

The Mount David Summit

The Mount David Summit is an annual celebration of student research, artistic work, and community-based scholarship at Bates College. Each year at the end of the winter semester, students from all classes present their work to each other and to faculty, staff, families, and community members in a symposium format. The Summit spotlights the diverse academic activities of Bates students across the disciplines and honors the vibrant intellectual life of the college.

Named for the landmark "mountain" on the campus, the Summit is guided by the motto of the college

—*Amore ac Studio*—

loosely translated, With Love and Zeal, With Ardor and Devotion:
devotion to scholarship, creativity, and the life of the mind.

The Mount David Summit is sponsored by the Office of the Dean of the Faculty.

We are grateful to Ralph T. Perry '51 and Mary Louise Seldenfleur,
who have been generous and devoted supporters of the Summit since its first year.

~ About the 2015 Summit ~

The 2015 Mount David Summit, held on April 3, is organized into four sessions: three in the afternoon and one in the evening. Several concurrent events are scheduled during each of the afternoon sessions. Afternoon events take place in Pettengill Hall. This program includes a detailed schedule; presentation abstracts are available in a separate booklet.

In Session I (beginning at 1:45 PM), a poster session takes place, featuring research posters on African studies, anthropology, biochemistry, biology, chemistry, education, environmental studies, geology, history, mathematics, psychology, and Spanish. Short talks and panel discussions focus on Jewish perspectives on social issues, dance thesis projects, Roman law, the history of African American Studies and American Cultural Studies programs at Bates, Americans in Europe, psychology thesis research, and the Arthurian legend and technology.

Session II (beginning at 3:15 PM), features a poster session with research posters in African studies, biochemistry, biology, chemistry, classical and medieval studies, neuroscience, psychology, and sociology. Talks and panel discussions focus on community-engaged research, contemporary Europe, research during study-abroad programs, biology, and economics. Students from two rhetoric courses will screen their video essays on film theory.

In Session III (beginning at 4:45 PM), a poster session will feature research posters on African studies, biochemistry, biology, chemistry, neuroscience, physics, politics, psychology and sociology. Session III talks explore the humanities, Roman law, thesis research in sociology, and curatorial internships at the Bates College Museum of Art. Creative writing thesis students will offer a literary reading and three students will offer a demonstration of Japanese calligraphy.

In the evening session, the Bates Dance Company presents its spring concert at 7:30 PM in Schaeffer Theatre, and the music department's student funk ensemble, Logistics of Funk, will play a post-Summit jam in the Fireplace Lounge in Commons, also at 7:30 PM.

Visitors to the Summit are encouraged to talk with students and ask them challenging questions. We invite you to move among events during each session, but we respectfully request that you do not leave a program while a student is speaking.

Thank you

At Bates we believe that every student is an emerging scholar.

Supporting student research and creative work requires wisdom, time, and resources. Bates student researchers and their faculty mentors thank the many individuals and foundations whose contributions to these funds help make student research vibrant, challenging, and filled with discovery.

We are deeply grateful to alumni, parents, faculty and friends whose support sustains research opportunities for our students.

The Bates Fund
The Arthur and Helen Baer Foundation Student Research Support Fund for Studio Art Majors
The Professor Leland and Claudina Bechtel Fund
The Blanchard Fund for Student-Faculty Research in Economics
The Bonner Leader Program
The Bruce Bouley Fund for Geology
The Bertha A. Bauer, M.D. Student Thesis Support Fund for the Department of Art and Visual Culture
The Class of 2000 Endowment for Community Service
The Penelope Ellis Fund
The Moses Feldman Family Foundation Student Research Grants
The Hamill Family Fund for Student Fieldwork and Research in Anthropology
The Hoffman Fund for Student Research
The John and Sally Kelsey Prize for Neuroscience Student Research
The Howard and Gail Loeb Kunreuther Endowed Fund for Faculty Research in Economics
The Dorothy Dole Johnson '41 Fund for Student Research in the Sciences
The Walter A. Lawrance Student Research Fund
The Susan Majeski McKnight '70 Fund for Environmental Studies
The Morrill Family Research Fund
The Mount David Research Fellowship Fund
The Vincent Mulford Internship and Research Fund
The Natt Family Fund in Biology
The Philip J. Otis Fund
The Helen A. Papaioanou Fund
The Anthony B. and Raeflyn R. Pelliccia Fund
The Charles Franklin and Evelyn Minard Phillips Fund
The John Pribram and George Ruff Fund for Research in Physics
The Linda E. Rawlings Student Research Fund for Mathematics
The Whitney Richey '05 Fund
The Ruggles Scholar Research Fund
The Sargent Student Research Fund
The Scher Fellowship Fund
The Ellen Seeling Design Fellowship Fund
The Michael I. Sklar '94 Music Research Fund
The Stangle Family Research Fund for Economics and Law
The Dr. Jason M. Tanzer Fund
The Sarah H. Trafton Memorial in the Bates-Morse Mountain Reserve Fund
The Aaron R. Winkler '92 Fund for Student Research in Biology

Mount David Summit

Schedule of Events

Friday, 3 April, 2015

1:30 -1:45 PM

Perry Atrium

Call to the Summit: *Fanfares of St. Charbel*, by Michel Rondeau
performed by James Jhun '16 and Alexander Perrone '16

Welcome

A. Clayton Spencer, President

Matthew R. Auer, Vice President for Academic Affairs and Dean of the Faculty

Pettengill Hall

15th Annual Barlow Off-Campus Study Photography Exhibition

Note: Within each event, students are listed in the order in which they will speak

Concurrent Session I

1:45 – 3:00 PM

Perry Atrium

Poster Session I: African studies, anthropology, biochemistry, biology, chemistry, education, environmental studies, geology, history, mathematics, psychology, and Spanish

Pettengill G10

A Collection of Arthurian Wiki-Studies

Students in CM/EN 121D, The Many Lives of King Arthur, who authored Wikipedia entries on aspects of the Arthurian legend, discuss their work and scholarship in the public sphere.

Moderator: Sylvia Federico, English

Pettengill G21

Jewess Perspectives on Modern Judaism and Social Issues

Adina Brin '15, Julia Ofman '15, Eliza Kaplan '15, and Emma Kate Lindsay '15 discuss their senior thesis research on Judaism and its modern applications and challenges.

Moderator: Cynthia Baker, Religious Studies

Pettengill G52

Documenting the History of African American Studies and American Cultural Studies at Bates

Members of ACS 100, Introduction to American Cultural Studies, present their research on the history of African American Studies and American Cultural Studies at Bates, as these interdisciplinary programs approach their 25th anniversary.

Moderator: Aimée Bessire, American Cultural Studies & Art and Visual Culture

Pettengill G65

Psychology Thesis Research on Campus and in the Community

Psychology majors present their thesis research on a range of topics.

Alyssa Morgosh '15: Improving Healthy Concussion Reporting Behaviors in Student Athletes

1:45 – 3:00 PM

Megan Lapp '15: Peer and Self-Perceptions of Learning Differences

Brett Emmons '15: Creating a Moral Empowerment Program in Lewiston, ME

Christopher Eddy '15: Defining a Bro Culture: A Qualitative Study

Moderator: Susan Langdon, Psychology

Pettengill 116

Roman Law I: Administration and Intersections with Religious Law

In the first of two panels on Roman law, students in CM/HI 390J, Law and Society in Ancient Rome, discuss their research.

Jules-Philippe Ball '17: The Praetorship during the Roman Republic, from Origins to Sulla

Daniel Oyolu '15: Jewish Law vs. Roman Law in the Gospel of Luke

Nicholas Steverson '15: Legal Charges against Paul and the Early Christians under Imperium

Moderator: Margaret Imber, Classical and Medieval Studies

Pettengill 162

Innocents Abroad? Americans and the European Political Climate

Politics majors John Albanese '16, John Allard '16, and Benjamin Wilentz '16, all of whom studied abroad in Europe, discuss the European political scene from an American perspective.

Moderator: David Das, Office of Off-Campus Study

Pettengill 257

Building a Dance Thesis

Dance majors Talia Mason '15, Regan Radulski '15, Tomisha Edwards '15, Anna Lanoue '15, and Isaiah Rice '15 discuss the themes and creative process of senior thesis work in dance.

Moderator: Carol Dilley, Dance

**Concurrent Session II
3:15 – 4:30 PM**

Perry Atrium

Poster Session II: African studies, biochemistry, biology, chemistry, classical and medieval studies, neuroscience, psychology, and sociology

Pettengill G10

Communities in Transition: China, Sri Lanka, Samoa, Peru

Students employ different social science methods to analyze contemporary culture and society.

Patrick Tolosky '15: Globalization in Peru: The Effect of Industry and Tourism on Peruvian Culture

3:15 – 4:30 PM

Xintao Li '16: Dynamics of Self-Organized Student NGOs in Guangzhou, South China

Robin Jones '15: Radical Buddhism: Sri Lanka's Bodu Bala Sena

Detmer Kremer '16: Learning how to Fly: The Intersectionality of Religion, Culture, and Gender of the Samoan Baha' i Community

Moderator: Joshua Rubin, African American Studies & American Cultural Studies

Pettengill G21

Theory into Practice: Community-Engaged Research

Community-Engaged Research Fellows Lydia Mitchell '15, Sophia Pellegrini '15, Olivia Gregorius '15, Kara McGowan '15, Nicole Brill '15, Martha Schnee '15, and Jessica Nichols '15 discuss community-engaged scholarship and their individual research with community partners.

Moderator: Darby Ray, Harvard Center for Community Partnerships

Pettengill G50

Genetics and Adaptation: Research in Biology

Students in Professor Larissa Williams' lab discuss their senior research.

Kathleen Morrill '15: Genetic Diversity and the 2013 Decline of Eelgrass (*Z. marina*) Populations in the Frenchman Bay, ME

Sophia Salas '15: Role of Nfe2 in the Oxidative Stress Response in Zebrafish, *Danio rerio*, across Development

Moderator: Larissa Williams, Biology

Pettengill G52

Exploring Film and Identity through the Video Essay

Students in RHET 120, Introduction to Screen Studies, and RHET 240, Film Theory, screen and discuss the videos they created as a medium for film analysis.

Moderator: Jonathan Cavallero, Rhetoric

Pettengill G65

Scholarship around the World: Research while Studying Abroad

Many study-abroad programs offer rich opportunities for in-depth research; these students present the research they conducted while abroad.

Matthew McLaughlin '16: Opening Doors and Playing an Important Role in the World Economy: The Role of Foreign Direct Investment and Exports in the Domestic Cuban Economy

Jacob Nemeroff '16: The Final Voices of a Generation: Oral Accounts of First-Generation Tibetan Exiles and Their Experiences in Pre-Occupied Tibet

Grace Wright '16: What to Do When Feeling Blue: Emotional Support Systems Available to Migrant Workers' Wives in Nepal, Palpa District

3:15 – 4:30 PM

Samantha Thomas '15: Warsaw and Kraków: The Musealization of Polish Jewish History

Moderator: Stephen Sawyer, Office of Off-Campus Study

Pettengill 116

Culture and Identity in Contemporary Europe

German, European studies, and history majors discuss their research on contemporary Europe.

Molly Paillet '15: Czech Secularism and Spirituality, Glimpses Through a Shatter Stained Glass Past: Contemporary National and Personal Identity

M. Lane Peterson '15: Lewiston, Munich, Hausach: Places of Intercultural Experience. Approaches to the Poetry of José F.A. Oliver

Eric Adamson '15: The German "PISA-shock" and Changing Attitudes toward Comprehensive Schooling

Moderator: Jakub Kazecki, German

Pettengill 162

Opportunity and Control: Research in Economics

Economics students discuss the ways in which economic forces impact individuals, corporations, and communities.

Amanda Pierog '15: Do Military Benefits Include Hiring Premiums? A Post-Military Employment Audit Study

Daniel Mansuri '15: Compulsory Licenses: Damaging to Firms in the Short Term?

Gideon Ikpekaogu '17: Art, Trade and Social Justice: Exploring the Issues of Trade through an Artistic Perspective

Moderator: James Hughes, Economics

Pettengill 257

Senior Thesis Research in Neuroscience

Neuroscience students discuss their senior research on the brain and its functions.

Kathryn Davis '15, and Emily Regan '15: Reward Sensitivity and Attention in Orthorexia Nervosa

Ramya Ghantasala '15: Individual and Synergistic Effects of Oxytocin and Dopamine on Fluid Intelligence

Hannah Weiss '15: Exploring the Relationships between Dissociation, Cognition, and Sleep

Moderator: Nancy Koven, Psychology

Concurrent Session III

4:45 – 6:00 PM

Perry Atrium

Poster Session III: African studies, biochemistry, biology, chemistry, neuroscience, physics, politics, psychology, and sociology

Pettengill G21

Humanistic Explorations: Sports, Nature, Energy, and Artificial Intelligence

The humanities offer robust analytical tools to make sense of literature, culture, society, and intelligence itself.

Bryan Lehrer '15: Ancient Fuel Reignited: Discovering Biomass and the Future of Maine Energy

Juergen Kritschgau '16: Categorization through Environmental Interaction: A Study in Artificial Intelligence

Tyler Jones '15: Two World Wars and One World Cup: An Analysis of the Anglo-German Football Rivalry through Mass Media from 1960 to the Present

Catherine Merton '18: Animals and Nature in Defoe's *Robinson Crusoe*

Moderator: William Seeley, Philosophy

Pettengill G52

Literary Reading by Creative Thesis Writers

Creative writers Abigail Zwetchkenbaum '15, Barbara VanDerburgh '15, Shelby Sullivan '15, Erica Van Sciver '15, Jowon Song '15, Jameson Jones '15, Julianne Hopkins '15, and Nicole Danser '15 read from their senior thesis work in fiction and poetry.

Moderator: Robert Farnsworth, English

Pettengill G63

Japanese Calligraphy

Christopher Pelz, '16, Jonathan Pelz '16, and Ariscell Tavarez '17 offer a demonstration of Japanese calligraphy.

Moderator: Keiko Ofuji, Japanese

Pettengill G65

Understanding Self and Society: Sociology Thesis Research

Sociology majors tackle a broad range of topics in their senior thesis research.

Quincy Snellings '15: Is Whiteness Privileged? A Study of Bates Students' Racial Awareness

Michelle Pham '15: Deconstructing Lingerie: Under the Garments

Elena Jay '15: The Great Fire of Valparaíso, Chile: A Case Study of a Socially-Produced Disaster

4:45 – 6:00 PM

Hiu Man Wong '15: Transcending the Discourse of Hero and Victim: Overseas Filipina Domestic Workers' Experiences in the Global Care Chain

Moderator: Heidi Taylor, Sociology

Pettengill 116

Roman Law II: Varorium

The voices of several scholars are gathered in a *varorium*, as in this continuation of talks by students in CM/HI 390J, Law and Society in Ancient Rome.

Kevin Williams '15: Rome's Influence on English Common Law: Conceptions of Private Property

Kaylyn Kipper '16: Trial or Execution: A Study of Catiline's Conspiracy

David Kohler '15: Gladiators: Admired Outcasts

Hannah Kogan '15: Treason Law from the Roman Republic into the Empire

Moderator: Margaret Imber, Classical and Medieval Studies

Pettengill 162

Curating Contemporary Art: Internships at the Bates Museum of Art

Linnea Brotz '15 and Ayse Ikizler '15 discuss their museum internships, which combine academic investigation and pre-professional training.

Moderator: Rebecca Corrie, Art and Visual Culture

Evening Session

**7:30 PM
Schaeffer Theatre**

Bates Dance Company Spring Dance Concert

Carol Dilley, Dance

This program of works by dance students and dance majors also will be presented Sunday, April 5, at 2:00 PM. An alternate program of works by dance students is presented on Saturday, April 4, at 5:00 PM, and on Monday, April 6, at 7:30 PM.

Tickets required. \$6 general admission; \$3 Bates faculty, staff, senior citizens, and non-Bates students; free for Bates students. For tickets, visit www.batestickets.com

**7:30 PM
Fireplace Lounge,
Commons**

Post-Summit Jam with Logistics of Funk

A.J. Johnson, Music

Relax and get funky after the Summit with the Music Department's student funk band. Free and open to all.

Mount David Summit Poster Presenters

Note: The number following each title indicates the location of the poster in the session

1:45 - 3:00 PM	Poster Session I	Wall #
John Allen '15	Synthesis of Benzimidazolones via Oxidative C-H Amination	6
Melody Altschuler '17	Social Preferences of At-Risk Infants: A Pilot Study	34
Jenna Armstrong '15	Arih1 E3 Ubiquitin- Protein Ligase Knockdown Influence on the Stability of Encephalomyocarditis Virus 3C Protease	10
Stephanie Benson '15	Hypocrisy Induction to Increase College Students' Use of Condoms: A Dissonance-based Safe Sex Intervention	32
Andria Bhagwandeem '15	A State of Opposition: A Look at Wining in Trinidad and Tobago	12
Andrew Briggs '15	Linear Cryptanalysis: A Dualistic Approach	18
Eleanor Briggs '15	Mobilization of Metals by Fungi in Historic Graveyards	22
Molly Brown '15	Correlation between Performance and Pressure	33
Timothy Campbell '15	A Paleolimnological Study Reconstructing Organic Carbon Accumulation and Climate History: Mealy Mountains, Labrador, Canada	27
Teika Carlson '15	Strategies of Resisting Assimilation in American Indian Boarding Schools	15
Lila Chalabi '15	Lattices and Cryptography	20
Alden Corbett '15	Examining the Recovery of Lower Manhattan following September 11	16
Victoria Dahlhoff '15	The Effect of Changes in Temperature on Predator-Prey Dynamics in the Rocky Intertidal: The Relationship between the European Green Crab (<i>Carcinus maenas</i>) and the Atlantic Dogwhelk (<i>Nucella lapillus</i>)	4
Brielle Dalvano '16	Juvenile Lobster (<i>Homarus americanus</i>) Feeding Behaviors and Metabolic Rate after Exposure to <i>Carcinus maenas</i> and <i>Hemigrapsus sanguineus</i> Crabs and Effluent	3
Denise Del Villar '16	Mexican Migration since 1994	37
Michelle Devoe '15	Deformation Post-doming: New Mapping of the Oliverian Jefferson Dome, Mt. Dartmouth 7.5' Quadrangle, NH	24
Katherine Donovan '15	Interleukin-8 Production by Colon Epithelial Cells in Response via Proteinase-activated Receptors	5
Sean Enos '15	Reconstruction of the Post-Glacial History of the Peddocks Island Salt Marsh, Hull, MA	28
Samuel Gazecki '16	Philosophy and Neuroscience of Art: Knowledge Effect and Selective Attention	35
Jocelyn Hoye '15	The Vigenère Cypher	19
Alexandra Jones '15	Synthesis of Disaccharide and Trisaccharide Phenylpropanoid Glycosides	7
Charles Kenyon '15	State Terror during the Chilean Dictatorship, 1973-1990	36

1:45 - 3:00 PM	Poster Session I	Wall #
Aliza Khurram '15	The Vigenère Cypher	19
Katherine Kirwin '15	In vitro Analysis of Ubiquitin Ligases Atrh1, Atrh2, and DTX3L in Ubiquitylation Reactions with Picornaviral 3C Protease	11
Trang Le '15	The Discrete Log Problem for Elliptic Curves	21
Morgan Lee '15	Linear Cryptanalysis: A Dualistic Approach	18
Benjamin Lovitz '15	The Discrete Log Problem for Elliptic Curves	21
Elena Mandzhukova '15	Evolution and Polymorphism of Two Expressed Major Histocompatibility Complexes Class II B genes in Leach's Storm-petrel: Resolving Problems with Sequencing Failure	1
Samuel Mark '16	The Use of the Marine Bivalve <i>Arctica islandica</i> in Paleoclimate Reconstruction	26
Meredith Miles '15	Vocal Performance in the Chipping Sparrow: Can a Bird Change His Song?	2
Mahad Mohamed '17	Roots and Ramifications of the Somali Civil War	14
Aaron Nickelsberg '15	The Problem of Non-Interference: China's Involvement in South Sudan	13
Rebecca Norman '15	Lattices and Cryptography	20
Rebecca O'Neill '15	Haunting Faces from the Desert of Juarez	38
Graham Oxman '15	Petrogenesis and Paleostress Analysis of Mesozoic Intrusions in the Mount Dartmouth 7.5' Quadrangle, NH	25
Naima Qambi '15	The Effect of Closeness in Relationship to Parents on the Perceived Experience of Emerging Adulthood: A Cross-Cultural Study	31
Adam Rintell '17	Roots and Ramifications of the Somali Civil War	14
Julia Savage '16	The Use of the Marine Bivalve <i>Arctica islandica</i> in Paleoclimate Reconstruction	26
Andrew Seaton '15	Linear Cryptanalysis: A Dualistic Approach	18
Benjamin Smiley '15	Lattices and Cryptography	20
Rebecca Smith '16	Synthesizing CO ₂ -Bearing Glasses in the SiO ₂ -NaAlSiO ₄ -KAlSiO ₄ System	30
Steven Staffa '15	The Discrete Log Problem for Elliptic Curves	21
Christian Sundstrom '15	Synthesis of Ashitabaol A	9
Emmanuel Toroitich '15	Mechanism and Kinetic Study of Phenylpropanoid Glycosides (PPGs)	8
Tessa Walther '15	Analysis of Sediment Traps in Linnévatnet, Svalbard, for Reconstruction of Annual Sediment Flux and Lacustrine Processes	29
Daniel Willsey '18	The Problem of Non-Interference: China's Involvement in South Sudan	13

1:45 - 3:00 PM	Poster Session I	Wall #
Amy Wyeth '15	Isotopic Analysis of the Role of the Cyanobacteria <i>Gloeotrichia echinulata</i> in the Nitrogen Cycle and Water Quality of Lake Auburn, ME	17
Sarah Xiao '15	Bedrock Geology of the Mount Dartmouth 7.5' Quadrangle, NH	23
3:15 - 4:30 PM	Poster Session II	
Kendra Asklof '15	Cytokine Expression as an Indicator of the Influence of Developmental Hyperoxia on Decreased Lung Size	7
Daniel Bak '15	The Effect of HBO on Bacterial Biofilms Found in Chronic Wounds	4
Claire Bartell '16	Teaching Philosophy with Robots: Creating a Lab Manual for Computational Modeling, Autonomous Robots, and Embodied Cognition	17
Caleb Buck '15	Synthesis and Characterization of Plasmonic Gold Nanorods	24
Sarah Burkey '15	MRSA Prevalence in the Athletic Facilities at Bates College	5
Sarah Cancelarich '15	Transcript Expression Levels of RNA Polymerase Subunits α , β , and β' in <i>B. burgdorferi</i>	35
Brian Carilli '15	Shell Oil in Nigeria: Clamming up over Environmental Issues	25
Ryan Chinn '18	First-Year Seminar Scanning Tunneling Microscope Construction Project: Computer Programming	19
Maria-Anna Chrysovergi '18	First-Year Seminar Scanning Tunneling Microscope Construction Project: Computer Programming	19
Gabriella Chua '18	"This Disease is Un-African!" The Culturally Destructive Implications of Ebola in Western Africa	26
Ryan Conrad '15	Effect of <i>Helisoma</i> Gonadotropin Releasing Hormone on Rhythmic Feeding and Reproductive Cell Firing in <i>Helisoma trivolvis</i>	39
Hanna De Bruyn '18	First-Year Seminar Scanning Tunneling Microscope Construction Project: Electronics	20
Sachith Rochana De Silva '15	Lead Binding Interactions of Metallothionein-3(MT3)	31
David Dick '18	First-Year Seminar Scanning Tunneling Microscope Construction Project: Computer Programming	19
Jackson Emanuel '15	Mechanisms for Transcriptional Regulation in <i>Borrelia burgdorferi</i> , the Spirochete that Causes Lyme Disease	36
Thomas Endean '18	First-Year Seminar Scanning Tunneling Microscope Construction Project: Mechanical Design	21
Julia Eyman '15	The Social Effects of the Holocaust: A Study of the Social Adaptation of Second- and Third-Generation Holocaust Survivors	28
Wilder Felix '15	Characterization of mGluR Receptors on <i>Helisoma trivolvis</i> B19 & B27 Buccal Neurons	9
Shoshana Foster '15	The Home of the Dead, Religions of the Living: The Distinctions between the Jewish and Christian Communities in Ancient Rome as Observed in the Catacombs of the Second through Fourth Century C.E.	18

3:15 - 4:30 PM	Poster Session II	Wall #
Samuel Hersh '18	First-Year Seminar Scanning Tunneling Microscope Construction Project: Computer Programming	19
Kendall Hodges '15	Gestational Diabetes in Somali Women in Lewiston, ME: Developing A Diet Card to Improve Diet throughout Pregnancy	13
Hannah Johnson '18	Shell Oil in Nigeria: Clamming up over Environmental Issues	25
Song Kim '15	Effects of 7,8-Dihydroxyflavone (DHF) on Hyperoxia Induced Respiratory Plasticity	6
Drew Korn '18	First-Year Seminar Scanning Tunneling Microscope Construction Project: Mechanical Design	21
Emma Lutz '15	A Community-Based Biology Thesis: Surveying Children's Oral Health and Nutrition in Cusco, Peru and Lewiston, ME	12
Erick MacLean '15	Nasal Carriage of <i>Staphylococcus aureus</i> and Methicillin-Resistant <i>Staphylococcus aureus</i> (MRSA) among Students at Bates College: Epidemiology, Risk Factors, and Antibiotic Susceptibility Patterns	1
Edwin Mapfuwa '15	Structural Characterization of the Diiron Active Site of Alkane Monooxygenase from <i>Alcanivorax borkumensis</i>	32
Claire McGlave '15	Examining the Implementation of the Affordable Care Act in Maine	27
Asha Mohamud '15	Tuberculosis: Refugee and Immigrant Population in Lewiston, ME	3
Mickoy Nichol '18	First-Year Seminar Scanning Tunneling Microscope Construction Project: Mechanical Design	21
Akachukwu Obi '15	Nonlinear Optical Behavior in Plasmonic Gold Nanoparticles	22
Jacqueline Ordemann '15	The Role of Lead in the Etiology of Mental Illness	29
Jia-Ahn Pan '16	The Nonlinear Optical Properties of Various Plasmonic Gold Nanoparticle Arrangements	23
Courtney Parsons '15	The Distribution of Metabotropic Glutamate Receptors in the Central Nervous System of the Pond Snail, <i>Helisoma trivolvis</i>	8
Tara Patel '15	An Investigation into the Use of Traditional Medicine and Remedies in the African Immigrant Population in Lewiston, ME	14
Theodore Pender '18	First-year Seminar Scanning Tunneling Microscope Construction Project: Mechanical Design	21
Justin Pertierra '17	"This Disease is Un-African!" The Culturally Destructive Implications of Ebola in Western Africa	26
Emmett Peterson '17	"This Disease is Un-African!" The Culturally Destructive Implications of Ebola in Western Africa	26
Austin Portal '15	Bioinformatics and RNA Secondary Structure	34
Noah Prince '15	The Effect of Hyperbaric Oxygen Treatment on the Growth of Bacteria in Chronic Wound Biofilms	2
Julia Rabin '15	A Cross-Cultural Analysis of Political Motivations	15

3:15 - 4:30 PM	Poster Session II	Wall #
Benjamin Roop '18	First-Year Seminar Scanning Tunneling Microscope Construction Project: Electronics	20
Santiago Rozas '18	First-Year Seminar Scanning Tunneling Microscope Construction Project: Mechanical Design	21
Anne Schwarzwaldner '15	Quantifying Ribonuclease mRNA Levels in <i>Borrelia burgdorferi</i>	38
Adnan Shami Shah '15	Lead Binding to Metallothionein-3: Implications in Human Lead Toxicity	30
Jason Stephansky '15	Analysis of Carbon Storage Regulator A (CsrABb) in <i>Borrelia burgdorferi</i>	37
Christina Stiles '15	Optimization of the Purification and Crystallization of Alkane Monooxygenase (AlkB) Enzyme from <i>Alkanovorans borkumensis</i>	33
Deepsing Syangtan '18	First-Year Seminar Scanning Tunneling Microscope Construction Project: Electronics	20
Michael Tomaino '15	The Effect of Mindfulness on Athletic Performance	16
Kelly Wassarman '18	First-Year Seminar Scanning Tunneling Microscope Construction Project: Mechanical Design	21
Hannah Whitehead '15	Reproductive Health Beliefs and Behaviors of HIV+ Women in New England and Nepal	11
Amelia Wilhelm '18	First-Year Seminar Scanning Tunneling Microscope Construction Project: Electronics	20
Benjamin Wilson '18	Shell Oil in Nigeria: Clamming up over Environmental Issues	25
Madeleine Youniss '15	Dependence on Nerve Presence during Zebrafish Tail Fin Regeneration	10
4:45 - 6:00 PM	Poster Session III	
Jack Adons '17	Rwandan Reconstruction: An African Success Story? Two Sides of Economic Success and Authoritarian Governance	21
Eliza Barkan '15	Recurrent Excitation Modulated by Activation of Delta Opioid Receptors in Mitral Cells of the Accessory Olfactory Bulb	17
Derrick Barnagian '15	Identifying Substructures in the Central Nervous System Using a Whole Genome Approach: Circuits in the Olfactory Bulb	16
Vanessa Beltran '15	But First, Let Me Post a Selfie: A Study of the Frequency of Sharing Photos on Facebook and the Direction of Social Comparison for Individuals Who Stake Their Self-Worth on Public-Based Contingencies	18
Sarah Bouchard '15	Endogenous Brain-Derived Neurotropic Factor and Its Relationship with Aerobic Functioning and Long-Term Memory Functioning	25
James Brissenden '15	Increasing Egoistic Perspective: How Facebook Affects the Success of Defocusing on College Students	23
Alexandra Buonfiglio '18	The Springboks: A Symbol of Hope in Post-Apartheid South Africa	19
Hannah Chory '15	The Effects of Opioids on Mice Odor Preference	15
Peter Cole '15	Automated Computational Reconstruction of Biological Structure from Fluorescence Images	4

4:45 - 6:00 PM	Poster Session III	Wall #
Meaghan Crowley '15	Lake Auburn Fish Kill: Determination of Ultra Low Phosphorus Levels by Spectroscopic Methods	9
Lucia De Rose '16	Use of FCS to Study Photophysical Properties of Fluorescent Dye ATTO 488	1
Christine Dong '15	Analysis and Comparison of Physical Properties and Morphology of Impact Melt Flows on Venus and the Moon	5
Alison Dowey '15	Cationic Cyclodextrins as Chiral NMR Solvating Agents	8
Tayla Duarte '17	Chiral NMR Differentiation of Primary Amines with (18-crown-6)-2,3,11,12- Tetracarboxylic Acid	10
Kathleen Fitzpatrick '15	Knowledge and Attitudes about HPV Vaccination and a Partner's Vaccination Status	33
Benjamin Foote '15	Smartphone Lock Screen Enhancement of Brief Motivational Interventions	34
Margaret Foster '15	The Impact of an Acceptance and Commitment Therapy Group for the Treatment of Anxiety and Depression in Veterans	22
Joshua Freedland '15	Measuring the Attitudes and the Likelihood of Concussion Reporting by Testing Implicit Attitudes in Collegiate Football Players	32
Spencer Goossens '15	Stabilizing Current for Use in Magnetic Trapping	6
Dacota Griffin '18	The Springboks: A Symbol of Hope in Post-Apartheid South Africa	19
Alexandra Hakusui '15	STED Laser Nanoscopy Using a Low Numerical Aperture Lens	3
Tully Hannan '15	The Career Stories of Elite Distance Runners: Stories of Redemption and Contamination	31
Emily Hayes '15	Image Quality Metrics for Super-resolution STED Microscopy	2
Frances Jennings '15	Experiencing Inequality as a Migrant Worker: A Comparative Look at Beijing and Shanghai	36
Natasha Kalra '15	Numbers and Shapes: Is Math Learning Enhanced by a Fantastical Context?	27
Nicole Kanu '15	"The Great Debate!" Understanding Racial Quotas in South Africa	20
Caroline Kern '15	Female Adolescent Leadership Skills Development	28
Emma Korein '15	When You Tell My Story: The Impact of Vicarious Perspective-Giving on Subordinate Group Members' Attitudes	30
Eileen Lam '15	Asian American Political Participation: The Paradox and the Factors	37
Alexandra Millstrom '15	Counteractive Effects of Intermittent Hypercapnic Hypoxia and Intermittent Hyperoxia on Respiratory Control	12
Cira Mollings Puentes '16	Cationic Cyclodextrins as Chiral NMR Solvating Agents	8
William Patton '15	Organic-soluble Chiral Resorcinarenes as NMR Solvating Agents	7

4:45 - 6:00 PM	Poster Session III	Wall #
Jillian Pengeroth '15	Film Reviews and the Negativity Bias vs. Positivity Effect across Generations	35
Minh-Tam Pham '15	Investigating the Transcriptional Regulation of the Nuclear Factor erythroid-2 related factor (nrf) Family by the Aryl Hydrocarbon Receptor-1b (Ahr1b), through Chromatin Immunoprecipitation in Danio rerio Embryos during Early Development	13
Lauren Piccirillo '15	The Relationship between Women's Color Choices and Their 2D:4D Ratio	29
Nicholas Pray '15	Role of Nfe2 in the Oxidative Stress Response across Development in Zebrafish Embryos	14
Chloe Read '15	Endogenous Brain-Derived Neurotrophic Factor and Its Relationship with Affective Flexibility and Mood Disorders	26
Brittany Reid '15	"The Great Debate!" Understanding Racial Quotas in South Africa	20
Yolanda Rodriguez '15	Chiral NMR Differentiation of Primary Amines with (18-crown-6)-2,3,11,12- Tetracarboxylic Acid	10
Nabil Saleem '15	Role of Nfe2 in the Oxidative Stress Response in Zebrafish Embryos across Development	14
Lily Taylor '18	The Springboks: A Symbol of Hope in Post-Apartheid South Africa	19
Hillary Throckmorton '15	Female Athletes' Competing Identities: Balancing Gender Expectations and Athletic Demands to Garner Social Acceptance	38
Shanina van Gent '18	"The Great Debate!" Understanding Racial Quotas in South Africa	20
Wesley Warner '15	Analysis of the Relationship between Peripheral Oxytocin Levels and Moral Reasoning	24
Joshua Zimmer '15	Evaluation of the Ubiquitin-protein Ligases UBE3A and DTX3L as Mediators of EMCV 3C Protease Concentration	11

**Exploring Film and Identity through the Video Essay
RHET 120 and RHET 240 Class Participants**

Michaela Britt '17
Audrey Burns '17
Rosamond DePaul '17

Matthew Kahn '16
Whitney Lees '17
Caroline Mitchell '17

Gerald Nelson '17
Amanda San Roman '17

**Documenting the History of African American Studies and American Cultural Studies at Bates
ACS 100 Class Participants**

Sydney Beres '18
Daniel Cannone '17
Matthew Cannone '15
Kelly Csiszar '15
Meghan D'Arcy '18
Kentavius Dumas '17
Emily Freedland '18
Caroline Gettens '18
Jordana Gluckow '16
Lawrence Guinee '15
Abigail Horrisberger '18
Samuel Hundley '15

Gabriel Imber '17
Hannah Jeffrey '16
Michael Kelleher '15
Molly Lodigiani '15
Luke Macdonald '18
Melanie Mait '18
Kelan McCann '16
George Merrill '16
Chloe Mitchell '15
Alanna Morque '18
Matthew Morris '18
Honor Moshay '17

Delaney Nalen '18
Zachary Polich '15
Amalya Schwartz '17
James Semmonella '17
Noah Stebbins '18
Madeleine Stein '15
Zachary Taylor '15
Kevin Tejada '17
Shana Wallace '15
Matthew Welch '15
Frank Williams '18
Noah Zuckerman '18

**A Collection of Arthurian Wiki-Studies
CM/EN 121D Class Participants**

Mark Chatkin '16
Elliot Chun '18
Porter Dowling '16

Cuyler Hedlund '17
Noah Jallós-Prüfer '17

Avery Margerum '18
Halley Posner '18

Fifteenth Annual Barlow Off-Campus Study Photography Exhibition

Ruth Baker '16
Jesse Bercaw '15
Mikaela Bradley '16
Matthew Bullard '16
Maya Cates-Carney '16
Emma Conover '16
Kelly Csiszar '15
Kaia deBruin '15
Kiera Degener-O'Brien '16
Kevin Deng '15
Jeynaba Diallo '15
Nina Doonan '16
Julia Eyman '15
Shoshana Foster '15
Laura Franke '15
Audrey Grauer '15
Cora Hirschfeld '16
E. Annie Horstmeyer '16
Emma Israel '15

Jessie Jacobson '16
Elena Jay '15
Frances Jennings '15
Michelle Kelley '16
Kristen Kelliher '16
Charles Kenyon '15
Emma Korein '15
Isabel Koyama '16
Detmer Kremer '16
Rachel Lippin-Foster '15
Nicolas Margitza '16
Joseph Marques '15
Meredith Miles '15
Erin Milligan '15
Kirsten Molstad '15
Alexandra Morrow '16
Danielle Muñoz '15
Jacob Nemeroff '16
Jessica Nichols '15

Emma Noto '16
Peter Novello '16
Lydia O'Brien '15
Benjamin Palmer '16
Katherine Paulson '15
Michelle Pham '15
Emily Regan '15
Sophia Salas '15
Rokya Samake '15
Nina Sevilla '16
Kelly Simonson '15
Lucy Triedman '15
Hannah Whitehead '15
H. Brook Wood '15
Grace Wright '16
Jillian Zook '15
Abigail Zwetchkenbaum '15

Logistics of Funk

Declan Chu '17, guitar and vocals
Ian Clarkson '18, bass
Owen Hemming '15, trumpet
Bryan Lehrer '15, drums
Louise Marks '18, vocals

Madeline McLean '17, vocals
William McPherson '18, guitar
Fiona Robins '15, vocals
Divyamaan Sahoo '17, keyboards
Samuel Scribner '15, saxophone

Bates Dance Company

Dancers

Jacqueline Aguayo-Elias '18
John Aherne '16
Alisa Amador '18
Kendra Asklof '15
Nicholas Auer '15
Leroy Barnes '15
Mary Anne Bodnar '16
Olivier Brillant '17
Michaela Britt '17
Gilbert Brown '15
Madeline Bruno '17
Sarah Cancelarich '15
Cheyenne Cannarozzo '16
Sarah Centanni '17
Mallory Cohen '17
John Collantes '18
Victoria Dahlhoff '15
Tory Dobbin '18

Sofia Elbadawi '18
Hannah Fairchild '18
Shoshana Foster '15
Sofia Gnabasik '17
Paige Guevarra '18
Essence Hill '17
Riley Hopkins '18
Praneet Kang '17
Chaesong Kim '18
Anna Lanoue '15
Jeremy Mack '16
Raegine Mallet '18
Holly Marshall '18
Talia Mason '15
Maria Maza '18
Claire McGlave '15
Johan Mohtarudin '16
Katrina Muñoz '18

Bryana Newton '15
Hannah Otten '16
Jorge Piccole '18
Laura Pietropaoli '17
Geoffrey Pyke '18
Brett Ranieri '16
Alison Ricciardi '17
Isaiah Rice '15
Lydia Rubenstein '15
Rokya Samake '15
Hannah Siegel '15
Jane Spardel '17
Samantha Thomas '15
Jessica Vocaturo '17
Kasey Wood '18
Julia Yankelowitz '17
Emma Zulch '18

Choreographers

Jacqueline Aguayo-Elias '18
Nicholas Auer '15
Leroy Barnes '15
Mallory Cohen '17
Tomisha Edwards '15 (thesis)

Sofia Elbadawi '18
Shoshana Foster '15
Grace Ingabire '18
Anna Lanoue '15 (thesis)
Talia Mason '15

Hannah Otten '16
Laura Pietropaoli '17
Isaiah Rice '15 (thesis)

Technical Staff

Maya Cates-Carney '16

Costume Shop Staff

Linnea Brotz '15
Sally Ceesay '18
Rachel Levine '15
Kiyona Mizuno '18
Kahea Mueller '15
Kathy Polanco '15
Ellen Southworth '16

Lighting Designers

Hanna Allerton '15
Keila Ching '18
Maria-Anna Chrysovergi '18
Christina Felonis '17
Tully Hannnan '15
Talia Mason '15
Meredith Miles '15
Isaiah Rice '15
Samuel Wheeler '17
Hang Louis Yin '15



Religious Observances on Summit Weekend

The 2015 Mount David Summit falls on Good Friday (Western Christian tradition) and the first night of Passover. To commemorate these religious holidays, the college offers these events:

Station of the Cross, Friday, 3 April, 12 Noon and 6 PM, Gomes Chapel. Open to all.

First Seder, led by students, Friday, 3 April, 6:30 PM, Memorial Commons, Chase Hall. Open to all but tickets are required for those who are not Bates students.

Easter Service, Sunday, 5 April, 5:30 PM, Gomes Chapel.