology)
Adrienne E. Shea (Psychology) Hayden M. Johnson (Biology)
Amanda B. Simpson (Biology) Ashley M. Kriech (Biology)
Ann E. Swadener (Psychology) Sean C. Malicoat (Mathematics)
Daniel S. Terry (Computer Science) Ashley N. Mason (Biology)

Emigh L. Woodrick (Psychology)
Sarah I. C. Reyes (Biology)

Jonathan E. Morgan (Biology)
Jeffrey R. Morningstar (Chemistry)

Dean's Recognition Scholars continued:

Sara N. Adkins (Biology)
Dana M. Awad (Chemistry)
Stephanie M. Bowser (Biology)
Peter A. Brasovan (Biology)
Hannah T. Buffington (Psychology)
Jared A. Byczko (Biology)
Sean L. Campbell (Chemistry)
Emily A. Crawford (Biology)
Brandon I. Eiler (Chemistry)
Scott D. Flanigan (Mathematics)

Sonal P. Patel (Biology)
Malarie L. Piercy (Physics)
Melissa A. Porter (Psychology)
Maria E. Ramirez (Psychology)
Lisa M. Siegel (Biology)
Stephanie J. Sonntag (Biology)
Philip C. Troutman (Biology)
Elizabeth E. Whitman (Psychology)
Jessica L. Yates (Psychology)

Distinguished Scholars Award

Jonathan E. Bendinger (Chemistry)
Corrie J. Bilke (Biology)
John W. Bivens (Computer Science)
Heather M. Fisher (Physics)
Katrina A. Grayam (Chemistry)

Robert D. Larsen (Psychology)
Jennifer Phan (Psychology)
Nicholas I. Tarvin (Biology)
Melissa A. Williams (Biology)

Marius J. Faure' Family Scholarship

Filipe A. Sobral (Biology & French)

Freshman Service Scholars

Emily L. Carter (Biology)
Emily A. Crawford (Biology)
Anthony R. Gutierrez (Chemistry)

Alicia A. Mears (Psychology)
Natalie R. Nichols (Biology)

Honors Scholars (New and Renewed)

Corrie J. Bilke (Biology)
John W. Bivens (Computer Science)
Jessica R. Brokering (Psychology)
Ashley L. Carter (Biology)
Emily L. Carter (Biology)
Surilda L. Clark (Biology)
Heather M. Fisher (Physics)
Adam R.-C. Fletcher (Computer Science)
Christine L. Furey (Biology)
Katrina A. Grayam (Chemistry)
Kristina M. Hammond (Biology)
Josephine J. Harris (Biology)
David Hills (Chemistry)
Tanya M. Jacob (Biology)
Rebecca Kuhlenhoelter (Biology)
Robert D. Larsen (Psychology)

Sarah K. Needy (Geology)
Bilal M. Omery (Biology)
Andrea M. Paal (Biology)
Janette M. Pérez (Biology)
Jennifer Phan (Psychology)
Andrew R. Picek (Computer Science)
Laura K. Platt (Biology)
Katherine E. Reid (Biology)
Matthew A. Rigsby (Chemistry)
Nabilah A. Rontu (Chemistry)
Eric S. Schroeder (Biology)
Derek D. Scott (Mathematics)
Jasmine N. Sherwood (Psych)
Christopher R. Stringer (Biology)
Nicholas I. Tarvin (Biology)
Kristen K. Walker (Computer Sci)

Douglas E. Latino (Biology)
Nicholas S. Lewis (Computer Science)
John R. Martin (Chemistry)
Amy B. Miller (Psychology)

Melissa A. Williams (Biology)

James E. Hughes Trust Scholars

David M. Borden (Physics)
Jared A. Byczko (Biology)
Aiman A. Haqqani (Biology)

Charles J. Murray (Mathematics)
Tiffany A. Pardo (Biology)
Lisa M. Siegel (Biology)

Learning Community Mentor Scholars

Ana K. David (Biology)
Tanya M. Jacob (Biology)
Priya M. Kheradia (Biology)
April D. Malone (Psychology)

Megan D. Sickmeier (Biology)
Nicholas I. Tarvin (Biology)
Sung-Tse Wu (Biology)

Math Assistance Center Leadership Scholars

Sean P. Bird (Chemistry)
Mary A. Bucek (Mathematics)
Dereck A. Coatney (Computer Science)
Christopher T. Dona (Mathematics)
Kimberly K. Donahue (Chemistry & Math)
Lauren E. Forthofer (Geology)
Charles M. Hendrix (Psychology)

Christopher R. Jamell (Mathematics
& Physics)
Seba K. Omran (Chemistry)
Noreta Paja (Mathematics)
Tram A. Pham (Math & Physics)
Sarah M. Powell (Mathematics)

Charles O. McGaughey Leadership Awards

Elizabeth R. Clendenen (Psychology)
Kristin L. Hellem (Mathematics)
Ryan J. Kough (Chemistry)
Jennifer Phan (Psychology)

Andrew R. Picek (Computer Science)
Jennifer L. Schwaner (Psychology)
Laura E. Schwaner (Chemistry)

Anna Melodia “Building Community” Award

Kristin Byers (Chemistry *and* German)

Mentoring Leadership Scholars

Jessica R. Brokering (Psychology)
Neil E. Jain (Biology)
Filipe A. Sobral (Biology & French)

Sung-Tse Wu (Biology)
Sarah A. Ventimiglia (Psychology)

Minority Research Scholars (New and Renewed)

Durell L. Dancy (Chemistry)
Anthony R. Gutierrez (Chemistry)

Boikai S. Mensah Zoe (Biology)

National Student-Athlete Day Awards

Jared A. Byczko, Men’s Soccer (Biology)
Kristin L. Hellem, Softball (Mathematics)
Joseph C. Hulse, Jr., Men’s Swimming and Diving (Chemistry)

Erin L. Jones, Volleyball (Biology)
Brooke E. McAfee, Women's Basketball (Biology)
Sarah K. Needy, Softball (Geology)
Stephanie S. Price, Softball (Biology)
Justin T. Reuter, Men's Cross Country (Psychology)
Kathryn M. Reuter, Women's Soccer (Biology)
Nicholas I. Tarvin, Men's Tennis (Biology)
Amanda R. Valse, Women's Tennis (Biology)

New Generation Scholars (New and Renewed)

| | |
|---------------------------------------|---------------------------------|
| Rebecca E. Aldrich (Biology) | Stacy D. Gehrke (Psychology) |
| Constance R. Bunton (Biology) | Heather N. Harp (Biology) |
| Misty D. Dean (Psychology) | Stacy A. Hunt (Biology) |
| Jeffery W. Doughty (Computer Science) | Devon N. Miller (Psychology) |
| Brandon I. Eiler (Chemistry) | Rosemary F. Smith (Psychology) |
| Scott D. Flanigan (Mathematics) | Meghan N. Vale (Biology) |
| Erica L. Gadis (Mathematics) | Joshua A. Whitaker (Psychology) |

Orientation Leadership Scholars

| | |
|---------------------------------------|-----------------------|
| Priya M. Kheradia (Biology) | Sung-Tse Wu (Biology) |
| Jeremiah E. Nyhuis (Computer Science) | |

Outstanding Freshman Scholars (New and Renewed)

| | |
|-----------------------------------|-------------------------------------|
| Ashley L. Carter (Biology) | Douglas E. Latino (Biology) |
| Philip M. Chapman (Geology) | John R. Martin (Chemistry) |
| Amanda L. Eads (Computer Science) | Andrea M. Paal (Biology) |
| Christine L. Furey (Biology) | Tiffany A. Pardo (Biology) |
| Amanda M. Grimes (Biology) | Andrew R. Picek (Computer Science) |
| Kathleen A. Grunden (Biology) | Tanya M. Robaska (Biology) |
| Kristina M. Hammond (Biology) | Eric S. Schroeder (Biology) |
| Josephine J. Harris (Biology) | Derek D. Scott (Mathematics) |
| Kyla R. Henke (Biology) | Filipe A. Sobral (Biology & French) |
| Tanya M. Jacob (Biology) | Brandon K. Waldrop (Biology) |
| India R. Johnson (Biology) | |

Outstanding Women Student Leaders

Kelly M. Hersberger (Mathematics & Philosophy)
Christina L. Rafferty (Chemistry & Communication Studies)
La Donna L. Smith (Psychology)

Passport Academic Excellence Scholar

Mitra Mirzaee (Biology)

Phi Eta Sigma, Freshman Honoraries

| | |
|---------------------------|-------------------------------|
| Farwa Abid (Biology) | Yehia M. Fouad (Biology) |
| Dana M. Awad (Chemistry) | Paul J. Gahwiler (Psychology) |
| Drew A. Boyd (Psychology) | Elisa M. Jardeen (Psychology) |

Katherine A. Carr (Biology)
Alec P. Cawlfeld (Psychology)
Katherine M. Delph (Biology)
Amanda L. Eads (Computer Science)
Erica R. Farmer (Biology)

Laura K. Platt (Biology)
Maria E. Ramirez (Psychology)
Derek D. Scott (Mathematics)
Peter D. Terew (Biology & Psychology)
Eric M. Woerly (Chemistry)

Phi Theta Kappa Scholar

Amanda N. Zachary (Psychology)

Nina Mason Pulliam Legacy Scholar

Leila B. Ross (Psychology)

Richard Rapala Memorial Scholarship

Anthony R. Gutierrez (Chemistry)

Undergraduate Student Government

House of Organizations-Representative of the Year

Kristin Byers (Chemistry & German)

Senator of the Year

Gabriel B. Grant (Physics)

Senior Academy Freshman Scholar

Heather M. Fisher (Physics)

Summer Research Opportunity Program (SROP) Scholars

April D. Malone (Psychology)

Boikai S. Mensah Zoe (Biology)

Top 100 Students at IUPUI

*William S. Canatsey (Psychology)

Surilda L. Clark (Biology)

Laura D. Eberhardt (Biology)

Karla A. Glaser (Chemistry)

Lateca S. Glass (Chemistry)

Mark E. Hanni (Physics)

Angela R. Hart (Chemistry)

Kristin L. Hellem (Mathematics)

Holly D. Jackson (Psychology)

Nathan Kast (Biology)

Amy B. Miller (Psychology)

Yousef Mohammadi (Biology & Chemistry)

Janette M. Pérez (Biology)

****Jennifer Phan** (Psychology)

*Andrew R. Picek (Computer Science)

*Christina L. Rafferty (Chemistry & Communication Studies)

*Sarah I. C. Reyes (Biology)

Kristin M. Ryker (Psychology)
Nicholas I. Tarvin (Biology)
Huong "Victoria" T. Vu (Biology)

*Top 10 Students

**Top Student at IUPUI

Undergraduate Research Opportunity Program (UROP) Scholars

| | |
|--------------------------------|---------------------------------|
| Cynthia L. Budyn (Psychology) | Dennise G. Oechsle (Psychology) |
| Philip M. Chapman (Geology) | Kelly R. Probst (Geology) |
| Nicole K. Fohey (Geology) | Sean W. Thom (Psychology) |
| Nathan Kast (Biology) | Scott A. Whelchel (Psychology) |
| Tamara M. McPeck (Biology) | Jessica L. Wisler (Psychology) |
| Kathleen L. McRee (Psychology) | Andrew B. Wolf (Geology) |
| Daniel J. Napers (Psychology) | |

Valedictorian-Salutatorian Awards (New and Renewed)

| | |
|--------------------------------------|--------------------------------------|
| Christopher O. Audu (Chemistry) | Natalie R. Nichols (Biology) |
| Katherine A. Carr (Biology) | Katherine E. Reid (Biology) |
| Baron D. Hall (Biology) | Matthew A. Rigsby (Chemistry) |
| Nathan J. Johnson (Psychology) | Amanda R. Valse (Biology) |
| Nicholas S. Lewis (Computer Science) | Kristen K. Walker (Computer Science) |
| Boikai S. Mensah Zoe (Biology) | Eric M. Woerly (Chemistry) |
| Sarah K. Needy (Geology) | |

EXTERNAL AWARDS AND ACHIEVEMENTS

Who's Who Among Students in American Universities and Colleges:

Undergraduate Students

| | |
|--------------------------------|-------------------------------------|
| Heather A. Barnes (Psychology) | Heath C. Hurst (Psychology) |
| Amie A. Burns (Biology) | Amy B. Miller (Psychology) |
| Nicole K. Fohey (Geology) | Terra E. Query (Chemistry) |
| Gabriel B. Grant (Physics) | Filipe A. Sobral (Biology & French) |
| Mark E. Hanni (Physics) | Jessica L. Wisler (Psychology) |
| Angela Hart (Chemistry) | Kimberly A. Wooldridge (Psychology) |

Graduate Students:

Kikuko Campbell (Psychology)
Allyson L. Novotny (Chemistry)
Emek Seyrek (Chemistry)

NEW ACADEMIC INITIATIVES

CAREER DEVELOPMENT SERVICES

The mission of Career Development Services (CDS), established in August 2003, is “To assist undergraduate and graduate students in developing long-term career goals through the enhancement of their education by participating in experiential learning opportunities and extended career guidance throughout their academic experiences.” The office’s main goal is to provide a central location in the School of Science Dean’s Office where students are provided with career development skills and career resources, and are assisted in locating internships, full-time employment, or preparation for graduate school admission.

The staff of CDS has worked diligently to develop a website designed to explore the career possibilities for science majors and highlight career resources. The largest component of the website is the free internship registration process for both students and employers. This service provides students and employers an easy approach to link qualified students with internship opportunities. The internship registration process and internship postings by employers are included in Phase I of the website. Phase II will entail graduate school information and developing the full-time employment section, including the registration process for students and employers, position postings by employers and viewing of postings by students. Phase III will entail developing a career connection for science alumni. The Career Development Services website is www.career.science.iupui.edu.

CDS will continue to enhance its involvement with students, faculty, departments, and employers. These working relationships will help to create a solid foundation on which to provide career services that both compliment and highlight a student’s educational background.

NEW DEGREE PROGRAMS

Forensic and Investigative Sciences Program

In 2004, the School of Science, the School of Public and Environmental Affairs, and the School of Law at IUPUI established the first forensic science degree program in Indiana. Dr. Jay Siegel, most recently of the national-recognized forensic science program at Michigan State University, was hired as the program’s first director. The Forensic and Investigative Science (FIS) program will begin accepting students during the Fall 2004 semester. Immediate plans include hiring an assistant to the director. Also, an additional faculty member, most likely in forensic biology, will be hired in the Fall 2005.

FIS is a multidisciplinary degree program. It will have concentrations in chemistry, biology, computers, criminal justice, psychology and environmental and health investigations. All students will take a core of science courses augmented by classes in criminal justice and law. An internship program at participating crime labs from all over

the US will also be a part of the program. Graduates of this program are expected to be in demand and will be hired in crime labs, chemical, pharmaceutical and biomedical industries, criminal justice agencies and environmental agencies.

Biotechnology Associate and Bachelor's Degree Programs

Biotechnology is "applied biology." It is the application of biology knowledge and techniques to develop products that improve human health, animal health, and agriculture. The IUPUI biotechnology degree programs were created in collaboration with four of the area's top employers (Baxter Pharmaceuticals, Dow AgroSciences, Eli Lilly & Company and Roche Diagnostics). The biotechnology programs provide graduates with the specific skill set that these industry leaders look for when hiring new employees. Also, the partner corporations will offer internships. This will allow students real-world experiences while improving their opportunities for immediate employment.

The Associate of Science in Applied Biotechnologies (ASAB) is a 73-credit hour Purdue University degree. This degree offers basic science course work in biology, chemistry, physics, and mathematics. Other areas of specialization in molecular biology, cell culture and fermentation, and protein purification are offered to meet industrial needs. Each area of specialization includes a related 6-credit internship. Graduates may enter the workforce immediately or enter the B.S. degree program.

The Bachelor of Science in Biotechnology is a 124 credit hour Purdue degree that includes the full ASAB program. While this program requires additional courses in the major, it allows a flexibility to add other areas of specialization. Because the B.S. curriculum in biotechnology includes general education courses in the humanities and social sciences, this multidisciplinary degree program offers students the flexibility to become eligible for most graduate and professional degree programs.

MBA/MS Dual degree program in Business and Science

Faculties in the Indiana University Kelley School of Business Indianapolis and the School of Science have agreed to offer a dual master's degree program beginning in Fall 2004. This program is modeled on existing dual degree programs in both schools.

The Indiana University Purdue University M.B.A./M.S. dual degree program allows for the concurrent study of graduate science and graduate business courses work and leads to both the M.B.A. degree and an M.S. degree from the School of Science departments of Biology, Chemistry, Computer and Information Science, Geology, Mathematics, or Physics. The program is designed for individuals who want to practice science involving business clients, work in a corporate science department, or work in a government agency regulating business, among other science/business interrelated opportunities. Candidates must meet the admissions and prerequisite criteria of each school and are separately admitted by each.

OTHER ACHIEVEMENT HIGHLIGHTS

Endowed Chair in Mathematics Education

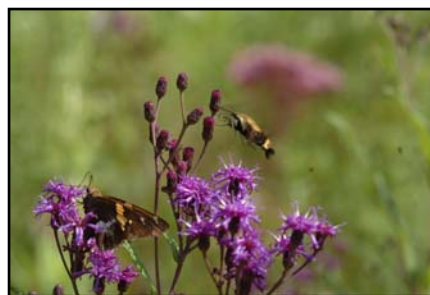
Dr. Marvin Bittinger who is a former professor in the Department of Mathematical Sciences and is internationally known for his superb textbooks on introductory college mathematics, made a significant gift to the School of Science to endow a Chair in mathematics education. Approved by the Trustees of Indiana University, Professor Bart S. Ng was named the first Bittinger Chair of Mathematics Education.

18th National Conference on Undergraduate Research

School of Science Associate Dean Kathryn Wilson, who also serves the campus as director of the Undergraduate Research Opportunity Program (UROP) brought to the 18th National Conference on Undergraduate Research (NCUR@2004) to campus. April 14 - 17, 2004, over 2300 undergraduate researchers and faculty from 40 states, Puerto Rico, Washington D.C., and Canada (representing 266 different colleges and universities) participated in the research conference at IUPUI. Science students from Biology, Geology, Psychology and Physics delivered 19 of the 41 posters and papers at this conference. Established in 1987, NCUR® “creates a unique environment for the celebration and promotion of undergraduate student achievement, providing models of exemplary research and scholarship.” This was a premier opportunity for the campus that raised the visibility of IUPUI in general and showcased the quality of our undergraduate research program.

Scott Starling Wetlands Restoration Project

The Center for Earth and Environmental Science, housed in the Department of Geology, successfully restored a relatively rare and biologically diverse groundwater-fed wetland system in conjunction with the Indy Parks and the Recreation Land Stewardship Office. The restoration occurred in areas that were historically fen and sedge meadow within the Scott Starling Nature Sanctuary portion of Eagle Creek Park. Numerous community volunteers and



sponsors have contributed to the success of this program, including the Efroymsen Fund of the Central Indiana Community Foundation, the City of Indianapolis Department of Parks and Recreation, Veolia Water Indianapolis, Spence Restoration Nursery, JF New and Associates, the CEES Environmental Service Learning Program, corporate and community volunteers, citizen groups representing the Starling Nature Sanctuary, and the area watershed task force. The restoration consisted of removing and disabling hundreds of feet of agricultural tile to restore the hydrology to the site as well as re-establishing more than 20,000 native wetland plant plugs.

High School Math Contest

The Department of Mathematical Sciences hosted the 7th annual IUPUI/Roche Diagnostics High School Mathematics Contest in April 2004. The contest awarded more than \$5,000 in prizes to the individual and school winners. A surprise to IUPUI mathematics professors, two young students used some unexpected original mathematics to solve the problems.

The 2004 math contest attracted more than 300 students from 19 different high schools and one school was awarded the traveling trophy – Carmel High School. Along with first place school winner Carmel High School, Brownsburg and Hamilton Southeastern high schools were given \$500 each to be used toward funding programs within their math departments. The student winner of this year's contest, Charles Tam, a sophomore at North Central High School, was named the individual contest winner and received a \$500 cash prize.

This seventh annual contest was open to all high school students (grades 9-12) in the fourteen-county area of central Indiana. Students had to answer four story problems and one short essay relating to the application of math in genetics. All entries were judged by professors in the Department of Mathematical Sciences. Prizes include 1-first place prize \$500; 5-second place prizes \$300 each; and 10-third place prizes \$150 each.

2004 Spirit of Philanthropy Celebration

The 16th annual Spirit of Philanthropy Awards Luncheon was celebrated on April 22, 2004, at the Marriott in Indianapolis. During this unique event, which brought together philanthropy honorees from the past 15 years, Chancellor Charles Bantz recognized 48 individuals and organizations for their outstanding records of volunteer service and financial support to IUPUI's schools and units. The School of Science recognized two honorees: The Efroymson Fund and the Rotary Club of Indianapolis.

The Efroymson Fund

In 2003, the Center for Earth and Environmental Science (CEES) received a significant gift from The Efroymson Fund, a donor-advised fund of the Central Indiana Community Foundation. The Efroymson Fund gift supports a wetland restoration project at the Scott Starling Nature Sanctuary in Eagle Creek Park. Settled in the mid-1800s, this area on the west-side of Indianapolis was cleared of its natural forest and wetland plants. Today, CEES scientists, IUPUI students and community volunteers are replacing grasses with native wetland plants, which will form the foundation for the re-development of a wetland. Restoring a biologically diverse wetland provides physical, ecological and economic benefits – improved water resources; a new living museum, where the dynamics of eco-systems can be observed and taught; and a commitment to environmental preservation and appreciation.

Rotary Club of Indianapolis

The Rotary Club of Indianapolis has a long history of preserving planet Earth. Naturally, the local service organization partnered with IUPUI's Center for Earth and Environmental Science to restore a vulnerable section of the White River in downtown Indianapolis. Rotary is a significant contributor to the Lilly ARBOR Project, a three-year-old ecological program

that is recreating an urban forest. Rotary's monetary contributions are supplemented by the hundreds of volunteers that have planted trees along the kilometer-long strip of the project site. As a Lilly ARBOR Project partner, the Rotary Club of Indianapolis is protecting Indianapolis' wetlands and waterways, but Rotary is also affecting how students and teachers – how all of us – view the environment. Rotary is helping Indiana residents to become better environmental stewards.

School of Science Spirit of Philanthropy Award Honorees

- 2004 The Efroymsen Fund and Rotary Club of Indianapolis
- 2003 Howard F. Creveling Jr., Ph.D. and Roche Diagnostics, Inc.
- 2002 Paul L. Raikes and Eric and Barbara Simpson
- 2001 Eli Lilly & Company and Quality Environmental Professionals, Inc.
- 2000 Marvin L. Bittinger, Ph.D. and Rosanne Bonjouklian, Ph.D.
- 1999 D. J. Angus-Sciencetech Educational Foundation and USA Group Foundation
- 1998 Cinergy Foundation and William H. Orr, Ph.D.
- 1997 Andrew C. Emerson
- 1996 Donald B. Boyd, Ph.D. and Ernestine Lambertus
- 1995 Drs Arthur and Patricia S. Mirsky
- 1994 Gerald C. Michael, Ph.D.
- 1993 Robert A. McKnight
- 1992 Peter C. Tramm
- 1991 Patrick Roffey, Ph.D.
- 1990 Frank Lambertus
- 1989 Mitchell E. Daniels Sr.

ALUMNI ASSOCIATION ACTIVITIES

Fall 2003

The Awards and Scholarships Committee named **Quratulain Saeed** and **Huong T. Vu** the 2003 recipients of the "Outstanding Science Student Scholarship." Both are seniors majoring in biology and received a \$500 scholarship that was made possible by annual gifts from Science alumni.

Alumni and their families enjoyed a day of learning and discovery when the alumni association hosted a breakfast celebration during Explore IUPUI on September 13, 2003. Visitors discovered "Chemistry in the Kitchen" and "The Physics of Star Trek".

In September and October, the alumni association hosted an "out of this world" lecture series exploring space. Alumni and friends enjoyed a pictorial study of the Earth from the space shuttle, presented by a geologist who has trained 17 classes of NASA astronauts. They also discovered brilliance in their own backyards during "Backyard Astronomy," a lecture and stargazing session designed to help participants understand what they're seeing with the naked eye. A second lecture series, "It's Not Rocket Science," provided alumni with financial planning information.

The festive surroundings of the Children’s Museum on December 10, 2003, offered alumni a perfect opportunity to reacquaint themselves with former lab partners and to make new friends.

Spring 2004

Science alumni were part of the cheering section on February 19, 2004, when the IUPUI men’s basketball team matched up against conference rival Oakland University.

Some people start their mornings with a cup of coffee. Science alumni who are employed by Eli Lilly & Company started their mornings with their alma mater. The alumni association hosted its first-ever industry breakfast, providing alumni an opportunity to learn about new education and research programs in the School of Science.

EXTERNAL RESEARCH FUNDING

Research Awards Received - 2003-04

| | Annualized | New & Cont. Awards | Total Active Awards |
|------------------|------------------------|-----------------------------------|--------------------------------|
| Dean's Office | \$ 1,946,419.00 | \$ 1,946,419.00 | \$ 1,996,419.00 |
| Biology | \$ 1,144,380.00 | \$ 59,918.00 | \$ 4,190,847.00 |
| Chemistry | \$ 739,103.00 | \$ - | \$ 2,019,355.00 |
| Computer Science | \$ 243,074.00 | \$ 243,074.00 | \$ 2,040,332.00 |
| Geology | \$ 287,510.00 | \$ 287,510.00 | \$ 763,932.00 |
| Mathematics | \$ 106,994.00 | \$ - | \$ 661,651.00 |
| Physics | \$ 229,264.00 | \$ 84,790.00 | \$ 891,046.00 |
| Psychology | \$ 2,581,877.00 | \$ 433,164.00 | \$ 4,776,365.00 |
| School | \$ 7,278,621.00 | \$ 3,054,875.00 | \$ 17,339,947.00 |

RESEARCH & SCHOLARLY ACTIVITIES

PATENTS AND INVENTIONS

- Dubin PL, Filippelli G and Banziger J (2003) Polymer-micelle complexes and methods of use thereof. U.S. 20 pp. 6524485 B1 20030225.
- Naumann CA, Young B and Long E (2003) Quantum dots as high-sensitivity optical sensors and biocompatible imaging probes, compositions thereof, and related methods. Application pending.
- Nurok D and Frost MC (2003) U.S. Patent No. 6,610,202 Arrangement and method for performing chromatography. Issued 2003.
- Wu J, Tung JS, Thorsett ED, Pleiss MA, Nissen JS, Neitz RJ, Latimer LH, John V, Freedman S, Britton TC, Audia JA, Reel JK, Mabry TE, Dressman BA, Cwi CL, Droste JJ, Henry SS, McDaniel SL, Scott WL, Stucky RD and Porter WJ (2003) Cycloalkyl, lactam, lactone and related compounds, pharmaceutical compositions comprising same, and methods for inhibiting b-amyloid peptide release and/or its synthesis by use of such compounds. US Patent #6,543,303 B1. Issued November 25, 2003.
- Wu J, Tung JS, Thorsett ED, Pleiss MA, Nissen JS, Neitz RJ, Latimer LH, John V, Freedman S, Britton TC, Audia JA, Reel JK, Mabry TE, Dressman BA, Cwi CL, Droste JJ, Henry SS, McDaniel SL, Scott WL, Stucky RD and Porter WJ (2003) Cycloalkyl, lactam, lactone and related compounds, pharmaceutical compositions comprising same, and methods for inhibiting b-amyloid peptide release and/or its synthesis by use of such compounds. US Patent #6,635,632 B1. Issued October 21, 2003.
- Wu J, Tung JS, Thorsett ED, Pleiss MA, Nissen JS, Neitz RJ, Latimer LH, John V, Freedman S, Britton TC, Audia JA, Reel JK, Mabry TE, Dressman BA, Cwi CL, Droste JJ, Henry SS, McDaniel SL, Scott WL, Stucky RD and Porter WJ (2003) Cycloalkyl, lactam, lactone and related compounds, pharmaceutical compositions comprising same, and methods for inhibiting b-amyloid peptide release and/or its synthesis by use of such compounds. US Patent #6,541,466. Issued April 1, 2003.

EDITORSHIPS

Department of Biology

Bonnie L Blazer-Yost

Editorial Board, *Amer. J. of Physiology, Cell Physiology*

Bonnie L Blazer-Yost

Editorial Board, *Pflugers Archiv. European J. of Physiology*

Department of Chemistry

Donald B. Boyd

Editorial Advisory Board, *J. Molec. Graphics and Modelling*

Editorial Advisory Board, *Structural Chemistry*

Editorial Advisory Board, *Modern Drug Discovery*

Paul L. Dubin

Editorial Advisory Board, *Langmuir*

Editorial Advisory Board, *Macromolecular Bioscience*

Editorial Advisory Board, *Polymer J.*

Clifford E. Dykstra

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Editorial Advisory Board, *Theoretical Chemistry Accounts*

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Co-Editor, *Reviews in Computational Chemistry*
Associate Editor, *J. of Chemical Information and Computer Sciences*
Editorial Advisory Board, *Chirality*

Eric C. Long

Editorial Advisory Board and Invited Expert Analyst, *Chemtracts-Inorganic Chemistry*

David J. Malik

Editorial Advisory Board, *In Chemistry*

David Nurok

Editorial Advisory Board, *J. of Planar Chromatography*
Editorial Advisory Board, *Acta Chromatographica*

Department of Computer and Information Science

Mathew Palakal

Reviewer, *Bioinformatics*

Xukai Zou

Associate Editor, *Interntl. J. of Computers and Applications*

Department of Geology

Gary Rosenberg

Associate Editor, *J. of Geoscience Educ.*

Gabriel Filippelli

Associate Editor, *Applied Geochemistry*

Department of Mathematical Sciences

Pavel Bleher

Editorial Board, *J. of Mathematical Physics and Geometry*

Benzion Boukai

Associate Editor, *J. of Statistical Planning and Inference*

Associate Editor, *Communication in Statistics, A-Theory and Methods*

Associate Editor, *Communication in Statistics, B-Computations and Simulations*

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Associate Editor, *Qualitative Theory of Dynamical Systems*

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Associate Editor, *Pattern Recognition*

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Editorial Board, *Cryobiology*

Zhe-Yu Jeff Ou

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Editorial Board, *J. of Vocational Behavior*

ORGANIZED CONFERENCES

DEPARTMENT OF BIOLOGY

Chernoff, Ellen: Session Chair, Biocomplexity Interntl. Workshop IV: Regenerative Biology, IU Institute for Biocomplexity and IU Center for Regenerative biology and Medicine, May 14-18, 2003 Bloomington IN.

Crowell, Dring: Organizer, Executive Committee, Sixth Interntl. Symp. on Plant Isoprenoids, May 14-16, 2003, Lexington, KY.

Marrs, Kathleen A: Workshop Co-organizer, Just-in-Time Teaching, NSF Chautauqua Workshop, US Air Force Academy, June 4-6, 2003, Colorado Springs, CO.

Marrs, Kathleen: Workshop Co-organizer, Fall Graduate Student Orientation Workshop, August 2003, Departments of Biology and Chemistry, IUPUI, Indianapolis, IN.

Juillerat, Florence: Organizer, Human Genetics Up-date Conf., December 18, 2003, IUPUI, Indianapolis, IN.

DEPARTMENT OF CHEMISTRY

Malik, David J: Member, Organizing Committee, American Chemical Society Invitational Conference: Exploring the Molecular Vision, ACS Committee on Education, Invitational Meeting, June 2003, Washington, DC.

Malik, David J: Member, Organizing Committee, Presidential Event: Exploring the Molecular Vision Symposium, ACS Committee on Education, ACS National Meeting, September 2003, New York, NY.

Nurok David: Co-chair, Opening Session, Planar Chromatography 2003, August 2003, Budapest, Hungary.

Schultz Franklin A: Host and Organizer, 57th Midwestern Universities Analytical Chemistry Conference, October 9-11, 2003, IUPUI, Indianapolis, IN.

DEPARTMENT OF COMPUTER AND INFORMATION SCIENCE

Huang, Jeffrey: Optimizing Feature Subspace for Face Recognition, Interntl. Conf. on Computer, Communication and Control Technologies (CCCT '03), July 2003, Orlando, FL.

Palakal, Mathew: Co-chair, ACM Symp. on Applied Computing (SAC'03), March 2003, Melbourne, FL.

Raje, Rajeev: Co-chair, Hawaii Interntl. Conf. on System Science (HICSS-36), January 2003, Big Island of Hawaii, Hawaii.

Raje, Rajeev: Co-chair, ACM Symp. on Applied Computing (SAC'03), March 2003, Melbourne, FL.

DEPARTMENT OF MATHEMATICAL SCIENCES

Bleher, Pavel: Co-Organizer, Large N Limits of U(N) Gauge Theory in Physics and Mathematics, January 2004, University of Montreal.

Geller, William: Co-Organizer, Midwest Dynamical Systems Seminar, October 2003, IUPUI, Indianapolis, IN.

Ji, Ron: Co-Organizer, Operator Algebras and Their Applications, April 2003, Amer. Math. Soc. Spring Mtg., Bloomington, IN.

Ji, Ron: Co-Organizer: Wabash Modern Analysis Mini-Conf., November 2003, IUPUI, Indianapolis, IN.

Kaminker, Jerry: Organizer, Special Session on Operator Algebras and their Applications, April 2003, AMS Mtg. in Bloomington, IN.

Kaminker, Jerry: Organizer, Special Session on Groupoids, October 2003, AMS Mtg., Boulder, CO.

Kaminker, Jerry: Organizer, Special Res. Program on Novikov Conjecture, June 2003, Banff Interntl. Res. Station (BIRS).

Kaminker, Jerry: Organizer, IUPUI-Hawaii Noncommutative Geometry Seminar.

Klimek, Slawmoir: Co-Organizer, Wabash Modern Analysis Mini-Conf., November 2003, IUPUI, Indianapolis, IN.

Misiurewicz, Michal: Co-Organizer, Midwest Dynamical Systems Seminar, October 2003, IUPUI, Indianapolis, IN.

Patterson, Richard: Organizer, Mini-Sympsiom SIAM Mtg. on Geometric Design and Computing, November 2003, Seattle, WA.

Wojciechowski, Krzysztof: Co-organizer, Interntl. Workshop: Spectral Geometry of Manifolds with Boundary, August 2003, Roskilde, Denmark.

DEPARTMENT OF PSYCHOLOGY

McGrew John: Organizer. Assertive Community Treatment: Where We Have Been, Where We Are Going. Co-sponsored by the Indiana Division of Mental Health

- and Addictions and the Indiana Consortium of Mental Health Serv. Res., IUPUI Conf. Center, December, 2003, Indianapolis, IN.
- Moore KA and Felsten Gary: Chairs, Attitudes and Reactivity to the Stress Response: A Determinant of Health Outcomes. Symposium conducted at the 24th Internatl. Conf. of the Stress and Anxiety Res. Soc., July, 2003, Lisbon, Portugal.

FACULTY PUBLICATIONS

DEPARTMENT OF BIOLOGY

ABSTRACTS:

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- Alsheikh MK and Randall SK (2003) Identification of Phosphorylation Sites Associated with the Activation of Calcium-Binding of the Dehydrin, ERD14. *Purdue Proteomics Symp.*
- Alsheikh MK, Heyen BJ and Randall SK (2003) Biochemical Characterization of the Stress-Induced Dehydrins. *Mid-West Section Mtg. of Amer. Soc. of Plant Biology*.
- Alsheikh MK, Svensson J and Randall SK (2003) Ion Binding of Dehydrins is Dependent on Phosphorylation. *Annual Mtg. of the Amer. Soc. of Plant Biologists*, Abstract #899.
- Beach LR, West B, Parker GE, Savage JJ, Kiratipranon P, Toomey KS, Sloop KW and Rhodes SJ (2003) Regulation of Pituitary Hormone Genes by the LHX3 Transcription Factor. *Indiana Univ. Undergrad. Res. Conf.*
- Belecky-Adams TL, Anderson B and Adler R (2003) Bone Morphogenetic Protein 7 (BMP7) Stimulates Outer Segment Elongation of Photoreceptors in vitro. *Invest. Ophthalmol. Vis. Sci.* E-abstract 2813.
- Belecky-Adams TL, Carlson S, Anderson B and Whitsett J (2003) The Role of Bone Morphogenetic Proteins in Chick Eye Patterning and Axonal Pathfinding. *Biocomplexity IV Workshop*, <http://biocomplexity.indiana.edu>
- Blazer-Yost BL, Esterman MA and Vlahos CJ (2003) Insulin-Stimulated Trafficking of ENaC in Renal Cells Requires PI3-Kinase Activity. *FASEB J.* **17**, A912.
- Blazer-Yost BL, Souda P and Witzmann F (2003) Functional Proteomics to Assess Qualitative and Quantitative Effects of Steroid Hormone Binding. *The Physiologist*, **46**, 204.
- Clark S, Daruwala J, Savage JJ and Rhodes SJ (2003) Roles for Human LHX3 Transcription Factors in Pituitary Development. *Indiana Univ. Undergrad. Res. Conf.*
- Crowell DN (2003) Protein Prenylation and Methylation in Plants. *Proc. 6th Internatl. Symp. on Plant Isoprenoids*.
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<http://abstracts.aspb.org/pb2003/public/P53/1091.html>
- Darnet S, Bard M and Rahier A (2003) Cloning and Functional Characterization of Sterol-4-Methyl Oxidase cDNAs from *Arabidopsis thaliana* by Complementation of a Yeast *erg25* Mutant Lacking Sterol-4- Methyl Oxidation. *6th Yeast Lipid Conf.*

- Ehringer WD, Chiang B, Stillwell W and Chien S (2003) Characterization of a Fusogenic Lipid Vesicle to Deliver ATP. *47th Annual Mtg. of the Biophys. Soc., Biophys J.* **84**, 198a.
- Elmore B and Bard M (2003) Transcriptional Regulation of the Essential Sterol Genes *ERG25* and *ERG27* in *Saccharomyces cerevisiae*. *Indiana Branch of the Amer. Soc. for Microbiology.*
- Gavrin AD and Marrs K (2003) Just-in-Time Teaching: Creating an Interactive, Web-based Course to Improve Student Learning and Classroom Performance. *FACET Associate Faculty and Lecturer Conf.*
<http://www.iupui.edu/~facet/conferences/afc/2003/afc2003sched.htm>
- Jackson K, Siddiqui R, Shaikh RS, Castillo A, Zerouga M and Stillwell W (2003) The Mediterranean Diet: A Molecular Investigation. *38th Southeastern Regional Lipid Conf.*
- Jenski LJ, Walczak M and Lees ND (2003) Selecting New Chairs: Matching Institutional and Applicant Expectations. *Twentieth Annual Acad. Chairpersons Conf.: Visions of Departmental Leadership*, **20**, 5.
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- Katzer M and Stillwell W (2003) Does Increased Membrane-Uptake of Solute with Lipid Concentration Reflect Differences in the Physical Behavior of Bilayers with Stacking Density of Bilayers? *47th Annual Mtg. of the Biophys. Soc., Biophys. J.* **84**, 511a.
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- Lees ND and Chism N (2003) Playing Well with Others: A Community of Practice on Retention. *AAHE Learning to Change Conf.: Good Work in Challenging Times*, **1**, 45.
- Lees ND and Brown B (2003) Rethinking Faculty Appointments. *AAHE Learning to Change Conf.: Good Work in Challenging Times*, **1**, 24.
- Malik DJ and Lees ND (2003) Chair Leadership Beyond the Department. *Twentieth Annual Acad. Chairpersons Conf.: Visions of Departmental Leadership*. **20**, 4.
- Malkova A, Naylor M-A, Yamaguchi M and Haber JE (2003) RAD51-dependent Break induced Replication Differs in Kinetics and Checkpoint Responses from RAD51-mediated Gene Conversion. *FASEB Res. Conf., Genetic Recombination and Chromosome Rearrangements.*
- Marrs KA and Gavrin AD (2003) Just in Time Teaching: Creating an Interactive, Web-based Course to Assess Student Knowledge, Misconceptions and Classroom Performance. *The 2003 Assessment Institute.*
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- Sato K, Corn A, Karcavich R, Smith RC and Chernoff EAG (2003) Neural Stem Cell Properties and *Xenopus* Spinal Cord Regeneration. *Develop. Biol.* **259**, 533-534.
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- Shaikh SR, Siddiqui R, Wu M, Castilo A, Wassall SR, Dumauual A and Stillwell W (2003) A Role for Docosahexaenoic Acid in Phase Separation from Lipid Rafts: Implications for Cellular Signaling. *38th Southeastern Reg. Lipid Conf.*
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- Wang XZ and KL Griffin (2003) Carbon Assimilation in Wild Type and Starchless Mutant of *Nicotiana* as Affected by CO₂ Concentration. *Abs. of Ecological Soc. of Amer.*, 2003, p.348.
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- Curtis PS, Jablonski LM and Wang XZ (2003) Assessing Elevated CO₂ Responses using Meta-Analysis. *New Phytol.* **160**, 6-7.
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TECHNICAL REPORTS:

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BOOK CHAPTERS:

Lees ND and Bard M (2003) Sterol Biochem. and Regulation in the Yeast *Saccharomyces cerevisiae*. In: Topics in Current Genetics. (G. Daum, ed.) **6**, 213-240. Springer-Verlag, Heidelberg.
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DEPARTMENT OF CHEMISTRY

ABSTRACTS:

Dearry MS, Fang Y and Long EC (2003) DNA Recognition and Binding by Ni(II)•Xaa-Gly-His Metallopeptides Containing Proline and Modified Proline Residues. *Fourth Annual Indiana Local Section of the American Chemical Society Poster Session*, Indianapolis, IN.
Diaz KM, Deng X, O'Donnell MJ, Scott WL and Long EC (2003) Synthesis of Amino-Pyrimidine- and Pyridine-Containing Ni(II)•Metallopeptides and Their Potential Interactions with DNA. *Fourth Annual Indiana Local Section of the American Chemical Society Poster Session*, Indianapolis, IN.
Dubin P (2003) Coacervation in Mixtures of Anionic/Nonionic Micelles and Polycations. Abstracts of Papers, *226th ACS National Meeting*, New York, NY, COLL-249.
Fang Y, Ray BD, Lipkowitz KB and Long EC (2003) Theoretical and Experimental Studies of DNA Binding and Recognition by Ni(II)•Xaa-Xaa-His Metallopeptides.

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BOOKS AND MONOGRAPHS:

- Appleby DC (2003) The Savvy Psychology Major, Dubuque, IA: Kendall/Hunt.

Fastenau PS (2003) Extended Complex Figure Test (ECFT) Manual. Los Angeles: Western Psychological Serv.

FACULTY PRESENTATIONS

DEPARTMENT OF BIOLOGY

CONFERENCES:

- Bard M, Isolation, Characterization and Regulation of the *Candida albicans* ERG27 Gene Encoding the Sterol 3-Keto Reductase, May, 2003, Poster, The 15th Congress of the Internatl. Soc. for Human and Animal Mycology, San Antonio, TX.
- Belecky-Adams TL, Bone Morphogenetic Protein 7 (BMP7) Stimulates Outer Segment Elongation of Photoreceptors *in vitro*, 2003, Poster/ARVO Mtg., Invest. Ophthalmol. Vis. Sci., Ft. Lauderdale, FL.
- Belecky-Adams, The Role of Bone Morphogenetic Proteins in Chick Eye Patterning and Axonal Pathfinding, 2003, Platform/Workshop, Biocomplexity IV Workshop, Bloomington, IN.
- Blazer-Yost BL, Insulin-stimulated Trafficking of EnaC in Renal cells Requires PI3-Kinase, April, 2003, Platform, Experimental Biology 2003, Annual Mtg. of the Federation of the Amer. Societies of Biology, San Diego, CA.
- Blazer-Yost BL, Functional Proteomics to Assess Qualitative and Quantitative Effects of Steroid Hormone Binding, September, 2003, Platform, Internatl. Mtg. of the Amer. Physiological Soc. - Aldosterone and ENaC: From Genetics to Physiology, Banff, Canada.
- Blazer-Yost BL, The Role of Phosphoinositide Pathway in Trafficking of the Epithelial Sodium Channel, September, 2003, Platform, Third Internatl. Symp., Cell Volume and Signal Transduction, Dayton, OH.
- Blazer-Yost BL, The Role of the Phosphoinositide Pathway in Trafficking of the Epithelial Sodium Channel, September, 2003, Platform, Third Internatl. Symp., Cell Volume and Signal Transduction, Dayton, OH.
- Chernoff E, Biotechnology in Biology and Chemistry and Regeneration Biology in the School of Science, January, 2003, Poster, Connect Tech, Indianapolis, IN.
- Chernoff EA, An *in vitro* Method for Studying Spinal Cord Regeneration in *Xenopus laevis*, with RE Karcavich and A Corn, 2003, Poster, Biocomplexity Internatl. Workshop, Bloomington, IN.
- Crowell DN, Protein Prenylation and Methylation in Plants, May, 2003, Sixth Internatl. Symp. on Plant Isoprenoids, Lexington, KY.
- Lees ND, Selecting New Chairs: Matching Institutional and Applicant Expectations, with L Jensi and M Walczak, February, 2003, Platform, Visions of Departmental Leadership, 20th Annual Chairpersons Conf., Orlando, FL.
- Lees ND, Chair Leadership Beyond the Dept., with D Malik, February, 2003, Platform, Visions of Departmental Leadership, 20th Annual Chairpersons Conf., Orlando, FL.
- Lees ND, Rethinking Faculty Appointments, with B Brown, March, 2003, Platform, AAHE Learning to Change Conf., Washington, DC.

- Lees ND, Playing Well with Others: A Community of Practice on Retention, with N Chism and S Evenbeck, March, 2003, Poster, AAHE Learning to Change Conf., Washington, DC.
- Lees ND, The Department of Biology at IUPUI and Its Relevance to the Central Indiana Life Sciences Initiative, August, 2003, Platform, Central Indiana Life Sciences Initiative, IUPUI, Indianapolis, IN.
- Lees ND, The IUPUI 1 Year Pre-Professional Master of Science: Beginning the Second Decade, September, 2003, Platform, Conf. for Pre-Medical Advisors, Indiana Univ. School of Medicine, Indianapolis, IN.
- Lees ND, Disruption of the *Candida albicans* *CYB5* Gene Results in Increased Azole Sensitivity, December, 2003, Poster, Johnson and Johnson Focused Giving Symp., New Brunswick, NJ.
- Lees ND, BioFuture: The IUPUI School of Science Degree Programs in Biotechnology, December, 2003, Platform, Biotechnology Curriculum Development Conf., Indianapolis, IN.
- Malkova A, Mechanisms of Break-induced Replication and the Maintenance of Telomeres without Telomerase, Cold Spring Harbor Symposia, May 2003, Platform, Telomeres and Telomerase, Cold Spring Harbor, NY.
- Malkova A, RAD51-dependent Break-induced Replication Differs in Kinetics and Checkpoint Responses from RAD51-mediated Gene Conversion, July 2003, Platform, FASEB Res. Conf.; Genetic Recombination and Chromosome Rearrangements, Snowmass, CO.
- Marrs KA, Just in Time Teaching: Creating an Interactive, with AD Gavrin, Web-based Course to Assess Student Knowledge, Misconceptions and Classroom Performance, November, 2003, Platform, The Assessment Institute, Indianapolis, IN,
<http://www.planning.iupui.edu/conferences/national/National/2003/2003schedule.pdf>.
- Marrs KA, Just-in-Time Teaching: Creating an Active-Learner Classroom using the World Wide Web to Improve Learning in Introductory Biology Courses, June, 2003, Workshop, NSF Chautauqua Workshop, US Air Force Academy, Colorado Springs, CO.
- Marrs K, Just-in-Time Teaching: Creating an Interactive, Web-based Course to Improve Student Learning and Classroom Performance, with AD Gavrin, October, 2003, Platform, FACET Associate Faculty and Lecturer Conf., Indianapolis IN.
<http://www.iupui.edu/~facet/conferences/afc/2003/afc2003sched.htm>.
- Randall SK, Flexible Degrees in Applied Biotechnology, January, 2003, Poster, Connect Tech, Indianapolis, IN.
- Randall SK, Phosphorylation of Dehydrins, September, 2003, Platform, The Phosphorylation Workshop, Clearwater, FL.
- Stillwell W, Armstrong V, Brzustowicz M, Jenki L and Wassall S, Docosahexaenoic Acid and Phospholipid Flip-Flop, March, 2003, poster, 47th Annual Mtg. of the Biophysical Soc., San Antonio, TX.
- Watson JC, Why Study the Astrobiology of Plants? August, 2003, Workshop, Astrobiology and the States, Indianapolis, IN.

Yost RW, A Model of Scientific and Acad. Diversity and Interactions, with J Kuczkowski and E Gonzalez, 2003, Poster, 7th Annual Learning Communities Colloquium, IUPUI, Indianapolis, IN.

Yost RW, Exploring Culture and Diversity in Science, with E Gonzalez, October, 2003, Poster, Enhancing Minority Attainment Conf., Kokomo, IN.

SEMINARS:

Belecky-Adams T (2003) Potential Roles for BMPs During Chick Eye Development, Miami Univ., Department of Zoology, Miami, OH.

Belecky-Adams T (2003) TGF-Beta Family Members in Chick Eye Development, Purdue Univ., Department of Basic Medical Sciences, West Lafayette, IN.

Blazer-Yost BL (2003) Hormonal Regulation of the Epithelial Sodium Channel (ENaC), Dipartimento di Medicina Sperimentale e Clinica, Univ. of Catanzaro, Catanzaro, Italy.

Blazer-Yost BL (2003) The Genetic Component of Hypertension, Medical School, Univ. of Catanzaro, Catanzaro, Italy.

Chernoff EAG (2003) Neural Stem Cell Properties and Amphibian Spinal Cord Regeneration. Indiana Section of the Amer. Assoc. for Dental Res. Seminar Series, IU School of Dentistry, Indianapolis, IN.

Chernoff EAG (2003) Neural Stem Cell Properties and Amphibian Spinal Cord Regeneration. Biocomplexity IV: Regenerative Biology and Medicine Internatl. Workshop, Indiana Univ., Bloomington, IN.

Crowell DN (2003) Carboxyl Methylation of Prenylated Proteins: A Reversible Modification Controlling Arabidopsis Growth and Development?, Purdue Univ. Horticulture Department, West Lafayette, IN.

Crowell PL (2003) PRL Phosphatase Overexpression in Pancreatic Cancer, Indiana Univ. Cancer Center Gastrointestinal Oncology Group, Indianapolis, IN.

Lees ND (2003) The Major Issues Facing Departments in the Near Future - A Natl. Perspective. Chair Leadership Series, Office for Professional Development, IUPUI, Indianapolis, IN.

Marrs KA (2003) Jitt: Using the Internet to Identify Student Misconceptions and Create an Active Learner Classroom in Biology, Marian College, Indianapolis IN.

Randall SK (2003) Cold Stress, Dehydrins and Phosphorylation, The Genetics/Physiological and Molecular Plant Biology (PMPB) Group. Univ. of Illinois, Champaign-Urbana, IL.

Rhodes SJ (2003) Gene Regulation During Mammalian Pituitary Development: Humans, Cattle, Swine and Rodents, Department of Basic Medical Sciences, Purdue Univ. School of Veterinary Medicine, West Lafayette, IN.

Rhodes SJ (2003) Gene Regulation in Organ Development: from Axolotls to Humans, Department of Biology, Marian College, Indianapolis, IN.

Rhodes SJ (2003) Transcriptional Regulation of Hormone-Secreting Cell Differentiation During Mammalian Pituitary Development, Department of Cell and Molecular Biology, Tulane Univ., New Orleans, LA.

Stillwell W (2003) I Just Love It When a Membrane Comes Together, Intercollegiate Faculty of Nutrition, Texas AandM Univ., College Station, TX.

- Terrell MA (2003) Desertification in Indiana? Predicting the Impact of Global Warming on North Amer. Oak Forests, Department of Geology, IUPUI, Indianapolis, IN.
- Terrell MA (2003) Sensitivity of Northern Red Oak (*Quercus rubra*) to Spatial Variation Across Its Geographic Range, Department of Biology, IUPUI, Indianapolis, IN.
- Wang X (2003) Plant Respiration in a Higher CO₂ Environment, Department of Geography, Indiana Univ., Bloomington, IN.
- Wang X (2003) Sex-Specific Responses of Male and Female Plants to CO₂ Enrichment in the Atmosphere, Department of Biology, Marian College, Indianapolis, IN.

DEPARTMENT OF CHEMISTRY

CONFERENCES:

- Dearry MS, Fang Y and Long EC, DNA Recognition and Binding by Ni(II)•Xaa-Gly-His Metallopeptides Containing Proline and Modified Proline Residues. Fourth Annual Indiana Local Section of the American Chemical Society Poster Session, October 8, 2003, Indianapolis, IN.
- Diaz KM, Deng X, O'Donnell MJ, Scott WL and Long EC, Synthesis of Amino-Pyrimidine- and Pyridine-Containing Ni(II)•Metallopeptides and Their Potential Interactions with DNA. Fourth Annual Indiana Local Section of the American Chemical Society Poster Session, October 8, 2003, Indianapolis, IN.
- Dubin PL, Polyelectrolyte-Protein Coacervates: Novel Biomacromolecular Fluids, Bayreuth Polymer Symposium, 2003, Bayreuth.
- Fang Y, Ray BD, Lipkowitz, KB and Long EC, Theoretical and Experimental Studies of DNA Binding and Recognition by Ni(II)•Xaa-Xaa-His Metallopeptides. Fourth Annual Indiana Local Section of the American Chemical Society Poster Session, October 8, 2003, Indianapolis, IN.
- Kirton GF, Mobility and Potential of Mixed Micelles from Electrophoresis. 57th Midwestern Universities Analytical Chemistry Conference, October, 2003, Indianapolis, IN.
- Kirton GF, Surface Potential and Mobility of Anionic/Nonionic Mixed Micelles as a Function of Composition. American Chemical Society 226th National Meeting, September, 2003, New York, NY.
- Lewis MA, Claussen CA and Long EC, High Throughput DNA Recognition Screening by Combinatorial Libraries of Ni(II)•Xaa-Xaa-His Metallopeptides. Fourth Annual Indiana Local Section of the American Chemical Society Poster Session, October 8, 2003, Indianapolis, IN.
- Malik DJ and Lees ND, Chair Leadership Beyond the Department, Twentieth Annual Conference, Academic Chairpersons, The Academic Department: The Cornerstone of Higher Education (Kansas State University), February 5, 2003, Orlando, FL.
- Malik DJ, Evenbeck S, Williams D and Gavrin A, Bridging the Curriculum Gap: Across Campuses and with K-12, in "The Courage to Question", 89th Annual Meeting of the Association of American Universities and the 59th Annual Meeting of the American Conference of Academic Deans, January 23, 2003, Seattle, WA.

- Malik DJ, Peer-led Team Learning in an Urban Institution: Improving the Transition from Secondary to Higher Education, PLTL National Leadership Conference, City College of New York, October 10, 2003, New York, NY.
- Malik DJ, PLTL: Issues in Sustainability, Peer-led Team Learning National Leadership Conference, City College of New York, October 9-12, 2003, New York, NY.
- Malik DJ, What are the New Frontiers and Interfaces of Chemistry that Impact upon our Discipline? in "ACS Presidential Event: Exploring the Molecular Vision Symposium", American Chemical Society 226th National Meeting, September 9, 2003, New York, NY.
- Naumann CA, Structure and Dynamics of 2D Polymeric Networks of Lipopolymers at the Air-Water Interface. 6th LANSCE User Meeting Los Alamos National Laboratory. 2003, Los Alamos, New Mexico.
- Nurok D, Koers JM, Novotny AL, Carmichael MA and Kosiba JJ, Performance of Planar Electrochromatography at Elevated Pressure. Planar Chromatography 2003, 2003, Budapest, Hungary.
- Nurok D, Pressurized Planar Electrochromatography. 57th Midwestern Universities Analytical Chemistry Conference, October, 2003, Indianapolis, IN.
- Schultz FA, Coupled Electron-Transfer and Spin-Exchange Reactions. Insight from Electrochemical Activation Parameters. Gordon Research Conference on Inorganic Reaction Mechanisms, February 2003, Ventura, CA.
- Schultz FA, Coupled Electron-Transfer and Spin-Exchange Reactions. Insight from Electrochemical Activation Parameters. 204th Meeting, The Electrochemical Society, Inc., October 2003, Orlando, FL.
- Scott WL, Alsina J and O'Donnell MJ, Combinatorial Synthesis of a 2 x 3 UPS-Hydantoin Library Using the Bill-Board. NSF Workshop on Solid-Phase Synthesis and Introduction to Combinatorial Chemistry, Miami University, August, 2003, Oxford, Ohio.
- Scott WL, Distributed Drug Discovery. Novartis Foundation Meeting on Drugs for Developing World Diseases: Translating New Molecular Targets into Candidates for Development. November 3, 2003, London, Great Britain.
- Scott WL, Molecules Unlimited: The Essential Components of a Combinatorial Chemistry Driven Discovery Process. NSF Workshop on Solid-Phase Synthesis and Introduction to Combinatorial Chemistry, Miami University, August 2, 2003, Miami, Ohio.

SEMINARS:

- Dubin PL (2003) Protein-Polyelectrolyte Coacervates. Louisiana State University, Baton Rouge, LA.
- Dubin PL (2003) Bimodal Size Distributions in Micelles of DMDAO. St. Francis Xavier University, Antigonish, Nova Scotia.
- Dubin PL (2003) Polyelectrolyte-Protein Interactions. University of Greifswald, Greifswald, Germany.
- Dykstra CE (2003) Intermolecular Electrical Response: A Deepening Insight for Expanded Applications. Departmental Seminar, Department of Chemistry, University of Missouri, Columbia, Missouri.

- Naumann CA (2003) Design and Characterization of Polymer-Tethered Membranes. Department of Physics, Indiana University, Bloomington, Indiana.
- Naumann CA (2003) Single Molecule Imaging in a Polymer-Tethered Monolayer at the Air-Water Interface. Department of Chemistry, Technical University Munich, Munich, Germany.
- O'Donnell MJ (2003) Unnatural Amino Acid Synthesis: Giving Mother Nature a Hand. Departmental Seminar, Eastern Illinois University, Charleston, Illinois.
- O'Donnell MJ (2003) Unnatural Amino Acid Synthesis: Giving Mother Nature a Hand. Departmental Seminar, University of Nebraska, Lincoln, Nebraska.
- Schultz FA (2003) Coupled Electron-Transfer and Spin-Exchange Reactions. Insight from Electrochemical Activation Parameters. Seminar, Department of Chemistry, Auburn University, Auburn, AL.
- Scott WL (2003) Drugs, Big and Small, from Nature or Rational Design: How Were They Discovered and How do They Work? Faculty of Pharmacy, Jagellonian University, Krakow, Poland.
- Scott WL (2003) Molecules Unlimited: The Essential Components of a Combinatorial Chemistry Driven Discovery Process. Jagellonian University, Krakow, Poland.
- Scott WL (2003) Utilizing Educational Laboratories for Distributed Drug Discovery. Department of Chemistry, IUPUI, Indianapolis, IN.

DEPARTMENT OF COMPUTER AND INFORMATION SCIENCE

SEMINARS:

- Chin R, (2003) Green Transformation and Asymptotic Numerical Methods for Singularly Perturbed Two-Point BVP – 2003 Midwest Numerical Analysis Day, Northern Illinois University.
- Crespi A, Gopalakrishna P, Raje R, Olson M (2003) UniFrame, SERC Spring Showcase, Morgantown, WV.
- Crespi A, Raje R, Burt C, Olson M. Model Driven Access Control, SERC Fall Showcase, Muncie, IN, 2003
- Mukhopadhyay S, Palakal M, Kodiripaka V, Raje R, and Mostafa J (2003) Managing Information Flow for Complex, Dynamic Tasks Using Multi-Agent Collaboration, 2003 IEEE Internatl. Symp. on Intelligent Control (ISIC 2003), Houston, TX.
- Mukhopadhyay S (2003) Intelligent Information Management in Bioinformatics , Twelfth Yale Workshop on Adaptive and Learning Systems, Yale University, New Haven, CT.
- Narayanasamy V, Mukhopadhyay S, Palakal M, and Potter D (2003) TransMiner: Mining Transitive Assoc.s among Biological Objects from Text, poster presentation at NIH BISTIC Symp. on Digital Biology: The Emerging Paradigm, National Institute of Health, Bethesda, MD.
- Palakal M (2003) Genome to Life, Computer Science Department, University of Alabama, Birmingham, AL.
- Palakal M (2003) Key to the Past?, NASA Symp. on Astrobiology, Indianapolis, IN.
- Palakal M (2003) Genome to Life Initiatives and the Role of Bioinformatics", University of Skopje. Skopje, Skopje, Macedonia.
- Raje R (2003) UniFrame, ONR CIP/SW Review, Annapolis Junction, MD.
- Raje R (2003) UniFrame, ONR CIP/SW Review, Harpers Ferry, VA.

DEPARTMENT OF GEOLOGY

CONFERENCES:

- Barth AP, Res. Opportunities in Solid Earth Geochronology, Geological Soc. of America Conf., November, 2003, Seattle, WA.
- Barth AP, Coleman DS, Grove M, Jacobson CE, Miller BV and Wooden JL, Geochronology of the Randsburg Granodiorite: Reevaluation of the Tectonics of the Southern Sierra Nevada and Western Mojave Desert, Geological Soc. of America Cordilleran Section Mtg., April, 2003, Puerto Vallarta, Mexico.
- Brown K and Barth AP, The Formation of Torfajökull Rhyolites, Iceland, Indiana Univ. Undergrad. Res. Conf., November, 2003, Indianapolis, IN.
- Carter C and Barth AP, Tightening Constraints on the Origin of Iceland's Lava, Indiana Univ. Undergrad. Res. Conf., November 2003, Indianapolis, IN.
- Coleman DS, Barth AP and Wooden JL, Metamorphism and Orogenesis of Proterozoic Rocks in the Southwestern Mojave Province, Geological Soc. of America Cordilleran Section Mtg., April, 2003, Puerto Vallarta, Mexico.
- Filippelli GM, Murray R and Latimer J, Support from the Southern Ocean and Equatorial Pacific for the Glacial Shelf-Nutrient Hypothesis, Amer. Geophysical Union Fall Mtg., December, 2003, San Francisco, CA.
- Filippelli GM, Phosphatic Sediments, Phosphorite Formation and the Global Phosphorus Cycle, Geological Soc. of America Natl. Mtg., November, 2003, Seattle, WA.
- Filippelli GM and Latimer J, A Dirty Glacial Ocean: Terrigenous Loading, Upwelled Iron and Primary Productivity in the Southern Ocean, Goldschmidt Conf., September, 2003, Davos, Switzerland.
- Fohey N and Barth AP, Understanding Torfajökull, Iceland, Indiana Univ. Undergrad. Res. Conf., November, 2003, Indianapolis, IN.
- Jackson L, Atekwana EA, Tedesco LP and Savarese M, Hydrologic Exchange and Carbon Cycling in Variably Altered Sub-tropical Estuaries of Southwest Florida, USA. Geological Soc. of America Natl. Mtg., November, 2003, Seattle, WA.
- Koy K, Tedesco LP, Pachut J, Licht K and Savarese M, Changes in Late Holocene Coastal Paleoenvironments in Southwest Florida as Reflected in Reef-Associated Macrofauna, Geological Soc. of America Natl. Mtg., November, 2003, Seattle, WA.
- Laidlaw M and Philippelli GM, Regression Analysis of the Temporal Relationship Between Child Blood Lead, Soil Moisture and PM10, 6th Internatl. Symp. on Environmental Geochemistry, September, 2003, Edinburgh, Scotland.
- Latimer JC and Philippelli GM, Glacial/Interglacial Productivity and Phosphorus Mass Balance in the Southern Ocean, INQUA Congress, July, 2003, Reno, NV.
- Latimer J and Philippelli GM, Productivity Across a Frontal Gradient in the Southern Ocean, Amer. Geophysical Union Fall Mtg., December, 2003, San Francisco, CA.
- Lederer J, Licht KJ and Swope RJ, Provenance of Ross Sea Till. XVI INQUA Congress, July, 2003, Reno, NV.
- Lederer JR, Licht KJ and Swope RJ, Provenance of Ross Sea Till and Implications for LGM Ice Flow Paths. West Antarctic Ice Sheet Initiative, Tenth Annual Workshop, September, 2003, Sterling, VA.

- Licht KJ and Lederer JR, A Comparison of Particle Size Distributions in Ross Embayment Tills, West Antarctic Ice Sheet Initiative, Tenth Annual Workshop, September, 2003, Sterling, VA.
- Newkirk DR, Filippelli GM, Souch C, Latimer J and Horn S, The Impact of Climate and Pre-Columbian Agriculture on Soil and Nutrients in Southwestern Costa Rica, INQUA Congress, July, 2003, Reno, NV.
- Newkirk D, Filippelli GM, Souch C, Latimer J, Horn S and Clement R, An Aridification Event Beginning About 1600 AD in Central America: Evidence From a Lake Sediment Core in Laguna Zoncho, Costa Rica and Effects on Agriculture and Population, Geological Soc. of America Natl. Mtg., November, 2003, Seattle, WA.
- Probst K and Barth AP, The Geochemistry of Seven Volcanic Centers, Joshua Tree Natl. Park, Southern California, Indiana Univ. Undergrad. Res. Conf., November, 2003, Indianapolis, IN.
- Probst K, Barth AP and Yi K, Comparison of the Petrology of Basalts along a Left Lateral Fault, Joshua Tree Natl. Park, Southern California, Geological Soc. of America Cordilleran Section Mtg., April, 2003, Puerto Vallarta, Mexico.
- Probst K and Barth AP, Tectonic Setting of Basalt Magmatism Along Left Lateral Faults in Joshua Tree Natl. Park, Southern California, Geological Soc. of America Natl. Mtg., November, 2003, Seattle, WA.
- Raftis R, Filippelli GM, Tedesco LP, Atekwana EA, Latimer J, Pascual DL and Shrake L, Nutrient Cycling and Water Quality in an Urban Drinking Water Reservoir, Geological Soc. of America Natl. Mtg., November, 2003, Seattle, WA.
- Rosenberg GD, The Proper Measure of Man: The Anthropomorphic Landscape in Renaissance Art and the Origin of Paleobiology, Geological Soc. of America Annual Mtg., November, 2003, Seattle, WA.
- Rosenberg GD, Signs of Life: The Role of Paleobiology in the History of Evolutionary Theory and Our Attempts to Understand the Changing Nature of the Biosphere, Geological Soc. of America, Topical Session, November, 2003, Seattle, WA.
- Salazar, KA, Tedesco LP, Atekwana EA, Swope RJ, Pachut JF, Lindsey G, Hernly FV and Hall BE, The Lilly ARBOR Project: Promoting Science-Based Environmental Educ. and Outreach within an Urban Riparian Setting, Geological Soc. of America Natl. Mtg., November, 2003, Seattle, WA.
- Shrake LK, Hall BE, Tedesco LP, Atekwana EA, Latimer JC and Filippelli GM, Watershed Contribution to Three Central Indiana Reservoirs: Characterization of Suspended Sediment and Dissolved Loads. Geological Soc. of America Natl. Mtg., November, 2003, Seattle, WA.
- Tedesco LP, Improving Water Quality on Public Lands: A Univ./Urban Park Partnership, Natl. Institute on Park and Grounds Management, 33rd Annual Mtg., November, 2003, Indianapolis, IN.
- Tedesco LP, The Lilly ARBOR Project: An Experiment in Urban Riparian Restoration, School of Public and Environmental Affairs, Indiana Univ., October, 2003, Bloomington, IN.
- Tedesco LP, The Lilly ARBOR Project: An Experiment in Urban Floodplain Restoration, Department of Biological Sciences, Butler Univ., November, 2003, Indianapolis, IN.

- Tedesco, LP, Restoring Urban Stream Corridors, Soroptorists Internatl. of Indianapolis, January, 2003, Indianapolis, IN.
- Tedesco, LP, Sterling Fen Restoration Project, USEPA 6th Annual Wetland Workshop, October, 2003, Atlantic City, NJ.
- Webber JJ, Hernly FV, Tedesco LP and Hall BE, Characterization of Wetland Soil and Sediments at Starling Nature Sanctuary, Marion County, Indiana, Geological Soc. of America Natl. Mtg., November, 2003, Seattle, WA.

SEMINARS:

- Barth AP (2003) The McCoy Mountains Formation, Southeastern California: A Cretaceous Retroarc Foreland Basin. Iowa State Univ. Seminar, Ames, IA.
- Barth AP (2003) Geology and Landscape Evolution of Joshua Tree Natl. Park. Natl. Park Service, Joshua Tree Natl. Park, Twenty-nine Palms, CA.
- Filippelli GM (2003) Terrestrial Phosphorus Cycling, Department of Geology, The Ohio State Univ., Columbus, OH.
- Filippelli GM (2003) Upwelled Iron in the Southern Ocean, Department of Geology, Univ. of Cincinnati, Cincinnati, OH.
- Filippelli GM (2003) Weathering and Climate, Department of Geology, Distinguished Five College Lecturer in Geosciences, Williams College, Williamstown, MA
- Filippelli GM (2003) Upwelled Iron in the Southern Ocean, Distinguished Five College Lecturer in Geosciences, Williams College, Williamstown, MA
- Filippelli GM (2003) Lead and Urban Youth, Department of Geology, Distinguished Five College Lecturer in Geosciences, Williams College, Williamstown, MA.
- Filippelli GM (2003) Glaciation and Terrestrial Nutrient Cycling, Department of Geology, Miami Univ., Oxford, OH.
- Filippelli GM (2003) Glaciation and Terrestrial Nutrient Cycling, Department of Geological Sciences, Univ. of Illinois, Urbana-Champaign, IL.
- Licht KJ (2003) The Late Pleistocene Antarctic Ice Sheet and its Contribution to Global Sea Level Rise. Ball State Univ., Department of Geology, Muncie, IN.
- Licht KJ (2003) Antarctica's Influence on Global Sea Level since the Last Ice Age. Univ. of Wisconsin - Oshkosh, Geology Department, Oshkosh, WI.
- Licht KJ (2003) Antarctica's Influence on Global Sea Level Since the Last Ice Age. St. Norbert College, Geology Department, De Pere, WI.

DEPARTMENT OF MATHEMATICAL SCIENCES

CONFERENCES, SEMINARS, COLLOQUIUMS, AND INVITED TALKS:

- Bleher P, Double Scaling Limit and Universality in Random Matrix Models, May, 2003, Semiclassical Asymptotics in Mathematical Physics, MSRI, Berkeley.
- Bleher P, Double Scaling Limit and Universality in Random Matrix Models: Riemann-Hilbert Approach, September, 2003, Isaac Newton Institute for Mathematical Sciences, Cambridge, England.
- Bleher P, Random Matrices with External Source and Multiple Orthogonal Polynomials, September, 2003, Gregynog, Wales.
- Bleher P, Random Matrices with External Source and Multiple Orthogonal Polynomials, September, 2003, University of Bristol, England.

Bleher P, Random Matrices with External Source: Riemann-Hilbert Approach, December, 2003, Rutgers University, NJ.

Bleher P, Random Matrix Models, March, 2003, Indiana University, Bloomington, IN.

Dell'Aquila J, Gauss' Circle Problem, Polya's Recurrence Theorem and Possible Generalizations, February, 2003, Graduate Student Seminar, IUPUI, Indianapolis, IN.

Ernst M, A Pseudo-Exact Sign Test for Cluster Correlated Data. Nonparametric Statistics Res. Conf., January, 2003, Florida State University, Tallahassee, FL.

Ernst M, Using Permutation Tests as a Basis for a Nonparametrics Course. Joint Statistical Mtg.s, August, 2003, San Francisco, CA.

Frankel M, Dynamics of Exothermic Fronts, with V. Roytburd. Interntl. Conf. on Partial Differential Equations and Applications, Technion, June, 2003, Haifa, Israel.

Frankel M, Asymptotic Dynamics and Pattern Formation for a Free-Interface Combustion Model, with V. Roytburd. Fifth Negev Workshop on Applied Mathematics. Ben-Gurion, June, 2003, University of the Negev, Sede-Boqer Campus, Israel.

Geller W, Ordered Full Shifts, Special Session on Ergodic Theory and Dynamical Systems. Amer. Mathematical Soc. Mtg., April, 2003, Bloomington, IN.

Its AR, The Riemann-Hilbert Method. Colloquium, May, 2003, Universit'e de Bourgogne, Dijon, France.

Its AR, The Riemann-Hilbert Method for Random Matrices: Asymptotics of Orthogonal Polynomials and Universality in Matrix Models. Mathematical Physics Seminar, May, 2003, Universit'e de Bourgogne, Dijon, France.

Its AR, Connection Formulae for Painlev'e Transcendents, Seminar, ENS, June, 2003, Paris, France.

Its AR, Asymptotics of Orthogonal Polynomials. Riemann-Hilbert Problem and Universality in Matrix Models Colloquium, October, 2003, University of South Florida, Tampa, FL.

Its AR, Quasi-Linear Stokes Phenomenon for the Second Painlev'e Transcendent, October, 2003, University of Central Florida, Orland, FL.

Its AR, Random Matrices, The Analytical Aspects of the Theory Colloquium, SUNY, November, 2003, Stony Brook, NY.

Its AR, The Mathematics of Solitons Waves. An honor presentation to the Alliance of the Distinguished Rank Professors meeting, October, 2003, Indiana University, Bloomington, IN.

Its E, Lax Pair and the Riemann-Hilbert Method for Solving Scattering Problems in Seismology. Interntl. Conf., April 2003, EGS - AGU - EUG Joint Assembly.

Ji R, Operator Algebras and Their Applications. Special session of Amer. Mathematical Soc. Spring Mtg., April, 2003, Bloomington, IN.

Kaminker J, Hyperbolic Dynamics and Operator Algebras. Workshop on Noncommutative Geometry, BIRS, April, 2003, Banff, Calgary, Canada.

Kaminker J, Noncommutative Geometry and Hyperbolic Dynamics. Interntl. Conf. on Noncommutative Geometry and Number Theory, July, 2003, Max Planck Institute, Bonn, Germany.

Kaminker J, Gap Labeling for Quasi-Crystals. AMS Mtg., January, 2003, Baltimore, MD.

- Kaminker J, Uniform Embedding and Exactness for Discrete Groups. Special Session on C*-algebra Extensions, AMS Mtg., January, 2003, Baltimore, MD.
- Kaminker J, Asymptotically Flat K-Theory. Special Session on Noncommutative Geometry, AMS Mtg., October, 2003, Boulder, CO.
- Kaminker J, Integrable Systems and Index Theory. BIRS, Banff, June, 2003, Calgary, Canada.
- Kaminker J, Noncommutative Geometry and Hyperbolic Dynamics. North British Functional Analysis Symp., University of Nottingham, November, 2003, Nottingham, England.
- Kaminker J, Geometric and Analytic Properties of Discrete Groups, University of Newcastle, November, 2003, Newcastle, England.
- Kaminker J, Analytic and Geometric Properties of Discrete Groups, November, 2003, University of Glasgow, Glasgow, Scotland.
- Miller J, Euler Characteristics of Manifolds Bounded Over \mathbb{R} . Amer. Mathematical Soc. Mtg., April, 2003, Bloomington, IN.
- Misiurewicz M, Dynamika Nie Calkiem Holomorficzna [Not Quite Holomorphic Dynamics]. Sierpinski Lecture, May, 2003, Warsaw University, Warsaw, Poland.
- Misiurewicz M, Wielomodany Rozszerzajace [Expanding Polymodials]. Dynamical Systems Seminar, May, 2003, Warsaw University, Warsaw, Poland.
- Misiurewicz M, Bowen's Entropy, Hausdorff Dimension and Lipschitz Constant. Dynamical Systems Conf., May, 2003, Denton, TX.
- Misiurewicz M, Not-So-Holomorphic Dynamics. Summer Symp. on Real Analysis, June, 2003, Opava, Czech Republic.
- Misiurewicz M, Area Preserving Attractors, Geometric Aspects of Dynamical Systems Conf., July, 2003, Warwick, England.
- Misiurewicz M, Area Preserving Attractors. Dynamical Systems and Related Topics Conf., October, 2003, State College, PA.
- Misiurewicz M, Real $3x+1$. Ergodic Theory and Probability Seminar, November, 2003, Ohio State University, Columbus, OH.
- Patterson R, Transformations of Forms and Sites. SIAM Mtg. on Geometric Design and Computing, November, 2003, Seattle, WA.
- Podgorski K, How to Model the Sea Surface - from Deterministic to Random Waves. Department of Mathematical Sciences, Western, Washington University, January, 2003, Bellingham, WA.
- Podgorski K, From Banach's Theorem to Rice's Formula. Department of Mathematics, San Francisco State University, February, 2004, San Francisco, CA.
- Podgorski K, Generalized Laplace Distributions - An Alternative to Heavy Tails. Department of Mathematics and Statistics, Bowling Green State University, March, 2003, OH.
- Podgorski K, A Log-Laplace Growth Rate Model. Joint Statistical Mtg., August, 2003, San Francisco, CA.
- Sarkar J, Restricted Choice Set Model of Drug Competition Pharmaceutical Management Science Assoc. 2003 Conf., May, 2003, Orlando, FL.
- Sarkar J, Availability of a Periodically Inspected System Supported by a Spare and Maintained through Several Imperfect Repairs before a Perfect Repair. 5th Interntl. Triennial Calcutta Symp. on Probability and Statistics, Calcutta University, December, 2003, India.

- Sarkar J, Availability in a Random Environment. Statistics Seminar, University of California Riverside, January, 2003, CA.
- Sarkar J, Proportional Hazard Model with a Random Proportionality Multiplier. Applied Statistics Unit Colloquium, Indian Statistical Institute, December, 2003, Calcutta, India.
- Sarkar J, Availability Theory and Its Applications in Business and Industry. Operations Management Seminar, Indian Institute of Management, December, 2003, Calcutta, India.
- Tarasov V, Functions on Coadjoint Orbits and Dynamical Twist. The Third Internatl. Symp. on Quantum Theory and Symmetries, University of Cincinnati, September, 2003, Cincinnati, OH.
- Watt JX, Just-In-Time Teaching: The World Wide Web as a Vehicle to Promote Active Learning. Workshop at the National Council for Teachers of Mathematics' Central Regional Conf., January, 2003, Indianapolis, IN.

DEPARTMENT OF PHYSICS

CONFERENCES:

- Carter MW, Fischer APA and Vemuri G, Nonlinear Dynamics in Semiconductor Lasers Due to Filtered Optical Feedback, October, 2003, Annual Mtg. of the Optical Soc. of America, Tucson, AZ.
- Decca RS, Casimir Force Between Dissimilar Metals, March, 2003, March Mtg. of the Amer. Physical Soc., Austin, TX.
- Decca RS, Wassall SR, Lee C-W and Breen J, Optical Anisotropy in DPPC Lipid Bilayers Studied by Near-Field Scanning Optical Microscopy, March, 2003, March Mtg. of the Amer. Physical Soc., Austin, TX.
- Decca R, Why Do We Need a Precise Measurement of the Cosimir Force? September, 2003, Quantum Field Theory Under the Influence of External Conditions (QFEXT03), Norman, OK.
- Decca R, Pushing Physics at Low Temperatures, September, 2003, Bariloche, Argentina.
- Gavrin A, Watt JX, Marrs K and Blake RE, Just-in-Time Teaching (JiT): Using the Web to Enhance Classroom Learning, June, 2003, Proc. of the 2003 Amer. Soc. for Engineering Educ. Annual Conf. and Exposition, Nashville, TN.
- Gavrin A, Novak GM and Patterson ET, Just-in-Time Teaching: Blending Active Learning with Web Technology, January, 2003, AAPT Winter Mtg., Austin, TX.
- Gavrin A, Williams D, Evenbeck S and Malik D, Bridging the Curriculum Gap Between High School and College: Project SEAM, January, 2003, 89th Annual Mtg. of the Amer. Assoc. of Colleges and Universities, Seattle WA.
- Gavrin A, Just-in-Time Teaching, June, 2003, IUSON sponsored national conference "Moving to Web-based Learning Conf.: a Web Institute for Healthcare Educators" Indianapolis, IN.
- Gavrin A, Just-in-Time Teaching, June, 2003, University of Wisconsin Curriculum Reform Institute, Oshkosh WI.
- Gavrin A, Just-in-Time Teaching (JiT): Using the Web to Enhance Classroom Learning, June, 2003, Amer. Soc. For Engineering Educ. National Mtg., Nashville TN.

- Gavrin A and Watt J What is "Success" in High School Educ., July, 2003, Indianapolis Public Schools Summer Institute for Math and Science Teachers, Indianapolis, IN.
- Gavrin A, Just-in-Time Teaching (JiTT), October, 2003, University of Wisconsin Workshop for New SMET Faculty, Wisconsin Dells, WI.
- Gavrin A, Overcoming Student Passivity: Just-in-Time Teaching in College Science and Mathematics Classes, October, 2003, Project Kaleidoscope Assembly, St. Paul, MN.
- Gavrin A and Marrs K, Just-in-Time Teaching: Improve Student Learning and Classroom Performance, October, 2003, IU FACET Associate Faculty and Lectures Conf., Indianapolis, IN.
- Gavrin A, Educ. and the Web: Soulmates, or Strangers Trapped in an Elevator? November, 2003, Wisconsin Assoc. of Physics Teachers Annual Mtg.
- Gavrin A and Marrs K, Just in Time Teaching: Creating an Interactive, Web-based Course to Assess Student Knowledge, Misconceptions, and Classroom Performance, November, 2003, Assessment Institute National Conf., Indianapolis, IN.
- Hagedorn M, Peterson A, Mazur P and Kleinhans FW, High Ice Nucleation Temperature of Zebrafish Embryos,, September, 2003, CryobioMol 2003 Mtg., Coimbra, Portugal.
- Kemple MD and Mulkey JC, Noise Spectroscopy of Randomly Modulated Two-Level Systems, 2003, European Quantum Electronics Conf., Munich, Germany.
- Kemple MD, Wu Q, Prendergast FG, Side Chain Dynamics of Rat Intestinal Fatty Acid Binding Protein (I-FABP) Measured with ^{13}C NMR. 2003, Biophysical Soc. Mtg., San Antonio, TX.
- Kolb PW, Romero DB, Drew HD, Moritomo Y and Decca RS, Near-field Scanning Optical Microscopy of Charge Ordered Domains in $\text{Nd}_{0.5}\text{Sr}_{0.5}\text{MnO}_3$, March, 2003, Mtg. of the Amer. Physical Soc., Austin, TX.
- Lee C-W, Decca RS, Wassall SR and Breen J, Optical Anisotropy in DPPC Bilayers Studied by Near-Field Scanning Optical Microscopy, March, 2003, 47th Annual Mtg. Biophysical Soc., San Antonio, TX.
- Lu YJ, Campbell RL and Ou ZY, Mode-Locked Two-Photon Entangled State, October, 2003, Annual Mtg. of Optical Soc. of America, Phoenix, AZ.
- Shafiei F, Decca RS and Young B, Near-Field Scanning Optical microscopy Based Apparatus to Measure Quantum Dots Mutual Interaction, March, 2003, Mtg. of the Amer. Physical Soc., Austin, TX.
- Shaikh SR, Stillwell W and Wassall SR, Role for Docosahexaenoic Acid in Lipid Raft Formation, March, 2003, 47th Annual Mtg. Biophysical Soc., San Antonio, TX.
- Shaikh SR, Siddiqui R, Wu M, Castillo A, Wassall SR, Dumauval, A and Stillwell W, A Role for Docosahexaenoic Acid in Phase Separation from Lipid Rafts: Implications for Cellular Signaling, November, 2003, 38th Southeastern Regional Lipid Conf., Cashiers, North Carolina.
- Stillwell W, Armstrong V, Brzustowicz M, Jenki L and Wassall S, Docosahexaenoic Acid and Phospholipid Flip-Flop, March, 2003, 47th Annual Mtg. Biophysical Soc., San Antonio, TX.
- Vemuri G, Carter MW, and Fischer APA, Nonlinear Dynamics in Semiconductor Lasers Due to Filtered Optical Feedback, May, 2003, Annual Mtg. of the Amer. Physical Soc.'s Division of Atomic, Molecular and Optical Physics, Boulder, CO.

Woodahl, Brian, Neutron Star Basics, November, 2003, North Central Indiana Physics Teachers' Alliance Mtg., Ivy Tech State College, Indianapolis, IN.

SEMINARS:

Decca RS (2003) Why Do We Need a Precise Measurement of the Cosimir Force? IUPUI Department of Physics Colloquium, Indianapolis, IN.

Gavrin A (2003) Just-in-Time Teaching. Ball State University Department of Physics Seminar, Muncie, IN.

Gavrin A (2003) Magnetic Domain Imaging: Past, Present, Future. Ball State University Department of Physics Seminar, Muncie, IN.

Gavrin A (2003) Using Just-in-Time Teaching to Enhance Student Engagement. IUPUI Department of Mechanical Engineering Seminar, Indianapolis, IN.

Kemple M (2003) Astronomy and Star Trek. Warren Central High School Department of Physics Seminar, Indianapolis, IN.

Kemple MD (2003) The Physics of Star Trek. Ball State University Department of Physics Seminar, Muncie, IN.

Kemple MD (2003) The Physics of Star Trek, Explore IUPUI, Indianapolis, IN.

Kemple MD (2003) The Physics of Star Trek. Franklin Central High School Department of Physics Seminar, Indianapolis, IN.

Ou ZY (2003) Quantum Information Processing with Narrow Band Two-Photon States. Northwestern University Department of Electrical Engineering and Computer Science Seminar, Evanston, IL.

Ou ZY (2003) Narrow Band Two-Photon State and Its Applications. MIT Department of Electrical Engineering Seminar, Cambridge, MA.

Ray BD, Jarori G and Rao BD Nageswara (2003) Movement of Intinerant Phosphoryl Moiety on the Surface of the Kinases. Special symposium on Recent Developments of NMR Methodology and National Symp. on Magnetic Resonance. Indian Institute of Science, Bangalore, India.

Vemuri G (2003) Bioluminescence for Lighting. Interntl. Soc. of Lighting Engineers Conf., New Delhi, India.

Vemuri G and Carter MW (2003) High Speed Optical Cryptography. European Conf. on Optical Communications, Stockholm, Sweden.

Vemuri G, Carter MW, Fischer APA, Yousefi M and Lenstra D (2003) Controlling the Dynamical Response of a Semiconductor Alser via Filtered Optical Feedback. European Quantum Electronic Conf., Munich, Germany.

Wassall SR (2003) Molecular Organization in Polyunsaturated Membranes Containing Cholesterol. University of Michigan Membrane Biophysics Symp., Ann Arbor, MI.

Yousefi M, Fischer APA, Lenstra D, Carter MW and Vemuri G (2003) Dynamics in the Frequency of a Semiconductor Laser using Feedback from a Narrow Filter. IEEE Conf. on Lasers and Electrooptics (Benelux Chapter), Twente, Amsterdam, The Netherlands.

DEPARTMENT OF PSYCHOLOGY

CONFERENCES:

- Appleby DC, Defining, Explaining, and Assessing Critical Thinking. Paper Presented at Taking Off: Best Practices in Teaching Introductory Psychology, September, 2003, Atlanta, GA.
- Appleby DC, How to Receive Positive Letters of Recommendation for Graduate School. Invited Psi Chi presentation at the Amer. Psychological Assoc. Convention, August, 2003, Toronto, Ontario.
- Appleby DC, The Purposes and Components of Course Syllabi. Paper presented at the Amer. Psychological Assoc. Convention, August, 2003, Toronto, Ontario.
- Appleby DC, Transforming Psychology Majors Into Book Authors. Paper presented at the Amer. Psychological Assoc. Convention, August, 2003, Toronto, Ontario.
- Appleby DC, Organizing, Hosting, and Evaluating a Conf. for High School Psychology Teachers. Paper presented at the Amer. Psychological Assoc. Convention, August, 2003, Toronto, Ontario.
- Agnew J and Appleby DC, A Student-Athlete Learning Community That Works. Poster presented at the Indiana University-Purdue University Indianapolis Learning Community Colloquium, May, 2003, Indianapolis, IN.
- Appleby DC and Appleby KM, How to Help Your Students Avoid the Kisses of Death in the Graduate School Application Process. Halonen Distinguished Lecture sponsored by the Council of Teachers of Undergrad. Psychology Paper during the annual Mtg. of the Midwestern Psychological Assoc., May, 2003 Chicago, IL.
- Appleby DC, The Role of Psychology in General Educ. Programs. Paper presented at the Midwestern Psychological Assoc. Convention, May, 2003, Chicago, IL.
- Appleby DC, How to Receive (and write) Strong Letters of Recommendation for Graduate School and Jobs. Invited keynote address presented at the Southeast Missouri State University Undergrad. Res. Conf., April, 2003, Cape Girardeau, MO.
- Appleby DC and Appleby KM, Kisses of Death in the Graduate School Application Process. Paper presented at the Midwest Institute for Teachers and Students of Psychology, March, 2003, Glen Ellyn, IL.
- Appleby DC, The Capstone Course as a Bridge Between IUPUI and Our Students' Futures. Lecture presented during the C. Edwin Moore Teaching Symp., March, 2003, Indianapolis, IN
- Appleby DC, A Data-Based Strategy to Receive (and write) Strong Letters of Recommendation. Keynote address presented at the Southeast Missouri State University Student Res. Conf., April, 2003, Cape Girardeau, MO.
- Appleby DC, Kisses of Death in the Graduate School Application Processes. Paper presented at the Midwest Institute for Teachers and Students of Psychology, March, 2003, Glen Ellyn, IL.
- Appleby DC, Using Digital Photography and Fine Art to Teach about Depth Perception. Paper presented at the Midwest Institute for Teachers and Students of Psychology, March, 2003, Glen Ellyn, IL.
- Appleby DC, Using Digital Photography and Fine Art to Teach About Depth Perception. Paper presented at the Southeastern Conf. on the Teaching of Psychology, February 2003, Atlanta, GA.

- Bond GR, Assertive Community Treatment as an Evidence-Based Practice. Paper presented at the Best Practices in Behav. Health Conf., April 2003, Albuquerque, NM.
- Bond GR, Assessment of Fidelity of Implementation of Evidence-Based Practices. Paper presented at the Res. Seminar, Department of Psychiatry, University of Iowa, October 2003, Iowa City, Iowa.
- Bond GR, Defining and Attaining Vocational Outcomes. Paper presented at the Schizophrenia Acad. Advisory Board, Eli Lilly & Co., June, 2003 Palm Beach, FL.
- Bond GR, Evidence-Based Practices: The Big Picture. Paper presented at the Indiana Consortium for Mental Health Serv. Res., December, 2003, Indianapolis, IN.
- Bond GR, Implementing ACT Programs True to Evidence-Based principles. Paper presented at the ACTA, June, 2003, San Antonio, TX.
- Bond GR, Integrated Dual Disorders Treatment: Should it be Implemented in Indiana? Paper presented at the Annual Conf. of the Indiana Council of Community Mental Health Centers, July, 2003, Indianapolis, IN.
- Bond GR, Measuring fidelity of Evidence-Based Practices (Part of Workshop on Adopting Mental Health Evidence-Based Practices. Paper presented at the Amer. Public Health Assoc., November, 2003, San Francisco, CA.
- Bond GR, The Role of Employment in the Recovery Process for Individuals with Severe Mental Illness. Paper presented at the Grand Rounds, Department of Psychiatry, University of Iowa, October, 2003, Iowa City, Iowa.
- Bond GR, The role of Fidelity Assessment in Implementing a New Practice. Paper presented at the SAMHSA Community Action Grant Orientation, November, 2003, Rockville, MD.
- Bond GR, Role of Work for People with Severe Mental Illness. Paper presented at the Eli Lilly & Co., April, 2003, Indianapolis, IN.
- Bond GR, Supported Employment (Part of Workshop on Adopting Mental Health Evidence-Based Practices). Paper presented at the Amer. Public Health Assoc., November, 2003, San Francisco, CA.
- Bond GR, Supported Employment: Program Principles and Res. Update. Paper presented at the Annual Ohio SAMI CCOE Conf., September, 2003, Columbus, OH.
- Bond GR, Vocational Rehabilitation. Paper presented at the 20th Annual Schizophrenia Conf., Western Psychiatric Institute and Clinic, November, 2003, Pittsburgh, PA.
- Bond GR, What Do We Know About Transitional Employment? Paper presented at the Supported Employment Resource Group, April, 2003, Indianapolis, IN.
- Bond GR, Biegel D and Wieder B, IDDT Fidelity: Issues and Implications. Paper presented at the Annual Ohio SAMI CCOE Conf., September, 2003, Columbus, OH.
- Bond GR and Campbell K, Progress Report on EBP Fidelity Scales. Paper presented at the National EBP Mtg., November, 2003, Baltimore, MD.
- Beglinger L, Kareken D, Tangphao-Daniels O, Derby M, Fastenau P, Gaydos B, Crawford-Miller J and Siemers E, Practice Effects and Alternate Forms in Serial Testing: Drug Trials Methodology. Paper presented at the Annual Mtg. of the Interntl. Neuropsychological Soc., February, 2003, Honolulu, Hawaii.

- Bringle RG, The Role of Service Learning in Higher Educ. Colloquium Presented at North Georgia College and State University, January, 2003, Dahlonega, GA.
- Bringle RG, Institutional Portfolios: Civic Engagement. Paper presented at the Amer. Assoc. for Higher Educ. Conf., March, 2003, Washington, DC.
- Bringle RG, Evaluations and Lessons Learned About Partnerships. Paper presented at Universities, Schools and Communities: Partners for Effective Educ., Community Building and Democracy, April, 2003, Philadelphia, PA.
- Bringle RG, Identifying and Developing Quantitative Scales For Service Learning Res.. Featured presentation at the Interntl. Conf. on Service Learning Res., November, 2003, Salt Lake City, UT.
- Bringle RG, Integrating Service Learning Into the Curriculum. Workshops presented at South European University, May, 2003, Tetovo, Macedonia.
- Bringle RG, Res. on Service Learning and Civic Engagement. Paper presented at the Community Service Conf., University of the Free State, October, 2003, Bloemfontein, South Africa.
- Bringle RG, Developing an Action Plan for Higher Educ. Paper presented at the Governor's Conf. on Volunteering, October, 2003, Indianapolis, IN.
- Bringle RG, Designing Interventions to Promote Civic Engagement. Psychology Department Colloquim, Western Illinois University, April, 2003, Macomb, IL.
- Bringle RG, Designing Service Learning Courses. Indiana University-Purdue University Fort Wayne, May, 2003, Ft. Wayne, IN.
- Buran CF, Sawin KJ, Brei TJ and Fastenau PS, Competencies for Healthy Development and Successful Transition: Teens with Spina Bifida. Paper presented at the Annual Mtg. of the Soc. for Res. into Hydrocephalus and Spina Bifida, July, 2003, Baltimore, MD.
- Che-Yu K, Alexander JM, Johnson KE, Kendrick C and Zakaria K, The Effect of IQ and Increasing Domain knowledge on Memory Performance and Strategy Use. Poster presented at the Mtg. of the Amer. Psychological Assoc., August, 2003, Toronto, Ontario.
- Elder RL, Badia-Elder NE, Murphy JM, Lumeng L, Li T-K and Stewart RB, Acute and chronic tolerance in selectively-bred replicate high and low alcohol drinking (HAD1/LAD1, HAD2/LAD2) lines of rats. Poster presentation at the Res. Soc. on Alcoholism Annual Scientific Mtg., June, 2003, Fort Lauderdale, FL.
- Engleman EA, Thielen RJ, O'Brien CE, Hill TE, Lumeng L, Li T-K, McBride WJ and Murphy JM, Chronic ethanol drinking and prolonged or repeated deprivations reduce dopamine (DA) transmission in the nucleus accumbens (ACB). Paper presented at the annual Mtg. of the Indianapolis Chapter of the Soc. for Neuroscience, Eli Lilly and Co, May, 2003, Indianapolis, IN.
- Fastenau PS, Pryor SA, Gahimer R and LeJeune BC, Short Forms and Alternate Forms for the CELF-3: Reliability and Validity. Paper presented at the Annual Mtg. of the Interntl. Neuropsychological Soc., February 2003, Honolulu, Hawaii.
- Fastenau PS, Five Alternate Forms for Five Neuropsychological Tests: Test-Retest Reliability. Paper presented at the Annual Mtg. of the Interntl. Neuropsychological Soc., February, 2003, Honolulu, Hawaii.
- Fastenau PS, Alternate Form Reliability of Five Alternate Forms for Five Neuropsychological Tests. Paper presented at the Annual Mtg. of the Amer. Neuropsychiatric Assoc., February, 2003, Honolulu, Hawaii.

- Fastenau PS, Neuropsychological Approaches to the Prediction of Alzheimer's disease: Themes and Future Research. Discussion on a symposium presented at the Annual Mtg. of the Amer. Psychological Assoc., August 2003, Toronto, Ontario.
- Fastenau PS, Johnson CS, Byars AW, Austin JK, Dunn DW and Perkins SM, Neuropsychological Functioning at First Recognized Seizure: Comparisons Between Seizure Types. Paper presented at the Annual Mtg. of the Amer. Epilepsy Soc., December, 2003, Boston, MA.
- Fastenau PS, Pryor SA, Gahimer R and LeJeune BC, Short Forms and Alternate Forms for the CELF-3: Reliability and Validity. Paper presented at the Annual Mtg. of the Internatl. Neuropsychological Soc., February, 2003, Honolulu, Hawaii.
- Felsten G, Stress Reactivity and Vulnerability to Depressed Mood. Symp. conducted at the 24th Internatl. Conf. of the Stress and Anxiety Res. Soc., July, 2003, Lisbon, Portugal.
- Gilpin NW, Stewart RB, Murphy JM, Li T-K and Badia-Elder NE, Neuropeptide Y reduces oral ethanol intake in alcohol-preferring (P) rats following a period of imposed ethanol abstinence. Paper presented at the annual Mtg. of the Indianapolis Chapter of the Soc. for Neuroscience, Eli Lilly and Co, May, 2003, Indianapolis, IN.
- Gilpin NW, Stewart RB, Murphy Li T-K and Badia-Elder NE, Effects of microinfusions of neuropeptide Y (NPY) into the central nucleus of the amygdala (CeA) on ethanol intake in high alcohol drinking (HAD1) and low alcohol drinking (LAD1) rats. Poster presentation at the Res. Soc. on Alcoholism Annual Scientific Mtg., June, 2003, Fort Lauderdale, FL.
- Gilpin NW, Stewart RB, Whelchel SA, Murphy JM, Li T-K and Badia-Elder NE, The effects of neuropeptide Y on oral ethanol intake in high alcohol drinking (HAD1) rats following multiple periods of imposed ethanol abstinence. Poster presentation at the Res. Soc. on Alcoholism Annual Scientific Mtg., June, 2003, Fort Lauderdale, FL.
- Gilpin NW, Stewart RB, Murphy JM, Li T-K and Badia-Elder NE, Neuropeptide Y reduces oral ethanol intake in alcohol-preferring (P) rats following a period of imposed ethanol abstinence. Poster presentation at the Res. Soc. on Alcoholism Annual Scientific Mtg., June, 2003, Fort Lauderdale, FL.
- Griss ME, Evans JD, Fastenau PS and Unverzagt FW, CERAD Performance in Alzheimer's Disease and Progressive Supranuclear Palsy. Paper presented at the Annual Mtg. of the Internatl. Neuropsychological Soc., February, 2003, Honolulu, Hawaii.
- Hicks L, Salyers MP and Rollins AL, Critical Steps to Creating a Successful ACT Team. Presentation at the 19th Annual Assertive Community Treatment Conf., June, 2003, San Antonio, NM.
- Hill GW, Appleby DC and Buskist W, Everything You Ever Wanted to Know About Assessment and More: The Assessment Cyberguide. Paper presented at the Southeastern Conf. on the Teaching of Psychology, February, 2003, Atlanta, GA.
- Johnson KE, Younger B and Furrer S, Infants' Comprehension of Modeled Instances of Action Categories. Paper presented at the meeting of the Soc. for Res. in Child Development, April, 2003, Tampa, FL.

- Johnson KE, Alexander JM and Leibham ME, From Interest to Expertise: Predictors of Sustained Intense Interests in Young Children. Poster presented at the meeting of the Cognitive Development Soc., October, 2003, Park City, UT.
- Johnson K, Fostering Student Learning Through a Better Understanding of How the Mind works. Workshop presented at the Indiana University FACET Associate Faculty and Lecturer Conf.: Into the Minds of Students: The Teacher's Role as Mentor, October, 2003, Indianapolis, IN.
- June HL, Novel Benzodiazepine Pharmacotherapies to Treat Alcohol Abuse, Amer. Soc. for Pharmacology and Experimental Therapeutics, April, 2003, San Diego, CA.
- Koop JI, Fastenau PS, McCall TJ, Dunn DW and Austin JK, Sleep As A Moderator Of The Relationship Between Spike-Wave Discharges And Behavior. Paper presented at the Annual Meeting of the Interntl. Neuropsychological Soc., February, 2003, Honolulu, Hawaii.
- Leibham ME, Alexander JM, Johnson KE and Reis-Henrie, F. P, Environmental Correlates of Focused-Declarative Play Interests in Preschoolers. Paper presented at the meeting of the Soc. for Res. in Child Development, April, 2003, Tampa, FL.
- McGrew J, Assertive Community Treatment: Evidence Based Practice and Implementation. Presented at the 131st annual meeting of the Amer. Public Health Assoc., November, 2003, San Francisco, CA.
- McGrew J, Assertive Community Treatment in Indiana. Presented at the Conf.: Assertive Community Treatment: Where We Have Been, Where We Are Going. IUPUI Conf.r Center, December, 2003, Indianapolis, IN.
- Morzorati, S.L., Stewart, R.B., O'Brien, C.E. Effects of steady state blood alcohol levels on auditory event-related potentials (ERPs) in rats. Poster presentation at the Res. Soc. on Alcoholism Annual Scientific Mtg., June, 2003, Fort Lauderdale, FL.
- Neitzel CL, Alexander JM and Johnson KE, Children's Early Play Interests and Subsequent Metacognition and Acad. Regulation in Kindergarten. Poster presented at the meeting of the Cognitive Development Soc., October, 2003, Park City, UT.
- Neitzel CL, Johnson KE and Alexander JM, When Predisposition Meets Opportunity: The Emergence of Children's Early Play Interests. Poster presented at the meeting of the Cognitive Development Soc., October, 2003, Park City, UT.
- Pommer TJ, Rodd ZA, Bell RL, McQueen VK, Toalston JE, Engleman EA, Lumeng L, McBride WJ, Li T-K and Murphy JM, Effects of 5-HT₃ antagonists within the nucleus accumbens shell on operant self-administration of ethanol by inbred alcohol-preferring (iP) rats. Paper presented at the annual Meeting of the Indianapolis Chapter of the Soc. for Neuroscience, Eli Lilly and Co, May, 2003, Indianapolis, IN.
- Rollins AL and Bond GR, Integrated Dual Disorders Treatment: Measuring Fidelity of Implementation. Paper presented at the Annual Conf. of the Indiana Division of Mental Health and Addiction, July, 2003, Indianapolis, IN.
- Sawin KJ, Buran CF, Brei TJ and Fastenau PS, The Experience Of Parenting An Adolescent With Spina Bifida. Paper presented at the Annual Spina Bifida Assoc. of America Conf., June, 2003, San Antonio, TX.

- Sawin KJ, Buran CF, Brei TJ and Fastenau PS, Measuring Adaptation Outcomes in Adolescents with Spina Bifida. Paper presented at the Annual Meeting of the Soc. for Res. into Hydrocephalus and Spina Bifida, July, 2003, Baltimore, MD.
- Stewart RB, Bice P, Foroud T, Lumeng L, Li T-K and Carr, LG, Correlation of saccharin and ethanol intake in the F2 progeny of HAD2 and LAD2 crosses. Poster presentation at the Res. Soc. on Alcoholism Annual Scientific Meeting, June, 2003, Fort Lauderdale, FL.
- Stewart RB, Badia-Elder NE, Elder RL, Murphy JM, Lumeng L and Li T-K, Conditioned taste aversion (CXTA) to ethanol in selectively-bred high and low alcohol drinking (HAD1/LAD1) lines of rats. Poster presentation at the Res. Soc. on Alcoholism Annual Scientific Mtg., June, 2003, Fort Lauderdale, FL.
- Stolle DP, Devine DJ and Joliet A (2003) Watching mock jurors deliberate: The impact of observation on deliberations. Presented at the Interntl. Psychology and Law Conf., Edinburgh, Scotland.
- Stolle DP and Devine DJ (2003) Do they know we are watching? Demand characteristics in jury simulation research. Presented at the Annual Amer. Soc. of Trial Consultants Conf., Reno, Nevada.
- Toalston JE, Rodd ZA, Melendez RI, Engleman EA, Lumeng L, McBride WJ and Murphy JM, Local perfusion of the D1 antagonist (SCH-23390) increases extracellular dopamine (DA) levels in the ventral pallidum (VP) of Wistar and alcohol-preferring (P) rats. Paper presented at the annual meeting of the Indianapolis Chapter of the Soc. for Neuroscience, Eli Lilly and Co, May, 2003, Indianapolis, IN.
- Tzeng OC, Wooldridge KA and Campbell K, Faith Love: A Psychological Construct in Intimate Relations. Paper presented at Indiana Academy of Social Science Annual Mtg. Indiana University Purdue University Fort Wayne, October, 2003, Fort Wayne, IN.
- Ware R, Rytting M, Yokomoto C and Jordon T Jr., Personality Type Discrepancy and Sense of Coherence. Poster Presentation at Great Lakes Assoc. for Psychological Type Conf., Capital University, September, 2003, Columbus, OH.
- Whelchel SA, Kho Y, Elder RL, Gilpin NW, Stewart RB, Murphy JM, Li T-K and Badia-Elder NE, Neuropeptide Y and ethanol produce an additive suppression of motor activity in alcohol-preferring (P) and non-alcohol-preferring (NP) rats. Poster presentation at the Res. Soc. on Alcoholism Annual Scientific Mtg., June, 2003, Fort Lauderdale, FL.
- Williams L, Evans JD and Bond GR, Cognitive Deficits as Correlates of Vocational Outcome in Schizophrenia. Presented at the SPUR Poster Session, IUPUI Psychology Department, May, 2003, Indianapolis, IN.
- Woods JE, Cook J and June HL (2003) Amphetamine differentially alters BSR threshold in high alcohol drinking (HAD-1) and low alcohol drinking (LAD-1) rat lines. NIAAA Conf., IU Medical School, December, 12-14, 2003, Indianapolis, IN.
- Yamamoto K, Evans JD, Johnson KE and Unverzagt FW, Clin. Utility of IU Token Test in the Diagnosis of Dementia. Paper presented at the meeting of the Interntl. Neuropsychological Soc., February, 2003, Honolulu, HI.
- Younger B, Johnson K, Furrer S, Toddlers' Comprehension of Symbolic Relations Pertaining to Action Categories: Impact of familiarization with multiple instances.

Poster presented at the meeting of the Cognitive Development Soc., October, 2003, Park City, UT.

SEMINARS:

Hazer JT (2003) Conducting the Performance Appraisal. Two Invited 1/2-day workshops to train faculty and staff managers in evaluating employee performance, IUPUI Human Resources Administration, Indianapolis, IN.

Hazer JT (2003) The Performance Review and Feedback Session. Two invited 1/2-day workshops to train faculty and staff managers in providing feedback during employee review sessions, IUPUI Human Resources Administration, Indianapolis, IN.

INVITED LECTURES:

Alexander JM and Johnson KE, Exploration of Intense Interests in Young Children. Paper presented at Indiana University School of Educ. Faculty Colloquium, September, 2003, Bloomington, IN.

Johnson KE and Alexander JM, From Interests to Expertise: The Emergence of Intense Interest in Preschoolers. Paper presented at Purdue University Devel. Area Colloquium, April, 2003, West Lafayette, IN.

June HL, $\alpha 1$ Subtype Benzodiazepine Pharmacotherapies in Treating Alcohol Addiction, Guest Lecturer, Howard University Pharmacology Department, May, 2003, Washington, DC.

INVITED PRESENTATIONS:

Appleby DC, Your Freshman Year in College is Not 13th Grade. Lecture presented during the Cascade High School Professional Development Day, November, 2003 Monrovia, IN.

Appleby DC, How To Avoid the Kisses of Death in the Graduate School Application Process. Lecture presented to the Indiana University Psi Chi Chapter, March, 2003, Bloomington, IN.

Appleby DC, Writing Multiple-Choice Questions to Test Knowledge and Critical Thinking. Lecture presented to the faculty of the Indiana University School of Dentistry, January, 2003, Indianapolis, IN.

Fastenau PS, Pediatric Epilepsy: Associated Risk Factors for Acad. Underachievement and Behavior Problems and Suggestions for the Classroom. Invited Address at the Annual Mtg. of the Indiana Assoc. of School Psychologists, October, 2003, Indianapolis, IN.

Murphy, JM, Brain mesolimbic dopamine systems and ethanol reward. Presented at the IUPUI Department of Biology Seminar Series, September 26, 2003.

Stewart RB, Central Infusion of Neuropeptide Y Reduces Alcohol Drinking in Alcohol-Preferring P Rats. Invited speaker at the Res. Soc. on Alcoholism Annual Scientific Mtg., Fort Lauderdale, FL, June, 2003.

Stewart RB, Conditioned taste aversion (CTA) to ethanol in selectively-bred high and low alcohol drinking (HAD1/LAD1) lines of rats. Invited speaker at the Res. Soc. on Alcoholism Annual Scientific Mtg., Fort Lauderdale, FL, June, 2003.

UNDERGRADUATE STUDENT PUBLICATIONS

DEPARTMENT OF BIOLOGY

- Crowell DN, Packard* CE, Pierson CA, Giner J-L, Downes BP and Chary SN (2003) Identification of an Allele of CLA1 Associated with Variegation in *Arabidopsis thaliana*. *Physiol. Plant.* **118**, 29-37.
- Shaikh SR, Dumauval AC, LoCassio* D, Siddiqui R and Stillwell W (2003) Acyl Chain Unsaturation in PEs Modulates Phase Separation from the Lipid Raft Molecules Sphingomyelin and Cholesterol. *Biochem. Biophys. Res. Comm.* **311**, 793-796.

DEPARTMENT OF CHEMISTRY

- Condra M*, Guo X, Kimura K, Dubin PL, Dautzenberg H and Berth G (2003) Determination of Molecular Weight of Heparin by Universal Calibration. *Analyt. Biochem.* **312**, 33-39.
- Seyrek E, Dubin PL, Tribet C and Gamble EA* (2003) Ionic Strength Dependence of Protein-Polyelectrolyte Interactions. *Biomacromolecules* **4**, 273-282.
- Schroeder WP*, Chenoweth K and Dykstra CE (2003) Ab Initio and Model Investigation of Acetylene Clustering Around Hydrogen Cyanide. *Chem. Phys. Lett.* **373**, 8-14.
- Foreman MB*, Coffman JP, Murcia MJ, Cesana S, Jordan R, Smith GS and Naumann CA (2003) Gelation of Amphiphilic Lipopolymers at the Air-water Interface: 2D Analogue to 3D Gelation of Colloidal Systems with Grafted Polymer Chains? *Langmuir* **19**, 326-332.
- Larter R, Craig MG and Tinsley R* (2003) Continuing Emergence in Living Systems. *Adv. Complex Systems* **6**, 93-114.

DEPARTMENT OF COMPUTER AND INFORMATION SCIENCE

- Bryant B, Lee B. S*, Cao F*, Zhao W*, Burt C, Raje R, Olson M and Auguston M From Natural Language Requirements to Executable Models of Software Components. 2003 Monterey Workshop, online(www.cs.uic.edu/~shatz/SEES/bryant.paper.pdf), Chicago, Illinois, 2003.
- Cao F*, Bryant B, Burt C, Gray J, Raje R, Olson M and Auguston M Modeling Web Serv.: Towards System Integration in UniFrame. 7th World Conf. on Integrated Design and Process Technology (IDPT 2003), pp. 83-91, Austin, Texas, 2003.
- Cao F*, Bryant B, Burt C, Raje R, Huang Z*, Olson M and Auguston M Automating Feature-oriented Domain Analysis. Interntl. Conf. on Software Engineering Res. and Practice, pp. 944-949, Las Vegas, Nevada, 2003.
- Cao F*, Bryant B, Raje R, Auguston M, Olson M and Burt C Assembling Components with Aspect-oriented Modeling/Specification. UML Workshop in Software Model Engineering, online (www.metamodel.com/wisme_2003/12.pdf), San Francisco, California, 2003.
- El-Mounayri H, Deng H* and Mukhopadhyay SA Radial Basis Neural Network for Integrated Modeling and Optimization of CNC End Milling, pp. 1-8, Proc. of the Thirty-first Annual North Amer. Manufacturing Res. Conf. (NAMRC 2003), Hamilton, Canada, 2003.
- Gupta N*, Raje R, Olson M, Bryant B, Auguston M and Burt C Analyzing the Web

- Serv. and UniFrame Paradigms. Southeastern Software Engineering Conf., online (www.ndia-tvc.org/SESEC/Presentations/SE2%20Conf.%20PDFs/DAY_2/Session%204/S4B4_Gupta.pdf), Huntsville, Alabama, USA, 2003.
- Mukhopadhyay S, Palakal M, Kodiripaka V*, Raje R and Mostafa J Managing Information Flow for Complex, Dynamic Tasks Using Multi-Agent Collaboration, Proc. of the 2003 IEEE Internatl. Symp. on Intelligent Control (ISIC 2003), pp. 848--853, Houston, TX, 2003.
- Mukhopadhyay S, Palakal M, Zhu D* and Raje R Intelligent Information Management in Bioinformatics. Proceeding of the 12th Yale Workshop on Adaptive and Learning Systems, pp. 123-129, New Haven, Connecticut, 2003.
- Mukhopadhyay S, Peng S*, Raje R, Palakal M and Mostafa J Multi-Agent Information Classification using Dynamic Acquaintance Lists, Vol. 54, No. 10, J. of the Amer. Soc. for Information Science and Technology, pp. 966-975, 2003.
- Mukhopadhyay S, Tang C*, Huang J and Palakal M Genetic Sequence Classification and its Application to Cross-Species Homology Detection, invited and peer-reviewed, The J. of VLSI Signal Processing Systems, Vol. 35, pp. 273-285, 2003.
- Palakal M, Stephens M*, Mukhopadhyay S, Raje R and Rhodes S Identification of Biological Relationships from Text Documents Using Efficient Computational Methods, J. of Bioinformatics and Computational Biology (JBCB)}, Vol. 1, No. 2, pp. 1-34, 2003.
- Pidaparti RM, Jayanti S*, Palakal M and Mukhopadhyay S Structural Integrity Redesign Through Neural-network Inverse Mapping. Amer. Institute of Aeronautics and Astronautics J. 41, No. 1, pp. 119 - 124, 2003.
- Rangudu U*, Palakal M and Mukhopadhyay SA Biological Object Identification from Literature using Statistical and Connectionist Approaches. Second Internatl. Conf. on Computational Intelligence, Robotics and Autonomous Systems, Singapore, Singapore, Singapore, 2003.
- Varghese J* and Mukhopadhyay SA Automated Web Navigation using Multi-agent Adaptive Dynamic Programming, IEEE Transactions on Systems, Man, and Cybernetics -- Part A: Systems and Humans, Vol. 33, No. 3, pp. 412-417, 2003.
- Yang C*, Bryant B, Burt C, Raje R, Olson M and Auguston M Formal Methods for QoS Analysis in Component-based Distributed Computing. 7th World Conf. on Integrated Design and Process technology (IDPT 2003), pp. 291-299, Texas, 2003.
- Zhao W*, Bryant B, Burt C, Raje R, Olson M and Auguston M Formal Concepts of Software Composition in the Context of Domain Driven Development. Science of Computer Programming, 2003.
- Zhao W*, Bryant B, Gray J, Burt C, Raje R, Auguston M and Olson A A Generative and Model Driven Framework for Automated Software Product Generation. 6th Workshop on Component-based Software Engineering, pp. 103-108, Portland, Oregon, 2003.
- Zou X, Ramamurthy B, Variyam V and Balachandran RK* Algorithms for Unified Hierarchy Based Access Control. Internatl. Conf. on Communications, Internet, and Information Technology (CIIT 2003), pp. 31 - 36, Scottsdale, AZ, 2003.

DEPARTMENT OF GEOLOGY

- Newkirk DR*, Filippelli GM, Souch C, Latimer J and Horn S (2003) The Impact of Climate and Pre-Columbian Agriculture on Soil and Nutrients in Southwestern Costa Rica. *INQUA Congress Program with Abs.*, 180.
- Newkirk DR*, Filippelli GM, Souch C, Latimer J, Horn S and Clement R (2003) An Aridification Event Beginning About 1600 AD in Central America: Evidence From a Lake Sediment Core in Laguna Zoncho, Costa Rica and Effects on Agriculture and Population. *Geol Soc. of Amer. Natl. Mtg Abs.* 35, 6, 261.
- Probst K*, Barth AP and Yi K (2003) Comparison of the petrology of basalts along a left lateral fault, Joshua Tree Natl. Park, southern California. *Geol Soc. of Amer. Natl. Mtg. Abs.* 35, 4, 17.
- Probst K* and Barth AP (2003) Tectonic setting of basalt magmatism along left lateral faults in Joshua Tree Natl. Park, southern California. *Geol Soc. of Amer Natl. Mtg. Abs.* 35, 6, 324.
- Jackson L*, Atekwana EA, Tedesco LP and Savarese M (2003) Hydrologic exchange and carbon cycling in variably altered sub-tropical estuaries of Southwest Florida, USA. *Geol Soc. of Amer Natl. Mtg. Abs.* 35, 6, 284.
- Webber JJ*, Hernly FV, Tedesco LP and Hall BE (2003) Characterization of wetland soil and sediments at Starling Nature Sanctuary, Marion County, Indiana. *Geol Soc. of Amer Natl. Mtg. Abs.* 35, 6, 406.

DEPARTMENT OF PSYCHOLOGY

- Badia-Elder NE, Stewart RB, Powrozek TA**, Murphy JM and Li T-K (2003) Effects of neuropeptide Y (NPY) on sucrose and ethanol intake and on anxiety-like behavior in high alcohol drinking (HAD) and low alcohol drinking (LAD) rats. *Alcoholism: Clin. and Experimental Res.* 27, 894-899
- Eiler, William JA II**, Seyoum R, Foster KL**, Mailey C and June HL (2003) The D1 dopamine receptor regulates alcohol-motivated behaviors in the bed nucleus of the stria terminalis in Alcohol-Preferring (P) rats. *Synapse*, 48, 45-56.
- Gilpin NW**, Stewart RB, Murphy JM, Li T-K and Badia-Elder NE (2003) Neuropeptide Y reduces oral ethanol intake in alcohol-preferring (P) rats following a period of imposed ethanol abstinence. *Alcoholism: Clin. and Experimental Res.*, 27, 787-794.
- Giplin NW**, Stewart RB, Elder RL, Kho Y, Murphy JM, Li T-K and Badia-Elder NE (2003) Sedative and motor-impairing effects of neuropeptide Y and ethanol in selectively bred P and NP rats. *Pharmacol. Biochem. Behav.*, 78:65-73 2004.
- Lancaster RS**, Evans JD, Bond, GR and Lysaker PH (2003) Social Cognition and Neurocognitive Deficits in Schizophrenia. *J. of Nervous and Mental Disease*, 191, 295-299.
- Salyers MP, Bond GR, Teague GB, Cox JF, Smith ME, Hicks ML, Koop JI ** (2003) Is it ACT yet? Real-World Examples of Evaluating the Degree of Implementation for Assertive Community Treatment. *J. of Behav. Health Serv. and Res.*, 30, 304-320.
- Tzeng OC, Wooldridge KA* and Campbell K** (2003) Faith Love: A Psychological Construct in Intimate Relations. *J. of the Indiana Academy of the Social Sciences, Vol. 7*
- Woods JE II**, McKay PF*, Seyoum R, Chen A*, Masters J, La Duff L, Lewis MJ and June HL (2003) Differential Responding for brain-stimulation reward and sucrose in High Alcohol Drinking (HAD) and Low Alcohol Drinking (LAD) Rats. *Alcoholism: Clin. and Experimental Res.*, 27, 926-936.

Zhou FC, Sari Y, Powrozek T**, Goodlett CR, Li TK (2003) Moderate alcohol exposure compromises neural tube midline development in prenatal brain. *Devel. Brain Res.*, 144, 43-55.

Undergraduate and Graduate Publications (exclude abstracts)

*=undergraduate student: **=graduate student

GUEST SPEAKERS

DEPARTMENT OF BIOLOGY

- Armstrong, Gregory A, Department of Plant Biology, The Ohio State University.
"Light Regulation of Pigment Biosynthesis, Membrane Formation and Plastid Differentiation in *Arabidopsis*." April 25, 2003.
- Barnes, Sylvester, Biology, IUPUI. "Gene Therapy: The Delivery Problem." August 7, 2003.
- Bartol, Frank, Reproductive Biology, Auburn Univ. "When Pigs Fly: Developmentally Regulated Estrogen-Sensitive Expression of Abdominal-B Hoxa and Wnt Genes in Porcine Uterine Patterning." February 21, 2003.
- Bohnert, Hans J, Departments of Plant Biology and Crop Science, Univ. of Illinois.
"Models, Mutants and Microarrays in Abiotic Stress Tolerance." April 4, 2003.
- Brown, Kim, Environmental and Plant Biology, Ohio Univ. "Exploring the Structure and Light Environments of Eastern Deciduous, Pacific Conifer and Boreal Forests." October 10, 2003.
- Bruns, Heather, IUSM. "Electrical and Mechanical Events of the Cardiac Cycle." February 11, 2003.
- Bultema, Rebecca L, Biology, IUPUI. "Carboxyl Methylation and Demethylation of Isoprenylated Proteins in *Arabidopsis thaliana*." April 14, 2003.
- Camarillo, Ignacio, Biological Sciences, Purdue Univ. "Growth Hormone and Prolactin Receptor Expression in the Rodent Mammary Gland." April 18, 2003.
- Chen, Yan, Department of Medical and Molecular Genetics, IUSM. "Complexity in the Regulation of TGF- β Signaling." April 11, 2003.
- Clark, Patricia, Utah State University. "Electrical and Mechanical Events of the Cardiac Cycle." February 13, 2003.
- Clute, John, Ohio College of Podiatry. "Podiatric Medicine?" November 19, 2003.
- Corn, Angela L, Biology, IUPUI. "Comparison of Axolotl Versus *Xenopus* Regeneration Systems." May 8, 2003.
- Crutcher, Keith, Neurosurgery, University of Cincinnati. "Apolipoprotein E: Friend or Foe?" January 24, 2003.
- Davie, Judith K, Biochemistry and Molecular Biology, University of Texas, M.D. Anderson Cancer Center. "Chromatin Mediated Transcriptional Regulation: Histone Dependent Assoc. of a Co-Repressor Complex with Repressed Genes." February 24, 2003.
- Delph, Linda, Biology, IU Bloomington. "Sexual Dimorphism and Sexual Selection: What Artificial Selection has Revealed about Their Connection." September 12, 2003.

- DiMattia, Gabriel, Oncology and Biochemistry, University of Western Ontario. "Deciphering the Function of a New Pair of Hormones, the Stanniocalcins (STCs), Using Mouse Transgenics." October 24, 2003.
- Dunker, A Keith, Bioinformatics, IUPUI. "The Protein Trinity - Linking Function and Disorder." October 3, 2003.
- Filley, Timothy, Earth and Atmospheric Sciences, Purdue University. "Insights into the Biogeochemical Cycling of Carbon in Terrestrial Ecosystems from Compound-Specific Stable Carbon Isotope Analyses of Soil and Aquatic Plant Biopolymer Components." October 31, 2003.
- Fitzgerald, Karima, Biology, IUPUI. "The Co-Expression of Cell Type-Specific Markers in Differentiating Chick Retina." December 19, 2003.
- Gross, Louis, Ecology and Evolutionary Biology and Mathematics, University of Tennessee. "Quantitative Life Science Education Preparing Fearless Biologists." November 7, 2003.
- Harris, Robert, Department of Biochemistry and Molecular Biology, IUSM. "Regulation of the Activity of the Pyruvate Dehydrogenase Complex by Altered Expression of its Kinase and Phosphatase." March 14, 2003.
- Jablonski, Leanne M, Marianist Environmental Education Center. "Evaluating Restoration Success and Educating about Ecosystems on the Prairie and Woodlands of the Mount Saint John Nature Preserve." May 2, 2003.
- Jones, Kathleen, Biology, IUPUI. "Tuberculosis: A Struggle to Survive." December 8, 2003.
- Kelley, Mark, Departments of Pediatrics and Biochemistry and Molecular Biology, IUSM. "Redox and DNA Repair Roles of the Human Apurinic Endonuclease APE1/Ref-1: Basic Mechanisms and Translational Opportunities." February 7, 2003.
- Livingston, Meredith, Department of Biology, IUPUI. "Identification of PRL-2 Protein Interactors by T7 Phage Display." November 6, 2003.
- Love, Mari, Biology, IUPUI. "Teeth Bleaching: The Science Behind an Aesthetically Whiter Smile." March 13, 2003.
- Malkova, Anna, Rosenstiel Center, Brandeis University. "Alternative Pathways to Repair Broken Chromosomes." February 27, 2003.
- Murphy, James, Department of Psychology, IUPUI. "Brain Mesolimbic Dopamine Systems and Ethanol Reward." September 26, 2003.
- Nardulli, Ann, Molecular and Integrative Physiology, University of Illinois Urbana-Champaign. "Regulation of Estrogen-Responsive Genes." March 28, 2003.
- Norris, E Allen, Eli Lilly & Co. "Molecular Interactions of Oritavancin, a New Glycopeptide Antibiotic, with the Bacterial Cell Wall." August 29, 2003.
- Palmer, Jeffrey, Department of Biology, IU Bloomington. "Horizontal Gene Transfer in Eukaryotic Evolution: Rampant Transfer from Mitochondrion to Nucleus and Among Distantly Related Plants." February 28, 2003.
- Reed, Lucas, Department of Biology, IUPUI. "The Molecular Genetics of Tooth Development." August 7, 2003.
- Reeves, Carol, Department of English, Butler Univ. "Scientific Writing." October 17, 2003.
- Rogers, Krissy, Department of Biology, IUPUI. "Disruption and Characterization of *HEM1* and *CYTB5* Genes in *Candida albicans*." May 13, 2003.

- Running, Mark, Donald Danforth Center for Plant Sciences. "The Role of Protein Prenylation in Meristem Function." March 7, 2003.
- Ryan, Travis, Department of Biological Sciences, Butler University. "Abundance and Distribution in Application: Ecology of Turtles and Salamanders in an Urban Landscape." September 19, 2003.
- Schroeder, Tyson, Department of Biology, IUPUI. "K9 Urinary Micro-Protein Assay." August 7, 2003.
- Suzuki, David A, Department of Ophthalmology, IUSM. "Neuronal Mechanisms of Gaze Control: How We Acquire Visual Information." January 31, 2003.
- Terrell, Mark, Department of Biology, IUPUI. "Sensitivity of Northern Red Oak (*Quercus rubra*) to Spatial Variation in Regional Climate Across its Geographic Range." January 17, 2003.
- Towe, Jason, Department of Biology, IUPUI. "The Pathophysiology of Ischemic Acute Renal Failure." June 24, 2003.
- True-Krob, Heather, Whitehead Institute. "Prions Bare All: Proteins that Elicit Disease or Expose Diversity." March 6, 2003.
- Tsonis, Panagiotis A, Department of Biology, University of Dayton. "Mechanisms of Induction of Lens Regeneration." November 21, 2003.
- Valachovic, Martin, Department of Biology, IUPUI. "Ergosterol Metabolism, Its Regulation and Its Interaction with Other Processes in the Yeast *Saccharomyces cerevisiae*." November 14, 2003.
- Wiseman, Dean, Department of Biology, IUPUI. "Physiology of Memory." December 5, 2003.
- Witzmann, Frank, Department of Cellular and Integrative Physiology, IUSM. "The Reality of Proteomic Analysis." September 5, 2003.
- Wormser, David, Department of Biology, IUPUI. "Structure and Expression of the Pea Phototropin 1 Gene." April 18, 2003.
- Yaden, Benjamin, Department of Biology, IUPUI. "Regulation of the Human LHX3 Transcription Factor Gene." July 22, 2003.

DEPARTMENT OF CHEMISTRY

- Bu, Zimei, National Institute of Standards and Technology, Gaithersburg, MD. "Protein Motion Viewed by X-ray and Neutron Scattering." February 26, 2003.
- Claussen, Craig, Chemistry, IUPUI, Indianapolis, IN. "Sequence-Selective Interactions of Combinatorially Generated Ni(II)•Gly-Gly-His Derived Metallopeptides with DNA." July 25, 2003.
- Giese, Matthew, Chemistry, IUPUI, Indianapolis, IN. "Fischer Carbenes in the Synthesis of Natural Products." December 4, 2003.
- Hitchcock, Jeffrey, Chemistry, IUPUI, Indianapolis, IN. "Characterization and Substrate Specificity of Lepidopteran Prenyltransferase." August 29, 2003.
- Hovis, Jennifer, Purdue University, West Lafayette, IN. "Manipulating Cell Membranes." November 5, 2003.
- Hu, Shen, University of Washington, Seattle, WA. "Single Cell Protein Analysis." February 12, 2003.
- Kennedy, Joseph, Eli Lilly & Co., Indianapolis, IN. "ICRS, SSR, SMB Technology to Speed Chiral Drug Development." October 1, 2003.

- Krchnak, Viktor, University of Notre Dame, Notre Dame, IN. "Combinatorial Chemistry Using Simple Personal Tools." October 8, 2003.
- Lecher, Carl, Chemistry, IUPUI, Indianapolis, IN. "A Critical Evaluation of Green Chemistry: The Use of Non-Traditional Solvents and Solvent Alternatives in Organic Chemistry." February 19, 2003.
- Lecher, Carl, Chemistry, IUPUI, Indianapolis, IN. "Novel Silyl Migration-Mediated Bond-Forming Reactions: Applications in Organic Synthesis." July 14, 2003.
- Luzzio, Frederick, University of Louisville, Louisville, KY. "Small Molecule Inhibitors of Angiogenesis." March 5, 2003.
- O'Brien, Ted A., Chemistry, IUPUI, Indianapolis, IN. "Modeling Magnetic Interactions in Polynuclear Transition Metal Complexes." January 29, 2003.
- Pradhan, Meeta, Chemical Informatics, IUPUI, Indianapolis, IN. "CoMFA Study of Chiral Catalysts." May 12, 2003.
- Raghavachari, Krishnan, Indiana University, Bloomington, IN. "Electronic Structure Studies of Materials Chemistry." January 22, 2003.
- Robertson, Daniel, Eli Lilly & Co., Indianapolis, IN. "Structure-Based and Information-Driven Drug Discovery." March 12, 2003.
- Sakamoto, Takahiro, Chemistry, IUPUI, Indianapolis, IN. "Region of Maximum Stereinduction Through Stereocartographic Analysis." April 24, 2003.
- Scott, William, Chemistry, IUPUI, Indianapolis, IN. "Utilizing Educational Laboratories for Distributed Drug Discovery." November 12, 2003.
- Sheets, Josie R., Chemistry, IUPUI, Indianapolis, IN. "Transition Metal Tris(pyrazolyl)methane Complexes Exhibiting Coupled Electron-Transfer and Spin-Crossover Behavior." February 7, 2003.
- Tang, Jay, Brown University, Providence, RI. "Physical Properties of Filamentous Protein Assembly: Motions, Phase Transitions, Bundles and Networks." September 17, 2003.
- Verma, Sandeep, Indian Institute of Technology Kanpur, Kanpur, India. "Bioinspired Adenylated Polymeric Templates: Evaluation of Metal Ion Dependent Catalytic Activities and Implications for Prebiotic Catalysis." August 13, 2003.
- Wei, Alexander, Purdue University, West Lafayette, IN. "Chiral Dihydropyrans: Novel Approaches to Carbohydrate-Based Drug Design." April 2, 2003.
- Wickham, Robert, St. Francis Xavier University, Antigonish, Nova Scotia. "The Decay of Metastable Lamellae via the Nucleation of Stable Cylinders in Diblock Copolymer Melts." November 19, 2003.
- Zhang, Meimei, Chemistry, IUPUI, Indianapolis, IN. "Computational Study of Chiral Discrimination in Chromatography." April 25, 2003.

DEPARTMENT OF GEOLOGY

- Filley, Timothy, Department of Earth and Atmospheric Sciences, Purdue Univ. "Insights into the Biogeochemical Cycling of Carbon in Terrestrial Ecosystems from Compound-specific Stable Carbon Isotope Analyses of Soil and Aquatic Plant Biopolymer Components." October 31, 2003.
- Haschenberger, Judy, School of Geography and Environmental Science, Univ. of Auckland, New Zealand. "Changes in Woody Debris and Bed Material Texture in a Gravel-bed Channel." October 24, 2003.

- Meuhlberger, William, Geological Sciences Department, University of Texas at Austin. "Plate Tectonics As Viewed From Manned Spacecraft." September 12, 2003.
- Person, Mark, Department of Geological Sciences, Indiana University Bloomington. "Pleistocene Hydrology of the Atlantic Continental Margin." November 21, 2003.
- Rathburn, Tony, Department of Geography, Geology and Anthropology, Indiana State University. "The Ecology and Geochemistry of Deep-Sea Benthic Foraminifera: Applications for Reconstructions of Ancient Environments." November 14, 2003.
- Ryan, Travis, Department of Biological Sciences, Butler University. "Abundance and Distribution in Application: Ecology of Turtles and Salamanders in an Urban Landscape." September 19, 2003.
- Saltzman, Matthew, Department of Geological Sciences, Ohio State University. "The Late Paleozoic Ice Age: Oceanic Gateway or pCO₂?" September 5, 2003.
- Schieber, Juergen, Department of Geological Sciences, Indiana University-Bloomington. "Studying Shales for Fun and Profit." October 3, 2003.
- Terrell, Mark, Department of Biology, Indiana University Purdue University Indianapolis, "Desertification in Indiana? Predicting the Impact of Global Warming on North Amer. Oak Forests," March 10, 2003.
- Yansa, Catherine, Department of Geography, Michigan State University, "Late Quaternary Vegetation and Climate History of the Northern Great Plains." October 10, 2003.

DEPARTMENT OF MATHEMATICAL SCIENCES

- Berest, Yuri, Cornell University. "Differential Isomorphism and Equivalence of Algebraic Varieties." October 17, 2003.
- Downarowicz, Tomasz, Wroclaw University of Technology, Poland, Visiting Ohio State University. "Can We Build a Binary Representation of a Connected Dynamical System?" January 31, 2003.
- Dzhafarov, Ehtibar, Purdue University. "Subjective Dissimilarities Derived from Discrimination Probabilities." April 11, 2003.
- Fokas, AS, University of Cambridge, UK. "Integrability, Imaging of the Brain and Boundary Value Problems." November 20, 2003.
- Fokoue, Ernest P, Ohio State University. "Estimating the Intrinsic Dimensionality of a Factor Analytic Model Via Stochastic Simulation." February 3, 2003.
- Hamburger, Peter, IUPU-Fort Wayne. "Formula Versus Concept, Application Versus Proof" and "Rotational Symmetries in Finite Set Systems." September 12, 2003.
- Kim, Dong-Yun, University of Michigan. "Non-Linear Renewal Theory with Stationary Perturbations." February 24, 2003.
- Kliakhandler, Igor, Michigan Technological University. "Inverse Cascade in Thin Films." January 31, 2003.
- Kozubowski, Tomasz J, University of Nevada Reno. "Laplace Distributions and Generalizations in Stochastic Modeling." November 21, 2003.
- Kriegsmann, Gregory A, New Jersey Institute of Technology. "Microwave Heating of Materials: A Mathematical and Physical Overview." October 24, 2003.

- McLaughlin, Kenneth D, The University of North Carolina at Chapel Hill. "Random Matrices and Random Tiling Problems via Riemann-Hilbert Problems." October 31, 2003.
- McLeod, J. Bryce, University of Pittsburgh. "The Stability of Poiseuille Flow" and "Shapiro' Inequality." September 26, 2003.
- Morton, Patrick, IUPUI. "Modular Factorization of Jacobi Polynomials and Invariants of Elliptic Curves." September 5, 2003.
- Ni, Ligiang, School of Statistics, University of Minnesota. "Dimension Reduction in Regression Across Multiple Populations." February 7, 2003.
- Nishikawa, Takashi, Arizona State University. "Synchronization of Oscillator Networks: Heterogeneity, Small Worlds, and the Phase Transitions." March 5, 2003.
- Ogle, Crichton, Ohio State University. "Discrete Groups with Property PC3." September 19, 2003.
- Paluszny, Marco, Central University of Venezuela. "Cyclides and Conics." November 7, 2003.
- Ranicki, Andrew, Edinburgh. "Noncommutative Localization in Algebra and Topology." March 28, 2003.
- Reshetikhin, Nikolai, University of California at Berkeley. "The Limit Shape of a Random 3D Skew Young Diagram." March 25, 2003.
- Robles, Colleen, University of Rochester. "Efficient Travel Under Windy Conditions" and "Zermelo Navigation on Space Forms." February 27, 2004 and November 14, 2003.
- Senti, Samuel, Penn State University. "Bad Points and Good Measures for Interval Maps." February 26, 2003.
- Spitkovsky, Ilya, College of William and Mary. "Factorization of Almost Periodic Matrix Functions and Its Applications." January 24, 2003.
- Tarasov, Vitaly, St. Petersburg Branch of Steklov Mathematical Institute. "The Selberg Type Integrals Associated with the Lie Algebra \mathfrak{sl}_3 ." February 17, 2003.
- Tsynkov, Seymon, NC State University and Tel Aviv University. "Optimization Problems in the Context of Active Control of Sound." February 21, 2003.
- Ueltschi, Daniel, UC Davis. "Sum of Eigenvalues of the Discrete Laplacian." February 27, 2003.
- Zharnitsky, Vadim, Bell-Labs, Lucent Technologies. "Microdisk Lasers, Billiards, and Non-Holonomic Systems." February 5, 2003.

DEPARTMENT OF PHYSICS

- Cayon, Laura, Purdue University. "Cosmology Through the Cosmic Microwave Background Anisotropies." April 17, 2003.
- Chaturvedi, Alok, Purdue University. "Measured Response: Bioterrorism Simulation." November 13, 2003.
- Colella, Roberto, Purdue University. "Multiple Bragg Scattering and the Phase Problem. Applications to Quasicrystals and to Resonant Scattering." February 20, 2003.

- Conlon, Julie and Boyce, Roger, Purdue University. "Purdue University PEARLS Program: Physics Educational Assistance, Resources, and Learning Strategies ." September 11, 2003.
- Cui, Wei, Purdue University. "Black Hole: A Natural Laboratory for Physics." October 2, 2003.
- Decca, Ricardo, IUPUI, Department of Physics. "Why Do We Need a Precise Measurement of the Casimir Force." September 4, 2003.
- Dunker, Keith, A, IU School of Medicine. "Protein Trinity." October 16, 2003.
- Eskildsen, Morten, University of Notre Dame. "Two Superconductors in One Package-The Story of Magnesium Dibromide ." October 9, 2003.
- Feller, Scott, Wabash College. "Molecular Dynamics Simulations of Saturated, Monounsaturated and Polyunsaturated Lipid Bilayer Membranes." February 6, 2003.
- Glazier, James, Indiana University. "Modeling Biological Development." March 27, 2003.
- Goldman, Rachel, University of Michigan. "Formation Mechanisms of Low-Dimensional Semiconductor Structures." April 24, 2003.
- Keller, Sarah, University of Washington. "Spheres That Break Out in Spots: Immiscible Phases in Membranes of Lipids and Cholesterol." November 6, 2003.
- Kirkpatrick, Elaine, Rose-Hulman Institute of Technology. "Heating Methods for Deployment of CHEM Foam Structures ." September 18, 2003.
- Rokhinson, Leonid, Purdue University. "Si Quantum Dots: Quantum Coherence and Spin Manipulation." October 23, 2003.
- Wickham, Robert A., St. Francis Xavier College. "The Decay of Metastable Lamellae via the Nucleation of Stable Cylinders in Diblock Copolymer Melts." November 19, 2003.
- Woodahl, Brian, IUPUI, Department of Physics. "Neutrinos and the Stability of Neutron Stars." September 25, 2003.
- Wu, Qiong, IUPUI, Department of Physics. "Investigating Internal Motions of Intestinal Fatty Acid Binding Protein by Solution NMR." February 27, 2003.
- Yu, Weiming, IU School of Medicine. "Seeing is Believing: Imaging with a Two-Photon and Time-Resolved Fluorescence Microscope." February 13, 2003.
- Yurko, Michael, IUPUI, Department of Physics. "Physics of Financial Markets." January 23, 2003.

DEPARTMENT OF PSYCHOLOGY

- Ashborn-Nardo, Leslie, University of Kentucky. "Implicit Psychological Distancing as Self-Protection From Stigma." February 2, 2003.
- Aman, Michael, Ohio State University School of Medicine. "Clin. Outcome Studies in Autism." March 14, 2003.
- Austrom, Douglas, Turning Point Associates. "Organizational change: The myths and reality of change consultation." April 10, 2003.
- Bare, Don MSW, St. Vincent Stress Center. "Everything You Never Wanted to Know About Being a Counselor But I'M Going to Tell You Anyway." April 4, 2003.
- Gerin, William, Columbia University. "Cardiovascular Reactivity and Recovery: Evolution of a Model of Chronic Disease." October 31, 2003.

- Gerin, William, Columbia University. "Cardiovascular Behav. Medicine." October 31, 2003.
- Hacherl, Aaron, Development Dimensions Interntl. "Recruiting on the Web in the New Millennium." February 21, 2003.
- Klion, Reid, Performance Assessment Network "Recent Developments in Web-Based Assessment." November 21, 2003
- Kossek, Ellen, Michigan State University. "Work-family Balance Issues." March 28, 2003.
- Kossek, Ellen Ernst, Michigan State University. "Organizational Support for Integration of Work and Family Roles: A Review and Directions for Future Research." Professor of Human Resource Management and Organizational Behavior." March 28, 2003.
- Lohorn, Wade, Indiana Mental Health Board and Tansinsin, Sextus, Director Indiana Psychology Board. "Counseling? Psychotherapy? What you Need to Know About Indiana Requirements for Masters Level and Doctoral Level State Licensure." April 25, 2003.
- Oswald, Debra, St. Louis University, "Friendship Maintenance: Scale Development and Analysis of Individual and Dyad Level Behaviors." January 31, 2003.
- Patrick, Heather, University of Houston, "When Beauty is More Than Skin Deep: Contingent Self-Worth and Appearance-Related Comparisons." February 10, 2003.
- Swiezy, Naomi, Department of Psychiatry, Indiana University School of Medicine "Applied Behavior Analysis Workshop." October 10, 2003.
- Todd, Pat, Eli Lilly & Co. "Training evaluation at Eli Lilly & Co." January 30, 2003.
- Woodard, John, Finch University, Chicago Medical School "PET and Working Memory in Alzheimer's Disease." April 25, 2003.
- Wantz, Stephen, Clarian Health Partners. "Workforce Development for the Total Person." October 31, 2003.