

Musica

rough v

**Undergraduate Research** Conference

April 18-26, 2008

Showcase for undergraduate research, scholarship, and creative presentations



The look of satisfaction and accomplishment on







## A welcome to participants and attendees



MARK W. HUDDLESTON



T. TAYLOR EIGHMY

TELCOME to our springtime celebration of hands-on learning at the University of New Hampshire. Now in its ninth year, the UNH Undergraduate Research Conference (URC) highlights the outstanding research, scholarship, and creative activities of our students and their faculty mentors. We take pride in—and learn from—their accomplishments.

What began in 2000 with just a handful of participants and only eight events has blossomed into an annual tradition that puts UNH students in the spotlight. Our conference is now among the largest and most diverse in the nation. More than 800 students will present their findings at dozens of events across both the Durham and Manchester campuses, and represent academic achievements in every college and school.

This extraordinary learning experience helps students build the necessary knowledge, skills, and confidence to pursue graduate studies and/or meaningful careers. The URC is a shining example of our students' success and the discovery-based education for which we are known.

Whether your visit includes a poster session, symposium, art exhibit, or creative presentation, we are confident that you will be impressed with these participants' knowledge and understanding.

Thank you for your interest in and support of our remarkable students.

Sincerely,

MARK W. HUDDLESON, PRESIDENT

Weweller Lella P

Taylor Eiginny

T. Taylor Eighmy, Interim Vice President for Research

The Earth's climate is changing faster than scientists have predicted.
The impact of these changes is dramatic.
How can we solve the problem?

# A Faustian Bargain— Yet Grounded in Science

The UNH Undergraduate Research Conference and Office for the Vice President of Research, in conjunction with the MUB Current Issues Lecture Series, are proud to present an evening with

## **Berrien Moore III**

Wednesday, April 23, 2008 7:30 P.M. The Strafford Room, Memorial Union Building (MUB) University of New Hampshire, Durham

Berrien Moore has been a prominent participant in both the scientific investigation and policymaking aspects of climate change for nearly 30 years. From 1987 through 2007, he was the founding director of the renowned Institute for the Study of Earth, Oceans, and Space (EOS) at the University of New Hampshire. Recently, he was among a worldwide network of scientists awarded the Nobel Peace Prize for its work with the Intergovernmental Panel on Climate Change (IPCC), which shared the prize with former Vice President Al Gore.

Tickets required. Reserve free tickets at www.unh.edu/urc or call 603-862-1997. Doors open at 7:00 P.M. Parking is available in B Lot.

For accessibility accommodation erquests, contact Lynne Cooper at 603-862-1997. For TTY calls only, call 800-relay-nh.









## **URC '08** Contents

Calendar of events	4	Friday, April 25 Events	
Map	5	UNH Manchester URC— Engineering Technology Presentations	18
Thursday, April 17 Events Graduate Research Conference (GRC) Friday, April 18 Events	6	Breakfast with President Mark Huddleston and Interim Vice President for Research Taylor Eighmy	18
		Parents Association Undergraduate Research Symposium	
		Poster Presentations; session A	21
2008 Senior B.A., B.F.A., and M.F.A. Exhibition and Preview Reception		Oral Presentations; session A	23
	6	Poster Presentations; session B	26
Student Composers' Concert	6	Oral Presentations; session B	28
		Oral Presentations; session C	32
Tuesday, April 22 Events		The Naked Arts—Creativity Exposed (Act III)	35
UNH Manchester URC—Oral Presentations	6	College of Health and Human Services Grimes Award Competition	35
Wednesday, April 23 Events		Honors English Undergraduate Research Conference	36
Seacoast Reads Exhibition	7	Psychology Department George M. Haslerud Undergraduate Research Conference	36
Thompson School Community Leadership Program	7	Philosophy Undergraduate Research Conference	37
UNH Office of Community Service Partnerships	8	1,	
Whittemore School of Business and Economics Paul J. Holloway Prize University-wide		Saturday, April 26 Events	
Innovation-to-Market Competition, Poster Session	10	17th Annual COLSA Undergraduate Research Conference	37
The Naked Arts—Creativity Exposed (Act I)	10	Contention	3,
Interdisciplinary Science and Engineering Symposium (ISE)	11	Events in May	
UNH Manchester URC—Poster Presentations	15	Mary Louise Fernald Nursing Research Symposium	40
URC Keynote Address with Berrien Moore III		Chemistry Department Poster Exhibition	41
A Faustian Bargain—Yet Grounded in Science  Thursday, April 24 Events	17	Whittemore School of Business and Economics Paul J. Holloway Prize University-wide Innovation-to-Market Competition,	41
UNH Manchester URC—Cinema Day	17	Championship Round	41
The Naked Arts—Creativity Exposed (Act II)	17	Additional Features	
History Department Undergraduate Presentations	18	Research with Real-World Implications	42
		Student Innovation on Display	43
		URC 2007 Awards of Excellence	44
		Committed to Undergraduate Research	46
		Acknowledgements	48
		Ç	10
		All events are free and open to the public.  Accessibility accommodation requests may be directed	
		to Lynne Cooper at (603) 862-1997.	

#### **URC '08** Calendar

All events are free and open to the public.

#### Thursday, April 17

10 AM-4 PM **Graduate Research Conference (GRC)** MUB, Strafford Room 3

#### Friday, April 18

6-8 PM

2008 Senior B.A., B.F.A., and M.F.A. **Exhibition and Preview Reception** 

The Art Gallery, Paul Creative Arts

(Exhibition runs April 19-May 24, 2008)

#### **8** PM **Student Composers' Concert**

Bratton Recital Hall, Paul Creative Arts Center



#### Tuesday, April 22

11 AM-1 PM **UNH Manchester URC— Oral Presentations** UNHM Auditorium

#### Wednesday, April 23

10:30 AM-noon **Seacoast Reads Exhibition** MUB, Rooms 334/336

10:30 AM-noon **Thompson School Community** Leadership Program MUB, Rooms 334/336 **3** 

10:30 AM-noon **UNH Office of Community Service Partnerships** 

MUB, Rooms 334/336 3



10:30 AM-noon **Whittemore School of Business** and Economics Paul J. Holloway Prize University-wide Innovation-to-**Market Competition Poster Session** 

MUB, Rooms 330/332

Noon-2 PM The Naked Arts—Creativity Exposed (Act I)

The Art Gallery, Paul Creative Arts Center 1

2-5 PM **Interdisciplinary Science and Engineering Symposium (ISE)** Kingsbury Hall 🗿

UNH Manchester URC— **Poster Presentations** UNHM Auditorium

7:30 PM

The URC, in partnership with the **MUB Current Issues Lecture Series,** presents an evening with **Berrien Moore III** 

Nobel Prize team member and former director of the UNH Institute for the Study of Earth, Oceans, and Space, Berrien Moore delivers this year's URC keynote address, "A Faustian Bargain-Yet Grounded in Science." Moore will provide a detailed view of how Earth's climate is changing faster than scientists have predicted, the dramatic impact of these changes on the Earth, and how we can solve the problem.

MUB, Strafford Room 3



#### Thursday, April 24

11 AM-1 PM **UNH Manchester URC—Cinema Day** UNHM Auditorium

12:30-2 PM The Naked Arts—Creativity Exposed (Act II)

Hennessy Theatre, Paul Creative Arts Center 1

12:40-2 PM **History Department Undergraduate Presentations** 

Two concurrent sessions MUB, Rooms 302 and 336

#### Friday, April 25

8 AM-3 PM **UNH Manchester URC—Engineering** Technology Presentations UNHM Auditorium

**9** AM Breakfast with UNH President Mark Huddleston and Interim Vice President for Research Taylor Eighmy MUB, Granite State Room

9:30 AM-2:30 PM **Parents Association Undergraduate Research Symposium** 

MUB, Granite State Room, 3 assigned rooms



12:15-1 PM The Naked Arts—Creativity Exposed (Act III) MUB, Strafford Room 3

College of Health and Human **Services Grimes Award Competition** Pettee Hall, G-10 6

1-4 PM **Psychology Department** George M. Haslerud Undergraduate **Research Conference** Conant Hall, Room 101

1-5 PM

**Honors English Undergraduate Research Conference** 

Hamilton Smith Hall, 5 **English Department** 

4-8:30 PM **Philosophy Undergraduate Research Conference** MUB, Rooms 338/340

Saturday, April 26

7:45 AM-2 PM 17th Annual COLSA **Undergraduate Research Conference** The New England Center 8

ADDITIONAL EVENTS

Wednesday, May 7

8 AM-3:30 PM **Mary Louise Fernald Nursing Research Symposium** MUB, Strafford Room 3

Friday, May 9

2:30-4 PM **Chemistry Department Poster Exhibition** Parsons Hall, Iddles Wing

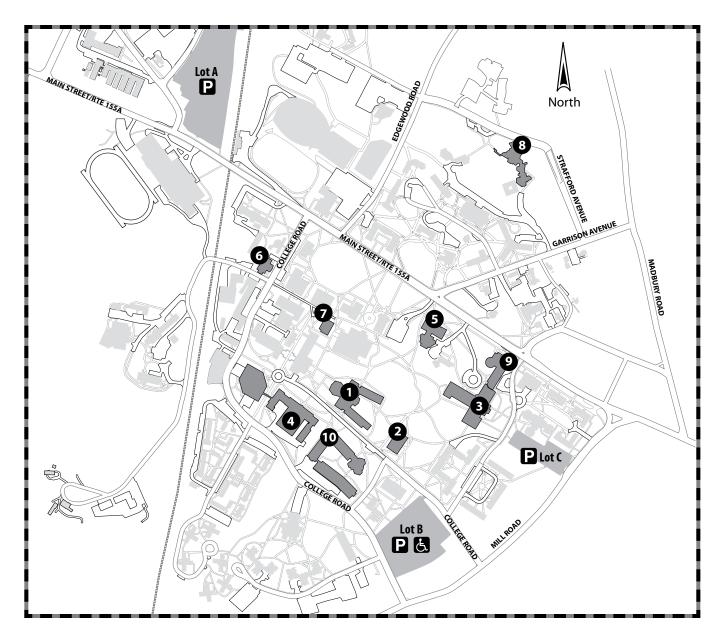


Wednesday, May 14

2-4 PM

Whittemore School of Business and Economics Paul J. Holloway Prize University-wide Innovation-to-Market-**Competition, Championship Round** Holloway Commons

## **Campus** Map



#### **BUILDING KEY**

- 1. Paul Creative Arts Center
- 2. Horton Hall
- 3. Memorial Union Building (MUB)
- 4. Kingsbury Hall
- 5. Hamilton Smith Hall

- 6. Pettee Hall
- 7. Conant Hall
- 8. New England Center
- 9. Holloway Commons
- 10. Parsons Hall

UNH Manchester 400 Commercial Street Manchester, N.H.

For directions to UNH Manchester go to www.unhm.unh.edu/directions.html or call (603) 641-4321.

## Graduate Research Conference (GRC)

Thursday, April 17 10:00 a.m.–4:00 p.m. Memorial Union Building, Strafford Room

The Graduate Research Conference is devoted to celebrating the high-quality research being conducted by graduate students at UNH and is designed to showcase research from graduate students in all disciplines. Participants interact with other graduate students and faculty from across campus.

Information on participants wil be available at the event.

# 2008 Senior B.A. & B.F.A. Exhibition and M.F.A. Thesis Exhibition (I) Preview Reception

Friday, April 18 6:00–8:00 p.m. Exhibition runs April 19–May 24, 2008 The Art Gallery, Paul Creative Arts Center

This annual show celebrates the achievements of graduating art students from the UNH Department of Art and Art History.

Participants include:

(and their presentation mediums): Rebecca Davis, painting Jennifer Lonergan, digital photography Jessica Paterson, digital photography Amanda Roseberry, furniture Rachel Stern, ink on paper

B.A. Studio Art degree candidates

#### B.F.A. degree candidates:

Lindsay Bezich, painting
Shawn Burke, drawing/printmaking
Kimberly DeCicco, painting
Alissa Feller, painting
Lily Finnigan-Allen, painting
Sean Hurley, printmaking
Lauri Lannan, photography
Cailin Mateleska, photography
K. Lee Mock, painting
Colleen Murphy, sculpture
Lindsay Wraga, painting

## Student Composers' Concert

Friday, April 18 8:00 p.m. Bratton Recital Hall, Paul Creative Arts Center

The UNH Student Composers' Concert is an annual event that features the music of undergraduate and graduate students of the Music Department. The music is newly composed, and is almost exclusively performed by fellow music students.

Eric Brown, Music Theory
Scott Thibodeau, Music Education
Ben Tibbetts, Music Theory
Nolan Bonvouloir, Performance
Luke Miller, Music Education
Anders Benson, Pre-Teaching
James Wickham, Pre-Teaching
David Orr, Performance
Meghan McCrillis, Music Education
Mike D'Errico, Music Education
Stephen Bobick (non student)
Jeff Heim, Music Theory
Diane Anderson, Music Studies

## UNH Manchester Undergraduate Research Conference

#### **Oral Presentations**

Tuesday, April 22 11:00 a.m.–1:00 p.m. UNHM Auditorium

Oral Presentations are formal scholarly lectures and/or multimedia presentations reflecting students' research interests.

#### **Wendy Borrun**

History

Birmingham 1963: The Struggle for Civil Rights

Adviser: John Resch

#### **Aaron Boucher**

Humanities

A Chorus of Waves: Exploring The Nature of Identity as Expressed in the Works and Literary Style of Virginia Woolf Adviser: Terry Savage

#### Michael Brunelle

History

The Lynching of Emmett Till: Prejudice, Injustice, and the Civil Rights Movement Adviser: John Resch

#### Michael Brunelle

History

Bob Dylan (1960–1966): Politics, Popular

Culture, and Folk Music Adviser: Robert Macieski

#### Darlene Delano

History

African-American Portrayals in Musical

*Theatre: 1920's–1930's* Adviser: Robert Macieski

#### Kirsten Hildonen

History

Film Exhibition in Manchester, N.H.: Movies as Leisure for an Industrial

Working Class

Adviser: Jeffrey Klenotic

#### Meghan Marcus

Communication Arts
Suggestion of Roles in Gay Advertising:
A Modern Application of Erving Goffman
Adviser: Jeffrey Klenotic

#### S. Daniel Mattingly

Politics and Society
Nauru, a Micro-state with a Macro
Problem

Adviser: Michael Contarino

#### **Devon Mercer**

History and English
The Feminist Mystique—Sociopolitical
Impact of Second-Wave Feminism
Adviser: John Resch

#### **Maria Morales**

Psychology

Dental Healthcare of New Hampshire

Seniors

Adviser: Alison Paglia

#### Iames O'Neill

Humanities and Communication Arts Dionysian Influence in the Art of Ancient Greece

Adviser: Terry Savage

#### Nicole Ponti

Communication Arts How Change is Implemented At All Levels in Public Schools Adviser: Paul Loranger

#### Katy St. George

Psychology
Barriers in Accessing Community
Resources for Low Income Mothers
Adviser: Alison Paglia

## Seacoast Reads Exhibition

Wednesday, April 23 10:30 a.m.-Noon Memorial Union Building, Rooms 334/336

The Seacoast Reads exhibition displays the work of UNH student volunteers who tutor young children in elementary schools and after-school programs in literacy. Since 1998 almost one thousand UNH students have worked through Seacoast Reads to tutor a like number of children. Sponsored by the Graduate Program in Reading and housed in the Department of Education, Seacoast Reads draws students from across the University and represents one of the largest service and outreach organizations on campus.

## Thompson School Community Leadership Program

## Portfolio, Research, and Independent Study Presentations

Wednesday, April 23 10:30 a.m.-Noon Memorial Union Building, Rooms 334/336

The Community Leadership Program is an innovative associate degree and diploma program that prepares students of all ages to work effectively within community organizations and to be active, influential citizens. This exhibition displays students' leadership portfolios and highlights significant community projects and partnerships.

#### Jesse Burdwood

Community Leadership
A Day in the Life of Someone with
Developmental Disabilities
Adviser: Kate Hanson

#### **Cheryl Coffin**

Community Leadership Seymour Osman Community Center Penny Sale Advisers: Timothy Barretto, Kate Hanson

#### Sarah Curley

Community Leadership
Fund Raising Campaign for E.P.O.N.A
Advisers: Timothy Barretto, Kate Hanson

#### Daniel DiPalma

Communication
Event Promotion at United Way of the
Greater Seacoast
Adviser: Kate Hanson

#### **Nicole Finitsis**

Community Leadership
Planning An Effective Service Project
Adviser: Kate Hanson

#### **Julian Linero**

Community Leadership Portfolio Presentation Adviser: Timothy Barretto

#### Kyle McAdam

Community Leadership New Hampshire Sierra Club Adviser: Kate Hanson

#### Varalin Newcomer

Community Leadership
The Cornucopia Food Pantry Project
Advisers: Timothy Barretto, Kate Hanson

#### Lori Parent

Community Leadership Administrative Office Professionals—Who Are We and What Do We Do? Adviser: Kate Hanson

#### Kelley Wojcik

Community Leadership Senior Portfolio: Penny Sale Adviser: Timothy Barretto

#### THOMPSON SCHOOL COMMUNITY LEADERSHIP PROGRAM, CONTINUED

## **Grant Writing for** Community-Based **Organizations**

#### **Amanda Caros**

**Equine Sciences** Grant Proposal for Cross Roads House

#### **Cheryl Coffin**

Community Service and Leadership Grant Proposal for Seymour Osman Community Center

#### **Emily Cousineau**

**Environmental Affairs** Grant Proposal for Cocheco Valley Humane Society

#### Sarah Curley

Community Service and Leadership *Grant Proposal for E.P.O.N.A.* 

#### **Nicole Finitsis**

Community Leadership Grant Proposal for Cross Roads House

#### Krista Grava

Community Leadership Grant Proposal for Seymour Osman Community Center

#### Alex Hammond

Nondegree student Grant Proposal for the Dover Teen Center

#### **Sharon Harvey**

Nondegree student Grant Proposal for the Dover Teen Center

#### Marisa Imon

Community Development Grant Proposal for the Dover Teen Center

#### **Mandy Lancaster**

Social Work Grant Proposal for Cross Roads House

#### Julian Linero

Community Service and Leadership Grant Proposal for E.P.O.N.A.

#### Daniela Matteoni

Applied Animal Science Grant Proposal for Cocheco Valley Humane Society

#### Varalin Newcomer

Community Service and Leadership Grant Proposal for E.P.O.N.A.

#### Kelley Whitney

Social Work Grant Proposal for Cocheco Valley Humane Society

#### Kelley Wojcik

Community Leadership Grant Proposal for Seymour Osman Community Center

Adviser: Deb Sugerman

## **UNH Office of Community Service Partnerships**

#### Wednesday, April 23 10:30 a.m.-Noon Memorial Union Building, Rooms 334/336

This display showcases the work of student service organizations and student groups—ranging from spring break trips to residence hall community partnerships—engaged in community service and servicelearning projects throughout the year.

#### Katie Brym

Theatre

One Night Without a Home Adviser: Marianne Fortescue

#### Katie Brym

Theatre

#### **Jennifer Cook**

**International Affairs** Oxfam Hunger Banquet Adviser: Marianne Fortescue

#### Michelle Daigneault

Recreation Management and Policy and Program Administration Ride for Relay—UNH RMP Recreation Society

Adviser: Joshua Carroll

#### Eva Jacobson

International Affairs and Political Science University of New Hampshire STAND (Student Anti Genocide Coaltion) Adviser: Alynna Lyon

#### Elizabeth Joseph

English

#### Andrew Vincello

**Environmental Conservation Studies** The Durham Community Dinners: A Harvest of Local Love Adviser: Larry Brickner-Wood

#### Elizabeth Joseph

English

UNH-RENU: Closing the Loop Adviser: Anne Lawing

#### Kaitlyn Lewis

Anthropology

Alternative Break Challenge—Kansas City,

Missouri

Adviser: Marianne Fortescue

#### Caleb Morrill-Winter

Mechanical Engineering UNH Nicaragua Community Action Trip Adviser: Marianne Fortescue

#### Gretchen Olson Genevieve Pearson

Communication Sciences and Disorders Ahasia: Raising Awareness for First Responders Adviser: Jeanne O'Sullivan

#### Michelle Pizzillo

Recreation Management and Policy Alternative Break Challenge Adviser: Marianne Fortescue

#### KATE HANSON

Thompson School of Apllied Science

#### And the Walls Come Down

FOR KATE HANSON, associate professor of social science at the Thompson School, the best classrooms are those without walls—where students and faculty can interact with the community and with each other.

Hanson's philosophy and approach have evolved over time. As an undergraduate, Hanson studied English literature. She planned to enroll in the master's program in English at UNH, but chose instead to explore her fascination with relationships and "the complexities and possibilities of our interactions with each other," ultimately earning her M.Ed. in counseling at UNH. "This background," Hanson explains, "taught me the value of an applied approach to teaching: What difference do the lessons students learn in the classroom make in their lives as they live them now?"

Hanson refined her approach with decades of community work—ranging from being an advocate at a rape crisis center to serving on a local school committee. Ultimately, an interest in teaching and a passion for community service led Hanson and Timothy Barretto, associate professor of communications at the Thompson School, to develop the community leadership (CoLead) program in 2000. Now in its eighth year on the Durham campus and its first year at UNH Manchester, the program is a spring-board for some of the University's most involved, recognized, and successful students.

The only associate degree program of its kind in the country, CoLead is for students who wish to leverage their passion for community activism into rewarding careers. "We developed the CoLead program to fill a void in the community," Hanson says. "There was no place where students could learn the core leadership skills needed in community organizations: supervising volunteers, facilitating meetings, speaking in public, organizing events, and writing clearly, for example."

Today, CoLead combines classroom learning and hands-on experience to teach students to work collaboratively or in leadership roles to solve problems and effect social change at local, regional, and national levels. "Our classes are a microcosm of society and our students have a variety of values and beliefs, and one of the first lessons students learn is that each of them is as important as anyone else in the room and as necessary to making the class really work," says Hanson.

The CoLead experience culminates with a capstone project through which students can share the best practices they've developed. The capstone projects and the student portfolios are exhibited at the Undergraduate Research Conference.

While Hanson herself has been recognized with the 2005 Campus Compact of NH President's Good Steward Award, the 1999 UNH Stephanie Thomas Award for "Promoting Equity and Serving as a Role Model for Women," the 1999 UNH Distinguished Pink Triangle Award for "commitment to and support of an inclusive community at UNH," and the 1992 TSAS Outstanding Educator Award, she is especially proud of the 2007 Spirit of New Hampshire Award, which was presented to the CoLead program last year by Governor John Lynch and Volunteer NH! to honor the program's outstanding contributions to volunteerism in the state.

But CoLead faculty and students aren't resting on the laurels. The expansion of the program to UNH Manchester will provide a wealth of new opportunities. "UNHM's urban mission will provide us all with new chances for especially creative application research," notes Hanson. "And as what we can do in the classroom is extended to communities in the Merrimack Valley and across the state and region, more walls will be moved—or better yet, brought down completely."



## **Whittemore School of Business and Economics Paul J. Holloway Prize**

## **University-wide** Innovation-to-Market Competition Poster Session

Wednesday, April 23, 2008 10:30 a.m.-Noon Memorial Union Building, Rooms 330/332

This competition takes students out of the classroom and into the real world. Students are required to research and prepare strategies for commercializing new products and services, which they present to a panel of industry judges. Prizes are awarded for the most feasable and fundable approaches for starting, acquiring, or expanding a business venture.

#### Ryan Abelli **Donald Wyman**

**Business Administration** 

#### Peter Krauklin **Patrick Nearing**

Civil Engineering Optical Measurement Sensor Adviser: Erin Bell

#### **Timothy Andrews**

Mechanical Engineering

#### Steven Robertson

Marketing

Eco-Friendly Sleep System—Climate Controlled Sleep System Environment Adviser: May-Win Thein

#### Meghan Berggren **Amanda Colby**

**Business Administration** Team ARGOS—The Unleash: Go Unleash Your Life

Adviser: William Burke

#### **Jeremy Blanchard**

Mechanical Engineering

#### **Naoufal Souitat**

**Business Administration** EnerTrac and EnerSess—Energy Monitoring and Assessment Adviser: Christopher White

#### Anna Boisvert

International Business and Economics

#### Gregory Richardson Sebastian Titz

**Business Administration** Glycura-A Catalyst for a Cure Adviser: A.R. Venkatachalam

#### Ming Cao

Chemical Engineering Novel Superabsorbent from Renewable Resource Adviser: Yvon Durant

#### Steven Castle

**Entrepreneurial Venture Creation** Evo E-Reader Advisers: William Hassey, Jun Li

#### **John Dow**

#### Thandapani Palanichamy Padmabala Venugopal

Business Administration and Entrepreneurial Venture Creation

#### Amit Savant

Business Administration and Finance Energy Portfolio Solutions Adviser: Robert Gough

#### **Stuart Fricke**

Mechanical Engineering Project Eisbar Adviser: Donald Troop, Barkley Sive

#### Matthew Gahm

Entrepreneurial Venture Creation

#### Michael Johnson Ionathan Yu

Finance ViBe Communications Adviser: Jun Li

#### **Hayley Holmes** Alison Hudson Shaun Kellogg **Bradley Martin**

**Business Administration** 

Chalk Talk

Adviser: Robert Gough

#### Sara Lincoln

Mechanical Engineering Tidal Power Generation In the Piscataqua

Adviser: M. Robinson Swift

#### Kevin Maher **Kevin Talty**

Richard Yoblonsky

**Business Administration** WhoUcall.com Adviser: Jeffrey Sohl

#### Albert Shattuck

**Business Administration** 

#### **John Tansey**

Mechanical Engineering and Business Administration Energy Products Intelligent Decision System (EPIDS) Adviser: Robert Gough

#### Igor Tsentalovich Russell Wilcox

Physics

OxyBottle—The Water Bottle and Oxygen System of the Future

Adviser: William Naumes

## The Naked Arts— **Creativity Exposed (Act I)**

Wednesday, April 23 Noon-2:00 p.m. The Art Gallery, **Paul Creative Arts Center** 

This event exposes the inner creative process of artists working in the arts disciplines. Presenters will describe the process, research, and other creative aspects undertaken to bring an artistic creation from initial inspiration to the gallery.

#### Alissa Feller

Art Studio Painting the Constructed Landscape Adviser: Jennifer Moses

#### Sean Hurley

Fine Arts
2008 BFA process
Adviser: Jennifer Moses

#### Cailin Mateleska

Fine Arts

Photographic Portraiture Blurring the Lines Between Posed and Candid Portraits Adviser: Grant Drumheller

#### Colleen Murphy

Fine Arts

Art as Growth and Entertainment Adviser: Jennifer Moses

Colleen Murphy Jen Ballentine Ruth Hayden Lauri Lannan

Kathleen Littleton

Erin Murray

Jessica Simpson

Lindsay Wraga

Fine Arts

An Homage to Feminist Artists Adviser: Mara Witzling

#### Lindsay Wraga

Fine Arts

Developing a Series of Paintings Adviser: Grant Drumheller

## Interdisciplinary Science & Engineering Symposium (ISE)

#### Wednesday, April 23 2:00-5:00 p.m. Kingsbury Hall

The ISE symposium welcomes and encourages scientific presentations from undergraduate students in all colleges and departments. The event features undergraduate research that contributes to, or benefits from, an interdisciplinary science and engineering perspective. Students have an opportunity to interact with peers and gain professional experience presenting research. Attendees learn more about research and educational

opportunities in science and engineering at UNH. The program will include a poster session, remarks from University leaders, refreshments and an awards ceremony.

#### **Jacob Aho**

Alexander Evangelou

**Electrical Engineering** 

**Jared Perkins** 

Mechanical Engineering

InterFACE

Adviser: John LaCourse

#### Elizabeth Aleo Melilotus DeBethune

Undeclared

#### Francis O'Connor

**Business Administration** 

The Transportation Wedge: Buckling

Down on CO<sub>2</sub> Emissions. Adviser: John Aber

Michael Allard Colin Fischer Tania Grindrod Jessica Murray Kyle Russ

Mechanical Engineering Ocean Wave Energy

Adviser: Christopher White

#### Michael Allard

Mechanical Engineering
Fabrication of Nanofeatures in a Bulk
Metallic Glass Material
Adviser: Brad Kinsey

**Erin Callum** (special guest from College of the Albemarle)

General Education

 ${\it Effects~of~Stormwtaer~Runoff~on~Ocean}$ 

Microorganisms

Adviser: Christopher Perry (College of the

Albemarle)

#### Cyrus Esmaeili

**Electrical Engineering** 

Timothy Andrews Adam Fitzpatrick Christopher Storro

Mechanical Engineering

Variable Airfoil Vertical Axis Wind

Turbine

Adviser: Barry Fussell

Kyle Avery
Ryan Clay
Joseph Sperry
Matthew Teeden
Civil Engineering

Grommet Creek Bridge Design

Adviser: Kevin Gardner

#### **Justin Baker**

Mathematics

A Compton Telescope for Locating and Identifying Radioactive Materials Adviser: Mark McConnell

#### Casie Hicks

Psychology

Jaime Baraiolo Raina Martinec Steven Zimmerman

Undeclared

Reducing  $CO_2$  Emissions: One Home at

a Time

Adviser: John Aber

Yuliya Barushka Scott Caisse Gregory Tully

Computer Engineering

Christopher Bickford Brandon Courcy Justin Courcy Michael DiFranco Adam Karlgren

John Laakso Aidan McAllister

Eric Mesmer

Mechanical Engineering

UNH Precision Racing—Car 36

Adviser: May-Win Thein

Issam ElAyadi Jeremy Mizzau

Computer Engineering

Robert Bisson Chad Everbeck Brad Gallant Patrick Maher Aaron Sexton

Mechanical Engineering Ducted Wind Turbine Adviser: Joseph Klewicki INTERDISCIPLINARY SCIENCE AND ENGINEERING SYMPOSIUM (ISE), CONTINUED

#### SARA LINCOLN'08

Mechanical Engineering College of Engineering and Physical Sciences

Faculty mentors: Professor Ken Baldwin, Professor M. Robinson Swift

## The Tides of Change

WITH THE ENERGY HABITS of today's world, our global climate is increasingly affected by contaminants and byproducts created by traditional energy generation methods. Furthermore, an inevitable energy crisis can be foreseen in the near future, with oil prices constantly rising and many researchers predicting that the world's oil supply will peak within this century.

For our research, we are working as a team to design and test a scaled model of a power-generation system to assess its feasibility. We designed this project specifically for the Piscataqua River in New Hampshire, below the General Sullivan Bridge—home to some of the strongest tidal currents in the United States.

Tidal energy addresses both the problems of climate change and the energy shortage. It creates no byproducts and has minimal impact on the environment. Unlike wind and solar power, which are dependent on changeable weather pat-



terns, tidal power is a continuous and predictable source of energy. It is this characteristic and its large-scale output potential that we believe will eventually give tidal power an edge over its competition.

The work and interest generated now will greatly benefit future endeavors in tidal power projects. This research is the first step to putting the University of New Hampshire at the cutting edge of a new and exciting technology, and paving the way for more technical advancements in the future.

Sara Lincoln presents her team's research on the promise of tidal power generation at the Interdisciplinary Science and Engineering Symposium (ISE), on Wednesday, April 23rd in Kingsbury Hall.

Group members (pictured): Zachary Annino '08, Mechanical Engineering; Robert O'Meara Jr. '08, Mechanical Engineering; Brian Campelia '08, Mechanical Engineering; Lindsay Coppa '08, Mechanical Engineering; and Sara Lincoln.

Not pictured: Garrett Partridge, Electrical Engineering; Susan Gagliardi, Mechanical Engineering; and Issam El Ayadi, Electrical Engineering.

#### **Ashley Bottom**

Biology

Polyculture: Optimizing Growth of

Nereis Virens

Adviser: Larry Harris

#### Alexander Brickett

Political Science

The Hydrostatic Hinge—An Innovative Solution to Reducing Bycatch Mortality

Rates in the Fisheries Adviser: Kenneth LaValley

#### Amanda Brown

Physics

#### Dana Filoti

Graduate Student

Analysis of Gold-Silica Composite Thin Films through X-ray Diffraction Pole Figures

Adviser: James Harper

#### Vernon Brown Michael Jefferson

(special guests from Elizabeth City State University)

Computer Science

Implementation of a Polycom H.3.23 Videoconferencing System for Support of Remote Sensing of Ice Sheet Research Advisers: Linda Hayden, Jeaime Powell (Elizabeth City State University)

Alex Bushong Courtney Dwyer Ryan Fleming Jennifer Fulton Logan Kenney Kenneth Lemarier Gary Lemay Andrew Mitchell Shawn Tobey Jarrod Trainor

Civil Engineering

Brentwood Recreational Facility Expansion Adviser: Jeffrey Melton Amy Conaty Tyler Crowe John Heaney Civil Engineering

Sean Hartnett Cara Hayward Jesse Medeiros Philip Trzcinski

Entrepreneurial Venture Creation

Justin Butterfield Scott Cloutier Owen Friend-Gray Zachary Magdol Hillary Schmidle Jeffrey Senders Gregory Sereni

Environmental Engineering
Retrofitting an Existing Commercial
Building to be More Sustainable
Adviser: Jenna Jambeck

Bryce Carmichael (special guest from Elizabeth City State University)

Computer Science

Modeling and Simulation of the Seismic TETwalker Concept in the Collection of Antarctica and Greenland Data Adviser: Arvin Agah (University of Kansas)

James Gealy Zachary Kelton Patrick Lee David Levine

Computer Engineering

Jeffrey Kite Robert Terry Electrical Engineering

Ryan Carney

Christopher Famolare Christopher Hill Melissa Minuti

Mechanical Engineering
UNH WildCatSat Senior Design Project
Adviser: May-Win Thein

Rena Caron Graduate Student Elizabeth Harvey English

Andrew Morehouse
Environmental Sciences

Modeling the Energy Balance of the UNH Organic Dairy Farm

Adviser: John Aber

Michael Chervincky Frank Gamsby Rebecca Haley Aaron Lowell Christopher Pavelko Nicholas Skianes

Civil Engineering
University of New Hampshire Traffic Study

Adviser: Kevin Gardner

Mathieu Chirat

Visiting Scientist/Graduate Student

**Dmitri Tsentalovich**Chemical Engineering
pH-Sensitive Polymer Particles for
Self-Healing Corrosion Protection
Adviser: Weihua Ming

George Clark

Physics

Star Sensor Flight Calibration for the Interstellar Boundary Explorer Advisers: Harald Kucharek, Eberhard Moebius

J. Ryan Collins Mark Demmitt Ryan Kline Norman Losh Justin Lowe Michael McGurl Adam Sprague John Westover Civil Engineering

**Brittany Giles-Huntsberger** 

Computer Engineering

Exeter Hospital Atrium

Advisers: Kevin Gardner, Charles
Goodspeed

Mark LaGuardia

Electrical Engineering

**Grace Hwang** 

Mechanical Engineering and Electrical Engineering

Daniel Cornwell
Eric Ferreira
Joseph Frost
Krista Konrad
Kevin McLean
Aarti Patel
Michael Poreba
Alexander Schindler
John Schroetter

Wayne St Pierre Nathan Tullis Marc Vanderhoof Mechanical Engineering S.A.E. Aero Design Adviser: John McHugh

Chelsea Cunard

**Environmental Sciences** 

**Gabriel Perkins** 

**Environmental Sciences and English** 

Jonathan Horton

Forestry

Nitrogen Cycling at the UNH Burley Demeritt Organic Dairy Farm, Lee, New Hampshire

Adviser: John Aber

Peter DiSalvo
John Michaud
Reid VanBenthysen
Mechanical Engineering
Electromagnetic Microforming
Adviser: Brad Kinsey

Justin Dufresne

Computer Engineering Human Energy Generator Adviser: John LaCourse

Walter Durack Heather Newton Craig Shillaber Matthew Valle Civil Engineering

One Small Bridge at a Time Adviser: Kevin Gardner

Jonathan Dyer Ryan Fredette Brian Oakes

Thaddeus Pietkiewicz

Torrie Schwab Patrick Zoppo

Civil Engineering

Seven Lakes Snowmobile Club Underpass Study

Adviser: Kevin Gardner

Jonathan Felch

**Environmental Sciences** 

Water Resources Assessment of Appledore Island, ME

Adviser: John Davis

#### INTERDISCIPLINARY SCIENCE AND ENGINEERING SYMPOSIUM (ISE), CONTINUED

#### **Philip Fernandes**

Physics

A Morphologic Survey of Black Auroral Forms Within Pulsating Aurora

Adviser: Marc Lessard

#### Janine Fraschetti

Earth Sciences

Geochemical Constraints on the Origin of a Shallow Ash Occurrence in the Mahanadi

Basin, offshore India Adviser: Joel Johnson

#### Stuart Fricke

Mechanical Engineering Formaldehyde Detector Adviser: Todd Gross

#### Stuart Fricke

Mechanical Engineering Operation Eisbar: Cryogenic

Preconcentrator Adviser: Donald Troop

#### Michael Gagnon

Chemical Engineering Biodiesel Production by Enzymatic Transesterification of Waste Oil Adviser: Palligarnai Vasudevan

#### Michael Gagnon

Chemical Engineering Determining the Location of Carboxylic Acids in Polymer Nanoparticles Advisers: Donald Sundberg, John Tsavalas

#### Iordan Goodrich

**Environmental Sciences** The Effects of High Ozone Episodes on Temperate Wetland Plants Adviser: Ruth Varner

#### Danielle Grau Patrick Melvin

Mechanical Engineering Senior Ski Project Adviser: Todd Gross

#### Danah Hashem Simon Huang Joseph Pearson

Chemical Engineering Biodiesel Processor Control Adviser: Ihab Farag

#### Jeffrey Heim Larissa Rubic Patrick Sullivan

Undeclared

Potential for Solar Energy in the Budget of

New Hampshire Adviser: John Aber

#### Lauren Houlihan Matthew Iones Morgan O'Neill

**Emily Powers** Undeclared

Winds Of Change: Renewable Energy Wedge Proposals for the New Hampshire

Energy Task Force Adviser: John Aber

#### **Scott Hurley**

**Environmental Sciences** Root Biomass and Mycorrhizal Fungi

Adviser: Erik Hobbie

#### Muhammad Islam

**Electrical Engineering** Active Noise Cancellation Headset

Adviser: Gordon Kraft

#### Benjamin Jackson

Physics

Impact of Radiation on Space Instrumentation

Adviser: Lynn Kistler

#### Jeffrey Kite

**Electrical Engineering** 

#### John Laakso

Mechanical Engineering

#### **Gregory Tully**

Computer Engineering The NASA Magnetospheric MultiScale

(MMS) Mission TableSat Adviser: May-Win Thein

#### Peter Krauklin **Patrick Nearing**

Civil Engineering

Development of an Optical Sensor to Remotely Measure Bridge Displacement Advisers: Erin Bell, Kevin Gardner

#### Jason Ouellette

Biology

#### Paul Kyriacopulos Ryan Leach

Chemical Engineering

Algae Growth in Waste Water and Effluent

Solutions

Adviser: Ihab Farag

#### Benjamin Larson **Dmitri Tsentalovich**

Chemical Engineering

pH-Responsive Particles from Hydrogen-Bonded Multilayer Polymers for Anti-

Corrosion Coatings Adviser: Weihua Ming

#### Rebecca Lehr

**Environmental Sciences** 

Developing a Climate Action Plan for UNH: Analysis, Collaboration, and

Implementation

Adviser: Cameron Wake

#### **Gary Lemay**

Civil Engineering

Wednesday Hill Brook Temperature Study

Adviser: Jennifer Jacobs

#### **Gary Lemay**

Civil Engineering

UNH ASCE Concrete Canoe

Adviser: David Gress

#### Sara Lincoln

Mechanical Engineering Tidal Power Generation Adviser: M. Robinson Swift

#### **Brian Lynch**

Physics

Iron Abundance Profiles in Cooling-flow Clusters: A Fossil Record of Past AGN-driven Convection? Adviser: Benjamin Chandran

Michael Martinelli

#### Fernando Vazquez **Evin Williams**

Laura Woodbury

Mechanical Engineering Whale Pinger Receiver Mount for Rigid-Hulled Inflatable Boat Adviser: Thomas Weber

#### Samuel Meehan

Physics

Study of Inner Detection System in CLAS Collaboration and Simulation of Silicon

Vertex Trackers

Adviser: Maurik Holtrop

#### **Andrew Middleton**

**Environmental Conservation Studies** 

#### Luke Teal

Chemical Engineering

The Effect of Nutrient Solution on Algae

*Lipid Content* Adviser: Ihab Farag

#### Tuyen Nguyen

Physics

Integral Analysis of a 2.22MeV Source

Candidate

Adviser: Mark McConnell

#### Morgan O'Neill

Physics

Using the Moon to Provide Accurate Pointing for the Interstellar Boundary

Explorer (IBEX) Star Sensor Adviser: Eberhard Moebius

#### Brian Patenaude

Physics and Mathematics

#### Seth Quarrier

**Physics** 

AIR STM Using Custom Electronics.

Adviser: Karsten Pohl

#### Jennifer Pollock

Chemistry

The Effects of Microwave Radiation in the Reduction of Acenes

Adviser: Glen Miller

#### Christopher Rappa

Computer Engineering

#### **Daniel Theroux**

**Electrical Engineering** 

Rappa-Theroux Robotics Robotic Sentry

Adviser: Gordon Kraft

#### Corinne Sadlowski

Chemistry

Diastereoselective Control Applied to the Tandem Chain Extension Methodology of Alpha-Carboxyester Imides and Bis-Imide

Precursors

Adviser: Charles Zercher

#### **Diana Saly**

Mathematics and Philosophy A Dynamical Systems Approach to Stability Tracking of Treadmill Running Adviser: Kevin Short

#### Craig Shillaber Matthew Valle

Civil Engineering

Building Bridges: The Tau Beta Pi K-12

Initiative

Adviser: Erin Bell

#### **David Sodaitis**

Physics

Shock Acceleration of the Energetic Particle Background in the Solar Wind

Adviser: Charles Smith

#### Jeffrey Tessein

Physics

Asymmetry of Power Spectra for Interplanetary Fluctuations at 1 AU

Adviser: Charles Smith

#### **Stephen Tilton**

Civil Engineering Redesign of Mill Plaza Adviser: Kevin Gardner

#### Matthew Valle

Civil Engineering

Evaluation of Structural Response of a Steel Framed Building Exposed to Fire

Adviser: Ricardo Medina

#### **Unquiea Wade** (special guest from

Elizabeth City State University)

Computer Science

Airborne Measurement of Snow Thickness

Over Sea Ice

Adviser: Prasad Gogengni (University

of Kansas)

#### Joel Waechter Allison Zorawowicz

Undeclared

New Hampshire Potential Nuclear

Energy Use

Adviser: John Aber

#### **Thadeaus Webster**

Chemical Engineering

Seaing Green: Algae Grown in Salt Water as a Potential Source of Biodiesel

Adviser: Ihab Farag

#### Joshua Wood

Physics

The Simulation of Optical Signals in a Prototype Neutron Detector Advisers: Ulisse Bravar, Jason Legere, John Macri, James Ryan, Richard Woolf

## UNH Manchester Undergraduate Research Conference

#### **Poster Presentations**

#### Wednesday, April 23 4:00–6:00 p.m. UNHM Auditorium

Poster Presentations showcase students' independent research and internship projects, service learning activities and civic engagement projects in the learning lab of the city of Manchester.

#### Rashid Alfaruque Andrew Conohan Tejas Desai Ryan Marcoux

Computer Information Systems and Applied Business Management Developing Technology Solutions for a Local Non-Profit Organization Adviser: Mihaela Sabin

#### Branka Cvokic

Business

American History in Song Adviser: Robert Macieski

#### Maria Becker

Biology

Geothermal Power Adviser: Sarah Kenick

#### Maria Becker

Biology

#### Christine Bussiere

Graduate Student

Bioinformatics of Lyme Disease

Adviser: Sarah Kenick

#### UNH MANCHESTER UNDERGRADUATE RESEARCH CONFERENCE—POSTER PRESENTATIONS, CONTINUED

**Bruce Benard** 

History

Woodstock and the Counter-Culture

Adviser: Robert Macieski

Nicholas Berner

Undeclared

BB King's Influence on the World and

Music

Adviser: Robert Macieski

Brian Block Admir Salkic Jason Wojtas

**Computer Information Systems** 

Delivering a Business Management System: From Requirements Capture to Integrated

Application

Adviser: Mihaela Sabin

**Brian Block** 

**Computer Information Systems** 

Tejas Desai Ryan Marcoux

Computer Information Systems and Applied Business Management

Community Program Management System for Massabesic Audubon Center

Adviser: Mihaela Sabin

**Peter Boucher** 

Engineering Technology

Jubilee Singers from Fisk University

Adviser: Robert Macieski

Rick Boulanger Edward Callahan Steven Zarse

Computer Information Systems Volunteer Management System for Salvation Army in Manchester

Adviser: Mihaela Sabin

**Danielle Boutin** 

English and Humanities Harlem Renaissance Adviser: Robert Macieski

**Christine Bussiere** 

•

Natural Alternatives to Parabens

Adviser: Sarah Kenick

**Christine Dobbins** 

History

Labor Lore and Aunt Molly Jackson

Adviser: Robert Macieski

**Emily Duane** 

**Business** 

Andrew Dufault James Graichen

Andrew Schwab

Computer Information Systems Asset Mapping Database for New Hampshire Catholic Charities

Adviser: Mihaela Sabin

Robert Duprez

History

The Journey of Muddy Waters Adviser: Robert Macieski

Jason Durso

History

Protest Songs of the Vietnam War

Adviser: Robert Macieski

**Bryn Farrington** 

History

The Civil Rights Act of 1964: Breaking

Down Color Caste
Adviser: John Resch

Nicholas Farrow

History

U.S. Music Morale of Troops and Civilians

of World War II

Adviser: Robert Macieski

Anna Gdanian

Communication Arts

**Danielle Huntress** 

Community Leadership

Hana Jabri

Business

Megan Parnell

General Studies

William Stewart

Community Leadership Warmth From the Millyard

Adviser: Kate Hanson

Hilel Gubenko

Psychology

Effects of Meaningful Versus Ambiguous Targets in Motion-Induced Blindness

Adviser: John Sparrow

Karen Handley

Computer Information Systems

America's Brewed Awakening: Supercritial

CO<sub>2</sub> Processing Grounds for Green

Chemistry Success Adviser: Sarah Kenick

Kirsten Hildonen

History

The Chinese Must Go: Debates

 $Surrounding\ the\ Chinese\ Exclusion\ Act$ 

of 1882

Adviser: John Resch

Kirsten Hildonen

History

Jerome Kern: The Elevation of the

American Musical

Adviser: Robert Macieski

Marina Ilyuk

History

USA and USSR in World War II

Adviser: Robert Macieski

**Mark Lacasse** 

History

When Children March: The Little Rock

Nine

Adviser: John Resch

**Holly Lafond** 

History

The Dawes Commission and the American

*Indians—1893 to 1905* Adviser: John Resch

Nickolas Levasseur

Microbiology

A Comparative Analysis of Transposable Elements of the Species C. elegans and C.

remanei *Using a Bioinformatics Approach*Adviser: Sarah Kenick

Brandi Makauskas

History and English

James Baldwin's Black Identity

Brandi Makauskas

History and English

Gothicism in Capote's In Cold Blood and

Other Rooms, Other Voices

#### Christopher Messer Christopher Zalegowski

Computer Information Systems
Applied Intern Projects in Computer
Information Systems
Adviser: Karla Vogel

#### Anmorya Nolan Michael Ripley Robert Watt

Computer Information Systems
Civic Engagement: A Database Application
to Manage Community Programs
Adviser: Mihaela Sabin

#### Anmorya Nolan Michael Ripley Robert Watt

Computer Information Systems
Data Control System for Massabesic
Audubon Center
Adviser: Mihaela Sabin

#### Lauren Odell

History

Public Reaction to the Chicago and Watts Riots in 1965 Adviser: John Resch

#### Lauren Odell

History

Digital Underground Adviser: Robert Macieski

#### **Gregory Palladino**

History

American Response to Anti-Semitism in Europe

Adviser: John Resch

#### Jacqueline Quintal

History

American History in Song Adviser: Robert Macieski

#### **Helene Shears**

History

African American Children's Songs Adviser: Robert Macieski

#### Leah Whitehouse

Business

Possessing the Past Adviser: Andrew Stangel

# The URC, in partnership with the MUB Current Issues Lecture Series, presents an evening with Berrien Moore III

## "A Faustian Bargain—Yet Grounded in Science"

#### Wednesday, April 23 7:30 p.m. Memorial Union Building, Strafford Room

Nobel Prize team member and former director of the UNH Institute for the Study of Earth, Oceans, and Space, Berrien Moore delivers this year's URC keynote address. Moore will provide a detailed view of how Earth's climate is changing faster than scientists have predicted, the dramatic impact of these changes on the Earth, and how we can solve the problem.

## UNH Manchester Undergraduate Research Conference

#### Cinema Day

#### Thursday, April 24 11:00 a.m.–1:00 p.m. UNHM Auditorium

The UNH Manchester communication arts program has a production track in which students complete introductory and advanced course work in video production, scriptwriting, audio production, film aesthetics, and documentary production. The student films and scripts illustrate student work at different stages in the curriculum.

#### Tami Geaghan

English

"Out of the Field": A One-Act Play Adviser: Dana Myskowski

#### **Jasmine Harris**

Communication

#### Vincent Vassallo

Undeclared *Under* \$6

Adviser: Anthony Tenczar

#### Alan Schulte

English and Communication Arts Running with Keith Shields: A Personal Profile Adviser: Anthony Tenczar

#### Jacob Wen

Communication Arts *The Day* Adviser: Jeff Klenotic

## The Naked Arts— Creativity Exposed (Act II)

#### Thursday, April 24 12:30–2:00 p.m. Hennessey Theatre, Paul Creative Arts Center

This event exposes the inner creative process of artists working in theatre and music. Presenters will describe the process, research, and other creative aspects undertaken to bring an artistic creation from initial inspiration to the stage.

#### Rachel Brodeur Rachel Elias

Theatre

Banned! Censorship in the Theatre Adviser: David Richman

#### Glenn Provost

Theatre

How I Learned to Drive Adviser: David Kaye NAKED ARTS—CREATIVITY EXPOSED: ACT II, CONTINUED

#### Katharine Scorzelli

Theatre

#### **Benjamin Tibbetts**

Music

Rhapsody in Red: Telling a Story Through

Music

Adviser: Christopher Kies

#### Julia Zukerman

Theatre

The Power of Imagination and Arts

Integration

Adviser: Raina Ames

## History Department Undergraduate Presentations

Thursday, April 24 12:40–2:00 p.m. Two Concurrent Sessions Memorial Union Building, Rooms 302 and 336

The History Department hosts a panel of undergraduate history majors who present research projects from their academic classes, research seminars, and Honors theses.

#### Laila Ballout

History and Philosophy A Nest of Adders: The Lessons from Beirut, 1983, and the Transition of Middle Eastern

Adviser: Kurk Dorsey

#### **Emily Fekete**

History and Geography Exploration: Past and Present Advisers: Alasdair Drysdale, Gregory McMahon

#### **Gregory Hebda**

History

Cyrus the Mule: Bureaucracy, Multiculturalism and the Founding of the Persian Empire

Adviser: Gregory McMahon

#### Daniel Jasinski

History

A Comparative Analysis of British and French Education Legislation During the 19th Century

Adviser: Nicoletta Gullace

#### Joshua Lawrence Minty

History

Vigilantism and the Antislavery Movement in 1850s Boston

Adviser: Jeffrey Bolster

#### Anna Peterson

History and Justice Studies
The "Always Terrified Airwomen" of the
Air Transport Auxiliary: The Women Who
Flew Military Aircraft in Second World
War Britain

Adviser: Nicoletta Gullace

#### Lindsay Whitelaw

History

Working Women: Protective Labor Legislation in the United States Adviser: Lucy Salyer

#### Keri Wolfe

History

Food Shortages in Spain During the Spanish Civil War

Adviser: Amanda Wunder

## UNH Manchester Undergraduate Research Conference

## Engineering Technology Senior Project Presentations

Friday, April 25 8:00 a.m.–3:00 p.m. UNHM Auditorium

#### Luay Abdulahi

Electrical Engineering Technology/ Computer Technology Option System Test Configuration Automation

Adviser: David Forest

#### **Guy Poisson**

#### Sergei Fischev

Electrical Engineering Technology Narrow Band Light for Alzheimers Adviser: David Forest

### Christopher Langone

John Leone

Electrical Engineering Technology

Durability Test Card

Adviser: David Forest

#### Vimal Patel

Mechanical Engineering Technology Process Excellence Adviser: Ralph Draper

#### **Alan Topliff**

Electrical Engineering Technology An Electronic Disturbance Generator

Adviser: David Forest

# Breakfast with UNH President Mark Huddleston and Interim Vice President for Research Taylor Eighmy

Friday, April 25 9:00-9:30 a.m. Memorial Union Building, Granite State Room

This informal gathering gives students and attendees an opportunity to visit with President Mark Huddleston and Interim Vice President for Research Taylor Eighmy. Huddleston and Eighmy will provide a preview of the large university-wide event that follows breakfast—the Parents Association Undergraduate Research Symposium (formerly the Vice President's Symposium).

#### DAVID KAYE

Associate Professor, Theatre and Dance

## Powerful Inspiration, Powerful Art

David Kaye, associate professor of Theatre at UNH, has literally done it all.

He has worked professionally throughout the U.S., Canada, and Latin America as an actor, director, and designer for such highly esteemed organizations as the Texas Shakespeare Festival, the Maine Shakespeare Theatre at Monmouth, the National Theatre of the Performing Arts, Boston Chamber Theatre, Stages Repertory Theatre in Houston, Texas, and New York City's Julian Acting Company. In addition, he is a produced and published playwright, and has also written, directed, and produced films, documentaries, and television programs for broadcast on PBS.

And while he values each of these more traditional theatre experiences, Kaye's passion has long been to explore

new, experimental ways of expression. He's found an ideal "stage" in academic life. "Academia is one of the few places today where an artist can pursue the experimental," says Kaye, who joined UNH in 1996. "I'm fascinated by the ways theatre can affect people beyond its ability to entertain—whether to foster dialogue about political issues, motivate social change, or stimulate the imagination—and traditional venues limited those possibilities."

Kaye's interest in the experimental and a less traditional approach to the arts makes his involvement with "Naked Arts—Creativity Exposed" a logical fit. The "Naked Arts" moves beyond the expected to expose the inner creative process of artists working in various disciplines. "For many students, URC offers a chance to be on 'stage,' sharing their research and scholarship, but our students present constantly," he explains. "For an artist, 'research' is more about the process or the journey taken from inspiration to the stage or gallery. 'Naked Arts' gives our students an opportunity to talk about their motivations and influences, the work they do, and the process they take. It also gives the faculty a chance to highlight project work that we believe is stellar; 'Naked Arts' lets viewers see what are truly the best artistic creations of the year."

Kaye points out that for some students, the research undertaken to prepare for "Naked Arts" may be very literal, such as an historical analysis of the life and time of a particular composer. For others, the research is more abstract, such as an introspective analysis of a personal event that provides a student with inspira-



tion. In all cases, however, the research demonstrates that the arts can touch every discipline. "The arts can encompass history, sociology, economics," Kaye notes. "I don't believe there is a single discipline offered on the UNH campus that can't plug in and see its life reflected in the arts somehow. That is one of the jobs of the artist: to show that reflection so that the viewer or listener has a better understanding of themselves and the world."

For the students who participate, "Naked Arts" is a meaning-ful experience. "To be successful, artists have to be willing to open themselves up, to show something of themselves that they may have tried to hide in other parts of their lives. This takes a tremendous amount of courage, and 'Naked Arts—Creativity Exposed' celebrates this effort," Kaye says. "It also provides students with a deeper understanding of their achievements. For many, the act of simply talking about their work requires self-examination and reflection, and often, this introspection helps students see how far they've come and what they've accomplished."

Involvement in "Naked Arts" is meaningful for Kaye as well. "There is no greater inspiration than to see the work of students who have achieved a level beyond what I can teach them," he says. "Many of my students are realizing work that I wish I had created, which is very exciting for anyone who loves theatre. I go deeper into my art every time I teach a student, and seeing the powerful art they create makes me better as an artist."







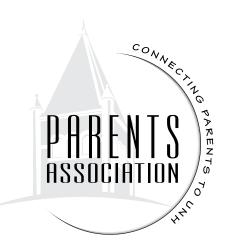


UNH Parents Association Undergraduate Research Symposium Friday, April 25, 2008

9:30 a.m. - 2:30 p.m.

igh-quality undergraduate research is the hallmark of a University of New Hampshire education. Now, with funds provided by the **Parents Association**, the University can increase its support to students during the **UNH Undergraduate Research Conference (URC)**. Funding student innovation: it's one of the many ways the **Parents Association** enhances the University's academic mission.

Be informed. Join the community. Make a difference.



## Parents Association Undergraduate Research Symposium

The Parents Association Undergraduate Research Symposium showcases students from all disciplines. Students present their faculty-mentored projects in either of two poster sessions, or in one of the three oral presentation sessions. University-wide participants come from a variety of disciplines.

## Poster Presentations, Session A

Friday, April 25 9:30–10:40 a.m. Memorial Union Building, Granite State Room

#### **Kiley Anderson**

Biology

#### **Enhua Wang**

Plant Biology Complementation of a Root Skewing Phenotype in Arabidopsis thaliana Adviser: Estelle Hrabak

#### Glareh Azadi

Chemical Engineering

Enzymatic Reaction in Microfluidic Device

Advisers: Nivedita Gupta, Palligarnai

Vasudevan

#### Karen Bailey

Kinesiology

The Effect of Bicycle Seat Height on Thigh Muscle Activation

Adviser: John Miller

#### Suzanne Costanzo

Business Administration and Marketing Does Marketing Really Effect Sales?

Adviser: Peter Masucci

#### Kristina Ernst

Social Work

Families First: Helping Pregnant Women with No Insurance

Adviser: L. Rene Bergeron

#### Amanda Fairbanks

Social Work

An Overview: The Dover Children's Home

Adviser: Brian Miller

#### Marisha Florissant

Nursing

Critical Care Nurses Perspectives Towards End-of-Life Care in the Intensive Care Unit Advisers: Joyce Blood, Gerard Tobin, Carol Williams-Barnard

#### Kate Gannon

Social Work

Partners in Health

Adviser: Brian Miller

#### **Jordan Goodrich**

Environmental Sciences
The Effects of High Ozone Episodes on
Temperate Wetland Plants
Adviser: Ruth Varner

#### Jennifer Gordon

Nursing

Home Symptom Regulation: Perceptions, Practices, and Needs of Congestive Heart Failure Patients

Advisers: Joyce Blood, Gene Harkless, Carol Williams-Barnard

#### Susan Gordon

Social Work

The Scope of Traumatic Brain Injury Adviser: L. Rene Bergeron

#### **Brittnee Greenleaf**

Kinesiology

Effects of Age and Activity Level on a Variety of Torque Variables, Agonist Muscle Activation, and Antagonist Muscle Activation of Elderly Women

Adviser: Dain LaRoche

#### Jamie Hanson

Social Work

N.H. Department of Health & Human Services: About Services for Children, Youth, & Families

Adviser: L. Rene Bergeron

#### Jessica Harring

Social Work

Understanding Sexually Transmitted Diseases

Adviser: Brian Miller

#### Elizabeth Joseph

English

In the Arms of the Community
Adviser: Clark Knowles

#### **Allison Lane**

Nursing

The Knowledge and Attitudes Regarding Pain of Direct Entry Masters in Nursing Students and Baccalaureate Students at a Rural New England University Advisers: Joyce Blood, Susan Fetzer, Carol Williams-Barnard

#### Rebecca Lehr

Environmental Sciences
Developing a Climate Action Plan for
UNH: Analysis, Collaboration, and
Implementation
Adviser: Cameron Wake

#### Nickolas Levasseur

Microbiology

A Comparative Analysis of Transposable Elements of the Species C. elegans and C. remanei Using a Bioinformatics Approach

Adviser: Sarah Kenick

#### Alexander Maffucci

**Economics** 

Ethanol's Effect on the American Beer Industry

Adviser: Reagan Baughman

#### Margret Mansfield

Microbiology

Tracking the Timeline of the Progression of Verticillium Wilt Infection in Susceptible and Resistant Plants of Mentha longifolia

Adviser: Thomas Davis

#### Jessica McKinney

Occupational Therapy
The Occupational Experience of Church
Membership

Adviser: Elizabeth Crepeau

#### Katelyn Parker

Social Work

Mental Health and the Justice System Adviser: L. Rene Bergeron PARENTS ASSOCIATION UNDERGRADUATE RESEARCH SYMPOSIUM—POSTER PRESENTATIONS: SESSION A, CONTINUED

#### NICOLE LABRANCHE FINITSIS '08

Community Leadership program Thompson School of Applied Science Faculty mentor: Kate Hanson

## The Gift of Hope

RELAYING A MESSAGE OF HOPE in our world today is a true gift to give. It doesn't have to be a verbal message, but rather something very tangible. You can express hope in many ways; whether you are planning a food and clothing drive, organizing a group of volunteers to clean up your town, or donating money to a natural disaster fund, you can give back to a community that means something to you.

At the Thompson School of Applied Science I have learned how to achieve event-planning success through the Community Leadership program. In my presentation, I will discuss the methods and criteria that help make a drive successful, complete with faculty, student, and alumni interviews and reflections on the program. I will take viewers step-by-step through the planning process of a major event that can be used campus-wide, or for an entire town. This will include the information I collected and presented to Boston University at the East Coast Conference on Hunger and Homelessness, a national campaign.

For me, giving is a way of life. I have been an intern for the UNH Waysmeet Center's Cornucopia Food Pantry for the past three years, and a facilitator for Cooperative Extension's Community Profiles for the past two. Currently, I am employed by Strafford County's Riverside Rest Home as a Program Assistant and Donations Coordinator, planning and implementing social activities for senior citizens.

Nicole M. Labranche Finitsis shares her organizational secrets in "Planning an Effective Service Project" at the Thompson School Community Leadership Program on Wednesday, April 23, in the Memorial Union Building.



#### **Margaret Peery**

Nursing

Cardiovascular Disease Knowledge, Risk Factor Identification, and Sources of Information Among College Students Advisers: Joyce Blood, Susan Fetzer, Carol Williams-Barnard

#### **Gregory Rompala**

Psychology

The Impact of Post-Learning Interval on Swim Stress-Induced Deficits in Navigational Memory Adviser: Robert Drugan

#### Elizabeth Solof

Social Work

How To Get Involved at Sexual Assault

Support Services Adviser: Brian Miller

#### Elizabeth Storti

Business Administration

Extreme Sports as a Growing Market

Adviser: Peter Masucci

#### **Ingrid Swanson**

Social Work

The Dover Teen Center Adviser: Brian Miller

#### Brianna Vassillion

Social Work

Domestic Violence Safety Planning Adviser: L. Rene Bergeron

#### Jennifer Wallis

Environmental Conservation Studies
An Evaluation of Presidential Candidates'
Energy Policies

Adviser: Mimi Becker

#### Kelley Whitney

Social Work

UNH Social Work Outreach Center

Adviser: Brian Miller

## Parents Association Undergraduate Research Symposium

## Oral Presentations, Session A

Friday, April 25 9:30–10:40 a.m. Memorial Union Building

MUB, Room 321

#### **Environment/Ecotourism**

**Moderator: Molly Dorsey** 

#### Chelsea Amato

International Affairs and Linguistics Beauty is a Fish: Japanese Fish and Whaling Trends in Reaction to International Pressures Adviser: Albert Griffin

#### **Tyler Crowe**

Civil Engineering
Comparing U.S. and EU Emission
Standards

Adviser: Albert Griffin

#### **Emily Gifford**

International Affairs and Geography Patagonia: Trouble in Paradise Adviser: Albert Griffin

#### Jessica Lizotte

International Affairs and Spanish Pura Vida: The Pros and Cons of Ecotourism in Costa Rica Adviser: Albert Griffin

#### **Patrick Nearing**

Civil Engineering
The Effective Use of Toll Systems in
Financing Infrastructure: A Comparison
of United States and European Policy
Adviser: Albert Griffin

#### Karina Olson

International Affairs and Political Science Spain's Environmental Policy
Adviser: Albert Griffin

#### MUB, Room 340

#### From Classroom to Community: Women's Studies Theory in Practice

Moderator: Mary Moynihan

Marie Coyle
English
Aubree Cecil
Stacy Clark
Emily Dewey
Brittany Fecteau
Women's Studies

Adviser: Mary Moynihan

#### MUB, Room 332

#### **Immigration Issues—North**

Moderator: Claire Malarte-Feldman

#### Kathryn Cox

International Affairs and International Business and Economics The Role of Hungarian-Roma in Hungary and the European Union Adviser: Albert Griffin

#### Tyler Kavanagh

International Affairs and French French Immigration and Racism Adviser: Albert Griffin

#### Michelle Marino

International Affairs and International Business and Economics The Effect of Changing Demographics in France

## Adviser: Albert Griffin

International Affairs and Sociology Racism in France
Adviser: Albert Griffin

#### Laura Smetana

Vanessa Roche

International Affairs and Political Science Real Life on the Stage: The Story of a Macedonian Immigrant Adviser: Albert Griffin

#### Tyler Walker

International Affairs and Geography Turkish People in Germany Adviser: Albert Griffin

#### MUB, Room 334

#### Immigration Issues—South

Moderator: Bud Khleif

#### **Charley Faria**

International Affairs and Geography Brazilian Communities in Greater Boston

and Greater Hartford, CT Adviser: Albert Griffin

#### Elizabeth Kirwan

International Affairs and Spanish
The Search for Cultural Identity: Spanish
Gypsies of Southern Spain
Adviser: Albert Griffin

#### Ryann Mead

International Affairs and English/Journalism Chinese Immigration Into Spain Adviser: Albert Griffin

#### Mary Mihovan

International Affairs and English
The Influence of Migration on Spain
Adviser: Albert Griffin

#### Laura Pires

International Affairs and Political Science Immigration in Spain Adviser: Albert Griffin

#### MUB, Room 237

#### Multidisciplinary Session I: Health Issues, Delinquency, and Social Tensions

**Moderator: Molly Doyle** 

#### Jessie French

Psychology and Justice Studies Gender Differences in Predicting Delinquency: Individual Differences Versus Attitudes

## Adviser: Ellen Cohn Mercedes Gaffney

International Affairs and European Cultural Studies Social Tensions in Post Unification Germany Reflected Through German Film Adviser: Mary Rhiel PARENTS ASSOCIATION UNDERGRADUATE RESEARCH SYMPOSIUM—ORAL PRESENTATIONS: SESSION A, CONTINUED

#### **Kara Hinrichs**

International Affairs and German *German Fairytales*Adviser: Mary Rhiel

#### Danielle Laroche

Health Management and Policy Improving Communication Between Community Activists and Regulators in Addressing Environmental Health Concerns

Adviser: Rosemary Caron

#### **Emily Roberts**

International Affairs and Nursing Nurses Performing Triage in Uganda: Decision-Making in Low Resource Settings Adviser: Gene Harkless

#### **MUB, Strafford Room**

#### Multidisciplinary Session II: Discussions of Natural Resources, Protection, and Fundraising

Moderator: Ken LaValley

#### Alexander Brickett

Political Science

The Hydrostatic Hinge—An Innovative Solution to Reducing Bycatch Mortality

Rates in the Fisheries Adviser: Kenneth LaValley

#### Benjamin Chiang Thadeaus Webster

Chemical Engineering Seaing Green: Algae Grown in Salt Water as a Potential Source of Biodiesel

Adviser: Ihab Farag

#### Michelle Daigneault

Recreation Management and Policy and Program Administration Ride for Relay—UNH RMP Recreation Society

41: T 1

Adviser: Joshua Carroll

#### **Jason Ouellette**

Biology

#### Paul Kyriacopulos Ryan Leach

Chemical Engineering
Algae Growth in Waste Water and Effluent
Solutions

Adviser: Ihab Farag

#### Lauren Schweizer

International Affairs and Environmental Conservation Studies Case Study on the Lawyers' Environmental

Case Study on the Lawyers Environmental Action Team (LEAT) and Their Position on Two Cases of Indigenous Land Rights: The Ngorongoro Conservation Area and Usangu Basin, Tanzania

Adviser: Andrew Rosenberg

#### MUB, Room 207

## Sociology—Towards Solutions for Key Societal Issues: Violence, Suicide, Healthcare, and TV

Moderator: Sharyn Potter

#### Shannon Byrne

Sociology and Justice Studies Bringing in the Bystander In-Person Prevention Program with the UNH Citizen Police Academy

Adviser: Sharyn Potter

#### Feoder Gostjev

Sociology and Justice Studies
Effects of Ethnically Specific Customs,
Related to Dating and Marital Practices,
on the Variance of Suicide Rates Among
Immigrants in the United States

Adviser: James Tucker

#### Valerie Hooper

Sociology

Portrayals of Gender in Television Commercials and the Effects on Achievement Aspirations of Audiences

Adviser: Jean Elson

#### Nicole Landry

Sociology

College Students' Attitudes and Acceptance of Body Modification

Adviser: Catherine Moran

#### Jamie Morrill

Sociology and Justice Studies
A Portrait of a Broken System: Provider
Perspective on Healthcare Delivery in
Hospitals—Recommendations for the
Facilitation of Elder Care
Adviser: Sharyn Potter

#### MUB, Room 336

#### Sources of Stability and Instability in the International Environment

Moderator: Lionel Ingram

#### Jeffrey Brunelle

History and Political Science
The Strength of the Uni-Multipolar System:
The Concert of Europe

Adviser: Alynna Lyon

#### Miner Crary

Philosophy
Isolating the Causes of Terrorism:
Economic Disillusionment
Adviser: Lawrence Reardon

#### **Brian Foley**

Political Science
Growth of Private Military Corporations:
Who Is Responsible?
Adviser: Lawrence Reardon

#### **Andrew Fuller**

Political Science
Nationalization in the Global Economy
Adviser: Lawrence Reardon

#### William Hart

Political Science
The CNN Effect and Media Influence on
Foreign Policy
Adviser: Alynna Lyon

#### **Kimberly Romano**

Political Science Great Britain's Declining Economy Adviser: Lawrence Reardon

#### MUB, Room 330

#### Spain/Morocco

**Moderator: Lori Hopkins** 

#### Sara Arnoudse

International Affairs and Spanish Spanish Health Care Adviser: Albert Griffin

#### Nathan Borgman

International Affairs and English
The Condition of Women in Morocco
Adviser: Albert Griffin

#### **John Foss**

International Affairs and Geography Al-Andalus: The Circumstances for the Prosperity in Islamic Spain Adviser: Albert Griffin

#### John Hilton

International Affairs and Spanish Spain and the United States: Unequal Rates of Violent Crime Adviser: Albert Griffin

#### Matthew Nutt

International Affairs and Spanish *Corruption in Spain*Adviser: Albert Griffin

#### Samuel Schofield

International Affairs and Geography Andalucia: The Prospects for a Regional Economy in the EU

Adviser: Albert Griffin

#### MUB, Room 203

## Sports Films and American Culture

Moderator: Beverly James

#### Adrena Altoonian

Communication
Kicking into High Gear: Goal! The Dream

Begins

Adviser: Beverly James

#### Joshua Clark

Communication

Ali: Man Behind the Myth

Adviser: Beverly James

#### Richard Drenkhahn

Communication

If You Can Dodge an Obstacle You Can

Dodge Anything

Adviser: Beverly James

#### **Daniel Leatherbee**

Communication
"Horse Feathers": A Non-Sequitor
Challenge of Conventionalism
Adviser: Beverly James

#### **Andrew Long**

Communication
Triumphing Adversity: "Invincible"
Adviser: Beverly James

#### Meghan Mahoney

Communication

Million Dollar Dreams

Adviser: Beverly James

#### Nicholas Miale

Communication

Respect Can't Be Earned on a Ballfield: The Ideologies and American Values

ın 61

Adviser: Beverly James

#### Jamie White

Communication

From Running a Home to Home Runs:

"A League of Their Own" Adviser: Beverly James

#### MUB, Rockingham Lounge

#### The 2008 Presidential Elections

Moderator: Dante Scala

#### Trevor Mauck

Political Science and Philosophy The Elements of a Successful Primary Campaign

Adviser: Dante Scala

#### Joseph Mellone

Political Science

Evaluating the Campaign—Bill Richardson

Adviser: Andrew Smith

#### Jake O'Donnell

English/Journalism
White House Bound: The Candidacy of
Bill Richardson
Adviser: Dante Scala

#### Jarred Rego

Political Science
The Candidacy of Rudy Giuliani
Adviser: Dante Scala

#### Brennan Ward

Psychology New Hampshire Voting Realignment: Trend or Apparition

Adviser: Andrew Smith

#### MUB, Room 338

#### The Politics of International Trade and Finance

Moderator: Caitlyn Piper

#### **Corey Garry**

Political Science

Foreign Direct Investment, the U.S., and its Implications on Power and Security
Adviser: Lawrence Reardon

#### Caitlin O'Connor

Political Science

Reviving Russia: Can a Legacy of Limited Economic Stability Be Broken?

Adviser: Lawrence Reardon

#### **Jacob Schwartz-Forester**

Political Science and Communication The Bretton Woods System: Regime Theory in the Post War World

## Adviser: Lawrence Reardon

International Affairs and Political Science The Ruble Crisis—Default in Russia, 1998 Adviser: Lawrence Reardon

#### Bram Van Zanten

Robbert Van Eerd

Political Science

The International Monetary Fund: Savior or Scavenger?

Adviser: Lawrence Reardon

#### MUB, Room 233

## Understanding the News: Critical Studies in Communications

**Moderator: James Farrell** 

#### David Bettencourt

Political Science and Communication Political Image and Expanded Media Coverage: A Comparison of Ronald Reagan and George W. Bush

Adviser: James Farrell

#### Hannah Lally

Communication
Cynicism and the Horse Race: Analysis of
N.H. Primary Campaign Coverage
Adviser: James Farrell

#### **Allison Somers**

Communication

Narrative Drama and Moral Clarity in News Coverage of the Pakistan Elections: A Comparative Study Adviser: James Farrell

#### **Heidi Soucy**

Communication

The Enactment of Ritual Drama: News Coverage of the Columbine Shootings Adviser: James Farrell

MUB, Room 302

#### Whittemore School of Business and Economics Marketing Workshop

Moderator: Peter Masucci

Kerri Alicandro **Ashley Boisvert** Michael Howarth **Jonathan Ladd** Nikki Oliveri Stacia Pietropaolo Amy Prushinski Christopher Rudnick Amanda Stevens

**Business Administration** 

Coca Cola—Moxie: Expanding Awareness and Increasing Trial of this Classic Soft Drink Brand

Adviser: Peter Masucci

**Tyler Bradbury** Hee Jung Chang **Timothy DiMinico** Paul Hubert Justin Lavoie Caitlin McElligott Peter Schoemmell

**Business Administration** 

Young's Restaurant: Marketing a Classic Durham Restaurant to UNH Students, Faculty, and Staff

**Christina Daly Ashley Herrin** Christian Kramar Catherine McCann **Casey Streelman** Jessica Wauters Nicole Yerganian Ashley Young **Business Administration** 

#### **Steven Robertson**

Marketing

EMC Corporation: Creating and Increasing Awareness of EMC and Promoting Career

**Opportunities** 

Adviser: Peter Masucci

## **Parents Association Undergraduate Research Symposium**

## Poster Presentations, Session B

Friday, April 25 10:50 a.m.-Noon Memorial Union Building, **Granite State Room** 

**Iacob Aho** Alexander Evangelou **Jared Perkins** 

Mechanical Engineering **InterFACE** 

Adviser: John LaCourse

#### Melissa Allen Jaime Gallagher

Psychology The Effect of Parental Style on Delinquency, Attitude, and Individual Difference Variables Adviser: Ellen Cohn

#### Alexandra Anderson

Social Work The Dover Teen Center Adviser: Brian Miller

#### **Ashley Barbour**

Nursing

The Work Experience of Ashanti Midwives: Understanding Satisfaction and Challenges of Practice

Adviser: Gene Harkless

#### Amanda Belville

Occupational Therapy Perceived Stress in Children and its Relation to Overall Health Adviser: Barbara White

#### **Heather Carmichael**

Nutritional Sciences

Evaluating the Relationship Between Body Composition and Physical Activity of College Students

Adviser: Jesse Morrell

#### Helmi Churcher

Communication Sciences and Disorders Enhancing Interdisciplinary Knowledge of Allied Health Students Through Community Programming Experience Adviser: Michael Fraas

#### Allison Collopy

Linguistics and Spanish

The Effects of Organic vs. Conventional Farming on Nitrogen Levels in Soil Water Leachate

Adviser: Jeffrey Schloss

#### Shari Davis

Nursing

Malaria Prevention Efforts: A Descriptive Study in the Afigye-Sekyere District of the Ashanti Region of Ghana

Adviser: Gene Harkless

#### Megan Delaney

Hospitality Management

Going Green: The Greening of the Hospital-

ity Industry

Advisor: Udo Schlentrich

#### Cara Gadapee

Social Work

The Feminist Health Center of Portsmouth, N.H.

Adviser: Brian Miller

PARENTS ASSOCIATION UNDERGRADUATE RESEARCH SYMPOSIUM—POSTER PRESENTATIONS: SESSION B, CONTINUED

#### Ruth Gerstenblatt Jonathan Moore

Hospitality Management Wentworth by the Sea: Function Room Occupancy and Revenue Research Study Adviser: Udo Schlentrich

Robert Haile (special guest from Great Bay Community College) Teacher Preparation Rising Sea Levels and the Impact on Hampton and Seabrook's Estuary Adviser: Stephen Hale

#### Lauren Hardies

Communication Sciences and Disorders Outcome Measures for the New Hampshire Healthy Hearing Program Adviser: Michael Fraas

#### Kirsten Hildonen

History
Film Exhibition in Manchester, N.H.:
Movies as Leisure for an Industrial
Working Class
Adviser: Jeffrey Klenotic

#### Muge Hurkal

Economics and Mathematics Will Enlargement of the European Monetary Union Create More Difficulties for the European Central Bank's Monetary Policy Decisions?

Adviser: Michael Goldberg

#### Jay Hydren

Kinesiology
Circuit Weight Training During the
Postpartum Period: Impact on Milk
Quality and Infant Acceptance
Adviser: Tim Quinn

#### **Mandy Lancaster**

Social Work Family Homelessness Adviser: Brian Miller

#### Alexandra Lasky

Social Work The On-Track Program

The On-Track Program Adviser: Brian Miller

#### Andrew Lee

Geography Greenhouse Gases from Shipping Emissions Over the Gulf of Maine Adviser: Huiting Mao

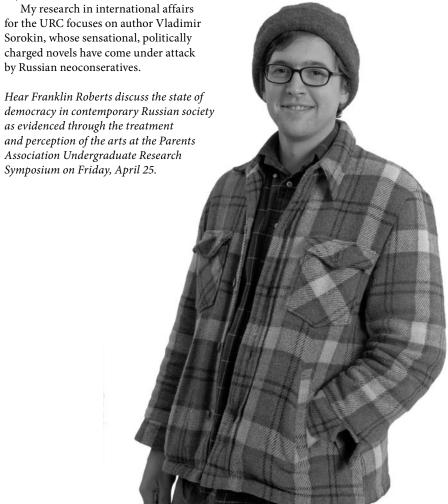
#### FRANKLIN ROBERTS

International Affairs and Russian Language College of Liberal Arts Faculty Mentor: Albert Griffin

### From Russia, with Love

MY DUAL MAJOR HAS HELPED ME DISCOVER THE WORLD. Last spring, I studied at the Moscow University of the Humanities. The entire experience reaffirmed my belief that cultural awareness is vitally important in today's global society.

I chose Russian as my first major because I felt that my understanding of the world was limited by my lack of knowledge about societies and cultures beyond the United States. All around me in movies, television, printed media, and in conversation with people close to me, I was shocked by the willingness of people in our country to perpetuate false stereotypes and their misunderstandings of the world at large. I resolved to take a different path, one that would hopefully lead me toward a more tolerant and objective view.



#### PARENTS ASSOCIATION UNDERGRADUATE RESEARCH SYMPOSIUM—POSTER PRESENTATIONS: SESSION B, CONTINUED

#### Nickolas Levasseur

Microbiology

A Comparative Analysis of Transposable Elements of the Species C. elegans and C. remanei Using a Bioinformatics Approach

Adviser: Sarah Kenick

#### Erikka Lewis

**Environmental Conservation Studies** 

#### Savanna Pettengill

English/Journalism

#### Kristen Schwerin

Music Education

Halting Hodgson Brook Destruction: Raising Awareness Through Film

Adviser: David Burdick

#### Jenna Madore

**Nutritional Sciences** 

The Association between Chronic Disease Risk Factors and Prescription Medication

*Use of Young Adults* Adviser: Jesse Morrell

#### Caitlin Massey

Social Work

The History of Sexual Assault Services

Adviser: L. Rene Bergeron

#### Caitlin McCoy

Social Work

*Juvenile Delinquency and Crime* Adviser: L. Rene Bergeron

#### Max Mehlman

Psychology and Zoology Mental Map Integration by Rats—A Pilot Study

Adviser: Brett Gibson

#### **Audrey Nailor**

Biology

The Survival of the Fantastic: The Evolution of Pelagicaballus Devius and Creative Integration in the Life Sciences

Adviser: Jessica Bolker

#### Anna Parker

History

Civil War Diaries and Letters

Adviser: William Ross

#### Nanette Roberto

Social Work and Outdoor Education *The Solstice School* 

Adviser: L. Rene Bergeron

#### Kathryn Robichaud

Social Work

The Interfacing of the Juvenile Justice System with a Teen Group Home

Placement

Adviser: L. Rene Bergeron

#### Corinne Sadlowski

Chemistry

Diastereoselective Control Applied to the Tandem Chain Extension Methodology of Alpha-Carboxyester Imides and Bis-Imide Precursors

Adviser: Charles Zercher

#### **Zachary Sarette**

**Economics** 

Entrepreneurship in Silicon Valley and

Hollywood

Adviser: Delia Konzett

#### **David Sodaitis**

Physics

Shock Acceleration of the Energetic Particle Background in the Solar Wind

Adviser: Charles Smith

#### Katherine Steere

Communication Sciences and Disorders and French

Social Communication and Quality of Life Following Acquired Brain Injury

Adviser: Michael Fraas

#### Sarah Sweeney

Social Work Easter Seals

Adviser: Brian Miller

#### Rebekah Venable

Social Work

Caregiver Compensation Through the Adult In-Home Care Program Adviser: L. Rene Bergeron

#### Brennan Ward

Psychology

New Hampshire Voting: Trend or

Apparition

Adviser: Andrew Smith

## Parents Association Undergraduate Research Symposium

## Oral Presentations, Session B

Friday, April 25 10:50 a.m.-Noon Memorial Union Building

MUB, Room 336

#### Chinese Foreign Policy: To Cooperate or Not

Moderator: Rina Lee

#### Anna Brown

Political Science

The Shanghai Six: Military Threat or

Economic Alliance?

Adviser: Lawrence Reardon

#### Sean Coughlin

International Affairs and Political Science China's Changing Attitude Toward Japan Adviser: Lawrence Reardon

#### Arthur Hawxhurst

History

China's Search for Nationalism Through

its WTO Ties

Adviser: Lawrence Reardon

#### Matthew Miller

Political Science

Losing Ground: Disinvestment in China's

Growing Economy

Adviser: Lawrence Reardon

#### Benjamin Wardrop

Political Science and Economics Cooperation or Conflict: A Contemporary Look at the Bilateral Economic Relations of China and Japan

Adviser: Lawrence Reardon

#### Courtney Wright

Political Science

China's Decision to Enter the Korean War

Adviser: Lawrence Reardon

#### MUB, Room 207

## Communication Honors Presentations

Moderator: Mardi Kidwell

#### Tavia Lee-Goldstein

Communication

Narrative Mediation in Adolescent

Conflict Management

Advisers: Mardi Kidwell, Sheila McNamee

#### Elizabeth Plageman

Communication

"Life's a Bitch, Don't Vote for One": The Rhetorical Embodiment of Hillary Clinton Advisers: Melissa Deem, Mardi Kidwell

#### Michael Soha

Communication

Narrowing the Field: How the Mainstream Media Rejected Alternative Candidates in the 2008 Primary Election Advisers: Mardi Kidwell, Joshua Meyrowitz

#### Jamie White

Communication

Asking Questions: The Interactional Organization of a Police Interrogation

Adviser: Mardi Kidwell

#### MUB, Room 321

#### **Economic Disparities**

Moderator: Marco Dorfsman

#### **Devin Begley**

International Affairs and Spanish A Study of the Mexican Social Strata and its Economic Implications

Adviser: Albert Griffin

#### Derek Hubbard

International Affairs and Spanish *CAFTA and Costa Rica*Adviser: Albert Griffin

#### Samantha Riemer

International Affairs and Political Science Importance of Remittances to Senegalese

Adviser: Albert Griffin

#### **Chloe Rochon**

International Affairs and Spanish *Las maquiladoras de NAFTA* Adviser: Albert Griffin

#### Lauren Schweizer

International Affairs and Environmental Conservation Studies Assessing the Environmental Effects and

Economic Viability of Ecotourism in New Zealand, Costa Rica, and Tanzania

Adviser: Albert Griffin

#### Erica Tarnowski

International Affairs and Political Science Os Preconceitos do Brasil: A Multifaceted Experience

Adviser: Albert Griffin

#### MUB, Room 338

#### **Growing Out of Poverty**

Moderator: Liz Kyriacou

#### Lori Costantino

Political Science and Geography Girl Power: Measuring Women's Involvement in the Workforce as an Indicator of National Development Adviser: Lawrence Reardon

#### **Ethan George**

Political Science Lifeblood or Poison? The Resource Curse on Development

Adviser: Lawrence Reardon

#### **James Hart**

Political Science

China and the World Bank: A Challenge of

Differing Agendas

Adviser: Lawrence Reardon

#### **Thomas Kinney**

Political Science

A Market in the Land of Shadows: The Explosion of the International Black Market
Adviser: Lawrence Reardon

#### **Brett Vollmuth**

Political Science

Poor International Relations: The

Economic Killer

Adviser: Lawrence Reardon

#### MUB, Room 203

#### Multidisciplinary Session III: Reflections on Politics, Teaching, Advertising, Art, and Problem Solving

Moderator: Molly Doyle

#### **Austin Dionne**

Computer Science

Heuristic Search with Deadlines—How Can We Solve Hard Problems in a Limited

Amount of Time? Adviser: Wheeler Ruml

#### Meghan Marcus

Communication Arts Suggestion of Roles in Gay Advertising: A Modern Application of Erving Goffman Adviser: Jeffrey Klenotic

#### **Katharine Mock**

Fine Arts

Roots: An Installation of Drawings, Paintings, and Prints

Adviser: Vicki Wright

#### **Emily Silfies**

Art Studio

A Material Portrait: The Clothing of Temperence Pickering Knight Advisers: Astrida Schaeffer, Mara Witzling

vitziing

#### Laura Smetana

International Affairs and Political Science A Look Inside: Reflections on Communism and Democracy in Slovakia Adviser: Lawrence Reardon

#### Anna Visciano

Anthropology

From Dover to Knysna: Cross-Cultural Learning and Teaching through Drama

Adviser: Raina Ames

#### **ADAM HERNANDEZ '08**

Kinesiology

College of Health and Human Services

Faculty Mentor: Associate Professor Erik Swartz

#### Crucial Cruciate Research

"RESEARCH HAS PROVEN that women are four to six times more likely to sustain an anterior cruciate ligament (ACL) injury when compared to their male counterparts. The cause for this is unknown."

I first heard this in my introductory athletic training class and remember being stricken by the statistic. I could not understand why there was no answer to this problem. As a budding athletic trainer, I was under the impression that all the causes for athletic injuries had been determined. As my education has progressed, I've begun to understand the true complexity of this sports-related injury, which increased my curiosity about it.

During my junior year, Associate Professor of Kinesiology and Athletic Training Erik Swartz asked me if I would like to conduct research with him to examine the differences in ACL injuries among females and males. I became very excited about the possibility of

exploring this trend in more detail and, with his recommendation, I applied for a Summer Undergraduate Research Fellowship (SURF) from the UNH Hamel Center for Undergraduate Research.

The opportunity to do research has been truly rewarding. I have explored the research process and learned much about research and myself. Through the experience I've learned that I can persevere

through challenges and make a difference in my profession.

The opportunity to conduct research with the help of the Hamel Center for Undergraduate Research is something that I will look back on fondly many years after graduation and is an experience I highly recommend to others.

Find out what Adam Hernandez '08 concluded about gender difference in ACL injuries at the Parents Association Undergraduate Research Symposium on Friday, April 25.

#### MUB, Room 237

#### Multidisciplinary Session IV: Exploring Human Health Issues

**Moderator: Brent Bell** 

#### Mari Alberico

Kinesiology

Exploring the Meaning of Community Walking Experiences Between Physical Education Teacher Education (PETE) Students and Adults with Cognitve Disabilities

Adviser: Michelle Grenier

#### **Julie Anastasia**

Nursing

The Lived Experience of Adults Diagnosed with Attention-Deficit Hyperactivity Disorder

Advisers: Joyce Blood, Raelene Shippee-Rice, Carol Williams-Barnard

#### **Julie Arnold**

Psychology and Justice Studies
Decreasing Sexual Violence Through
Bystander Intervention: A Study of the
Greek and Intercollegiate Athletic
Communities

Advisers: Victoria Banyard, Mary Moynihan

#### Adam Hernandez

Kinesiology

A Gender Comparison of Lower Extremity Landing Biomechanics Utilizing Different Tasks: Implications in ACL Injury Research Advisers: Dain LaRoche, Erik Swartz

#### Jamme Morency

Occupational Therapy
The Perception of Caregiving for Older
Persons in Belize
Adviser: Kerryellen Vroman

#### **Kimberly Stevens**

Family Studies
Use of Child Care Subsidies Among TANF
Clients

Adviser: Elizabeth Dolan

#### MUB, Rockingham Lounge

#### **Multidisciplinary Session V:** Aristotle to Poetry: Love, Queens, and Family

Moderator: TBA

#### Nathan Borgman

International Affairs and English Love Magic Sex Fracas: Poems Adviser: Mekeel McBride

#### Thomas Faiella

History and Music In the Matter of Cicero and Aristotle, et al. v. Modern Courtroom Rhetoric: A Classical Analysis and Critique of Modern Courtroom Oratory and Persuasion Adviser: James Farrell

#### **Emily Fekete**

History and Geography Exploration: Past and Present Advisers: Alasdair Drysdale, Gregory McMahon

#### Elizabeth Joseph

English

*In the Arms of the Community* Adviser: Clark Knowles

#### David Kutz

English

A Kutz: Essays on My Family Adviser: Mekeel McBride

#### Paige Root

Spanish

Anne Bradstreet's Self-Glorifying Ode to Oueen Elizabeth

Adviser: Siobhan Senier

#### MUB, Room 330

#### **Political/Military Affairs**

Moderator: TBA

#### Sara Crosby

International Affairs and Political Science Nicolas Sarkozy and the European Union

Adviser: Albert Griffin

#### John Green

History

Nationalism or Globalization? Trends in

Modern Serbian Culture Adviser: Albert Griffin

#### **Maxim King**

International Affairs and Russian Reemergence of the Russian Military

Adviser: Albert Griffin

#### Robert McDonough

International Affairs and German A Sleeping Giant: A Perilous Forewarning for the West

Adviser: Albert Griffin

#### **Daniel Pikus**

International Affairs and Political Science Russian Resurgence Adviser: Albert Griffin

#### Kate Wheeler

International Affairs and Communication Cuba After Fidel Adviser: Albert Griffin

#### MUB, Room 334

#### Sociology/Anthropology

Moderator: Claire Malarte-Feldman

#### Amanda Diegel

International Affairs and Sociology Building Democratic Support in the Classroom: Case Studies in Cordoba, Argentina and Montevideo, Uruguay

Adviser: Albert Griffin

#### Kara Hinrichs

International Affairs and German Studying the Relations Between Germany and the United States Comparing the American Image Abroad During World War II and Today

Adviser: Albert Griffin

#### Ruth Ogembo

International Affairs and Biology Kenya Votes 2007

Adviser: Albert Griffin

#### **Emily Roberts**

International Affairs and Nursing A Comparison and Examination of HIV/AIDS Initiatives and Support in Uganda by the Past Two United States Presidential Administrations Adviser: Albert Griffin

#### Franklin Roberts

International Affairs and Russian Naked Truth: The Specter of Censorship in Contemporary Russian Society

Adviser: Albert Griffin

#### Stavritsa Terzis

International Affairs and Anthropology The Embodiment of Tradition: Spirit Possession in Modern Madagascar Adviser: Albert Griffin

#### MUB, Room 332

#### Terror/Violence/Racism

Moderator: Molly Dorsey

#### Mercedes Gaffney

International Affairs and European Cultural Studies

Comparison Between U.S. and German Shelters for Battered Women Adviser: Albert Griffin

#### Lisa Mulvey

International Affairs and French French Military Presence in the Gulf: Why Now? Adviser: Albert Griffin

#### **Zachary Rachins**

International Affairs and International **Business and Economics** Camorra Influence on Naples Waste Management Adviser: Albert Griffin

#### Catherine Reno

International Affairs and Political Science Why Jihad: A Study of What Drives Individuals to Wage Iihad Adviser: Albert Griffin

#### Casey Thomas

International Affairs and Anthropology Inca Si, Indio No: Racism and Identity in Peru

Adviser: Albert Griffin

#### Frank Tinsley

International Affairs and Spanish
The Basque Question: Legitimacy of an
Independent Basque Nation
Adviser: Albert Griffin

#### MUB, Room 340

#### The Atkins Investment Group

Moderator: Ahmad Etebari

Christopher Antlitz Michael Conklin Bradley Flaishans Ryan Goodrich Anthony Macleod

Finance

Advisers: Stephen Ciccone, Ahmad Etebari

#### MUB, Room 302

#### Whittemore School of Business and Economics Marketing Workshop

Moderator: Peter Masucci

Jaime Anttonen
Amy Curran
Justin Herman
Emily Keating
Keith Lundquist
Stacy Mello
Christopher Mullen
Andrew Ricker
Jorge Rivadeneyra

Business Administration

UNH Foundation: Marketing to Current College Students the Importance of

Philanthropic Giving Adviser: Peter Masucci Alexander Balford

Lauren Buck

Suzanne Costanzo

Peter Erickson

**Matthew Evans** 

Sarah Groppo

Abram Nunes

Scott Ricci

#### **Gregory Richardson**

**Business Administration** 

USNH—55% Initiative: Marketing New Hampshire as a Place to Work, Play, and

Stay After College Graduation Adviser: Peter Masucci

Sandra Billodeau

Stephanie Bottari

Kelliann Boyd

**Adrienne Dion** 

Patrick Fessenden

Meagan Inman

**Travis King** 

Christopher LaHaise

Peter Spiak

Elizabeth Storti

Erica Travelyn

Business Administration
USNH—Go Ahead, Get Ahead Part 4:
Marketing to High School Students the

Importance of Attending College— Implementation Phase Adviser: Peter Masucci

## Parents Association Undergraduate Research Symposium

## Oral Presentations, Session C

Friday, April 25 1:15–2:25 p.m. Memorial Union Building

#### MUB, Room 321

#### **Democracy and its Challenges**

Moderator: David Hiley

A student panel presentation. Student names and titles will be available at the event.

#### MUB, Room 237

#### Ideologies of Gender, Race, and Class in Mainstream American Film

Moderator: Jennifer Borda

#### Jenna Heinz

Communication

Scheming on Screen: The Art of Audience Manipulation as Manifested in John Q.

Adviser: Jennifer Borda

#### **Kailey Kiritsy**

Communication

Boyz N the Hood: Fathers and Families

in the Hood

Adviser: Jennifer Borda

#### **David Leary**

Communication

Violence or Peace: An Actual Choice in

Do the Right Thing? Adviser: Jennifer Borda

#### Tavia Lee-Goldstein

Communication

"But Inside Doesn't Matter": Making Meaning in Murder in American Psycho

Adviser: Jennifer Borda

#### MUB, Room 207

#### Multidisciplinary Session VI: Investigations of Killers, Movies, Decision Making, and Growth

Moderator: Stephen Hale

#### **Justin Carr**

Anthropology

African Refugees and the Process of Resettlement: Examining Refugee Experiences in New Hampshire and Ghana Adviser: Robin Sheriff

#### Kate Gannon

Social Work

ASD Treatment Decision-Making: An Exploratory Study on the Decision-Making Process Experienced by Parents and Guardians of Children with ASD Adviser: Mary Banach

Adviser: Mary Danach

#### Cade Harstedt

English

Film Underground: UNH's Movie

Community

Adviser: Delia Konzett

#### **Daniel Hourihan**

Communication and English Why We Love the Killer: The Cowboy,

Gangster, and Samurai Adviser: Delia Konzett

#### Sharmistha Mitra

Molecular, Cellular, and Developmental Biology Identification of Growth Conditions That Affect the Formation of a Truncated Poly(A) Binding Protein in Saccharomyces

cerevisiae Adviser: Clyde Denis

#### Sabrina Pickle

Economics and Finance

#### **Dally Reyes**

Accountancy

(special guests from Bentley College)

Democratic or Dictatorship: Taking Students Ideas into Account

Adviser: Angelique Davi (Bentley College)

#### MUB, Room 336

#### **Political Thought and Dissent**

Moderator: James Croker

#### Jessica Bliek

Political Science
Dissent and Normative Expectations
Adviser: Marla Brettschneider

## **Brittany Clement Joseph Mellone**

Political Science

Dissent Issues in Democracy Adviser: Marla Brettschneider

#### Jessica Compton

Economics *Title IX* 

Adviser: Marla Brettschneider

#### Lisa Merrill

Political Science and Justice Studies Native Americans and Citizenship Adviser: Marla Brettschneider

#### Laura Parmenter

Nursing

Dissent and Democratic Values Adviser: Marla Brettschneider

#### MUB, Room 338

## Politics in America and the Middle East

**Moderator: Jeanne Sowers** 

#### Laila Ballout

History and Philosophy A Nest of Adders: The Lessons from Beirut, 1983, and the Transition of Middle Eastern Policy

Adviser: Jeannie Sowers

#### **David Bettencourt**

Political Science and Communication The Conservative Legacy of Wm. F. Buckley

Adviser: Susan Siggelakis

#### Niki Floros Kimberly Guay

Political Science

The Discrepancy of Sentencing in Criminal Cases Involving Crack Cocaine and Powder Cocaine

Adviser: Susan Siggelakis

#### **Trevor Mauck**

Political Science and Philosophy
The Dynamic Between the Moroccan
Legislature and Monarchy
Adviser: Jeannie Sowers

#### **Kelly Mercer**

Political Science

The Effects of Energy Lobbying on Environmental Legislation Advisers: Lawrence Reardon,

Jeannie Sowers

#### MUB, Room 332

#### Public Culture and the Scandalous Rhetorics of Non-conformity

Moderator: Melissa Deem

#### Emma Baillargeon

Communication

Little People Big World: Reality Television, Hyperembodiment, and the Rhetorics of

Normalization Adviser: Melissa Deem

#### Michael Heath

Communication

Race, Gender, and the Public Sphere: The Sexual Harassment Case of Isiah Thomas and Anucha Browne Sanders

Adviser: Melissa Deem

#### Dylan McGraw

Communication

OJ Simpson and the Confession Adviser: Melissa Deem

#### Julia Walsh

Communication

Scandalous Amy Winehouse and the Impossible "Zone of Privacy"
Adviser: Melissa Deem

#### Vanessa Williams

Communication and Spanish Christ Had a Wife?: Mary Magdalene as Hypersexual Icon

Adviser: Melissa Deem

#### MUB, Room 334

## Refugees, Human Rights, and Economics

**Moderator: Matt York** 

#### Noah Benton

Political Science

Curbing Illegal Immigration Through Foreign Investment Rather Than Walls

Adviser: Lawrence Reardon

#### Kellie Illmensee

Political Science

Human Rights Violations and Economic Underdevelopment: Is There a Connection?

Adviser: Lawrence Reardon

#### PARENTS ASSOCIATION UNDERGRADUATE RESEARCH SYMPOSIUM—ORAL PRESENTATIONS: SESSION C, CONTINUED

#### Jacqueline Lewis

Political Science

Business as Usual: China's Infatuation with the Oil of the Genocidal Regime of

Sudan

Adviser: Lawrence Reardon

#### Brendan McNeill

Political Science The Global Refugee Crisis Adviser: Alynna Lyon

#### Brenna O'Connor

Political Science

Security Interests Trump Humanitarian Concerns: China's Economic Relations

with Sudan

Adviser: Lawrence Reardon

#### MUB, Room 203

#### **Rhetoric and Public Problems**

Moderator: Lawrence Prelli

#### Daniel DiPalma Samantha McCracken Bryan Ouellette

Communication

How to Constrain Public Deliberation: The Case of Newmarket's New High School

Proposal

Adviser: Lawrence Prelli

#### Christopher Feeney Michael Soha Ross Tinkham

Communication

The Rhetoric of Dover's Tax Cap

Campaign

Adviser: Lawrence Prelli

#### **Natalie Leavitt**

English

#### Patrick Moran Gregory Whalen

Communication

The Insulation of Public Discourse: Portsmouth's Cruise Ship Issue

Adviser: Lawrence Prelli

#### MUB, Room 340

## Sociology—Perceptions on Diverse Social Issues

Moderator: Catherine Moran

#### Silas Archambault

Sociology

Summer 2007 Amtrak Downeaster

Passenger Survey

Adviser: Benjamin Brown

#### **Brian Harland**

Sociology

Stress and Its Effects on Eating Disordered

Behavior

Adviser: Catherine Moran

#### Skye MacKay

Sociology and Justice Studies College Students' Knowledge, Attitudes, and Testing Behaviors in Regard to HIV/AIDS

Adviser: Catherine Moran

#### **Amanda Potter**

Sociology and Anthropology Students' Perceptions of Differently Gendered Professors

Adviser: Jean Elson

#### MUB, Room 330

## We Hold These Truths: Student Reflections on Democracy

Winners of the 2008 Honors Advisory Board Essay Contest on Democracy

**Moderator: Scott Smith** 

#### **Andrew Long**

Communication

Are You Voting for Democracy?

Adviser: Scott Smith

#### Andrew McKernan

Chemical Engineering

Freedom and Svoboda: What Does

Freedom Mean?
Adviser: Scott Smith

#### Lauren Schweizer

International Affairs and Environmental

Conservation Studies

Democracy As A Verb: An Action Word

Adviser: Scott Smith

#### MUB, Room 302

#### Whittemore School of Business and Economics Marketing Workshop

Moderator: Peter Masucci

Caitlin Brady Nicole Duquette Emily Eastman

Daniel Keleher Kara Langlois

Ryan Martin

**Robert Russ** 

Business Administration

Undergraduate Research Conference— Part 1: Marketing Awareness and Perceptions of the URC and Designing

a Marketing Campaign Adviser: Peter Masucci

#### **Antoinette Barnas**

**Brandon French** 

Zachary Gorski

Joseph Groves

**Brittany Hughes** 

Matthew Kenney

Jacob Losik

Melanie Nelson

Alana Warren

**Business Administration** 

Undergraduate Research Conference— Part 2: Implementing Marketing Programs Aimed at Increasing Participation and

Attendance

Adviser: Peter Masucci

## The Naked Arts— Creativity Exposed (Act III)

Friday, April 25 12:15–1:00 p.m. Memorial Union Building, Strafford Room

This event exposes the inner creative process of artists working in various disciplines. In Act III, students perform and discuss a collaborative piece of interdisciplinary creativity within the artistic disciplines—Art, Music and Theatre/Dance.

Michael D'Errico

Music Education

Kelsey Keenan Art Studio

Sara Packin Stephen Winglass

Theatre

Clash of the Artists! Collaboration in Performance and Process Advisers: Rob Haskins, David Kaye, Jennifer Moses

## College of Health and Human Services Grimes Award Competition

Friday, April 25 1:00–4:00 p.m. Pettee Hall, G-10

Jack and Marianna Grimes and family, all UNH graduates, endowed the funds for this celebration of excellence in undergraduate research. The oral presentation competition includes finalists who have been selected by HHS faculty after rigorous scientific review of written proposals.

Information on participants will be available at this event.

#### **MEGAN DELANEY '09**

Hospitality Management Whittemore School of Business and Economics Faculty Mentor: Udo Schlentrich

#### Green is Good

As a Hospitality management student, I am constantly surrounded by inspirational professors whose enthusiasm for the industry is captivating and contagious. This passion is strongest from my mentor Professor Udo Schlentrich.

From day one, when I walked into his Introduction to Hospitality Management course, I was hooked. Now, two years later, another fire has been lit, this time surrounding the increasingly important issue of sustainability and green practices in the lodging industry.

While the green lodging movement started nearly two decades ago, the current impact of global warming brings a new urgency to the industry to become environmentally friendly.

Lodging facilities are already experiencing savings from energy efficiency measures and increased profits generated by visits from eco-friendly patrons. But, they will also soon experience substantial benefits from the protection and preservation of arguably their most precious resource, land.

With green and sustainable practices being the future of the hospitality industry, conducting research in this area allows me the privilege of contributing new knowledge and increasing awareness, and gives me a great advantage heading into the workforce.



## Honors English Undergraduate Research Conference

#### Friday, April 25 1:00–5:00 p.m. Hamilton Smith, English Department

To complete Honors-in-English, students must conduct a semester-long research project, culminating in a 30-40 page senior thesis. The Honors English Undergraduate Research Conference provides these students and students in the linguistics program with the opportunity to share their work with their fellow students, professors, and families. The presentations include poetry, autobiographical writing, journalism, and scholarship on literary texts from several different centuries.

#### Nathan Borgman

International Affairs and English Love Magic Sex Fracas: Poems Adviser: Mekeel McBride

#### Melissa DaCosta

English Literature Buddhism and Civil War in Sri Lanka: What Postcolonial Writing Can Teach Us Adviser: Sandhya Shetty

#### Miranda Fillebrown

English Literature and Women's Studies What is So Queer About Shakespeare?: The Tragedy in Drag Comedies Adviser: Douglas Lanier

#### **David Kutz**

English

This Is Enough: Essays on Life Adviser: Mekeel McBride

#### Nathaniel Lord

English

Slow Burn and Dave Kutz Goes to Purgatory: Two Student Films Inspired by Maya Deren and the German Expressionist Movement

viovemeni

Adviser: Delia Konzett

#### **Noel Tague**

English/Journalism Ghosts of the Tree: Poems Adviser: Mekeel McBride

#### **Molly Tetreault**

English and Political Science
Robert Frost and the Politics of His Poetry
Adviser: David Watters

## Psychology Department George M. Haslerud Undergraduate Research Conference

#### Friday, April 25 1:00–4:00 p.m. Conant Hall, Room 101

The George M. Haslerud Undergraduate Research Conference, named for the late Professor Emeritus of Psychology, recognizes and celebrates undergraduate research conducted by psychology students. Students present their original research projects before an audience of UNH faculty, staff, graduate students, fellow undergraduates, friends, and family.

#### **Geoffrey Arnold**

Psychology The Effects of Respectability-related Stereotypes on Victim Blaming in Cases of Sexual Assault

Adviser: Robert Eckstein

#### **Kelly Bailey**

Psychology Predicting Evaluations of Medical

Student Interview Skills from Emotional
Intelligence and Physician Empathy Scores

Adviser: Rebecca Warner

#### **Stephanie Bartone**

Psychology and Justice Studies Bullies, Victims, and Bully-victims: Behavioral Traits, Parental Influences, and Emotional Intelligence

Adviser: Donna Perkins

#### **Amanda Bemis**

Psychology

Analyzing the Traveling Salesperson Problem from a Developmental Perspective Adviser: Brett Gibson

#### Rebekah Blanchard

Psychology

Emotional Personality Traits and Alcohol Use in Undergradute Females Adviser: Rebecca Warner

#### **Karinne Brobst**

Psychology and Justice Studies
Race Salience in the Courts: Does Sex
Make a Difference?
Adviser: Ellen Cohn

#### Kristen Butterfield

Psychology

Direct and Relational Bullying: Traits of Victims as Compared to Students Who Are Not Bullied

Adviser: Rebecca Warner

#### Adina Cracut

Psychology

Benevolent and Hostile Sexism: Demographic, Attitudinal, and Behavioral Differences

Adviser: Ellen Cohn

#### David Creer

Psychology

Hold That Thought! Is Persistent Spiking in the Medial Temporal Lobe the Basis of Learning?

Adviser: Jill McGaughy

#### Craig Hanson

Psychology

Effects of Posterior Parietal Lesions on

Sustained Attention Adviser: Jill McGaughy

## Danielle Israel

Emily Winsor

Psychology
Episodic Memory Use On College Exams
Advisers: Michelle Leichtman, David
Pillemer

#### **David Kispert**

Psychology

Inferences About the Location of Food in Clark's Nutcrackers (Nucifraga columbiana)

Adviser: Brett Gibson

#### Nahal Saheli

Psychology and Spanish
Preventing Sexual Violence on College
Campuses Using the Bystander Program
Adviser: Victoria Banyard

#### **Kimberly Voorhies**

Psychology Reversible Inactivation of the Rostral Intralaminar Thalamic Nuclei in Action Sequence Learning

### Adviser: Robert Mair Hannah Woodward

Psychology
Generalized Prejudice as a Summary of
Prejudice Against Many Groups
Adviser: Rebecca Warner

## Philosophy Undergraduate Research Conference

Friday, April 25 4:00–8:30 p.m. Memorial Union Building, Rooms 338/340

The Philosophy URC is a mosaic of concise and meaningful student presentations, varying from such philosophical topics as applied ethics, language theory, and social justice. Standard presentations predominantly last fifteen minutes and are subsequently followed by a brief question-and-answer period. All are welcome and sincerely encouraged to attend. Refreshments will be served.

#### Lisa Green

Philosophy and Justice Studies Nietzsche and the Political Adviser: David Hiley

#### Patrick Ryan

Philosophy
Foucault on Modernity
Adviser: David Hiley

#### David Samra

Philosophy

*Popper on the a priori* Adviser: Willem De Vries

#### Alicia Shotwell

Philosophy and Political Science Language, Law, and Native American

Adviser: Willem De Vries

#### Marc Sklar

Philosophy
Nietzsche on Truth
Adviser: Drew Christie

#### **Kyle Spoor**

Philosophy
Sartre's Conception of Authenticity
Adviser: Willem De Vries

#### **Christopher Wells**

Philosophy
Ethical Adorno?
Adviser: David Hiley

## 17th Annual COLSA Undergraduate Research Conference

Saturday, April 26 7:45 a.m.–2:00 p.m. New England Center

Student presentations at the 17th Annual COLSA URC are based on research conducted in any of the college's departments and run the full gamut of research found in the college, from field studies and genomics to developmental and molecular biology. A number of studies are collaborative efforts between work here at UNH and work carried out in foreign countries.

## **Oral Presentations**

#### Chelsea Cunard

Environmental Sciences
Is Patience a Virtue? Succession, Light,
and Death in Invasive Glossy Buckthorn
(Frangula alnus)

Adviser: Thomas Lee

#### Ryan Haley

Biochemistry
Biochemical Surveillance of Drug Resistant
Malaria in Peru
Adviser: Louis Tisa

#### Leolene Jean

General Biology
Molecular Diversity and Functional
Analysis of the Opsin Genes Expressed in
Daphnia pulex
Adviser: W. Kelley Thomas

#### Elise Koob

Marine and Freshwater Biology Somatic Condition of Atlantic Herring Adviser: Maryellen Lutcavage

#### Anna Malek

Marine and Freshwater Biology Distribution of Trematode Parasitism in the Periwinkle Littorina littorea Across a Vertical Gradient in the Intertidal Adviser: Iames Byers

#### Sharmistha Mitra

Molecular, Cellular, and Developmental Biology

Identification of Growth Conditions That Affect the Formation of a Truncated Poly(A) Binding Protein in Saccharomyces cerevisiae

Adviser: Clyde Denis

#### **Keith Morley**

Biochemistry

Antibiotic Resistance and Pleiotropy: The Search for Weak Links in a Chain of Adaptation

Adviser: Vaughn Cooper

#### Chelsea Vario

Environmental Sciences Optimization of a Method for Measuring the Enzyme Activity of Ectomycorrhizal Root Tips

Adviser: Serita Frey

#### REBECCA LEHR '09

**Environmental Science: Ecosystems** College of Life Sciences and Agriculture Faculty Mentor: Cameron Wake

## Taking Action

This semester I'm working with Research Associate Professor Cameron Wake to develop a Climate Action Plan for UNH. This entails finding and analyzing strategies for reducing the University's carbon dioxide emissions.

Coming from a family with sustainable values has led to my interest in working to make UNH more energy efficient. My grandfather started my town's Recycling Transfer Facility more than 40 years ago. As a youngster, on Saturday mornings I helped sort recyclables at the facility. My family's commitment to creating an energy-efficient home means we use radiant heat and solar panels.

And, as the story goes, my parents wanted a small wind turbine to produce energy for our house, but unfortunately the town would not allow them.

Because ultimately reducing UNH carbon dioxide

emissions will require the participation of everyone at the University, another part of my work on the Climate Action Plan involves outreach—bringing the research



#### **Poster Presentations**

Saturday, April 26 7:45 a.m.-2:00 p.m. **New England Center** 

This event is open to all COLSA students. Student presentations are based on research work done in any of the college's departments, from field studies and genomics to developmental and molecular biology.

Kiley Anderson

Biology

**Enhua Wang** 

Plant Biology

Complementation of a Root Skewing Phenotype in Arabidopsis thaliana

Adviser: Estelle Hrabak

**Thomas Beatman** 

Zoology

Innervation and Physiology of the Aggregate Ducts of Orb Web Spiders:

A Project Review

Adviser: Edward Tillinghast

#### George Bell

Marine and Freshwater Biology The Effects of Preconditioning on Prey Selection of the Nudibranch Species Onchidoris muricata Adviser: Larry Harris

#### **Cameron Brooks**

Marine and Freshwater Biology Temperature Effects on Introduced and Invasive Colonial Ascidians in the Gulf of Maine

Adviser: Jennifer Dijkstra

Walter Bubley

Graduate Student

Erin Fagan

**Animal Sciences** 

**Determining Growth Increment Formation** in Fetal Spiny Dogfish, Squalus acanthias

Adviser: Paul Tsang

Heather Carmichael

**Nutritional Sciences** 

Evaluating the Relationship Between Body Composition and Physical Activity of College Students

Adviser: Jesse Morrell

#### **Christopher Connors**

Biochemistry

The Genetics of Atherosclerosis in Pigeons (Columba livia)

Advisers: Janet Anderson, Samuel Smith, Robert Taylor

#### **Amy Cornell**

Biochemistry

The Isolation and Purification of Rana catesbeiana Cone Photoreceptor Cells

Adviser: Rick Cote

#### Lauren Cunningham

Molecular, Cellular, and Developmental Biology

Microtubular Orientation and Vesicle Trafficking in Caulerpa Adviser: Wayne Fagerberg

#### Ilona DuBuske

General Biology

Towards the Production of a Hypoallergenic Birch: Cloning of the Birch Pollen

Allergen Betv 1 Gene Adviser: Subhash Minocha

#### Lina Faller

Computer Science

A Computational Investigation of Repeating Elements in the Pseudomonas Fluorescens SBW25 Genome Advisers: Philip Hatcher,

W. Kelley Thomas

#### Christopher Filler

Biochemistry

#### Bridget Huysman

Spanish and Biology

Fat Cell Development in the Presence of Chemical Fire Retardants (PBDEs)

Adviser: Deena Small

#### Shawna Fox

Biochemistry

Jagged-1/Notch Interactions in

Adipogenesis

Adviser: Deena Small

#### Michael Wilmot

Biochemistry

#### Mihael Freamat

Takayoshi Kosugi

## Bernardine Schultz

Biochemistry and Molecular Biology Identification of Gonadotropin Alpha

Subunit in Sea Lamprey Adviser: Stacia Sower

#### **Jordan Goodrich**

**Environmental Sciences** 

The Effects of High Ozone Episodes on

Temperate Wetland Plants Adviser: Ruth Varner

#### **Ashley Green**

**Environmental Sciences** 

Fluorescent Tracking to Observe Dispersal Patterns of Wood Frog (Lithobates sylvaticus) and Green Frog (Rana clamitans) Metamorphs

Adviser: Kimberly Babbitt

#### Cormac Griffin

**Environmental Conservation Studies** Is Hemlock-Hardwood Forest Resistant to Exotic Invasive Plants? Glossy Buckthorn in the College Woods Natural Area, Durham, N.H.

Adviser: Thomas Lee

#### Stephen Hennigar

**Nutritional Sciences** 

Exposure to Flame Retardants Promotes Increased Consumption of Simple Sugars Adviser: Anthony Tagliaferro

#### **Kyle Hoffman**

**Environmental Sciences** 

Watershed Characteristics' Effects on

Stream Chemistry

Adviser: William McDowell

#### Sanjuro Jogdeo

Molecular, Cellular, and Developmental

Genome Wide Segmental Variation in

Daphnia pulex

Adviser: W. Kelley Thomas

#### Andrea Karambelas

Plant Biology

Establishing a Collection of Arabidopsis thaliana Palmitovltransferase Mutants

Adviser: Estelle Hrabak

#### Christian Klare

Biochemistry

Association State of Insulin Under Formulation-like Conditions

Adviser: Jennifer Durant

#### Nicole Lefebvre

Biochemistry

#### Jennifer Mahoney

Microbiology

Evaluation of the Virulence of the Human Pathogen Vibrio parahaemolyticus Isolated from the Great Bay Estuary

Adviser: Cheryl Whistler

#### **Lindsey Lemire** Crystal Leonard

Biochemistry

The Effects of Drought Stress on CDPK Expression in Physcomitrella patens

Adviser: Estelle Hrabak

#### Brian Luthi

Biochemistry

Mechanism of Bacterial Modulation of Intestinal Nutrient and Drug Transport

Adviser: Jennifer Durant

#### Ienna Madore

Nutritional Sciences

The Association between Chronic Disease Risk Factors and Prescription Medication Use of Young Adults

Adviser: Jesse Morrell

#### Munevver Makinistoglu

Molecular, Cellular, and Developmental Biology

Production of Decaffeinated Tea Plants

Adviser: Subhash Minocha

#### Margret Mansfield

Microbiology

Tracking the Timeline of the Progression of Verticillium Wilt Infection in Susceptible and Resistant Plants of Mentha longifolia

Adviser: Thomas Davis

#### Adam Mirando

Biochemistry

Chemical Flame Retardants: Possible Disruptors of Insulin Sensitivity and Production in Rats

Adviser: Anthony Tagliaferro

17TH ANNUAL COLSA UNDERGRADUATE RESEARCH CONFERENCE, CONTINUED

#### Andrew Morbey

Biochemistry

Phosphodiesterase 6 gamma Inhibitory Subunit Expression Optimization, Purification, and Impact of 6-His tag on Activity of PDE6

Adviser: Řick Cote

#### **Audrey Nailor**

General Biology

The Survival of the Fantastic: The Evolution of Pelagicaballus Devius and Creative Integration in the Life Sciences

Adviser: Jessica Bolker

#### Katrina Olson

Biochemistry

Is the Truncated Variant of Clam Mortalin Protein Responsible for Clam Leukemia?

Adviser: Charles Walker

#### **Stephen Perros**

Biochemistry

Characterizing the Transport Mechanism and Function of the Jagged1 Intracellular Domain

Adviser: Deena Small

#### Lauren Perry Brian Schuster

Microbiology

An Experimental Evolution for Symbiosis

Revolution

Adviser: Cheryl Whistler

#### **Bethany Reutemann**

Biochemistry

A Study of the Distribution of Actin Filaments in the Growing Tips and Mature Regions of the Coenocyte C. mexicana

Adviser: Wayne Fagerberg

#### Valerie Schoepfer

Environmental Sciences

Leaf Leaching as a Source of Carbon and

Nutrients in Tropical Streams

Adviser: William McDowell

#### Lauren Schweizer

International Affairs and Environmental Conservation Studies Stream Size and Fish Density Controls Retention Efficiency of High-quality Terrestrial Subsidies in Neotropical Headwater Streams, Costa Rica Adviser: William McDowell

#### **Kenyon Stratton**

Wildlife Management Nest Site Selection by Cavity-Nesting Birds Based on Habitat Type

Adviser: Kimberly Babbitt

#### **Paul Sweeney**

Molecular, Cellular, and Developmental Biology

The Arabidopsis HUS2 Locus Encodes a Key Regulator of the DNA Damage Response

Adviser: Kevin Culligan

#### **Brian Thomson**

Biochemistry

In Vitro Wound Healing Rate of Endothelial Cells Under Hyperglycemic and Hyperlipidemic Conditions Adviser: Thomas Foxall

## Mary Louise Fernald Nursing Research Symposium

Wednesday, May 7 8:00 a.m.–3:30 p.m. Memorial Union Building, Granite State Room

The Mary Louise Fernald Nursing Research Symposium is a program of scholarly presentations by undergraduate Honors students and graduate students.

#### Julie Anastasia

Nursing

The Lived Experience of Adults Diagnosed with Attention-Deficit Hyperactivity Disorder

Advisers: Joyce Blood, Raelene Shippee-Rice, Carol Williams-Barnard

#### **Ashley Barbour**

Nursing

The Work Experience of Ashanti Midwives: Understanding Satisfaction and Challenges of Practice

Adviser: Gene Harkless

#### **Shari Davis**

Nursing

Malaria Prevention Efforts: A Descriptive Study in the Afigye-Sekyere District of the Ashanti Region of Ghana Adviser: Gene Harkless

#### Marisha Florissant

Nursing

Critical Care Nurses Perspectives Toward End-of-Life Care in the Intensive Care Unit Advisers: Joyce Blood, Gerard Tobin, Carol Williams-Barnard

#### Jennifer Gordon

Nursing

Home Symptom Regulation: Perceptions, Practices, and Needs of Congestive Heart Failure Patients Advisers: Joyce Blood, Gene Harkless,

Carol Williams-Barnard

#### **Allison Lane**

Nursing

The Knowledge and Attitudes Regarding Pain of Direct Entry Masters in Nursing Students and Baccalaureate Students at a Rural New England University Advisers: Joyce Blood, Susan Fetzer, Carol Williams-Barnard

#### Margaret Peery

Nursing

Cardiovascular Disease Knowledge, Risk Factor Identification, and Sources of Information Among College Students Advisers: Joyce Blood, Susan Fetzer, Carol Williams-Barnard

#### **Emily Roberts**

International Affairs and Nursing Nurses Performing Triage in Uganda: Decision-Making in Low Resource Settings Adviser: Gene Harkless

## Chemistry Department Poster Exhibition

#### Friday, May 9 2:30–4:00 p.m. Parsons Hall, Iddles Wing

The Chemistry Department Poster Exhibition is the result of students' yearlong senior thesis research in such areas as organic, inorganic, physical, or analytical chemistry, and under the direction of their research advisor.

#### Jay Agarwal

Chemistry

The Questor Project: A Graphical Interface for Data Manipulation and Analysis Advisers: Christopher Bauer, William Kilner

#### Aida Ajaz

Chemistry

Advances in Graphite-Sensitized

Microwave Flash Pyrolysis

Adviser: Richard Johnson

#### **Justin Pleva**

Chemistry

Calibration of a New Cavity Ring Down Aerosol Extinction Spectrometer with Laboratory Generated Aerosols Adviser: Margaret Greenslade

#### Jennifer Pollock

Chemistry

The Effects of Microwave Radiation in the Reduction of Acenes

Adviser: Glen Miller

#### Corinne Sadlowski

Chemistry

Diastereoselective Control Applied to the Tandem Chain Extension Methodology of Alpha-Carboxyester Imides and Bis-Imide Precursors

Adviser: Charles Zercher

# Whittemore School of Business and Economics Paul J. Holloway Prize

## University-wide Innovation-to-Market Competition Championship Round

#### Wednesday, May 14, 2008 2:00-4:00 p.m. Holloway Commons

The Paul J. Holloway Business Plan Competition is an integral part of the undergraduate experience at the Whittemore School. Students are required to research and prepare business plans, which they present to a panel of judges made up of industry leaders. Prizes are awarded for the most feasible and fundable plans for starting, acquiring, or expanding a business venture.

Information on participants will be available at this event.

## Research with Real-World Implications

"I'M AN OUTDOORS PERSON. I love being in the woods," says Rich Rosencrans, a 2007 UNH alum who grew up in New Jersey and enjoyed vacationing with his family in New Hampshire. "I also always wanted to do something to make a difference and help save the environment."

Today Rosencrans is living his dream, working as a civil engineer on stream restoration and researching ways to reduce river flooding in the Granite State. "I found just what I was looking for right out of college, and UNH helped me get here," says Rosencrans from his office at Gomez & Sullivan, a small consulting firm in Weare, N.H., where he works as a water resource engineer.

While engineering might be considered a hot field with no shortage of talented candidates, Rosencrans knew that he could offer potential employers "something extra" to help him seal the deal. That something extra: real-world experience. For his senior civil engineering project, which he presented at the Undergraduate Research Conference (URC), Rosencrans had teamed up with classmates and the New Hampshire Department of Environmental Services to find ways to reduce river flooding at the Kelley's Falls dam in Goffstown, where the Piscataquog River empties into the Merrimack.

"We built a computer model of the river with a hydraulic modeling program called HEC-RAS, which is commonly used in

water resources engineering, and we presented our models and analysis at URC," recalls Rosencrans. "During my interview with Gomez & Sullivan, they were very impressed by my experience with the program as well as by my contacts with state officials. I know that my research was a key experience that helped me get hired."

While the research itself was certainly invaluable, Rosencrans and his team developed other essential skills from their URC experience. "Presenting at URC made us comfortable articulating information quickly and effectively," he notes. This came in especially handy when Rosencrans and his team were required to present on a larger scale to the New Hampshire Department of Transportation, and today as Rosencrans works with clients and colleagues.

Rosencrans, who just finished a dam breach analysis of a dam on the Pemigewasset River, now uses hydraulic modeling and the skills he developed at UNH on a regular basis to explore questions about flooding in New Hampshire. As all Granite Staters know, identifying areas that may be threatened by high water levels is critically important, perhaps more now than ever.



RICH ROSENCRANS '07
Water Resource Engineer
Gomez & Sullivan
Weare, N.H.

## Student Innovation on Display

On Wednesday, April 9, eight students from the University of New Hampshire shared their innovations and discoveries with state legislators at the annual Legislative Breakfast in Concord, N.H.

This year's participants represented an array of research, scholarship, and expressive art (*see Naked Art events*) ranging from particle physics and environmental conversation, to Aristotelian rhetorical techniques and athletic training.

#### 2008 Legislative Breakfast Presenters

#### Silas Archambault '08

Newmarket, N.H. Amtrak Downeaster Summer 2007

#### Karen Bailey '08

Middletown, Penn.

Analysis of the Effect of Bicycle Seat Height on Quadricep and Hamstring Activity

#### Tom Faiella '08

Northwood, N.H. In the Matter of Cicero and Aristole, et al. versus Modern Courtroom Rhetoric

#### Kirsten Hildonen '08

Londonderry, N.H. Film Exhibition in Manchester, N.H.: Movies as Leisure for an Industrial Working Class

#### Trevor Mauck '08

Deerfield, N.H.

The Legitimacy of the Federal Legislative Powers in Morocco post-Alternance

#### Morgan O'Neill '09

Monson, Mass.
Using the Moon to Provide Accurate
Pointing for the IBEX Star Sensor

#### Anna Peterson '08

Peterborough, N.H. Women Who Flew Military Aircraft in Second World War Britain

#### **Emily Roberts '08**

El Segundo, Calif. Triage Nursing in Uganda: Decisionmaking in a Low-resource Setting



"Who rides the Amtrak Downeaster and why?" Sociology major Silas Archambault '08, a native of Newmarket, N.H., surveyed hundreds of riders to learn more about their motivation for opting for the train, as well as the types of trips they were most likely to take. Using a grant from the Hamel Center for Undergraduate Research, Archambault worked with environmental conservation professor John Carroll and Stephen Pesci, the special projects manager for UNH campus planning and transportation.

## **URC 2007** Awards of Excellence

The Undergraduate Research Conference (URC) distributed sixty-nine cash awards to students for outstanding presentations at URC '07. Fifteen students received honorable mentions.

Cash awards totaled \$24,600. Sponsors included the following University offices and departments: The Office of the Vice President for Student and Academic Services; the Hamel Center for Undergraduate Research; the Institute for the Study of Earth, Oceans, and Space; the New Hampshire Space Grant Consortium; the College of Engineering and Physical Sciences; the UNH Parents Association; the Environmental Research Group; the College of Life Sciences and Agriculture; the College of Engineering and Physical Sciences Alumni Association; the Center for International Education; and Phi Beta Kappa.

Visit the URC Web site to view the award-winning presentations at www.unh.edu/urc/index.cfm.

## The following presenters received awards of excellence:

Michael Allard '07 Kim Morris '07 Katie Brown '07 Tim Corrigan '07 Amanda Loughlin '08 Danielle Laroche '08 Lonni Peterson '08

Students Without Borders—Helping Niger

#### Melissa Allen '09

Calcium oxalate as an Indicator of Stress on Two Sites on Mount Moosilauke

#### Christopher Anason '07

Studying the Effects of Road Salt Spray and Runoff on the Foliage and Growth of White Pines

#### **Emily Bolton '07**

Defining Unwanted Sexual Experiences and Consent

#### Karinne Brobst '07 Maria Crossman '08 Danielle DiFranco '08 Allyssa Lanza '07

An Implicit Measure of Victim/Perpetrator Responsibility: The Effect of Reputation

#### Amanda Brown '08 Don Carlson '07

#### Dana Filoti, Graduate student

Dependence of Crystal Orientation on Composition in Silver-Silicon Composite Thin Films

#### Kelly Byron'07

Navigating Your Way Through Health Care

#### **Emily Carter '07**

Verb Tense as a Predictor of Reader Reactions to Autobiographical Narratives

Andrew Clements '07
Tiffany D'Amour '07
Lisa Damiano '07
Kathy Dietz '07
Shawn Dupont '07
Christopher Getman '07
Steve Granese '07
Michael Olson '07
Jessica Tokson '07
Bret Tolivaisa '07
Ed Viel '07
Amalia Wasiski-Kuhn '07
2006-07 UNH WERC Project—Microbial

#### Lena Collins '07

Fuel Cells

The Effect of the Invasive Seaweed, Caulerpa taxifolia, on Native Species Interactions in St. George's Basin, Australia

#### Lena Collins '07 Cormac Griffin '08 Elizabeth Joseph '08

Community Dinners: Feeding Folks with Sustainability and Nutrition

#### Kristopher Cui '07

ASTM Biodiesel Gas Chromatograph Testing and Automation of Biodiesel Processor

#### Nicole Eckert '07

Shared Living Environment—A Healthy Serving of Greens: The Role of the Green Party in Germany's Renewable Energy Policy

#### Nicole Finitsis '09

Thompson School Community Leadership Program Portfolio Presentations

#### Derek Hubbard

CAFTA: Reasons for Resistance

#### Daniel Jasinski '07

The Severing of the Relationship Between the Catholic Church and the French State

#### Elyse Johnson '07

Expelling Dictatorial Influences from Chilean Education

#### Adrian Kerrison '07

Taking it on in Communication: Photography, Humor, Music, and Sports— The Three People You'll Meet at a Hockey Game

#### Mark Kilens '07

Linking Market Valued Community Skill Profiles with Corporate Outsourced Functions to Identify Financially Attractive Sourcing Targets

#### Joe Kiley '07 Jonathan Zink '07

Carpal Tunnel Syndrome Early Warning System

#### Ginny King '07

Bone Health in the College-Age Population

#### Kraig Lamper '07

Kant's Thing in Itself

#### Michael Luz'07

Performative Identity and Authenticity in The Great Gatsby

#### Melissa Mangold '07

Dating Abuse in College Relationships: A Qualitative Study

#### Elizabeth McFadden '07

Living on the Edge: the Staffordshire Moorlands Pan and Life Along Hadrian's Wall

#### Michelle Mitchell '07

"AME," A Referential Database of the City of Manchester, New Hampshire, 1818–1850

#### Françoise Morison '09

Sponge Squeeze: How Sanitary Can a Stinky Sponge Be? An Analysis of the Antimicrobial Activity of a Gulf of Maine specimen of the Halichondria sp. Marine Sponge

#### Laura Palombo '07

The Effects of a Long Distance Run on Creatine Kinase Levels 24, 48, and 72 Hours Post-Run

#### Nicholas Perros '07

The Regulation of Phosphodiesterase-6 by Glutamic Acid-Rich Protein-2

#### Katherine Potter '10

A Man and The Moon

#### Susannah Pratt '07

Post-Communist Search for Security—A Country on the Move: Overlooked Realities of Rural to Urban Migration in China

#### Bligh Reynolds '07

Power and Practice: Women Working in the Community

#### Christa Ricker '09

Transitioning to College Using Different Pedagogical Approaches

#### Alicia Shotwell '08

Political Science: Conflict, Famine, and Refugees A Study of Increased Nuclear Tensions Between the United States and North Korea

#### Michael Simmons '07

Determining the Feasibility of a UNH Sugarhouse

#### Alison Spruce '07

Paleomagnetic Analysis of the Chickaloon Formation Ashes: Implications for Dating the Paleocene-Eocene Boundary

#### Carli Stevenson '07

Women's Studies Works: Demonstrations of Community Activism

#### Sean Tandy '09

The Hutchinson Family Singers and American Protest Song

#### Derek Thibault '07

Isolation of Arabidopsis thaliana Palmitoyltransferase Mutants

#### Kimberly Toth Watson '07

Danielle Marie Thompson: Working Through Memories

#### Jennifer Towle '07

Bio-adhesion: Search for Vitronectin in Caulerpa

#### Rachel Umberger '07

Taking it on in Communication: Photography, Humor, Music, and Sports—The Morality of Aesthetics: Using Robert Pirsig's Metaphysics of Quality to Objectively Evaluate Music

#### Hannah Varn '07

Regulative Ideals: A Practical Approach to Global Warming

#### Jessica Williams '07

Slouching Towards Babel: Language Policy, Linguistic, Identity, and Social Cohesion in the European Union

## The following presenters received honorable mentions.

#### Jessica Bean '07

The Effects of Sociodemographic Variations and Strain on the Self-Concept of Rural Single Mothers

#### Stephen Calcavecchia, Jr. '07

Sounding Gay: An Acoustic Analysis of Gay Male Speech

#### Laura Carpenter '07

Political Science: Civil Society at Home and Abroad—Wind: Bringing Renewable Energy Home

#### Adam Gould '07

Immigration and Tolerance—Castilian Primacy: Exploring the Role of Minority Languages in Peninsular Spanish

#### Nichole Guenard '07

Sexually Explicit Advertisements: Does Belief in Rape Myth Differ?

#### Kirsten Hildonen '07

The Spies Who Saw Through Me

#### Stephanie Hueter '07

Overcoming Adversity: The Struggle to "Girlfight"

#### Myra Khan '07

The Weight of Words: the Construction and Implications of Genocide Discourse in Bosnia and Sudan

#### Tavia Lee-Goldstein '09

Paper Hero: The Story of Origami Boy

#### Devon Mercer '08

Obedience Only to God: The Trial of Susan B. Anthony

#### Jacqueline Quintal '07

Entertaining the Cold War

#### Brian Rebholtz'07

Behold the Virgin: Examining the Interpretation and Negotiation of the Sacred in Marian Apparitions

#### Alice Sheehan '07

Bringing up Incentives: A Look at the Determinants of Poverty

#### Emily Soderman '07

Political Participation in Democratic States—The Rise of the Far-Right: The French Answer to its Identity Crisis

#### Juliet Tarantino '07

Growing Out of Poverty—Profitable Business, Worthless Language: Commercial Success and Rejection of Tradition in Otavalo. Ecuador

## Committed to Undergraduate Research

ENGAGEMENT IN RESEARCH: For those students who get involved, it's the defining factor of a UNH undergraduate education. And it is exactly what you will see at this week's URC. The conference is an annual celebration of the remarkable research and learning between motivated undergraduates and active faculty researchers here at UNH.

This student-faculty collaboration is the backbone of the UNH research experience. It begins in the classroom with research-intensive coursework, but exists everywhere across campus and beyond. Look around and you'll find undergraduates in faculty labs, teaming up with their teachers to find solutions that benefit society. You'll see them in UNH's many living labs such as the greenhouses, the farms, and the New England Center; or at one of more than 40 centers and institutes dedicated to studying a wide range of issues, where undergraduates conduct research alongside experts in their fields. In UNH theatres, studios, and recital halls, our creative arts students explore the intellectual processes behind their works.

Nourishing these undergraduate-faculty relationships is UNH's Hamel Center for Undergraduate Research, which gives students the opportunity to make research and creative explorations a more formal part of their academic experience. Each semester, dozens of students from varied academic disciplines apply for grants and fellowships from the center's Undergraduate and International Research Opportunities Programs (UROP and IROP). The funds enable them to embark on collaborative research projects with faculty mentors, and to learn the key elements of any research project—from proposal and budget to research and presentation of results to peers. Many of the students

presenting here this week conducted their research using UROP and IROP grants.

The McNair Graduate Opportunity Program also fosters student-faculty collaboration. As a graduate school preparation program, McNair includes an intensive research component. Students may design a research project, receive funds to implement the project, take a research methods course, participate in writing skills workshops, and have the opportunity to present their findings at the UNH McNair Program Summer Research Symposium, among other activities.

In addition, the **Research & Discover Program** offers a series of two summer internships to eligible students—the first summer at UNH, the second at NASA Goddard Space Flight Center. Research & Discover interns work alongside environmental scientists on the groundbreaking discoveries underway at the UNH Institute for the Study of Earth, Oceans, and Space, such as investigating the effects of human activities on the Earth, including the causes and effects of global climate change and deforestation; studying dynamic processes in the Earth, oceans, and atmosphere using remote sensing, GIS, computer models, and other state-of-the-art tools; and exploring chemical, physical, and biological oceanography.

This direct participation in meaningful research is one of the unique characteristics of a UNH education, where students, together with faculty, push back the frontiers of knowledge.

## How to get involved in undergraduate research at UNH:

- talk to a favorite professor, faculty adviser, or teaching assistant;
- visit the UNH Hamel Center for Undergraduate Research, which sponsors student research projects at home and abroad;
- pay attention to department bulletin boards and Web sites, which often post job openings in UNH labs or departments where students can work on actual, ongoing research projects;
- take a research-intensive course, such as INCO 590 "Student Research Experience."

#### *Inquiry* journal of undergraduate research

THE URC is but one means for students to share their findings. Some of the works you see here today might become the basis of a University Honors or master's thesis; others may find their way to national conferences and professional meetings where UNH undergraduates present their work to future colleagues and peers; still others may appear in *Inquiry*, UNH's online journal of undergraduate research. Published annually, *Inquiry* features the research articles, briefs, and commentaries of undergraduates.

Read more at www.unh.edu/inquiryjournal.

#### Links to research opportunities

CENTERS AND INSTITUTES AT UNH www.unh.edu/research/centers

CENTER FOR INTERNATIONAL EDUCATION www.unh.edu/cie

HAMEL CENTER FOR UNDERGRADUATE RESEARCH www.unh.edu/undergrad-research

McNair Graduate Opportunity Program www.unh.edu/mcnair

OUTREACH AND RESEARCH OPPORTUNITIES www.unh.edu/outreach/opportunities.html

RESEARCH & DISCOVER SUMMER INTERNSHIP PROGRAM IN EARTH Sciences www.eos.sr.unh.edu/ResearchAndDiscover/

University Honors Program www.unh.edu/honors-program



The URC Planning Committee
is grateful for the generous support from the
University of New Hampshire Alumni Association
and the
University of New Hampshire Foundation

## Acknowledgements

The UNH Undergraduate Research Conference has grown to become a signature event at the University and an annual highlight of the spring semester. One of the largest and most diverse conferences of its kind, bringing the URC to fruition each year is the result of a collaborative, behind-the-scenes network of a great many campus community members. Here, we acknowledge these folks and thank them for helping make URC 2008 happen.

#### Special thanks to:

Office of the Vice President for Student and Academic Services UNH Alumni Association

**UNH Foundation** 

**UNH Parents Association** 

Center for International Education

College of Engineering and Physical Sciences (CEPS)

College of Engineering and Physical Sciences Alumni Association

College of Life Sciences and Agriculture

Dave Zamansky, MUB Current Issues Lecture Series

Editorial and Creative Services, and Sarah Aldag, Assistant Director

Environmental Research Group

Hamel Center for Undergraduate Research

Institute for the Study of Earth, Oceans, and Space

Memorial Union Building Administrative Staff

New Hampshire Space Grant Consortium

Office of the Vice President for Research

The University Honors Program

The University Writing Programs

UNH Media Relations

**UNH Photographic Services** 

**UNH Printing Services** 

UNH interns Brittany Pinksten '10 and Megan Zerega '10

Web Solutions

Whittemore School of Business and Economics Marketing Workshop Student Teams—Fall '07 and Spring '08 semesters

#### 2008 Conference Planning Committee:

Martha Barker, Graphic Designer, Editorial & Creative Services Erin Bell, Assistant Professor, Department of Civil Engineering Tracey Bentley, Writer/Editor, Editorial & Creative Services Kelly Calhoun, Director of Alumni Programs, UNH Alumni Association

Matthew Carlyon, Associate Director, UNH Foundation

Janet Cass, Director, UNH Parents Association

Lynne Cooper, Program Coordinator, Office of the Associate Vice President for Research and Outreach Scholarship

Molly Doyle, Program Associate, Hamel Center for Undergraduate Research

Serita Frey, Associate Professor, Department of Natural Resources Lara Gengarelly, Lecturer, Department of Education

Lynnette Hentges, Manager of Program and Proposal Development, Office of Sponsored Research

Debra Johnybear, Public Relations Assistant, Dean's Office, College of Engineering and Physical Sciences

David Kaye, Associate Professor, Department of Theatre & Dance Diana Koski, Vice President and Director of Planned Giving, UNH Foundation Ginger Lever, Director of Marketing and Public Relations, UNH Manchester

Peter Masucci, Instructor/Lecturer, Marketing and Management, Whittemore School of Business and Economics

Sheila McCurdy, Assistant Director, Center for International

Robert McGann, Director, Admissions Office

Jeffrey Melton, Research Assistant Professor, Department of Civil Engineering

Cari Moorhead, Associate Dean, Graduate School

Edward Mueller, Administrative Director, University Writing Center

Sharyn Potter, Associate Professor, Department of Sociology

Douglas Prince, Manager, UNH Photographic Services

Dan Reagan, Associate Dean, UNH Manchester

Mark Rubinstein, Vice President for Student and Academic Services Lisa Townson, Outreach Associate, Office of the Associate Vice

President for Research and Outreach Scholarship, and Extension Specialist, Program Development and Evaluation, Cooperative Extension

Ruth Varner, Research Assistant Professor, Climate Change Research Center

Cameron Wake, URC Planning Committee Chair, Senior Faculty Fellow, Office of the Associate Vice President for Research and Outreach Scholarship, and Research Associate Professor, Climate Change Research Center

Julie Williams, Associate Vice President, Research and Outreach Scholarship

#### **2008 URC Event Coordinators**

Mike Annicchiarico, Student Composers' Concert

Erin Bell, Debra Johnybear, Jeff Melton, and Ruth Varner,

Interdisciplinary Science and Engineering Symposium (ISE)

Janice Chadwick, Psychology Department George M. Haselrud URC Grant Cioffi, Seacoast Reads Exhibition

Lynne Cooper and Lara Gengarelly, Parents Association

Undergraduate Research Symposium Jane Dufresne, Mary Louise Fernald Nursing Research Symposium

Marianne Fortescue, UNH Office of Community Service
Partnerships

Serita Frey, 17th Annual COLSA Undergraduate Research Conference Kate Hanson, Thompson School Community Leadership Program David Kaye, The Naked Arts: Creativity Exposed!

Jessie Knapp, Graduate Research Conference (GRC)

Delia Konsett, Honors English Undergraduate Research Conference Trevor Mauck '08, Philosophy Department URC

Catherine Mazur and Jennifer Moses, Senior B.A., B.F.A. and M.F.A. Exhibition Preview Reception

Cynthia Nizzari-McClain and Mike Merenda,

Whittemore School of Business and Economics Paul J. Holloway Prize University-wide Innovation-to-Market Poster Session

Dan Reagan, UNH Manchester Undergraduate Research Conferences Cindi Rohwer, Chemistry Department Poster Exhibition

Lucy Salyer, History Department URC

Neil Vroman, College of Health and Human Services Grimes Award Competition



"The most memorable aspect of my involvement in the URC is watching the development of the students as they realize the seriousness and benefits











