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Research abstracts are available at <http://www.uvm.edu/~uvmsrc/>



Dear Conference Participants and Attendees:

We are very pleased to welcome you to the 2009 UVM Student Research Conference, a celebration of the quality and breadth of our undergraduate and graduate student research and creative activity.

The research showcased here highlights many vital aspects of education at UVM. Our students engage in fundamental learning in classrooms, labs and studios. Many students are involved in research projects as part of their studies, creating new knowledge and advancing the frontiers of thinking in the sciences, humanities, and arts. In so doing, they bring us closer to our aspiration to be among the nation's premier small research universities. Their efforts sometimes even form a bridge from research and creative activities to practical applications in solving real-world problems. Students do not make this journey alone. Crucially, they are guided and supported by the faculty mentors who work with them. Thus, on this Student Research Day, we not only mark the signal accomplishments of our students but we also honor the involved and effective supervision of their mentors. The work of both students and faculty is integral to the teaching, research, and service missions of our university.

This conference is notable for its breadth. It involves student scholarship from every UVM college and school. It reflects an impressive range of activity, including research that has consequences for life in Burlington, the State of Vermont, and beyond. It covers topics as diverse as the environment, school reform and educational access, nanotechnology, robotics, cell biology, nutrition, affordable housing, immigration, irrigation, economics, farming and contemporary theater. Student research at UVM is truly broad-based.

We congratulate and thank all of the student presenters and their mentors for bringing to us these signs of excellence in scholarly and creative activity.

Enjoy this Student Research Day.

Ruth Farrell
Interim Vice President for Research

S. Abu Rizvi
Dean, Honors College

Patricia A. Stokowski, PhD
Interim Dean of the Graduate College



Oral Presentation Schedule Session I: 9:00 am -9:45 am

Frank Livak Ballroom, 417

- 9:00 **Sarah Harris**
The Progression of Vermont Farming
- 9:15 **Jared Nunery**
Forest Carbon Storage Under Alternate Management Scenarios in the Northeastern United States
- 9:30 **Eric Garza**
The Energetic Impacts of Energy Transitions on Societal Energy Gain

Mildred Livak Ballroom, 419

- 9:00 **Justin Lane**
Cognitive Theories on Ritual: Reconciliation
- 9:15 **Benjamin Bezark**
How and To What Extent Can a Participatory Visioning Process Lead to Organizational Change At WRUV? An Action-oriented Approach to Research
- 9:30 **Evan Herrmann**
Natural History of Changes in Cigarette Smoking Upon Learning of Pregnancy

Williams Family Room, 403

- 9:00 **Guangxuan Zhang**
Impacts of Foreign Direct Investment (FDI) in China
- 9:15 **Jamila Thomas**
Substance Use in Detained Youths
- 9:30 **Emily Stebbins**
Technical and Economic Feasibility of Biodiesel Production in Vermont

Jost Foundation Room, 422

- 9:00 **Robin Hicks**
*Using Molecular Ecology to Control Chagas Disease in Guatemala: Genetic Population Structure Analysis of the Insect Vector *Triatoma Dimidiata**
- 9:15 **Montana Burns**
Acrobatic Training and Cerebellar-dependent Learning in a Rodent Model of Attention-Deficit/Hyperactivity Disorder
- 9:30 **Samsudeen Ponissery Saidu**
Calcium Regulation in Olfactory Sensory Neurons by Plasma Membrane Calcium ATPase

Chittenden Room, 413

- 9:00 **Edward Grenier**
Spatial Distribution of Sulfur Species Around the Anoxic Chemocline in Green Lake, NY
- 9:15 **Andrew Vize**
Design and Characterization of a Modular On-board Vehicle Aerosol Particle Sizer (MOVAPS)
- 9:30 **Kirsten Stor**
Drawing Graphs as Supertrackles



Oral Presentation Schedule Session II: 10:00 am -10:45 am

Frank Livak Ballroom, 417

10:00 **N. Tucker Stevens**
The Atmospheric Aging of Diesel Exhaust and Polycyclic Aromatic Hydrocarbons

10:15 **Michael Pellon**
Evolutionary Methods for Designing Multi-Species Heterogeneous Swarms with Self-organizing Oscillatory Behavior

10:30 **Michael Ghebream**
Dehydrocoupling Primary Phosphines

Mildred Livak Ballroom, 419

10:00 **John Contompassis**
The Contribution of Flightin to the Structural and Biomechanical Properties of Thick Filaments

10:15 **Amanda Kutz**
Emotion Aids Attentional Processes in Binding Source and Item in Older Adults: A Brain fMRI Study

10:30 **Annalese Maddox**
Investigation of Zirconium-Catalyzed Hydrogen Release from Amine-Boranes

Williams Family Room, 403

10:00 **Nilanjan Lodh**
*Impact of Genetic Variability of *Tubifex tubifex*, the Intermediate Host on the Whirling Disease*

10:15 **Peter Krawczel**
Effect of Alternative Models for Increasing Stocking Density on the Behavior and Hygiene of Lactating Holstein Dairy Cows

10:30 **Rachael Hannah**
Regulation of Brain Parenchymal Arteriolar Diameter by the Vascular Endothelium

Jost Foundation Room, 422

10:00 **Alexandra Clark**
A Comparison of the Relative Proportions of Invertebrate Species in the Diet of Amerindian Populations During Pre-Columbian Occupation at the Sandy Ground and Rendezvous Sites on Anguilla, British West Indies

10:15 **S'ra DeSantis**
Factors That Affect Flora Biodiversity in Wooded Habitats on Vegetable Farms in Vermont

10:30 **William DeWitt**
Spectrum-Function Correlations Across Second-Tier Hemeprotein Conformations

Chittenden Room, 413

10:00 **James Allen**
Zooarchaeological Analysis of Fishing From the Rendezvous Bay site, Anguilla: An Investigation into Possible Overexploitation of Marine Fishes

10:15 **Amanda Goldstein**
Time Spent Drinking and Type of Beverage

10:30 **Kathleen Brinegar**
"I Feel Like I'm Safe Again"



Oral Presentation Schedule Session III: 11:00 am-11:45 am

Frank Livak Ballroom, 417

11:00 **Leah Novinger**
Construction and Application of a Protein Expression Library from Human Breast Cancer Tissue

11:15 **Michelle Norton**
CD8+ T cell Proliferative Capacity is Maintained During Pregnancy

Mildred Livak Ballroom, 419

11:00 **Nicole Mason**
Engineering and Sustainable Development

11:15 **Emilie Kornheiser**
Public Private Partnerships in the U.S. Department of State

11:30 **Ginger Cloud**
Interactive Voice Response as a Therapeutic Tool for Chronic Pain, Improved Life Control, and Opioid Use Reduction

Williams Family Room, 403

11:00 **Leonie Cowley**
A Characterization of Supported Lipid-bilayer Resistance to Compression Using a Course-Grained Molecular Dynamic Simulation

11:15 **Kodwo Annan**
Mathematical Modeling of Solute Exchange During Hemodialysis

11:30 **Song Wang**
AnonTwist: Nearest Neighbor Querying with Both Location Privacy and K-anonymity for Mobile Users

Jost Foundation Room, 422

11:00 **David Lucero**
Uncovering the Insect Vector Behind Chagas Disease

11:15 **Chih Lin**
Efficacy and Safety of Subdural Evacuation Port System Compared to Burrhole and Craniotomy Procedures for Treatment of Chronic Subdural Hematomas

11:30 **Yin Guo**
Substrate Specificities of Mycobacterium tuberculosis Fpg, Nei and Nth DNA Glycosylases

Chittenden Room, 413

11:00 **Jessica Cassavaugh**
Hypoxia Inducible Factor-1 α (HIF-1 α) Interaction with E3Ubiquitin Ligases in Hypoxia

11:15 **John Wright**
Effects of Unilateral Frequent Milking of Dairy Heifers During Early Lactation

11:30 **Danielle Robinson**
Myosin II Inhibition Slows Spinal Sensory Afferent Growth in the Chicken Embryo



Oral Presentation Schedule Session IV: 1:15 pm -2:00 pm

Frank Livak Ballroom, 417

1:15 **Andrew Roering**
Insertion Reactivity of Zirconium-phosphorus Bonds

1:30 **Ross Lieb-Lappen**
Modeling Chaotic Systems

1:45 **Gary Johnson**
Generalized Source-Sink Models for Ecosystem Service Assessment

Mildred Livak Ballroom, 419

1:15 **Hunter Houde**
The Triple Bottom Line: Considering the Environmental Effects of Poverty Alleviation Through Microfinance in the Developing World.

1:30 **Evan Sorel**
*Acetic Acid as a Control for *Celastrus Orbiculatus* at Two Early Growth Stages*

1:45 **Rachel Schattman**
Stakeholder Values and Indicators of Sustainability in the Vermont-regional Food System

Williams Family Room, 403

1:15 **Jonathan Dowds**
Examining the Impact of Plug-in Hybrid Electric Vehicles on Climate Change and the Electrical Grid

1:30 **Matthew Casari**
Evolution of a Low-cost Low-profile and Low Power Method for Monitoring Engine Exhaust Particulate

1:45 **Melanie Brown**
Time to Make the Donuts

Jost Foundation Room, 422

1:15 **Sarah Roberts**
Sexual Self-Schemas, Family Support, and Sexual Problems in Adult Female Survivors of Child Sexual Abuse

1:30 **Johanes Lasher**
The Economics and Feasibility of Diverting Creative Materials from the Landfill to be Utilized in Art Classrooms.

1:45 **Aleidria Lichau**
Social Network Analysis and Value Measures to Explore Farm-to-Schools Program

Chittenden Room, 413

1:15 **Claire Bollinger**
Exercise Effects on Forebrain- and Cerebellum-dependent Learning in a Rodent Model of ADHD

1:30 **Lee Dorf**
Effects of Rapamycin Are Enhanced by Combination with Nifurtimox for Neuroblastoma Treatment

1:45 **Samya Chakravorty**
Molecular Evolution of Flightin



Oral Presentation Schedule Session V: 2:15 pm -3:00 pm

Frank Livak Ballroom, 417

2:15 **Kameron Harris**
Forecasting Regime Change in Chaotic Convection

2:30 **Lane Manning**
Exploration of Spin-Polarized Electrons in Nitride Semiconductors

2:45 **Andrew Dunn**
Single Molecule Study of DNA Repair Proteins

Mildred Livak Ballroom, 419

2:15 **Yacouba Mulu Lubula**
The Role of the Endoplasmic Reticulum and Sec22 in Entamoeba histolytica's Phagocytosis Activities

2:30 **Jacqueline Maisonpierre**
Assessing the Morphological and Genetic Diversity in Vermont's Fiddlehead Fern (Matteuccia struthiopteris)

2:45 **Lauren Wedam**
Head Movement During Two Standard Balance Assessments in Young and Older Adults

Williams Family Room, 403

2:15 **Jeanine Maniscalco**
Identification and Characterization of a Novel Tyrosine Phosphorylation Site in the Src Family of Tyrosine Kinases.

2:30 **Abigail Scherer-Hoock**
A Comparison of Actual and Recommended Digestible Energy Intakes Derived from Differing Feeding Standards for Miniature Horses

2:45 **Emily Meyers**
Effect of Feeding Low-starch, Low-forage Diets to Mid-lactation Dairy Cows on Lactational Performance and Ruminal Characteristics

Jost Foundation Room, 422

2:15 **David Propen**
Carbon Sinks, Sequestration and Solutions

2:30 **Kristin Williams**
Spatial Extent of the Impact of Transported Road Materials on the Ecological Function of Forested Landscapes

2:45 **Rafter Ferguson**
Urban Forest Gardening

Chittenden Room, 413

2:15 **Julia Camuso**
Differences in Sexual Fantasies and Their Relationship with Sexual Arousal in Adult Women with a History of Childhood Sexual Abuse

2:30 **Douglas Robinson**
Representing Brother Andre's Bones: Ritual, Agency, & Sanctity

2:45 **Adam Gonzalez**
The Interaction of Mindful-based Attention and Awareness and Disengagement Coping with HIV/AIDS-related Stigma in Regard to Concurrent Anxiety and Depressive Symptoms Among Adults with HIV/AIDS



Oral Presentation Schedule Session VI: 3:15 pm -4:00 pm

Frank Livak Ballroom, 417

3:15 **Kelly Hamshaw**
A Community-Based Action Research Case Study: Mobile Home Park Communities in Starksboro, Vermont

3:30 **Christina Rose Mastrangelo**
Determining Demand for Green Certification in Private Bus Companies

3:45 **Alex Lehning**
"The 'Jewish Question' in Italian-German Relations, 1933-1943"

Mildred Livak Ballroom, 419

3:15 **Danielle Geno**
The Relationship Between Training and Practice for Speech-language Pathologists Working With Young Children With Autism Spectrums Disorder (ASD)

3:30 **Kristin Mount**
Maternal and Child Correlates of Anxiety in 2½ Year Old Children

3:45 **Rebecca Martin**
Central Histamine H3 Receptor Mediated Regulation of CD4 T-cell Responses Occurs in the Absence of Lymph Node Innervations

Jost Foundation Room, 422

3:15 **Nicholas Allgaier**
Where Forecasts Go Bad

3:30 **Joshua Auerbach**
How Robot Morphology and Training Order Affect the Learning of Multiple Behaviors

3:45 **Karen Clark**
Evolution of Sensor Control Strategies for Over-deployed Wireless Sensor Networks



Poster Presentation Schedule

Located in the Grand Maple Ballroom, 401

Poster Presentation Listing by Poster Number

Session A 9-11:45am, Session B 1:15-4:00pm

1A Mohammed Al-Kateb

Stratified Reservoir Sampling Over Heterogeneous Data Streams

1B Elizabeth Allen

Pragmatic Perceptions of Word Retrieval Behaviors in a Young Woman with TBI

2A Pedro Alvarez-Ortiz

*Immunocytochemical Localization of a Tracheal-like Protein in *Drosophila**

2B Daniel Benson

The Association Between Severity of Disability and Family Impact in Cerebral Palsy .

3A Cordelia Schore

Learning About Public Health Nursing Through Immersion in Bangladesh (A Community and Public Health Nursing Course)

3B Lei Chen

Achieving the Benefits of 'Self-Synchronization' in Wireless Sensor Networks

4A Matthew Bradstreet

Social Discounting Among Pregnant Cigarette Smokers

4B Sarah Corey

Sensory Innervation of the Connective Tissues in the Low Back of the Rat

5A Lauren Brush

Gender Differences in the Development and Expression of Aggression

5B Stephen DeVoe

A Multidimensional Exploration of the Impact of International Experiences on Counselors' Cross-Cultural Competence

6A Mujeeburahiman Cheerathodi

CrkL-SH3 Binding Proteins From Brain, Liver and Neuron

6B John DeWitt

Ciliary Neurotrophic Factor Promotes Survival, Differentiation, and Process Outgrowth in a Murine Model of Neuroblastoma

7A Jennifer Colby

Assessing the Evolution of Grass-based Livestock Farms in Vermont and Policy Implications of Farmer Management Decisions

7B Sue Jaynes and Diana Jennings

Profile of the OB/Gyn Nurse in Vermont

8A Megan Force

Subpulse Modulation, Moding and Nulling of the Five-component Pulsar B1737+13

8B Jessica Eisenhauer

Construction and Characterization of an Environmental Chamber for Aerosol Chemistry

9A Jeffrey Frank

The Elasticity of Happiness



Poster Presentation Schedule

Located in the Grand Maple Ballroom, 401

Poster Presentation Listing by Poster Number

Session A 9-11:45am, Session B 1:15-4:00pm

9B Matthew Ernst

Assessment of the Breeding Barn Roof Structure

10A Victoria Marini

Evidence for Deficits in Reward Responsivity in Youth with Callous-Unemotional Traits

10B Heather Fjeld

Distinguishing Between Repetitive Disfluencies of Preschool-aged Children Who Do and Do Not Stutter

11A Justin VanBacker

Synergistic Responses to Umami Stimuli in Brief Access Preference Testing in C57BL Mice

11B Celina Fuller

Beyond Evidence-Based Practice

12A Katherine Schneider

Chronic Low Back Pain Associates with Changes in Central Neural Control of Anticipatory Postural Adjustments

12B Xuan Jiang

Functional Analysis of the EmaA Signal Peptide of Aggregatibacter Actinomycetemcomitans

13A Mitchell Robinson

Characterization of Particle Number Emissions from Gasoline Hybrid Vehicles Under Varying Operating Parameters

13B Juliette Juillerat

Soil Quality Indicators in Managed Northern Forests

14A Amy Steadman

Relationship Among Fear of Falling, Poor Balance Control, and Physical Activity Levels in Adults with Multiple Sclerosis

14B John Kasumba

Measurement of Agricultural Field Emissions—Real World Herbicides in Vapor and Particle Phases

15A Karen Sentoff

Toxic Gaseous Exhaust Emissions from Hybrid and Conventional Vehicles in Cold Weather Climate under Variable Terrain

15B Greg Lieberman

Changes in c-Fos Expression in the Bed Nucleus of the Stria Terminalis and the Central Nucleus of the Amygdala in Response to Short- and Long-duration Conditioned Fear Stimuli

16A Carol Taylor-Burds

Are Olfactory Marker Protein Null Mice More Sensitive to Their Odor-environment?

16B Wendy Neveu

The role of IL-6 in the Development of Aspergillus Fumigatus Induced-airway Inflammation

17A Travis Todd

A Peculiar Asymmetry in How Animals Discriminate Between Different Temporal Intervals



Poster Presentation Schedule

Located in the Grand Maple Ballroom, 401

Poster Presentation Listing by Poster Number

Session A 9-11:45am, Session B 1:15-4:00pm

17B Zhenwen Pan

Exciton Recombination in Nanometer-wide GaN/AlN Quantum Wells

18A Cassandra Gekas

Travel Time as a Measure of Gender and Socioeconomic Equity in Transportation Systems

18B John Woodward

Municipal and State Finances Under Financial Instability

19A George McCain

Strength and Permeability Characteristics of Porous Concrete Pavements

19B Maggie Sager

The Effect of Pressure on Human Thoracic Aortic Wall Remodeling: Reactive Oxygen Species Induction of the MAP Kinase Pathway

20A Megan Doczi

A Carboxy-Terminal Motif Contributes to Golgi Localization of the Kv1.3 Potassium Channel

20B James Sullivan

Investigation of Link Capacity-Disruption in the Calculation of a Transportation Network Robustness Index

21A Barbara Abbott

Investigating Binary Cubic Forms and Producing Reduced Forms Based on Discriminant Bound

21B Chun Yang

The Second Messenger Pathways in TRPC2 Knockout Mouse Vomeronasal Sensory Neurons

22A Jacqueline Bell

Reducing Deforestation and Health Impacts through Sugar Cane Oven Designs in Honduras

22B Chris Farmer

High Power, Efficient, Compact, Lightweight Energy Storage for Hybrid Electric Vehicles

23A Nathan Dagesse

An Experimental Study for Producing Optimal Cob Design

23B Kenneth Gollins

MEMS Gyroscope for the Use in Controlling the Orientation of Small Satellites

24A Jillian Davidson

Reactivity of Zirconium Arsenic Bonds

24B Kameron Harris

Forecasting Regime Change in Chaotic Convection

25A Anna Drake

Magnetic Circular Dichroism Studies of Ligand States in Heme Proteins

25B Lane Manning

Exploration of Spin-Polarized Electrons in Nitride Semiconductors



Poster Presentation Schedule

Located in the Grand Maple Ballroom, 401

Poster Presentation Listing by Poster Number

Session A 9-11:45am, Session B 1:15-4:00pm

26A Aliza Gordon

*Acid-volatile Sulfide Measurements in
Missisquoi Bay Sediments*

26B Jessica Breitfeller

*Perceptions, Promises and Politics: An
Ethnographic Case-Study of Community-
Based Ecotourism in Gales Point Manatee,
Belize*

27A Caroline McManus

*Development of a Mass Spectrometry
Technique to Detect Bacterial Pathogens in
Humid Environments*

27B Katie Jill Gladstein

*Volcanic Deformation Analysis of Mount
Etna, Sicily, 2007-2008*

28A Heidi Henrichs

*The Effects of Elevational Gradient on
Parental Feeding Behaviors of a Migrant
Passerine*

28B Benjamin Nsiah

*UVM Retention Ponds: Evaluation *E. coli* and
Total Phosphorus*

29A Katie Kain and Gwen Kozlowski

*The Effect of Species Invasion and Canopy-
cover on a Globally Threatened Plant,
*Polemonium Vanbruntiae**

29B Colin Penn

*Forest Influence on Peak Snow Accumulation
and Snowmelt in the Hubbard Brook
Experimental Forest, New Hampshire*

30A Grace Cameron

*The Vision of Potters: An Examination of
Decorated Bowls in Fourteenth-Century
Pueblo Society*

30B Evan Sorel

*Whey Microfactory Formulation of the Bio-
herbicide Lockdown (*Colletotrichum
gloeosporioides*) for Pre-emergence
Management of Northern Jointvetch in Rice
Production*

31A Alexandra Clark

*A Comparison of the Relative Proportions of
Invertebrate Species in the Diet of Amerindian
Populations During pre-Columbian
Occupation at the Sandy Ground and
Rendezvous Sites on Anguilla, British West
Indies*

31B Sara Krumminga

*Collective Memory in a Divided City:
Memorials to the Victims of Nazism in East
and West Berlin*

32A Marlow Duffy

*Exploring Marketing Strategies for
Agricultural Tourism Farmers in the
Commonwealth of Massachusetts and the
State of Vermont*

32B Carolyn Dundon

*The Influence of Dopamine and
Norepinephrine on the Sexual Arousal
Responses of Women in Love*

33A Samantha Elinson

*The Relationship Between Interoceptive
Awareness and Anxiety*



Poster Presentation Schedule

Located in the Grand Maple Ballroom, 401

Poster Presentation Listing by Poster Number

Session A 9-11:45am, Session B 1:15-4:00pm

33B Talaya McCright-Gill

Brain Processing of Emotional Information in Transgender Individuals

34A Michael Skillicorn

ACOES: The History of a Cooperative

34B Laura Pedro

Tragedy into Art: The Canadian Aboriginal Residential School Experience Expressed Through Fiction"

35A Kristen Wenz

Transracial Adoption in Vermont

35B Maxwell Ukegbu

Nigerian Immigrants In The United States

36A Alice Ford

Developing Genetic Markers for Determining the Molecular Basis of Chloroquine Resistance in Plasmodium Vivax

36B Amy Young

The Economic Crisis and its Impact on Financial Statement Transparency in the Banking Industry

37A Lauren Gauthier

Effects of Obesity on Acute Lung Injury

37B Anurag Shukla

Analyzing the Histological Patterns of Breast Cancer Stem Cells, in a Xenograft Model Targeted with Phage Displayed Antibodies

38A Paige Leenstra

Protein Engineering and Mechanistic Studies on Histidyl-tRNA Synthetase from Escherichia coli

38B Eileen Bellew

Do Mouse Strain and Sex Matter for Odor Detection?

39A Jonathan Mejia

*Measuring Niche Overlap Between Spiders and the Northern Pitcher Plant (*Sarracenia purpurea*) in Tom Swamp*

39B Jennifer Glenister

Individual Based Model of Factors Influencing the Territorial Boundary Between a Harvester Ant and Related Hybrid Lineages

40A Tyler Aten

*An Investigation of Tyrosine Kinase *Tnk1* Substrates and Function*

40B Bridget Kreger

Role of MicroRNA in Cellular Response to Ionizing Radiation

41A Jacob Barker and Julia Hobson

Analysis of the Feeding of Chagas Disease Vectors

41B Anastasia Krymkowski

Systems Modeling of Chagas Disease in Bolivia, Argentina, and Guatemala

42A Gwen Buel

Fyn Promotes Phosphorylation of Collapsin Response Mediator Protein 1 at Tyrosine 504, a Novel, Isoform-Specific Regulatory Site



Poster Presentation Schedule

Located in the Grand Maple Ballroom, 401

Poster Presentation Listing by Poster Number

Session A 9-11:45am, Session B 1:15-4:00pm

42B Megan Newhouse

The Effects of Negative Emotion on Perceived Exertion During Exercise

43A George Caldwell

Functional Interaction Between Platelet-derived Growth Factor b Receptor and the Catalytic Subunit of cAMP-dependent Protein Kinase A

43B Samuel Paskin-Flerlage

Characterization of Flightin Expression in the Primitive Crustacean, Daphnia Pulex

44A Benjamin Grande

Localization of Vasp as a Function of c-Abl

44B Monique Rogals

The Maintenance of the Barrier Function of Blood Clots: The Contribution of Old and New Thrombin

45A Pace Goodman

Habitat Differences Between the Harvester Ants Pogonomyrmex rugosus, P. barbatus and Their Interspecific Hybrids

45B Qin Zhou

Divorce and Remarriage in China: Trends, Regional Disparities and Implications

46A Mac Esters

The Role of P2X3 in the Sensory Neuro Pathways of Bladder Pressure in Mice as Corresponding to Urgency in Human Bladder Dysfunction

46B Benjamin King

Equitable Nutrition

47A Jennifer Fricke

The Geographic Genetic Differentiation of a Malaria Parasite and its Lizard Host

47B Neil Thompson

Identification of Avian Malaria Parasites from the Endangered Bird Community of the Dominican Republic

48A Kizette Ortiz-Vanger

Monitoring Productivity of Common Terns at Monomoy National Wildlife Refuge



Presenter Index by Student Last Name

Enter the session during the 15-minute break and stay for the entire oral presentation session

Oral Session I.....9:00 – 9:45am
 Oral Session II.....10:00 – 10:45am
 Oral Session III.....11:00 – 11:45am
 Oral Session IV.....1:15 – 2:00pm
 Oral Session V.....2:15 – 3:00pm
 Oral Session VI.....3:15 – 4:00pm

Poster Presenters will be with their poster during the following times:
 Session A (9:00 – 11:45am) or Session B (1:15 – 4:00pm)

Last Name	First Name	Poster / Room Number	Session	Type	Time
Abbott	Barbara	21A	A	Poster	9:00-11:45
Al-Kateb	Mohammed	1A	A	Poster	9:00-11:45
Allen	James	Chittenden 413	II	Oral	10:00-10:45
Allen	Elizabeth	1B	B	Poster	1:15-4:00
Allgaier	Nicholas	Jost 422	VI	Oral	3:15-4:00
Alvarez-Ortiz	Pedro	2A	A	Poster	9:00-11:45
Annan	Kodwo	Williams 403	III	Oral	11:00-11:45
Aten	Tyler	40A	A	Poster	9:00-11:45
Auerbach	Joshua	Jost 422	VI	Oral	3:15-4:00
Barker	Jacob	41A	A	Poster	9:00-11:45
Bell	Jacqueline	22A	A	Poster	9:00-11:45
Bellew	Eileen	38B	B	Poster	1:15-4:00
Benson	Daniel	2B	B	Poster	1:15-4:00
Bezark	Ben	Mildred Livak 419	I	Oral	9:00-9:45
Bollinger	Claire	Chittenden 413	IV	Oral	1:15-2:00
Bradstreet	Matthew	4A	A	Poster	9:00-11:45
Breitfeller	Jessica	26B	B	Poster	1:15-4:00
Brinegar	Kathleen	Chittenden 413	II	Oral	10:00-10:45
Brown	Melanie	Williams 403	IV	Oral	1:15-2:00



Presenter Index by Student Last Name

Enter the session during the 15-minute break and stay for the entire oral presentation session

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 Oral Session VI.....3:15 – 4:00pm

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 Session A (9:00 – 11:45am) or Session B (1:15 – 4:00pm)

Last Name	First Name	Poster / Room Number	Session	Type	Time
Brush	Lauren	5A	A	Poster	9:00-11:45
Buel	Gwen	42A	A	Poster	9:00-11:45
Burns	Montana	Jost 422	I	Oral	9:00-9:45
Caldwell	George	43A	A	Poster	9:00-11:45
Cameron	Grace	30A	A	Poster	9:00-11:45
Camuso	Julia	Chittenden 413	V	Oral	2:15-3:00
Casari	Matthew	Williams 403	IV	Oral	1:15-2:00
Cassavaugh	Jessica	Chittenden 413	III	Oral	11:00-11:45
Chakravorty	Samya	Chittenden 413	IV	Oral	1:15-2:00
Cheerathodi	Mujeeburahiman	6A	A	Poster	9:00-11:45
Chen	Lei	3B	B	Poster	1:15-4:00
Clark	Alexandra	Jost 422	II	Oral	10:00-10:45
Clark	Alexandra	31A	A	Poster	9:00-11:45
Clark	Karen	Jost 422	VI	Oral	3:15-4:00
Cloud	Ginger	Mildred Livak 419	III	Oral	11:00-11:45
Colby	Jennifer	7A	A	Poster	9:00-11:45
Contompasis	John	Mildred Livak 419	II	Oral	10:00-10:45
Corey	Sarah	4B	B	Poster	1:15-4:00
Cowley	Leonie	Williams 403	III	Oral	11:00-11:45
Dagesse	Nathan	23A	A	Poster	9:00-11:45



Presenter Index by Student Last Name

Enter the session during the 15-minute break and stay for the entire oral presentation session

Oral Session I.....9:00 – 9:45am
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 Oral Session V.....2:15 – 3:00pm
 Oral Session VI.....3:15 – 4:00pm

Poster Presenters will be with their poster during the following times:
 Session A (9:00 – 11:45am) or Session B (1:15 – 4:00pm)

Last Name	First Name	Poster / Room Number	Session	Type	Time
Davidson	Jillian	24A	A	Poster	9:00-11:45
DeSantis	S'ra	Jost 422	II	Oral	10:00-10:45
DeVoe	Stephen	5B	B	Poster	1:15-4:00
DeWitt	John	6B	B	Poster	1:15-4:00
DeWitt	William	Jost 422	II	Oral	10:00-10:45
Doczi	Megan	20A	A	Poster	9:00-11:45
Dorf	Lee	Chittenden 413	IV	Oral	1:15-2:00
Dowds	Jonathan	Williams 403	IV	Oral	1:15-2:00
Drake	Anna	25A	A	Poster	9:00-11:45
Duffy	Marlow	32A	A	Poster	9:00-11:45
Dundon	Carolyn	32B	B	Poster	1:15-4:00
Dunn	Andrew	Frank Livak 417	V	Oral	2:15-3:00
Eisenhauer	Jessica	8B	B	Poster	1:15-4:00
Elinson	Samantha	33A	A	Poster	9:00-11:45
Ernst	Matthew	9B	B	Poster	1:15-4:00
Esters	Mac	46A	A	Poster	9:00-11:45
Farmer	Chris	22B	B	Poster	1:15-4:00
Ferguson	Rafter	Jost 422	V	Oral	2:15-3:00
Fjeld	Heather	10B	B	Poster	1:15-4:00
Force	Megan	8A	A	Poster	9:00-11:45
Ford	Alice	36A	A	Poster	9:00-11:45



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Enter the session during the 15-minute break and stay for the entire oral presentation session

Oral Session I.....9:00 – 9:45am
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 Oral Session IV.....1:15 – 2:00pm
 Oral Session V.....2:15 – 3:00pm
 Oral Session VI.....3:15 – 4:00pm

Poster Presenters will be with their poster during the following times:
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Last Name	First Name	Poster / Room Number	Session	Type	Time
Frank	Jeffrey	9A	A	Poster	9:00-11:45
Fricke	Jennifer	47A	A	Poster	9:00-11:45
Fuller	Celina	11B	B	Poster	1:15-4:00
Garza	Eric	Frank Livak 417	I	Oral	9:00-9:45
Gauthier	Lauren	37A	A	Poster	9:00-11:45
Gekas	Cassandra	18A	A	Poster	9:00-11:45
Geno	Danielle	Mildred Livak 419	VI	Oral	3:15-4:00
Ghebream	Michael	Frank Livak 417	II	Oral	10:00-10:45
Gladstein	Katie Jill	27B	B	Poster	1:15-4:00
Glenister	Jennifer	39B	B	Poster	1:15-4:00
Goldstein	Amanda	Chittenden 413	II	Oral	10:00-10:45
Gollins	Kenneth	23B	B	Poster	1:15-4:00
Gonzalez	Adam	Chittenden 413	V	Oral	2:15-3:00
Goodman	Pace	45A	A	Poster	9:00-11:45
Gordon	Aliza	26A	A	Poster	9:00-11:45
Grande	Benjamin	44A	A	Poster	9:00-11:45
Greiner	Edward	Chittenden 413	I	Oral	9:00-9:45
Guo	Yin	Jost 422	III	Oral	11:00-11:45
Hamshaw	Kelly	Frank Livak 417	VI	Oral	3:15-4:00
Hannah	Rachael	Williams 403	II	Oral	10:00-10:45



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Oral Session I.....9:00 – 9:45am
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Last Name	First Name	Poster / Room Number	Session	Type	Time
Harris	Sarah	Frank Livak 417	I	Oral	9:00-9:45
Harris	Kameron	24B	B	Poster	1:15-4:00
Harris	Kameron	Frank Livak 417	V	Oral	2:15-3:00
Henrichs	Heidi	28A	A	Poster	9:00-11:45
Herrmann	Evan	Mildred Livak 419	I	Oral	9:00-9:45
Hicks	Robin	Jost 422	I	Oral	9:00-9:45
Hobson	Julia	41A	A	Poster	9:00-11:45
Houde	Hunter	Mildred Livak 419	IV	Oral	1:15-2:00
Jaynes	Sue	7B	B	Poster	1:15-4:00
Jennings	Diana	7B	B	Poster	1:15-4:00
Jiang	Xuan	12B	B	Poster	1:15-4:00
Johnson	Gary	Frank Livak 417	IV	Oral	1:15-2:00
Juillerat	Juliette	13B	B	Poster	1:15-4:00
Kain	Katie	29A	A	Poster	9:00-11:45
Kasumba	John	14B	B	Poster	1:15-4:00
King	Benjamin	46B	B	Poster	1:15-4:00
Kornheiser	Emilie	Mildred Livak 419	III	Oral	11:00-11:45
Kozlowski	Gwen	29A	A	Poster	9:00-11:45
Krawczel	Peter	Williams 403	II	Oral	10:00-10:45
Kreger	Bridget	40B	B	Poster	1:15-4:00



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Last Name	First Name	Poster / Room Number	Session	Type	Time
Krumminga	Sara	31B	B	Poster	1:15-4:00
Krymkowski	Anastasia	41B	B	Poster	1:15-4:00
Kutz	Amanda	Mildred Livak 419	II	Oral	10:00-10:45
Lane	Justin	Mildred Livak 419	I	Oral	9:00-9:45
Lasher	Johanes	Jost 422	IV	Oral	1:15-2:00
Leenstra	Paige	38A	A	Poster	9:00-11:45
Lehning	Alex	Frank Livak 417	VI	Oral	3:15-4:00
Lichau	Aleidria	Jost 422	IV	Oral	1:15-2:00
Lieberman	Greg	15B	B	Poster	1:15-4:00
Lieb-Lappen	Ross	Frank Livak 417	IV	Oral	1:15-2:00
Lin	Chih	Jost 422	III	Oral	11:00-11:45
Lodh	Nilanjan	Williams 403	II	Oral	10:00-10:45
Lubula	Yacouba Mulu	Mildred Livak 419	V	Oral	2:15-3:00
Lucero	David	Jost 422	III	Oral	11:00-11:45
Maddox	Annalese	Mildred Livak 419	II	Oral	10:00-10:45
Maisonpierre	Jacqueline	Mildred Livak 419	V	Oral	2:15-3:00
Maniscalco	Jeanine	Williams 403	V	Oral	2:15-3:00
Manning	Lane	25B	B	Poster	1:15-4:00
Manning	Lane	Frank Livak 417	V	Oral	2:15-3:00
Marini	Victoria	10A	A	Poster	9:00-11:45



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Martin	Rebecca	Mildred Livak 419	VI	Oral	3:15-4:00
Mason	Nicole	Mildred Livak 419	III	Oral	11:00-11:45
Mastrangelo	Christina Rose	Frank Livak 417	VI	Oral	3:15-4:00
McCain	George	19A	A	Poster	9:00-11:45
McCright-Gill	Talaya	33B	B	Poster	1:15-4:00
McManus	Caroline	27A	A	Poster	9:00-11:45
Mejia	Jonathan	39A	A	Poster	9:00-11:45
Meyers	Emily	Williams 403	IV	Oral	2:15-3:00
Mount	Kristen	Mildred Livak 419	VI	Oral	3:15-4:00
Neveu	Wendy	16B	A	Poster	9:00-11:45
Newhouse	Megan	42B	B	Poster	1:15-4:00
Norton	Michelle	Frank Livak 417	III	Oral	11:00-11:45
Novinger	Leah	Frank Livak 417	III	Oral	11:00-11:45
Nsiah	Benjamin	28B	B	Poster	1:15-4:00
Nunery	Jared	Frank Livak 417	I	Oral	9:00-9:45
Ortiz-Vanger	Kizette	48A	A	Poster	9:00-11:45
Pan	Zhenwen	17B	B	Poster	1:15-4:00
Paskin-Flerlage	Samuel	43B	B	Poster	1:15-4:00
Pedro	Laura	34B	B	Poster	1:15-4:00
Pellon	Michael	Frank Livak 417	II	Oral	10:00-10:45



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Penn	Colin	29B	B	Poster	1:15-4:00
Ponissery Saidu	Samsudeen	Jost 422	I	Oral	9:00-9:45
Prophen	David	Jost 422	V	Oral	2:15-3:00
Roberts	Sarah	Jost 422	IV	Oral	1:15-2:00
Robinson	Douglas	Chittenden 413	V	Oral	2:15-3:00
Robinson	Mitchell	13A	A	Poster	9:00-11:45
Robinson	Danielle	Chittenden 413	III	Oral	11:00-11:45
Roering	Andrew	Frank Livak 417	IV	Oral	1:15-2:00
Rogals	Monique	44B	B	Poster	1:15-4:00
Sager	Maggie	19B	B	Poster	1:15-4:00
Schattman	Rachel	Mildred Livak 419	IV	Oral	1:15-2:00
Scherer-Hoock	Abigail	Williams 403	V	Oral	2:15-3:00
Schneider	Katherine	12A	A	Poster	9:00-11:45
Schore	Cordelia	3A	A	Poster	9:00-11:45
Sentoff	Karen	15A	A	Poster	9:00-11:45
Shukla	Anurag	37B	B	Poster	1:15-4:00
Skillicorn	Michael	34A	A	Poster	9:00-11:45
Sorel	Evan	Mildred Livak 419	IV	Oral	1:15-2:00
Sorel	Evan	30B	B	Poster	1:15-4:00
Steadman	Amy	14A	A	Poster	9:00-11:45



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Last Name	First Name	Poster / Room Number	Session	Type	Time
Stebbins	Emily	Williams 403	I	Oral	9:00-9:45
Stevens	N. Tucker	Frank Livak 417	II	Oral	10:00-10:45
Stor	Kirsten	Chittenden 413	I	Oral	9:00-9:45
Sullivan	James	20B	B	Poster	1:15-4:00
Taylor-Burds	Carol	16A	A	Poster	9:00-11:45
Thomas	Jamila	Williams 403	I	Oral	9:00-9:45
Thompson	Neil	47B	A	Poster	9:00-11:45
Todd	Travis	17A	A	Poster	9:00-11:45
Ukegbu	Maxwell	35B	B	Poster	1:15-4:00
VanBacker	Justin	11A	A	Poster	9:00-11:45
Vize	Andrew	Chittenden 413	I	Oral	9:00-9:45
Wang	Song	Williams 403	III	Oral	11:00-11:45
Wedam	Lauren	Mildred Livak 419	V	Oral	2:15-3:00
Wenz	Kristen	35A	A	Poster	9:00-11:45
Williams	Kristin	Jost 422	V	Oral	2:15-3:00
Woodward	John	18B	B	Poster	1:15-4:00
Wright	John	Chittenden 413	III	Oral	11:00-11:45
Yang	Chun	21B	B	Poster	1:15-4:00
Young	Amy	36B	B	Poster	1:15-4:00
Zhang	Guangxuan	Williams 403	I	Oral	9:00-9:45
Zhou	Qin	45B	B	Poster	1:15-4:00



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