



2010

UNDERGRADUATE

RESEARCH SYMPOSIUM

MAY 6, 2010

PROGRAM

8 am	Continental Breakfast Setup	Commons, Second Floor
8:45 am	Opening Remarks Dr. Kristin Esterberg, Provost and Vice President for Academic Affairs	Commons, Second Floor
9 am	Poster Session 9–9:30 All posters 9:30–10:15 Even numbered posters only 10:15–11 Odd numbered posters only 11–11:30 All posters	Commons, First Floor and Veterans Hall
9:15 am	Paper Sessions (see listings)	
11:30 am	Presentation of Certificates	Commons, Second Floor
11:45 am	Lunch	Commons, Second Floor

ACKNOWLEDGMENTS

We thank Dr. Kristin Esterberg, Provost and Vice President for Academic Affairs, for her sponsorship and financial support. Much of the research presented here was facilitated by the Institutional Review Board and its chairperson, Dean Neal DeChillo, and IRB Administrator Megan Means. We are grateful to Amie Goodwin for her help, and we thank the staffs of the Dining Commons, the Copy Center, the Media Center, the Campus Center, and the Facilities Department for all they do to make this event possible.

PROGRAM COMMITTEE

Terry Lyons (Chair)	Psychology
Jeb Booth	Criminal Justice
Jennifer Jackman	Political Science
Elizabeth Maciejewicz	Theater and Speech Communication
Christine MacTaylor	Chemistry and Physics
Krishna Mallick	Philosophy
Deborah Mason-McCaffrey	Chemistry and Physics
Ben Miller	Psychology
Patrice Miller	Psychology
Zaiyong Tang	Marketing and Decision Sciences
Stephenie Young	English

PAPERS

Session I: 9:15-10:30

Culture and maintenance of longfin squid (*Loligo pealei*) in a laboratory
The effects of melatonin on *Callithamnion*
The effects of melatonin on *Spirogyra*

Veterans Hall Rear

Dana Monteiro
Michael Mirisola and James Zorabedian
Yuan Stevenson

Session II: 9:15-10:15

Jean-Paul Marat: Instigator of the People
Robespierre: Defender or tyrant of the French revolution?
Edmund Burke: An English perspective on the French revolution
Olympe de Gouges

Meier Hall 241

Mallary Cutler
Nicole Freeman
Richard Moylan
Chandra Sheehy

Session IIIA: 9:15-10:15 Meier Hall 240

Tilting at windmills
Stereotyping Oscar Wao
Cycle of sonnets based on well-known literature
Existentialism and the search for meaning
in Franz Kafka's *The Trial*

Jennifer Dulong
Elizabeth Brenton
Nicole Poirier
Brandon Wiebe

Session IIIB: 10:30-11:15

Constructive empiricism's failed solution
A critique of the use of the inference to the best
explanation method in science
It's a moral question

Meier Hall 240

D.H. McDonald
Will Kidder
Kelsey Dunn

Session IV: 9:15-10:30

The Sarbanes-Oxley Act of 2002: To protect the investing public
Operations analysis of health inspection for the Town of Reading
Impacts of mobile computing trends on retail banking
Comparing practices of USA Rugby against a global model for
integrated development of mass and high performance sport

MLK Room

Demetrios Koutoulas
Jennifer Hamond,
Caitlin Jenks and
Timothy Gagnon
Jessica Sterling
Mark Carney

Session V: 9:15-10:45

East meets West: Globalization and classical music of North India

Congo Capixaba: Tradition and hybridity in Brazilian culture

Towards an understanding of the psycho-social components of religious fundamentalism and their real world implications

Towards a study of Carroll E. Cook's travels in World War II

Rethinking the founders' Christianity: The historical methodology of Jon Meacham

Considering the Crusades: The historical methods of Christopher Tyerman

Presidential Room

Danielle Meara

Vitor Moraes

Amy Zolla

Samantha Hickson

Rachel Kaye

Kelsey Utne

Session VI: 9:15-11:30

Español: Económicamente, la opción correcta en la preparación de los estudiantes para el mundo de trabajo en los EE.UU.

La edad y el periodo crítico: Obstáculo en la adquisición de una segunda lengua

Dora, Diego, y yo: La importancia del idioma español y métodos para mejorarlo en el sistema educativo de Massachusetts

Importancia y efectos que provee la educación bilingüe a temprana edad

Impacto de la educación de la ama de casa en su familia

El problema del racismo en las escuelas secundarias de Boston

y la solución de los conceptos de Satyagraha de Mahatma Gandhi

Reading preferences of Latino middle school students

Sullivan Building 109

Jessica Cox

Christian Zavarella

Michael Aliberte

Roxana Sandoval

Iliana Puello

Angela Raimo

Mary Vassallo



POSTERS

NOTE: Posters are listed by department and faculty sponsor. Numbers are poster positions (see map).
Posters 1-85 are in the Dining Commons and posters 86-109 are in Veterans Hall.

Art + Design/Jessica Lanier

- 43 **Frida Kahlo: Self-portraits**
Fabia Faria

Art + Design/Mary Melilli

- 8 **Biomimicry: Art and biology**
Yves Rigaud

Biology/Juditha C. A. Burchsted

- 13 **Evolution within the class reptilia**
John Crowley III
- 22 **The evolution of bat wing digits**
Lauren Devereaux
- 103 **Internship in human pathology**
Anne Landry
- 83 **Comparative anatomy of vertebrate brains**
Whitney J. McNamara

Biology/Ryan Fisher

- 78 **Arthropod leg diversity, vast array of legs indeed**
Chris Cataldo
- 45 **Meiofauna of four sediment types in a salt marsh ecosystem**
Jonathan DeSantis
- 63 **Environmental outreach: How zoos and aquariums are helping connect kids to nature**
Chelsea Preston
- 46 **Nematodes associated with the hydroi-mediated epibiont community of soft-shelled clams**
(Mya arenaria) siphons
James Starr

Biology/Gary Heisermann

- 1 **Radio-pharmaceuticals**
Michelle Giangregorio
- 96 **Endocrine tumors - a nuclear medicine perspective**
Amanda Stewart

Biology/Paul Kelly

- 10 **Tardigrade biology**
Amanda Kennedy

Biology/David E. Mercer

- 94 **Pregnancy outcomes of maternal *Fusobacterium nucleatum* infection**
Svetlana Galbina
- 14 **The binding ability of the antibody 8C8 to human defensin 5 in the ileum of a mouse induced with Crohn's disease**
Emmanuel Ndzi

Biology/Alan M. Young

- 32 **Restoration of native flora and eradication of *Phragmites australis* in Pickman Park salt marsh**
Richard Theberge

Chemistry and Physics/Christine MacTaylor

- 93 **Comparing amount of acetylsalicylic acid in generic vs brand name aspirin**
Clifford Akateh
- 84 **Testing lead content in soil and water in lower Forest River and Salem Harbor**
Sunil Baniya
- 91 **GC on the Green Fairy: Thujone and anethole in American and European absinthe**
Alex T. Carroll
- 5 **Determination of acetaminophen: Brand name vs. generic**
Shirley Coll
- 60 **Alcohol and blindness**
Sujan Gurung

- 34 **Quantitative analysis of aluminum compounds in common antiperspirants**
Lisa Mello
- 29 **Alcohol content in juice**
Elizabeth Newman
- 86 **Brand name vs. generic ibuprofen**
Utkal Patel
- 47 **Degradation of lycopene in tomatoes over time**
Lindsey Warnock

Chemistry and Physics/Mustafa Yatin

- 73 **Alterations in human DNA as a result of non-solar exposure to UV-A and UV-B radiation**
Holli Bridges
- 68 **Appropriate size of nano titanium dioxide (TiO₂) particles for optimal protection of skin from solar UV-B radiation sunscreen products**
Anthony DiBartolomeo
- 74 **Gamma ray burst: Origin of high powered cosmic radiation**
Robert J. Joy
- 62 **The particle accelerators changed cancer chemotherapy**
Cheoma Marshal
- 41 **Multimodal imaging with PET/MRI hybrid scanners using F-18 FDG**
Peter Risch

Economics/Dorothy R. Siden

- 61 **Does public expenditure on education generate sustainable economic growth: An analysis of a dataset**
Fritznel J. Benjamin
- 44 **Does competitive balance increase the popularity of professional sports?**
Sean E. Carbone
- 20 **The problem, prevalence and consequences of eating disorders: An economic analysis**
Kayla M. Coburn
- 90 **Fast food and the recession: Successful marketing of an inferior good**
Alexander D. Dubow
- 99 **Virtual worlds and the growth of synthetic goods markets**
Parker L. Jones
- 65 **The effects of well-informed banking customers on profits**
Shellmith W. Kariuki

English/Theresa DeFrancis

- 95 **Teaching from the other side of the desk: Assumptions and realities about what secondary students think about good teaching**
Aimee Rooney

English/Sandra Fyfe

- 37 **The influence and expression of New Orleans culture through Cajun art**
Mary Bertrand
- 57 **The aftermath of Hurricane Katrina**
Tom Collins
- 80 **The psychological effects of hurricane Katrina on the children of New Orleans**
Robin Horsefield

Geography/Brian Cacchiotti

- 81 **Climate change and global warming**
Brittney Gulakos

Geography/Laurence E. Goss

- 79 **Sex education and its effects on teen pregnancy**
Jenna Burgess
- 31 **How hurricanes are impacted by global warming**
Thomas Fonseca
- 87 **Correlation between total solar irradiance and mass balance of Taku Glacier, Juneau, AK, 1978-2008**
Christopher McNeil
- 101 **England on the edge: The effects of climate change along the Holderness coastline**
Sawyer Stippa

Geography/Marcos Luna

- 6 **Comparing the cost of medical care in the U.S. and India**
Beth Paluzzi

Geography/Stephen Young

- 82 **Strengthening voices: Socio-economic impacts of good governance and sustainable forestry practices, Knuckles Conservation Forest, Sri Lanka**
Jennifer Carr

Geological Sciences/Brad Hubeny

- 89 **Historic trace metal accumulation in Sluice Pond, MA: Linkages between industry and the environment**
Emily Crescenzi
- 40 **Late Holocene organic carbon variability in Conroy Lake, ME**
Richard B. English IV
- 21 **Relationships between intertidal flat sediments and surrounding surficial geology: An example from Boston Harbor**
Ellen Kristiansen
- 56 **A multi-proxy study of a five meter sediment core from Sluice Pond, Lynn, MA: Comparison of lithostratigraphic and seismic records**
Jonathan Lewis

Geological Sciences/Jeanette Sablock

- 15 **A petrologic study of the Bridger Canyon section of the Swift Formation, Bozeman Montana**
Alison Santos
- 25 **A petrographic study of Union Rock correlating it to the Peabody Granite and Dedham Granodiorite**
Kathleen Vander Kaaden

Marketing and Decision Sciences/Linda Jane Coleman

- 38 **Marketing in the United Kingdom**
Carissa Favaloro, Jennifer Fuller and Justin Santerre

Marketing and Decision Sciences/Elizabeth Haran

- 28 **Fears, peers and advising: Perceptions of the Peer Mentoring Program in the Bertolon School of Business**
Joseph Flynn, Megan Closson, Deana Manfra and David Tattle

Mathematics/Joe Fox

- 51 **Sensor networks and algebraic topology**
Rebecca Jacobs
- 108 **A connection between the Fibonacci numbers and Newton's method**
Brandon Tries

Nursing/Maureen McRae

- 59 **Neonatal deaths in the United States 1999-2009:A literature review**
Sara Maine

Philosophy/Krishna Mallick

- 58 **Bottled water!**
Thomas Collins
- 26 **The great transformation: Amazon rainforest to devastated desert**
Megan Farmer
- 100 **Crisis in the Pacific**
Joel Rojas
- 50 **Deforestation in the Brazilian Amazon: An ethical debate on the role of cattle ranching**
Erin Sweeney

Psychology/Darlene Crone-Todd

- 77 **Becoming a better student**
Derek Baker
- 70 **How I improved my H2O intake**
Brice Bambara
- 104 **Increasing steps per day with reinforcement**
Rita Dennison
- 105 **Cigarette reduction and cessation**
John Keller
- 106 **Decreasing soda intake**
Katie LaPointe
- 52 **Decreasing procrastination of homework and assignments**
Melissa McLaughlin
- 42 **Kicking butts: Modifying smoking behavior**
Jennifer O'Connell
- 12 **Establishing and maintaining a healthy diet**
Jamie Parsons

- 67 **Decreasing Soda Consumption**
Jandhira Tejada
- 102 **Speaking up and becoming assertive**
Marlene Whelton
- 72 **Increasing activity**
David Widtfeldt

Psychology/Sophia Evett

- 76 **Shopper discrimination**
Melanie DeStefano, Tiffany Ekbatani and Jennifer Higgins
- 17 **Gender stereotypes and sexuality: Perceptions of fault**
Ashley Johnson
- 27 **Effects of self-esteem on GPA**
Maria Rossetti and Nury Yagual

Psychology/David Gow

- 11 **Top-down influences on categorical perception: Pilot studies for a multimodal brain imaging experiment**
Coreen Knowles

Psychology/Teresa M. Lyons

- 75 **Can first names affect student evaluations?**
Larissa LaFauci

Psychology/Ben Miller

- 16 **Effects of music on mood**
Kris Andreottola
- 64 **How does cigarette smoking affect mood?**
Courtney Cennami and Chandler Dilanni-Quinn
- 97 **How does mood affect memory?**
Shanell Crawford and Amanda Middleton
- 85 **Effects of music on children's mood**
Patricia DiBiase
- 35 **How does mood affect decision making?**
Amanda Dobbins
- 53 **How does shopping affect your mood?**
Alyshia Frusteri, Talia Maihos and Melissa McLaughlin
- 107 **How do scent and color affect mood?**
Faye Gianopoulos, Katie LaPointe and Jackie Powers

- 30 **How sleep affects your mood**
Gisselah Makarutsa and Danielle Passanisi
- 3 **Job Satisfaction and Mood**
Erin Sullivan
- 48 **Does computer game playing improve mood?**
Diana Travers

Psychology/Patrice M. Miller

- 98 **The relationship of parents' marital status and childrens' academic achievement in college**
Anna Busta and Sandra Rochon
- 54 **Stress in college students**
Nichole Chasse, Linda Rideout and Erica Lopez
- 66 **Factors related to drinking habits of Salem State College students**
Melissa DeViller
- 19 **Racial stereotypes and moral attitudes among college students**
Jennifer Selinger and Christa Chirichiello
- 88 **Parental relationship status and emerging adults' attitudes about romantic relationships**
Leslie Veiga and Tina Do

Psychology/Anne Noonan

- 4 **Students as reflections of family and teacher support for science, technology, engineering, and math (STEM)**
Vanessa Rogers and Peter Souza

Sociology/G. Else Wiersma

- 71 **Community median income and crime rates**
Jane M. Allen
- 92 **Women's body image and media**
Erin B. Caldwell
- 36 **Household income and childhood obesity**
Kelly M. Gough
- 33 **Effectiveness of violence prevention programs in high schools**
Nicole M. Guarino
- 7 **Grade point average and hours at work**
Nicole Gutowski

- 9 **Binge drinking among Salem State College freshmen**
Samantha A. Lindesey
- 49 **Gender and childhood toys**
Samantha M. McLaughlin
- 18 **Eating disorders and Salem State College students**
Crystal R. Padgett
- 55 **Drinking habits of Salem State College students**
Suzanna L. Rudomen
- 69 **Drinking behavior of high school students and gender**
Maira Y. Vega-Pivaral

Sport and Movement Science/Meghan McLyman

- 39 **Woman's bodies in dance**
Erin Newhall

Theatre and Speech Communication/Thomas Healy

- 24 **Bill Gates and Steve Jobs: An analysis of rhetoric, style and impact in public communication**
Luis Delossantos

Theatre and Speech Communication/Amy M. Smith

- 2 **The Northeast Animal Shelter's impact on the local community**
Lauren DeLuca, Mark Edmunds, Courtney Lynch, Joe McIsaac and Rachel Mustone
- 23 **Resolutions to communication patterns of children from alcoholic family systems**
Cari Reynolds