



7th Annual Undergraduate Research Conference
Saturday, September 23, 2017

2017 Schedule

Skidmore College
Saratoga Springs, NY

Presentation Abstracts are at newyork6.org/students/resources

9:00-9:30 am Arrivals and Breakfast
Lobby of Gannett Auditorium, Palamountain Hall

9:30-9:45 am Welcoming Remarks
Beau Breslin, Dean and Vice President for Academic Affairs, Skidmore College
Gannett Auditorium, Palamountain Hall

9:45-10:45 am Oral Presentations (4 locations)

Palamountain 201

Zongliang Ji, Union College, 2019, Computer Science & Math, Explore Fast Multiplication Algorithms
Giorgos Petkakis, Skidmore College, 2018, Computer Science, Mining Code in Search of Reason
Omar Beesley, Spencer Woolfson, Hamilton College, 2020, Math and Physics, Methods for Quantifying Gender Bias in Text
Natasha Turyasingura, St. Lawrence University, 2018, Biochemistry, The role of USP8 in lymphocyte activation

Bolton 280

Veronica Mierzejewski, Skidmore College, 2019, Chemistry, Design and Development of a Novel Antibiotic: a GatCAB Inhibitor
Anne Buck, St. Lawrence University, 2018, Biochemistry, Progress Towards Efficient Synthesis of Morphine Analogue Using the Wagner-Jauregg Reaction
Kaitlyn Rodriguez, Colgate University, 2017, Molecular Biology, Serine Hydroxymethyltransferase Isoforms are Adapted for Plant Stress Response
George Chakalos, Laura Noejovich, Skidmore College, 2018, Neuroscience, Charting the Uncanny Valley

Bolton 281

Lily Capstick, Hamilton College, 2018, Sociology major, creative writing minor, Exploring the Value Transformations of Ex-Tigistes in Rwanda: The Case of TIG
Yohary Fabian, Colgate University, 2018, Spanish; Elisa Smith, Skidmore College, 2018, Social Work; Sydney Keane, Union College, 2018, Neuroscience; Kristen St. Andrews, Union College 2018, Biology; Community, Action, Research, and Education (C.A.R.E) Program

Bolton 282

Ana Sosa, Skidmore College, 2018, Sociology, Identifying The Haitian Second Generation
Ruby Thompson, Skidmore College, 2018, Sociology, To Be or Not To Be: Ethnic Identity For Second Generation West Indians
Alec Rhodes, Hobart and William Smith Colleges, 2018, Sociology and Economics, The Syrian Community in Geneva: Past and Present
Sabrina Callender-Clewett, Colgate University, 2019, Environmental Economics / Philosophy, Débrouillardisme: Martinique's Past, Present, and Future

Palamountain 202

Bridget Lavin, Hamilton College, 2018, Theatre and Women's & Gender Studies, Speaking Out: How Documentary Theatre Provides a Voice to Sexual Assault Survivors

Priyadarshinee Dhawka, Colgate University, 2019, Computer Science; Annie Wang, Colgate University, 2019, History, Multilingual Experiences of International Students at NY6 Campuses

Benjamin Ringel, Colgate University, 2018, International Relations & Spanish, Apartheid South Africa Manipulates its Nuclear Program for Political Gain

Elizabeth Dunne, Hobart and William Smith Colleges, 2019, Refugee Studies, Detention Centers and the Rights of Migrants in EU today

10:50-11:55 am Poster Session #1**(3 locations)*****Bolton 280***

- Shivam Tewari, Sarah Sveen, Hobart and William Smith Colleges, An Initial Investigation into the Development of Desalination Methods for the Stennett Research Lab
- Sampriti Thapa, Skidmore College, 2018, Biochemistry, Effect of Cullin-5 Protein on Conformational Flexibility of HIV-1 Vif Protein
- Charmaine Bing Bing Chung and Jasmine Jackson, Hobart and William Smith Colleges, Biochemistry, Effects of Macromolecular Crowding on Enzyme Kinetics
- Hannah Forman, Hongwei Yu, Skidmore College, 2019, Biochemistry, Expanding the genetic code with pyroglutamate
- Aaron Beguelin, Hamilton College, 2018, Biology, The gut microbiome of two sympatric species of sea urchin from two locations in Fiji: Does geographic location or sea urchin specificity result in differences between gut microbiomes?
- Jessica Gilbert, Union College, 2018, Biology, The Impact of Biological Soil Crusts on the Success of Seedling Germination in the Albany Pine Bush Preserve
- Yao Xiao, Skidmore College, 2019, Chemistry, Daytime and Nighttime Atmospheric Processing of US Fly Ash
- Gabrielle Mascarin, Skidmore College, 2018, Biology, The impacts of N-acetyl-L-Cysteine on the cell wall of *Penium margaritaceum*

Bolton 281

- Michelle Taylor, Tessa Ruff, Colgate University, 2018, Cellular Neuroscience, Effects of antidepressants on nitric oxide production by microglia and astrocytes
- Giovanny Dominguez, Hamilton College, Chemistry, 2018; Mackenzie Morshead, Hamilton College, 2018, Biochemistry and Art, Synthesis and antimicrobial evaluation of 3-hydroxy-2-oxindoles
- Deborah Kim, Kathleen J. Maas, Skidmore College, 2018, Chemistry, Daytime Chemistry of Sea Spray Aerosols: Alternative Pathways of HONO Formation
- Claudia Bennett-Caso, Skidmore College, 2019, Chemistry; Chris Ostaszewski, Skidmore College, 2019, Chemistry and Mathematics; Non-Thermal Plasma for the Heterogeneous Chemistry of Chemisorbed Volatile Compounds with Free-Radicals
- Woohee Kim, Colgate University, 2018, Educational Studies, Korean Youth Activism and Education: Taking Learning beyond the Educational System into Activism
- Ronald Caruso, Skidmore College, 2018, Exercise Science, Effects of DhamaSPORT™ Cooling Band Technology on Recovery from Exercise-Induced Heat Stress Associated with Firefighting Personal Protective Equipment (PPE)
- Ivy Raines, St. Lawrence University, 2018, Government, The Discourse of Divide: Explaining the Divorce Between Egyptian and Jordanian Policy and Public Sentiment Towards The Israeli Palestinian Conflict

Bolton 282

- Alexandra Cassell, Skidmore College, 2019, Mathematics and Computer Science; Alexander Smith, Skidmore College, 2018, Mathematics; Developing an Oscillator Model for Group Behavior in *Drosophila melanogaster*

Allison Mogul, Hamilton College, 2018, Neuroscience; Gianna Davino, Hamilton College, 2020, Psychology; Putting Fear in Context: Elucidating the Role of the Retrosplenial Cortex in Context Discrimination in Rats

Abigail Dayton, Hamilton College, 2019, Neuroscience, Strategies to Improve the Novel Object Recognition Task

Skye Conlan, Union College, 2018, Physics, PIXE Analysis of Artificial Turf

Grant Kiefaber, Hamilton College, 2019, Religious Studies, Muslim Refugees in Utica: Perception and Reality

Alicia (Phuong) Nguyen, Colgate University, 2020, Undeclared, The Nation in the French Indochina: An Ethno-symbolist Approach

Anouk Nouet, Union College, 2018, Environmental Science, Pervious Concrete Behavior in Freeze-thaw Conditions: Does the Inclusion of Recycled Materials Affect Performance?

Noon-1:00 pm Lunch

Murray Aikins Dining Hall

1:10-2:15 pm Poster Session #2

(4 locations)

Bolton 280

Kristina Foley, Skidmore College, 2018, Biochemistry, Effects of conformational changes and flexibility from ArkA binding to the ABP1-SH3 domain

Robyn Stix, Skidmore College, 2018, Biochemistry, Conformational Changes of ArkA12

Jack Sherwood, Hobart and William Smith Colleges, 2019, Biochemistry, Developing a Synthetic Pathway for Production of Fluorescein-Labeled Peptides

Emily De Jong, Hamilton College, 2019, Biochemistry and Hispanic Studies, Ovaries from diabetic mice exhibit loss of follicles leading to reproductive failure

Karl Brown, Colgate University, 2018, Biology, The utilization of soundscape ecology to measure and track changes to biodiversity in the forests surrounding Colgate University

Erin Biggar, Mary Kathryn McCann, Colgate University, 2018, Biology, Lack of refractory period in Red-eyed vireo song causes a decrease in Ovenbird song productivity

Clare Munroe, Hamilton College, 2018, Chemical Physics, High-Resolution Atomic Force Microscopy of alpha-Quartz in Air and Liquid

Bolton 281

Danielle Couture, St. Lawrence University, 2018, Chemistry, Synthesis of Multi-ringed Compounds Using an Intramolecular Wagner-Jauregg Reaction

Lieza Chan, Skidmore College, 2018, Chemistry, Effect of Elongin-B C-terminus on Correlated Motions in HIV Vif Complex

Yingsi Qin, Leo Ascenzi, Colgate University, 2020, Computer Science & Physics, Design of a Video Co-Watching Web Application

Zhengqi Yang, Union College, 2018, Electrical Engineering and Mathematics, Image Classification via Convolutional Neural Network

Angelica Greco, Colgate University, 2018, Geography, Who's Calling the Shots on Nuclear Decommissioning: A Case Study of Scriba, NY and Vernon, VT

Alexs Matias, Monique Dudar, Josip Kauzlaric, Skidmore College, Health and Exercise Science,
Rehydrating Efficacy of Maple Water after Exercise-Induced Dehydration: Potential Sex Differences
Jose Giron, Skidmore College, 2020, Chemistry/Biochemistry, Direct Pathway For Bacillus Anthracis tRNA
Asparaginylation

Bolton 282

Kathryn Wall, Union College, 2018, Neuroscience, Effects of Neuropsychological Testing Media on
Results

Stephen Wisser, Hamilton College, 2020, Neuroscience, Environmental Studies; Kai Scarangella,
Hamilton College, 2020, Environmental Sciences; Anneka Sheppard, Hamilton College, 2019,
Biochemistry and Molecular Biology; Analysis of water column and sub-chemocline biofilm samples
from meromictic Green Lake (Fayetteville, NY)

Sajju Chalise, Union College, 2019, Physics, Proton Induced X-Ray Emission (PIXE) Analysis to Measure
Trace Metals in Soil Along the East River in Queens

Claudia Karademas, Hamilton College, 2020, Psychology, Do Gustatory Processing Styles Prime Vision?

Sophie Staton, Skidmore College, 2018, Social Work, VOICES: Voicing Our Individual and Collective
Experiences

Lukuo Lee, Jack Herrick, Colgate University, 2018, Molecular Biology, Interdisciplinary Chemical Biology
Approach for the Identification of Novel Compounds Promoting Plant Disease Resistance

Taylor Coursey, Hamilton College, 2019, Environmental Studies, Perceptions of the link between Meat
Consumption and Greenhouse Gas Emissions

Palamountain 202

YiZhi Lin, Union College, 2018, Neuroscience, Differences in emotional brain areas in people with chronic
facial pain

Kathleen Murray, Colgate University, 2019, Neuroscience, A novel experimental setup for the analysis of
social interaction in the zebra finch

Christopher Ostaszewski, Skidmore College, 2018, Chemistry, Mathematics, Quantum Mechanical
Calculations of O(3P) Reactions with Cyclohexene Chemisorbed onto Al₂O₃

Sarah Gowan, Skidmore College, 2019, Neuroscience, Atmospheric Particle Aging: Daytime Chemistry in
the Ocean/Atmosphere Interface

Natalie Stuart, Skidmore, 2018, Chemistry, Computational Calculations of the Effects of Surface Water
on the Photocatalysis of HNO₃ on TiO₂

2:20-3:30 pm

Poster Session #3

(4 locations)

Bolton 280

Danielle Rodriguez, Hamilton College, 2019, Biochemistry; Olivia Simone, Hamilton College, 2019, Chemistry; Caroline Sullivan, Hamilton College, 2020, Undecided; Use of N-(1-alkoxyvinyl) pyridinium salts in organic synthesis

Rebecca Wales, Skidmore College, 2018, Biochemistry, Direct Route for Asparaginyl-tRNA Formation in *B. subtilis*

Elissa Williams, Yutong Li, Skidmore College, 2019, Biochemistry, B. Anthracis Indirect Pathway of Asparaginyl-tRNA Formation

Caitlin Schroeder, Skidmore College, 2018, Bio-Chemistry Major/Anthropology Minor, Characterization of the Dual Pathways for *B. halodurans* Asparaginyl-tRNA Formation

Jodi Weiss, Hamilton College, 2019, Biology, Frequency of Abnormal Chromosome 10 in Tropical Landraces of *Zea mays*

Edward Gebara, Union College, 2018, Bio-Medical Engineering, Controlling Regioselectivity using Supramolecular Assembly

Haley Anchukaitis, St. Lawrence University, 2018, Chemistry, Synthesis of Doxorubicin Analogs for DNA Binding Studies

Bolton 281

Alexis Haley, St. Lawrence University, 2018, Chemistry, Investigation of MhuD Iron Insertion into Protoporphyrin IX

Gabriella Gerlach, Skidmore College, 2019, Chemistry, Role of Segments 1 and 2 in the ArkA12 Structural Ensemble

Leo Ascenzi, Yingsi Qin, Colgate University, 2020, Computer Science & Physics, Design of a Video Co-Watching Web Application

Daniel Casarella, Jennifer Cristiano, Skidmore College, 2018, Environmental Science, Tree functional traits vs environmental controls on key ecosystem properties and processes in the Adirondack Park

Jenny Soonthornrangsang, Hamilton College, 2019, Geosciences and Mathematics, Monitoring Groundwater and Surface Water Nutrient Fluxes on Lake Erie's Eastern Shore

Emily Schlicht, Skidmore College, 2018, Health and Exercise Science, The Impact of a Novel Wrist Cooling Device on Exercise Performance and Recovery in the Heat

Lucy Walker, Skidmore College, 2019, Geosciences, The Study of Zooplankton Trap Bias and Plastic Content in the Upper Ocean: A Sediment Trap Intercomparison

Bolton 282

Tatenda Chakoma, Hamilton College, 2018, Neuroscience, DREADDs: A Chemogenetic Technique for Remotely Controlling Neural Activity in Rats

Sara Aldrich, Hamilton College, 2019, Neuroscience, Characterization of a Putative Rat Model for Autism Spectrum Disorder

Ho Jun (Paul) Sim, Colgate University, 2018, Neuroscience and Music, Development of optogenetic transgenic songbirds

Beatriz Chavez, Tenzin Gyaltsen, Skidmore College, 2018, Physics, Development of Open-Source Hardware For Use With Microfluidic Testing Technology

Roxanna Martinez, Skidmore College, 2019, Chemistry; Kyla Johnson, Skidmore College, 2020, Undecided; Development of a Paper Microfluidic Test for D-Lactate: A Diagnostic Test for Malaria

Alan Xiao, Skidmore College, 2018, Molecular Biology, The effects of flufenacet on cell expansion, morphogenesis and cell wall deposition in the charophyte, *Penium margaritaceum*.
Alisha Blades, Hamilton College, 2020, Undecided; Phoebe Keyes, Hamilton College, 2019, Chemistry; Danielle McConnell, Hamilton College, 2020, Undecided; Direct synthesis of N-(1-alkoxyvinyl) pyridinium salts, a novel class of N-quaternized ketene N,O-acetals

Palamountain 202

Meichai Chen, Union College, 2020, Psychology, Investigating change in anxiety during exposure meals over time as a predictors of eating disorder recovery
Devon McLane, Skidmore College, 2019, Chemistry, Nutrient Dynamics and Eutrophication of an Urban-Influenced Lake
Corinne Crisfield, Hamilton College, 2018, Public Policy; Ricardo Rios, Skidmore College, 2018, Government; Clifford Elike, Union College, 2020, Engineering; Refugees on the Move
Jeff Okoro, Skidmore College, 2018, Neuroscience; Haoyang Huang, Skidmore College, 2020, Neuroscience; Characterizing ATXN1 aggregation and propagation in Spinocerebellar ataxia type 1
Ben Juneau, Skidmore College, 2018, Neuroscience, Investigating the Role of sNPF in *Drosophila* Using Optogenetics
Andrew Przysinda, Skidmore College, 2018, Biology, Ellipsoid Body Neurons Induce Rebound Sleep in *Drosophila Melanogaster*

3:30 pm

Departure