ACKNOWLEDGEMENTS

Middlebury’s Spring Student Symposium is truly a community-wide effort, and there are many individuals to thank.

The Center for Teaching, Learning, and Research (CTLR) faculty and staff—especially Victoria Luksch and JoAnn Brewer and her student staff—provided support and coordination for the symposium. Staff members from the Middlebury College Library, Information Technology Services, and the Office of Digital Learning and Inquiry (DLINQ) dedicated many essential hours to the symposium. We would especially like to thank Mike Roy, Vijay Menta, and Amy Collier for making their staff available to support the event; Lisa Terrier and her distribution team, including Nate Burt and Brian Foley; Dan Frostman and the circulation staff; Carrie Macfarlane and the library liaisons; Billy Sneed and Jeff Lahaie of the central systems and network group; Joe Durante and the HelpDesk staff; Petar Mitrevski, Mack Pauly, David Wright, and the media services staff and students; and Shel Sax and the DLINQ interns. Cathy Ekstrom, the McCardell Bicentennial Hall building coordinator, along with general event support, organized the poster sessions.

Michael Sheridan, Wendy Shook, Amanda Crocker, and AnGayle (AJ) Vasiliou served on the Spring Student Symposium Sessions Committee, creating our highly interdisciplinary event. Thanks to students Grace Carroll ’22, Nuria Gonzalez-Boj ’22, Sean Meagher ’20, and Emma Patch ’19, who provided fresh perspectives and assistance. Pam McGuire, Valerie Costello, Cathy Collins, Emina Mahmuljin, Stephen Diehl, Pam Fogg, Jessie Raymond, Chris Spencer, and Sara Marshall helped get the word out and document the event. Mack Roark, Ben Powers, Dana Yeaton, and Oratory Now student coaches assisted students in preparing their talks and posters by providing excellent learning materials, workshops, and coaching. Ian Martin, Megyn Pitner, Debra Mallott, and the catering team provided an outstanding menu. Amy Carlin, Thaddeus Stowe, Jodi Keith, Kevin Norton, and the facilities team supported the symposium’s logistical needs. Megan Curran facilitated arrangements within Johnson Memorial Building. We are grateful to all the people who served as moderators of presentation sessions.

We also thank Middlebury College faculty, whose mentorship and guidance have led to the student accomplishments we showcase today. Finally, we thank all of our student presenters for sharing their expertise and enthusiasm with our community, and we congratulate them on their accomplishments. We also wish to acknowledge the internal and external funding sources without which many of today’s research projects and the symposium itself would not have been possible. In particular, we wish to acknowledge the Norbert K. Vaughn ’10 Memorial Fund, established in 2008 to honor Norbert’s memory and support the annual symposium, an event that exemplifies his appreciation of scholarly inquiry.

—The Spring Student Symposium Committee
For complete schedules and abstracts for the 13th annual symposium, visit go.middlebury.edu/sym.
Join us in celebrating the 13th annual Spring Student Symposium!

The symposium is a daylong event in McCardell Bicentennial Hall, with open exhibits in Johnson Memorial Building. Classes have been suspended for the day in order to allow all members of the Middlebury College community to join in this celebration of student research and creative achievement. What began as an afternoon of poster and oral sessions with 60 student presenters has grown into an expansive program of academic and creative works from over 300 students. Although the symposium has changed over the years, it remains at its heart a multidisciplinary celebration of undergraduate work at Middlebury College.

The goal of a liberal arts education is to cultivate creative, independent learners. This symposium speaks to Middlebury’s pursuit of that goal. And so consider this program your guide into a rich world of inquiry and expression. Take a moment to plan the course of your day, explore the work of Middlebury students, and broaden your understanding of subjects extending through the arts, the humanities, and the sciences.

Today’s symposium reflects Middlebury’s commitment to providing all students with hands-on undergraduate research and experiential learning opportunities. We applaud the accomplishments of our students, the mentoring and guidance of their sponsors, and the support of the Middlebury College community, and we thank you for joining us to celebrate them.

The 2019 Spring Student Symposium Planning Committee

Hang Du, Associate Professor of Chinese, Co-chair
Lisa Gates, Associate Dean for Fellowships and Research, Co-chair
Amanda Crocker, Assistant Professor of Neuroscience
Larry Hamberlin, Professor of Music
Bill Koulopoulos, Director of Academic Technology
Amy Morsman, Interim Dean for Faculty Development and Research, Professor of History
Colleen Norden, Administrative Coordinator for Fellowships and Undergraduate Research
Michael Sheridan, Associate Professor of Anthropology
Wendy Shook, Science Data Librarian
AnGayle (AJ) Vasiliou, Assistant Professor of Chemistry and Biochemistry

Please be aware that the academic projects presented are generally unpublished works in progress or preliminary research and are not intended to be referenced or cited without consent of all parties involved.
# TABLE OF CONTENTS

Welcome and Introductory Statements .................................................. 2  
Spring Student Symposium Schedule: Overview .................................. 5  
Spring Student Symposium Schedule ................................................. 6  
Presenter Index .............................................................................. 20  
Research Funding and Support at Middlebury .................................... 29
Welcome to the 2019 Spring Student Symposium!

Welcome to Middlebury College’s 13th annual Student Symposium. Each April, students from first-years to seniors, across all academic disciplines, participate in this symposium. In presentations and poster sessions, performances, panels, and readings, they share their intellectual passions and discover what inspires their fellow classmates.

Today is a day for us to admire, appreciate, and celebrate both independence and collaboration. The work showcased here today is borne of original thought and independent inquiry and months of singular focus and effort. And yet, it also bears the hallmarks of partnerships with professors who worked alongside students in their creative and scholarly pursuits, providing instruction, mentorship, and guidance, and, most especially, encouraging curiosity.

Each of today’s presentations began with a curious moment that was allowed to grow. That curiosity about an unexplored idea then sparked inquiry, which then fueled exploration. The result of that inquiry might not always be what was expected. The path might not have been smooth. There may have been stops and starts and detours and a few dead ends. But that is part of the power and beauty of the exploration—the discovery of the unknown, the disproving of assumptions, the triumph of truth, the joy of the unexpected, the satisfaction of work well done.

I encourage all of the students—whose focus and hard work brought them here today—to take pride in embracing their curiosity and all that their independent explorations and their collaborations have made possible. We are honored to share today with them.

Sincerely,

President Laurie L. Patton
PROGRAM SCHEDULE OVERVIEW

8:30–9:00 a.m.
**Presenter Check-In and Refreshments**
McCardell Bicentennial Great Hall

9:00–9:15 a.m.
**Welcome**
McCardell Bicentennial Great Hall
Laurie Patton, President of Middlebury College

9:15–10:30 a.m.
**Session I: Oral Presentations**
McCardell Bicentennial Hall Classrooms

10:00 a.m.–4:00 p.m.
**Art Exhibits**
Johnson Pit, Mezzanine

10:30–11:15 a.m.
**Poster Presentations: Group 1 and Refreshments**
McCardell Bicentennial Great Hall

11:15 a.m.–12:30 p.m.
**Session II: Oral Presentations**
McCardell Bicentennial Hall Classrooms

12:30–1:30 p.m.
**Lunch for Presenters, Sponsors, and Moderators**
Atwater Dining Hall
Lunch in Atwater available from 11:30 a.m.–2:00 p.m.
Lunch will be served for all others at regular hours in Proctor and Ross Dining Halls.

1:30–2:45 p.m.
**Session III: Oral Presentations**
McCardell Bicentennial Hall Classrooms

2:45–3:30 p.m.
**Poster Presentations: Group 2 and Refreshments**
McCardell Bicentennial Great Hall

3:30–4:45 p.m.
**Session IV: Oral Presentations**
McCardell Bicentennial Hall Classrooms

4:45–5:30 p.m.
**Closing Reception**
McCardell Bicentennial Great Hall

9:00–10:30 p.m.
**Evening Event**
McCardell Bicentennial Hall Mittelman Observatory
**COMPLETE SCHEDULE**

8:30–9:00 a.m.  Presenter Check-In and Refreshments  
McCardell Bicentennial Great Hall

9:00–9:15 a.m.  Welcome  
McCardell Bicentennial Great Hall  
Laurie Patton, President of Middlebury College

9:15–10:30 a.m.  Session I: Oral Presentations

**The Arts of Influence**  
Moderated by Edward Vazquez, Associate Professor of History of Art and Architecture  
McCardell Bicentennial Hall 104

9:15 a.m.  The Presence of Jazz in Today’s Hip-Hop: Jazz Influence in Chance the Rapper’s “Good Ass Intro”—Nathan Ng ’19; Sponsor: Jeff Buettner, Music

9:35 a.m.  Reinterpreting Transcendental Nature: Concord Fantasias for Voices and Piano—Rhys Glennon ’22; Sponsor: Rebecca Gould, Environmental Studies

9:55 a.m.  The Music Is More Ancient Than the Words: The Evolution of a Musical Black Liberation Theology and Its Influence on the Speech and Thought of Martin Luther King Jr.—Hal Juster ’19; Sponsor: James Davis, Religion

10:15 a.m.  1991: Liminal Spaces of Silence and Aurality in the Work of Glenn Ligon—Kate Claman ’19; Sponsor: Edward Vazquez, History of Art and Architecture

**Culture of Narratives**  
Moderated by Rebekah Irwin, Director and Curator of Special Collections  
McCardell Bicentennial Hall 216

9:15 a.m.  Getting Together: The Impact of an Affirmative Action Ban on Students’ Self-Perception and Social Engagement—Vick Xu ’19; Sponsor: Caitlin Myers, Economics

9:35 a.m.  Contra Dance, Queerness, and Rurality: (En) Countering Metronormativity in the Montpelier Grange—Nell Sather ’19; Sponsor: Carly Thomsen, Gender, Sexuality, and Feminist Studies

9:55 a.m.  Good Luck: A Creative Writing Thesis—Sabrina Wang ’19; Sponsor: Spring Ulmer, English and American Literatures

10:15 a.m.  The Middlebury and School of Leadership in Afghanistan Partnership—Abigail Hinchman ’19, Erin Hoynes ’19, Nell Sather ’19, Rebecca Wishnie ’20; Sponsor: Sujata Moorti, Gender, Sexuality, and Feminist Studies

**The Bottom Line**  
Moderated by Antonia Losano, Professor of English and American Literatures  
McCardell Bicentennial Hall 219

9:15 a.m.  Jane Austen and the “Prudent Romance”: Personal Choice and Marriage in *Pride and Prejudice* and *Mansfield Park*—Jessie Kuzmicki ’19; Sponsor: Antonia Losano, English and American Literatures

9:35 a.m.  A New Flight to Safety: Internationalization of the Euro and the Necessity of a Low-Risk, Liquid European Asset—Margaret Knox ’19; Sponsor: Kristina Sargent, Economics

9:55 a.m.  Punching the Card and Hitting the Sack: An IV Approach to the Effect of Sleep on Labor Productivity Using the Russia Longitudinal Monitoring Survey—Christian Schmitt ’19; Sponsor: Caitlin Myers, Economics

10:15 a.m.  Dimensions of Whiteness: Middlebury College’s Story of Racism, Ableism, and Wealth—Kyle Wright ’19; Sponsor: Susan Burch, American Studies

**Essays on Modern Political Philosophy**  
Moderated by Murray Dry, Professor of Political Science  
McCardell Bicentennial Hall 220

9:15 a.m.  Essays on Modern Political Philosophy—Thibault Bachelet ’19, Jack Brown ’22, Charlie Cacciatore ’20, Amy Dayton ’19, Griffin Hall ’20.5, Alexander White ’21.5; Sponsor: Murray Dry, Political Science
Design Flows and Flaws  
Moderated by Ryan Clement, Data Services Librarian  
McCardell Bicentennial Hall 303  
9:15 a.m.  Human Impacts on American National Parks—Adam Blachly ’21.5, Bella Pucker ’21.5; Sponsor: Rebecca Gould, Environmental Studies  
9:35 a.m.  Structural Inequalities in Chinese Markets—Colson Andrews ’21; Sponsor: Jessica Teets, Political Science  
9:55 a.m.  Does Poverty Alleviation Lead to Deforestation? Evidence from Indonesia’s Program Keluarga Harapan—Juan Andrade-Vera ’19; Sponsor: Caitlin Myers, Economics

Interpreting Processes  
Moderated by Claudio Medeiros, Associate Professor of Theatre  
McCardell Bicentennial Hall 311  
9:15 a.m.  *Baltimore Waltz:* Research on the AIDS Epidemic at Middlebury and in the USA—Alexis de la Rosa ’19, Travis Sanderson ’19; Sponsor: Claudio Medeiros, Theatre  
9:35 a.m.  In Colder Blood: Truman Capote’s Ironclad Account of the Clutter Family Murders—Jenna McNicholas ’19; Sponsor: Michael Newbury, English and American Literatures  
9:55 a.m.  *Kokuhakushitsu No Hozon* by Mieko Kawakami—Kylie Winger ’19; Sponsor: Stephen Snyder, Japanese Studies

Shift Happens  
Moderated by Ata Anzali, Associate Professor of Religion  
McCardell Bicentennial Hall 403  
9:15 a.m.  Project AJAX: Media, Government, and the 1953 Overthrow of an Iranian Prime Minister—David Packer ’20; Sponsor: Febe Armanios, History  
9:35 a.m.  The New Turkey: The Rise of Muslim Nationalism and Illiberal Democracy in Erdogan’s Turkey—Garda Muhammad Ramadhitto ’19; Sponsor: Ata Anzali, Religion  
9:55 a.m.  Signaling Centralization: An Analysis of Xi Jinping’s Rhetoric and Changing Chinese Governance—Rowen Price ’19; Sponsor: Jessica Teets, Political Science

Social Impact Journeys  
Moderated by Nadia Horning, Associate Professor of Political Science  
McCardell Bicentennial Hall 411  

From the Water  
Moderated by Erin Eggleston, Assistant Professor of Biology  
McCardell Bicentennial Hall 438  
9:15 a.m.  Resilience Lost: Globalization of Lake Victoria Fishery—Fan Wu ’19; Sponsor: David Stoll, Sociology and Anthropology  
9:35 a.m.  Nymph by the River: The Visual Representation of a Chinese Mythical Goddess in the Southern Song Dynasty—Yihao Ding ’19; Sponsor: Sarah Laursen, History of Art and Architecture

10:15 a.m.  Characterizing Mercury Methylating Microbes for River Wetland Management—Rebecca Lightman ’19; Sponsor: Erin Eggleston, Biology
10:00 a.m.–4:00 p.m.

**Art Exhibits**

Johnson Memorial Building

**In the Pit: Senior Independent Studio Class**
**Sponsor:** Sanford Mirling, Studio Art
Works by Zahrrah Ahmed ’19, Raine Ellison ’19, Sarah Gratz ’19, Michaela Lombard ’19, Reed Martin ’19, Charlotte Massey ’19, Emilio Ovalles-Misterman ’19, Charlotte Reider-Smith ’19, Olivia Ryder ’19, Noah Sauer ’20, Jay Silverstein ’19, Jill Stauffer ’19, Allyson Stevens ’19, and Elizabeth Warfel ’19

**On the Mezzanine: ART 300 Advanced Drawing**
**Sponsor:** Hedya Klein, Studio Art
10:30–11:15 a.m.

Poster Presentations:
Group 1 and Refreshments

McCardell Bicentennial Great Hall

(Please note that Poster Presentations: Group 2 will take place from 2:45–3:30 p.m.)

1. Implications of Masculinity and J. Edgar Hoover FBI Building—Grace Harlan ’22; Sponsor: Erin Sassin, History of Art and Architecture

2. Coral Cartography: Exploring 3-D Mapping Techniques to Visualize Reef Decline in the Caribbean—Will Greene ’19; Sponsor: Jeff Howarth, Geography

3. Neurodevelopmental Follow-Up in Premature Infants at Baystate Medical Center: How Do We Compare?—Erica Dean ’20; Sponsor: Catherine Combelles, Biology

4. Lysine Acetylation of *Borrelia burgdorferi* Enolase: A Mechanism for Metabolic Flux—Mayher Patel ’19; Sponsor: Bob Cluss, Chemistry and Biochemistry

5. Framing and Preference Consistency: Evidence from Distribution Experiments—Isabel Lindsay ’19; Sponsor: Andrea Robbett, Economics

6. Circulation and Mixing Effects of Causeway Removal within the Restricted Arm Region of Lake Champlain Using a High Resolution, 3-D Hydrodynamic Model—Peter Mehler ’20; Sponsor: Tom Manley, Geology

7. Antique Clothing Photography: 1830–1940—Emma Cowper ’20.5; Sponsor: Mira Veikley, Theatre


10. Development and Validation of a Clinical Risk Calculator for Prolonged Opioid Use after Shoulder Surgery—Natalie Passarelli ’20; Sponsor: Susan Desimone, Biology


13. The *Streptococcus mutans* adcRCBA Genes Encode a Manganese Export System that is Subject to SloR Control—Logan Wright ’19; Sponsor: Grace Spatafora, Biology

14. Correlation of Volcanic Deposits by Mineralogy, Geochemistry, and Radiocarbon Dating: Implications for Assessing Volcanic Activity and Risk in Costa Rica—Malia Barca ’19; Sponsor: Peter Ryan, Geology

15. Exploring Public Opinion Formation of Protectionist International Trade Policy—Henley Hall ’19; Sponsor: Orion Lewis, Political Science

16. KLHL9 and the Interferon-I Locus: Is It Dumb Luck or Purposeful?—Austin Collins ’19; Sponsor: Bob Cluss, Chemistry and Biochemistry

17. A Proposed Solution to the Affordable Housing Crisis: Rooted—Jesse Woodhull ’19.5; Sponsor: John McLeod, History of Art and Architecture


19. The Complicated Relationship between State and Society: The State, the Census, and the Making of Racial Categories—Audrey Pan ’19; Sponsor: Trinh Tran, Sociology and Anthropology

20. Investigating SloR Binding Partners in *Streptococcus mutans*—John Rustad ’19.5; Sponsor: Grace Spatafora, Biology

21. Geochemical and Textural Investigation of Lunar Meteorite NWA 032—Elizabeth Simmons ’21; Sponsor: Kristina Walowski, Geology

22. Expanding the Pollination Neighborhood: A Study of Pollination Ecology for Conservation—Maisie Anrod ’19; Sponsor: Tom Root, Biology

23. Parrotfish, Algae, and Coral Dynamics in the Bahamas—Anna Willig ’20; Sponsor: Stephen Trombulak, Biology

24. The Adaptive Reuse of St. Mary’s Elementary School: The Case for the Transformation of Abandoned Community Centers into Affordable Housing—Jill Stauffer ’19; Sponsor: John McLeod, History of Art and Architecture
25. A Visual Meditation on the “Interbeing”—Acadia Hegedus ’22; Sponsor: Rebecca Gould, Environmental Studies

26. Characterization of *Borrelia burgdorferi* Glyceraldehyde-3-Phosphate Dehydrogenase: Enzymatic Activity and Moonlighting Functions—Robert Pritchard ’19; Sponsor: Bob Cluss, Chemistry and Biochemistry

27. Pebble Homes: Rethinking Single-Person Dwellings—Reed Martin ’19; Sponsor: John McLeod, History of Art and Architecture

28. When Is the Cognitive Interview a Cognitive Interview?—Susanna Baker ’19, Alexa Comai ’19; Sponsor: Michelle McCauley, Psychology

29. Investigating Depositional Algal Biomass in St. Albans Bay—Gray Kline ’19; Sponsor: Tom Manley, Geology

30. The Effect of Social Media on Students’ Self-Esteem: A Middlebury Analysis—Jenna Marotta ’19; Sponsor: Erick Gong, Economics
11:15 a.m.–12:30 p.m.

Session II: Oral Presentations

Weaving Meaning from Data: Object, Text, Space, Policy
Moderated by Jennifer Ortegren, Assistant Professor of Religion
McCardell Bicentennial Hall 104

11:15 a.m. Shimenawa: Weaving Traditions with Modernity; Interdisciplinary Research on the Cultural History of Japanese Sacred Rope—Shan Zeng ’19; Sponsor: Elizabeth Morrison, Religion

11:35 a.m. Turn of Heart, Turn of Phrase: Qur’anic Translations in Japanese—Ben Freedman ’19; Sponsor: Jennifer Ortegren, Religion

11:55 a.m. Food Aid and Its Effect on Fertility Behavior: Evidence from Clustered Randomized Trial in Haiti—Kailash Pandey ’19; Sponsor: John Maluccio, Economics

12:15 p.m. Public, Private, and Protest Spaces: Negotiations of Power through Architecture in the Charles Murray Protest—Rebecca Wishnie ’20; Sponsor: Erin Sassin, History of Art and Architecture

Women of Game of Thrones
Moderated by Nikolina Dobreva, Visiting Assistant Professor of Film and Media Culture
McCardell Bicentennial Hall 216

11:15 a.m. Women of Game of Thrones First-Year Seminar—Agastya Ahluwalia ’22, Conor Breen ’22, Zoe Garcia ’22, Zeke Golnik ’22, Summer Hornbostel ’22, Rachel Jeong ’22, Ryan Kirby ’22, Josie Lagerstrom ’22, Jack Landrigan ’22, Katelyn Mei ’22, Annie MIDhun ’22, Anna Rosen ’22, Liam Sloan ’22; Sponsor: Nikolina Dobreva, Film and Media Culture

Hidden (or Not) Intentions
Moderated by Alexander Lyford, Visiting Assistant Professor of Mathematics
McCardell Bicentennial Hall 219

11:15 a.m. Her Cotton Is No Longer Stained with Blood: British Anti-Slavery Activists, Egyptian Cotton, and the American Civil War (1861–1865)—Lucy Grindon ’19; Sponsor: Febe Armanios, History

11:35 a.m. Authoritarian Personality, Social Identity, and the Trump Vote in the 2016 U.S. Presidential Election—Katrin Schmitz; Sponsor: Jessica Teets, Political Science

Mind the Gap: Religion and Society
Moderated by Laurie Patton, President of Middlebury College
McCardell Bicentennial Hall 220

11:15 a.m. The Madman Resisting Modernity: The Clash between Idealism and Reality in Don Quixote and The Master and Margarita—Jessica Masinter ’19; Sponsor: Paul Monod, History

11:35 a.m. Transcendental Generative Grammar: A Chomskyan Reading of the Sphoṭavāda—Christopher Diak ’19; Sponsor: Laurie Patton, Religion

11:55 a.m. “Depth Is the New Inspiration”—Rene Magritte’s Solutions to the Window Problem—Xingzi Xu ’19; Sponsor: Erin Sassin, History of Art and Architecture

12:15 p.m. Value, Virtue, and the Indifferents: A Critique of Modern Stoic Ethics—Kyle Freiler ’19; Sponsor: Christopher Star, Classics

Health, Drugs, and Rock and Roll
Moderated by Louisa Burnham, Associate Professor of History
McCardell Bicentennial Hall 303


11:35 a.m. Savior or Enabler? The Impact of Naloxone Access on Opioid Mortality—Corinne McGillicuddy ’19; Sponsor: Caitlin Myers, Economics

11:55 a.m. Magical Stones in the Medieval Ages: Gems, Stones, and Nonstones—Madeleine Champagne ’19; Sponsor: Louisa Burnham, History

12:15 p.m. A Feminist Examination of the Medical Humanities—Ravi Patel ’19; Sponsor: Carly Thomsen, Gender, Sexuality, and Feminist Studies

Role Plays
Moderated by Rebecca Bennette, Associate Professor of History
McCardell Bicentennial Hall 311

11:15 a.m. The Female Theatrical Voice—Stephanie Miller ’20; Sponsor: Cheryl Faraone, Theatre
11:35 a.m. The Parallels and Performativity of Propaganda: French and German Cultural Exchange and Competition at the 1937 Paris World’s Fair and Beyond—Kathleen Criscitiello ’19; Sponsor: Rebecca Bennette, History

11:55 a.m. Investigating Narrative Interpretations of Gender in Contemporary Dance Spaces—Katherine Corrigan ’19; Sponsor: Linus Owens, Sociology and Anthropology

12:15 p.m. Translating Liu Cixin: Science Fiction in China—Emma Helper ’19, Julie Huynh ’20, Mary Majerus-Collins ’19; Sponsor: Hangping Xu, Chinese

Trip the Light Fantastic: Revisiting Difficult Narratives
Moderated by John Bertolini, Professor of English and Liberal Arts
McCardell Bicentennial Hall 403

11:15 a.m. The Literary Reputation of Edmund Spenser—John Gosselin ’20; Sponsor: John Bertolini, English and American Literatures

11:35 a.m. Autonomy and Punishment in the λόγοι of Astyages and Cambyses—Madison Stewart-Boldin ’19; Sponsor: Jane Chaplin, Classics

11:55 a.m. Trauma in Science Fiction: A Study of René Barjavel and Kurt Vonnegut—Ellen Colton ’19; Sponsor: Charles Nunley, French

Desire and Risk
Moderated by David Allen, Assistant Professor of Biology
McCardell Bicentennial Hall 411

11:15 a.m. Cardinal and Nun (Caress): A Reflection of Sexual Obsession, Conservative Class Structure, and Apocalyptic Paranoia in Fin de Siècle Vienna—Elaine Velie ’19.5; Sponsor: Erin Sassin, History of Art and Architecture

11:35 a.m. Le Sexe Hors-Norme: Depictions of Sexual Desire in Cameroonian Literature—Charlotte Cahillane ’19.5; Sponsor: Linsey Sainte-Claire, French

11:55 a.m. Mapping Disease Risk: The Effects of Local-Scale Habitat Characteristics on I. scapularis Density in Central Vermont—Harper Baldwin ’19; Sponsor: David Allen, Biology

12:15 p.m. From Madame Chrysantheme to Miss Saigon: The Transformation of the Asian Woman Fetish—Vee Duong ’19; Sponsor: Benjamin Graves, English and American Literatures

Structural Limits
Moderated by Jonathan Kemp, Telescope and Scientific Computing Specialist
McCardell Bicentennial Hall 438

11:15 a.m. Black Cat’s Claw: The Impact of Migrant Regulations on Structural Inequality in the People’s Republic of China—Travis Sanderson ’19; Sponsor: Jessica Teets, Political Science

11:35 a.m. Creative While Incarcerated: Freedom and the Prison Industrial Complex through the Eyes of Richard Phillips—Juliana Dunn ’19; Sponsor: Erin Sassin, History of Art and Architecture

11:55 a.m. Albinism Capital: Beyond Stigma, Agency in the Lives of Rwandan Families with Albinism—Meron Benti ’19; Sponsor: Michael Sheridan, Sociology and Anthropology

12:15 p.m. Determining the Evolutionary Status of the Disk Surrounding HD 166191—Diego Garcia ’20; Sponsor: Jonathan Kemp, Sciences Tech Support Services

Matters of Life and Death
Moderated by Spring Ulmer, Visiting Assistant Professor of English and American Literatures
McCardell Bicentennial Hall 538

11:15 a.m. Flesh and Bone: Materiality in Reliquaries of the Cult of Saint Ursula and the Eleven Thousand Virgins—Julia Hower ’19; Sponsor: Eliza Garrison, History of Art and Architecture

11:35 a.m. An Analysis of the Physical and Psychological Aspects of Death in the Works of Pu Songling and Edgar Allan Poe—Hannah Smart ’19; Sponsor: Weihe Xu, Chinese

11:55 a.m. Beautiful Bird Biology: Exploring Patterns of Molt and Community Structure in West Ecuadorian Avifauna—Heather Cox ’19; Sponsor: Stephen Trombulak, Biology

12:15 p.m. Don’t Die Yet: A Creative Exposé on Family Structures, Gender Roles, and Mourning—Samuel Boudreau ’19; Sponsor: Spring Ulmer, English and American Literatures
Lunch for Presenters, Sponsors, and Moderators

Special lunch in Atwater is available from 11:30 a.m.–2:00 p.m.
Lunch will be served for all others at regular hours in Proctor and Ross Dining Halls.
Session III: Oral Presentations

Winning Strategies
Moderated by Kyoko Davis, Senior Lecturer in Japanese
McCardell Bicentennial Hall 104
1:30 p.m.  Language Learning Environment at Middlebury College: An Analysis of Extracurricular Activities in Japanese Language Education—Sonomi Tsuruta; Sponsor: Kyoko Davis, Japanese Studies
1:50 p.m.  Stoicism, Sensibility, and the Scottish Enlightenment: Ann Radcliffe’s Ethic of Feeling in The Mysteries of Udolpho—Kyle Freiler ’19; Sponsor: Michael Newbury, American Studies
2:10 p.m.  Chapter 11 Toys “R” Us and the Negative Social Impact of Private Equity—Alex Baskin ’19, Fazl Shaikh ’20; Sponsor: Frank Van Gansbeke, Interdepartmental
2:30 p.m.  Progress toward a Hexahistidine Directed C-H Activation Reaction for Site-Specific Protein Modification—Jeffrey Formen ’19, Sarah Staver ’19; Sponsor: Lindsay Repka, Chemistry and Biochemistry

They Said, She Said, He Said
Moderated by Carly Thomsen, Assistant Professor of Gender, Sexuality, and Feminist Studies
McCardell Bicentennial Hall 216
1:30 p.m.  Girls’ Night Out: An Investigation into Sexually Dimorphic Learning Trends in Drosophila melanogaster—Elizabeth Vinton ’19; Sponsor: Amanda Crocker, Neuroscience
1:50 p.m.  Understandings of Consent in an Ambiguous Sexual Scenario—Alex Forde ’19; Sponsor: Martin Seehuus, Psychology
2:10 p.m.  The Gendered Ideology of War: A Comparative Study of Hanan alShaykh’s The Story of Zahra and Etel Adnan’s Sitt Marie Rose—Jeff Holland ’19; Sponsor: Dima Ayoub, Arabic
2:30 p.m.  A Labor of Love: Gender Labor and Roles in Relationships with Gender Non-Binary People—Jules Struzyna ’19.5; Sponsor: Carly Thomsen, Gender, Sexuality, and Feminist Studies

Strangers in a Strange Land
Moderated by Trinh Tran, Assistant Professor of Sociology and Anthropology
McCardell Bicentennial Hall 219
1:30 p.m.  LGBT Refugees in Germany—Mateja Sela ’19; Sponsor: Roman Graf, German
1:50 p.m.  Exceptionalist Human Rights and Haitian Migratory Patterns in Santiago de Chile—Marcelo López ’19; Sponsor: Daniel Silva, Spanish and Portuguese
2:10 p.m.  Treaties, War, and International Abduction: English Colonial Ideology at Jamestown—Dylan Salzaman ’19; Sponsor: John Harpham, Political Science
2:30 p.m.  Go Hard and/or Go Home? Migrant Children’s Negotiation of Educational Choices, Aspirations, and Attainment in Beijing, China—Lulu Zhou ’19; Sponsor: Trinh Tran, Sociology and Anthropology

Points of View
Moderated by Sanford Mirling, Assistant Professor of Studio Art
McCardell Bicentennial Hall 220
1:30 p.m.  Digital Surveillance and Social Credit in China—Emily Uhrynuk ’19; Sponsor: Jessica Teets, Political Science
1:50 p.m.  Finding Dance in Chemistry: Using Mechanisms to Inspire Movement—Maggie Phillips ’19; Sponsor: AnGayle (AJ) Vasiliou, Chemistry and Biochemistry
2:10 p.m.  Nature Perspectives through the Ages: A Collection of Songs about Humans and the Environment—Isabelle Davis ’21, Max Lucas ’21; Sponsor: Rebecca Gould, Environmental Studies

Observing Identities
Moderated by Natasha Ngaiza, Assistant Professor of Film and Media Culture
McCardell Bicentennial Hall 303
1:30 p.m.  Rethinking the Acholi Dilemma: Identity, Composition, and Postcolonial Dynamics in Northern Uganda—Daniel Krugman ’21; Sponsor: Michael Sheridan, Sociology and Anthropology
1:50 p.m.  Feeling and Healing in Branden Jacobs-Jenkins’s Plays—Kahari Blue ’19; Sponsor: Cheryl Faraone, Theatre
2:10 p.m.  Sunset Song: A Documentary Discovering the Past of My Grandfather—Qian Li ’19; Sponsor: Natasha Ngaiza, Film and Media Culture

2:30 p.m.  U.S. Media Portrayal of Venezuela—Marina Echeverria ’19, Adrienne Goldstein ’20; Sponsor: Erik Bleich, Political Science

**That’s Not What She Said**
**Moderated by Gloria Gonzales Zenteno, Professor of Spanish**
McCardell Bicentennial Hall 311

1:30 p.m.  “The Rights of Mortal and Immortal Beings”: The Abolitionist and Feminist Thought of Angelina and Sarah Grimké—Abigail Hinchman ’19; Sponsor: John Harpham, Political Science

1:50 p.m.  Student Views on the Practice of Introducing Personal Pronouns on College Campus—Anastasia Kozhuhkova; Sponsor: Shawna Shapiro, Writing and Rhetoric Program

2:10 p.m.  Women’s Resistance Movements During the Dictatorship of Pinochet—Nicolas Plume ’19.5; Sponsor: Gloria Gonzales Zenteno, Spanish and Portuguese

2:30 p.m.  “In All Respects, Except the Fact That She Is a Woman”: Emily Warren Roebling, Louise Blanchard Bethune, and Late 19th-Century Conceptions of Female Achievement—Claire Crane ’19; Sponsor: Lana Povitz, History

**Phases of (Mis)judgement**
**Moderated by Bert Johnson, Professor of Political Science**
McCardell Bicentennial Hall 403

1:30 p.m.  Cultural and Social Practices Contributing to Wrongful Conviction: A Comparative Analysis of the U.S., Canada, England, and Wales—Adam Druckman ’19; Sponsor: Bert Johnson, Political Science

1:50 p.m.  Always There: Stigma and Meaning-Making in Medical Literature and Body-Positive Blogs—William Kelley ’19; Sponsor: Laurie Essig, Gender, Sexuality, and Feminist Studies

2:10 p.m.  Media Coverage of African Americans in the U.S.—Joccelyn Alvarado-Valverde ’20, Rebecca Gorman ’20, Samantha Paredes-Cruz ’20, Varsha Vijayakumar ’20; Sponsor: Erik Bleich, Political Science

2:30 p.m.  Sino-Albanian Relations 1960–80—Mishel Kondi ’19; Sponsor: Maggie Clinton, History

**U Can’t Touch This**
**Moderated by Rebecca Mitchell, Assistant Professor of History**
McCardell Bicentennial Hall 411

1:30 p.m.  Cracking the Code: Thermal Decomposition of Fuel Contaminants—Sarah Dutton ’19; Sponsor: AnGayle (AJ) Vasilio, Chemistry and Biochemistry

1:50 p.m.  Explosivity and Eruption Dynamics of a Pleistocene Cinder Cone in the Southern Cascades—Sam Kaelin ’19.5; Sponsor: Kristina Walowski, Geology

2:10 p.m.  Lead Concentration in Drinking Water at Middlebury College—Jackson Sennett ’19; Sponsor: Shawna Shapiro, Writing and Rhetoric Program

2:30 p.m.  Catch Fe If You Can: Kinetic Characterization of a Putative Desferrioxamine B Biosynthetic Pathway—Khan Kim ’19; Sponsor: Lesley-Ann Giddings, Chemistry and Biochemistry

**From Cold Atoms to Hot Wires**
**Moderated by Anne Goodsell, Associate Professor of Physics**
McCardell Bicentennial Hall 438

1:30 p.m.  From Cold Atoms to Hot Wires: An Overview of the Goodsell Lab—Sasha Clarick ’19, David Cohen ’20, Amanda Kirkeby ’19; Sponsor: Anne Goodsell, Physics

**Re-reading the Label**
**Moderated by Ilaria Brancoli-Busdraghi, Lecturer in Italian**
McCardell Bicentennial Hall 538

1:30 p.m.  Bus Drivers and Refugees: How Regional Identities Create Exclusive Claims to Space—Alexis Levato ’19; Sponsor: Ilaria Brancoli-Busdraghi, Italian

1:50 p.m.  Disability and #MeToo—Celia Alter ’19.5; Sponsor: Susan Burch, American Studies

2:10 p.m.  Varying Notions of “Serbian” Nationhood—Oshin Bista ’20; Sponsor: David Stoll, Sociology and Anthropology

2:30 p.m.  Into the Fire with a Handful of Ice Cubes: Individualism and Solidarity in Alcoholics Anonymous—Andrew Michelson ’19; Sponsor: Michael Sheridan, Sociology and Anthropology
2:45–3:30 p.m.
Poster Presentations:
Group 2 and Refreshments
McCardell Bicentennial Great Hall

31. TheBoneFish.com: The Politics of Animating Abortion—Toría Isquith ’19; Sponsor: Carly Thomsen, Gender, Sexuality, and Feminist Studies

32. 3-D Computer Animations: Type 2 Diabetes, the Myelin Sheath, and Ballistic Missile Simulations—Michelle Lehman ’19; Sponsor: Daniel Houghton, Arts Technology Specialist

33. Changes in T2* Characteristics of the ACL throughout the Menstrual Cycle—Tatum Braun ’20; Sponsor: Mark Spritzer, Biology

34. Nanozymes: Biocompatible Artificial Enzymes—Sarah Holmes ’20; Sponsor: Jeff Byers, Chemistry and Biochemistry

35. A System for Capturing Datasets for Mobile Image Matching—Tommaso Monaco ’20; Sponsor: Daniel Scharstein, Computer Science

36. Decline of Yellowstone Cutthroat Trout in Yellowstone National Park: Modeling the Impact of Climate Change and Non-native Species—Ming Harris-Weidner ’22; Sponsor: Tom Manley, Geology

37. “There Cannot Be Anything Criminal in the Phrase ‘I Am a Jew’”: An Exploration of Soviet Jewish Identity and Soviet Ideology through the Lens of the Jewish Anti-Fascist Committee—Rebecca Simon ’19; Sponsor: Rebecca Mitchell, History

38. “White Supremacy” versus “White Nationalism”: A Linguistic Analysis of the Unite the Right Rally—Brigett Weinstein ’20; Sponsor: Shawna Shapiro, Writing and Rhetoric

39. The S. mutans SMU_1176 Gene Encodes a Manganese Efflux Transporter—Joseph O’Brien ’19; Sponsor: Grace Spatafora, Biology

40. The Risks of Extremism—Masa Sakamoto ’19; Sponsor: Zu Wei Zhai, Psychology

41. Finding Proper Eddington Ratios for Quasars—Diego Garcia ’20; Sponsor: Eilat Glikman, Physics

42. Clinopyroxene Barometry of Red Lake Mountain Lava Cone, Lassen Volcanic National Park: Implications for Magma Storage Depths—Kye Moffat ’19; Sponsor: Kristina Walowski, Geology

43. Water Scarcity and Its Implication for Healthcare Delivery in Anesthesiology—Bayu Ahmad ’21; Sponsor: Jessica Holmes, Economics

44. Forest Land Use Activities as a Threat to Northeastern Forest Cover and Water Quality—Mikayla Haefele ’20.5; Sponsor: Alison Nurok, Biology

45. Negative Expectancy Biases in Trauma and PTSD: Evidence from EEG Responses—Sophia Allen ’19; Sponsor: Matthew Kimble, Psychology

46. Do Erroneous Retrieval Attempts Contribute to Learning of Novel Associations and Individual Item-Components?—Yining Lu ’21, Monique Santos ’21, Stephanie Soriano ’21, Julianne Wu ’20; Sponsor: Jason Arndt, Psychology

47. The Pen Is Mightier Than the Sword: Climate Change Literature and Its Capacity to Change the World—Catherine Pollack ’19; Sponsor: Daniel Brayton, Environmental Studies

48. Examining the Desiccation Tolerance of Dryland Mosses—George Brencher ’20, Niko Carvajal Janke ’20; Sponsor: Kirsten Deane-Coe, Biology

49. Habitat for Humanity Design Build—Calder Birdsey ’20, John Henry Hanson ’20.5, Emma McDonagh ’19, Orli Schwartz ’20; Sponsor: John McLeod, History of Art and Architecture

50. The Impact of Legal Status on Mobility: A Comparison of Migrant Worker Populations in Vermont—Walker Stewart ’19; Sponsor: Joe Holler, Geography

51. The Efficacy of Fundraising as It Pertains to the 2018 United States House of Representatives Election—Jake Hulina ’20.5, Abbott LaPrade ’21; Sponsor: Amanda Gregg, Economics

52. The Effect of Artisanal Mining on Household Wealth in Eastern Congo—Shaheen Bharwani ’19, Kwame Mukasa ’19; Sponsor: Julia Berazneva, Economics


54. Epistasis Analysis of Neurotransmitter Release Affected by VAPase Mutations—Laura Castillo ’19; Sponsor: Glen Ernststrom, Neuroscience

55. The Violet Sisters: Design Presentation—Kaitlynd Collins ’19, Stephanie Miller ’20; Sponsor: Cheryl Faraone, Theatre
56. The Single-Story of the Palestinian Protests against the Loss of Jerusalem—Marisa Edmondson ’20; Sponsor: Shawna Shapiro, Writing and Rhetoric

57. A Proposed Solution to the Affordable Housing Crisis: Giving Big Box Stores a New Life—Olivia Ryder ’19; Sponsor: John McLeod, History of Art and Architecture

58. Constraining the Timing of Latest Movement along the Norumbega Fault System, Casco Bay, Maine—Miranda-Max de Beer ’19; Sponsor: Dave West, Geology

59. F187 and T167 Aid Cooperative SloR-DNA Binding in Streptococcus Mutans—Daniel O’Grady ’19; Sponsor: Grace Spatafora, Biology

60. An Invitation to the Ball Game—Justin Alkier ’21; Sponsor: Karl Lindholm, American Studies

61. Cuerpos: An Investigation of Feminist Art in Mexico—Sabrina Quintanilla ’19; Sponsor: Hector Vila, Writing and Rhetoric
3:30–4:45 p.m.
Session IV: Oral Presentations

Translations
Moderated by Jennifer Ponder, Light Designer and Technical Director for Dance
McCardell Bicentennial Hall 216
3:30 p.m. Translating Feminism: How Feminist Thought Travels through Different Cultures—Rebecca Duras ’19, Mariia Makutonina ’21, Mari Odoy ’20; Sponsor: Karin Hanta, Gender, Sexuality, and Feminist Studies
4:10 p.m. Dancing Ancient Greek Fragments: Translation, Adaptation, and Choreography—Caleb Green ’19.5, Lucy Grinnan ’19.5; Sponsor: Jennifer Ponder, Dance

Data Interpretation: Uber to Affirmative Action
Moderated by Roman Graf, Professor of German and Comparative Literature
McCardell Bicentennial Hall 219
3:30 p.m. Decongesting the Emergency Room: Urgent Care Centers and Low Acuity ER Visits in Rural Vermont—Vick Xu ’19; Sponsor: Phani Wunnava, Economics
4:10 p.m. Does Uber Really Reduce Drunk Driving Fatalities?—Andrew Smith ’19; Sponsor: Caitlin Myers, Economics
4:30 p.m. Demystifying Asian American Identity: U.S. Newspaper Coverage on Asian Americans 1999–2019—Michelle Hwang ’19, Yiyi Jin ’19, Yvette Shi ’19; Sponsor: Erik Bleich, Political Science

Putting It into Perspective
Moderated by Matt Lawrence, Assistant Professor of Sociology
McCardell Bicentennial Hall 220
3:30 p.m. Public Opinion on Public Assistance: How Wording Can Expose Cultural Contentions—Nia Robinson ’19; Sponsor: Matt Lawrence, Sociology and Anthropology
3:50 p.m. “I pay my part for Lafayette”: The Memory of the Lafayette Escadrille at the Centennial—William Simpson ’18.5; Sponsor: Paula Schwartz, French
4:10 p.m. Ecotourism as Sustainable Development: Definitions of “Local” in Puerto Río Tranquilo, Chile—Emily French ’19; Sponsor: Jessica L’Roe, Geography
4:30 p.m. Demoiselles d’Avignon: A Play about Perspectives and Picasso—Emma Zetterberg ’19.5; Sponsor: Dana Yeaton, Theatre

Law and (Dis)order
Moderated by Amit Prakash, Professor of the Practice, English and American Literatures
McCardell Bicentennial Hall 303
3:30 p.m. Militarized Masculinity: Examining the “Cult of Masculinity” in Policing—Grace Vedock ’20; Sponsor: Amit Prakash, History
3:50 p.m. “In the Wake of Tragedy”: Investigating Claims of Racial and Religious Prejudice in U.S. Newspaper Coverage of Mass Shooters—Emily Stabler ’19; Sponsor: Erik Bleich, Political Science
4:10 p.m. South Korea’s Candlelight Revolution through the Eyes of the Riot Police—Jungbin Oh ’20; Sponsor: Linus Owens, Sociology and Anthropology
4:30 p.m. Immigration to Spain: Immigration in the Political Arena and Challenges for Migrants and Civil Society Actors—Sofia Siqueira ’19; Sponsor: Kristina Sargent, Economics

Ties That Bind
Moderated by Lindsay Repka, Assistant Professor of Chemistry and Biochemistry
McCardell Bicentennial Hall 311
3:30 p.m. Determining Histone Chaperone FACT Binding Mode to Nucleosome Components—Talia Ruxin ’20; Sponsor: Grace Spatafora, Molecular Biology and Biochemistry
3:50 p.m. Progress toward a Photoredox Crosslinking Reaction for Target Identification—Shougat Barua ’19; Sponsor: Lindsay Repka, Chemistry and Biochemistry
4:10 p.m. Investigating Putative Small Regulatory RNAs in the S. mutans SloR Regulon—Margo Reigle ’19; Sponsor: Grace Spatafora, Molecular Biology and Biochemistry
**Back to the Future, Again**  
Moderated by James Davis, Professor of Religion  
McCardell Bicentennial Hall 403

3:30 p.m.  The Challenge of Adapting Tocqueville’s Thought to Our Time—Thibault Bachelet ’19; Sponsor: Murray Dry, Political Science

3:50 p.m.  Russian Exceptionalism: Democratic Values in Contemporary Russia—Jamie Lumley ’19; Sponsor: Will Pyle, Economics

4:10 p.m.  A Dinner Party Nightmare: How the Christian Progressive Movement Fuses Religion with Immigration Politics in Trump’s America—Miles Meijer ’19; Sponsor: James Davis, Religion

4:30 p.m.  The Demagogue: A Re-examination through Ancient and Classical Greece—Ethan Cohen ’19; Sponsor: John Harpham, Political Science

**Kiswahili in Kigali: Going by Middlebury’s New Mission Statement**  
Moderated by Nadia Horning, Associate Professor of Political Science  
McCardell Bicentennial Hall 411

3:30 p.m.  Kiswahili in Kigali: Going by Middlebury’s New Mission Statement—Heather Cox ’19, Veronica Estudillo Velasco ’19, Violet Low-Beinart ’19, Zorica Radanovic ’19, Julia Siemann de Athayde Silva ’19; Sponsor: Nadia Horning, Political Science

**Stems and Vines**  
Moderated by Chris Herdman, Assistant Professor of Physics  
McCardell Bicentennial Hall 438

3:30 p.m.  Molecular Wires: Polymers of Ruthenium Complexed Fluorene—Noah Wagner-Carlberg ’19; Sponsor: Jeff Byers, Chemistry and Biochemistry

3:50 p.m.  Entanglement in a Quantum Spin Glass during the Adiabatic Algorithm—Asher Lantz ’19.5; Sponsor: Chris Herdman, Physics

4:10 p.m.  Using Machine Learning and Remote Sensing to Quantify the Carbon Stored in the Above-Ground Biomass of Vermont—Octave Lepinard ’19.5; Sponsor: Will Amidon, Geology

4:30 p.m.  Proofs of the Combinatorial Nullstellensatz—Sarah Dutton ’19; Sponsor: John Schmitt, Mathematics

4:45–5:30 p.m.  Closing Reception  
McCardell Bicentennial Great Hall

**Evening Event**

8:30–10:00 p.m.  
Observatory Stargazing  
McCardell Bicentennial Hall Mittelman Observatory


This event will only take place if the sky is mostly clear. Please call the observatory at 802-443-2266 after 6:30 p.m. for weather status.
PRESENT INDEX

Alphabetical by Name
Full abstracts can be found online at go.middlebury.edu/sym.

A

Adamo, Chris ’20: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 18
Ahluwalia, Agastya ’22: Oral Session II—MBH 216 at 11:15 a.m.
Ahmad, Bayu ’21: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 43
Aiello, Dominic ’22.5: Evening—MBH Observatory at 8:30 p.m.
Alkier, Justin ’21: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 60
Allen, Sophia ’19: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 45
Alter, Celia ’19.5: Oral Session III—MBH 538 at 1:50 p.m.
Alvarado-Valverde, Joccelyn ’20: Oral Session III—MBH 403 at 2:10 p.m.
Andrade-Vera, Juan ’19: Oral Session I—MBH 303 at 9:55 a.m.
Andrews, Colson ’21: Oral Session I—MBH 303 at 9:35 a.m.
Anrod, Maisie ’19: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 22

B

Bachelet, Thibault ’19: Oral Session I—MBH 220 at 9:15 a.m.; Oral Session IV—MBH 403 at 3:30 p.m.
Baker, Susanna ’19: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 28
Barca, Malia ’19: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 14
Barua, Shougat ’19: Oral Session IV—MBH 311 at 3:50 p.m.
Baskin, Alex ’19: Oral Session III—MBH 104 at 2:10 p.m.
Belanger, Bryce ’19: Oral Session I—MBH 438 at 9:55 a.m.
Benti, Meron ’19: Oral Session I—MBH 411 at 9:15 a.m.; Oral Session II—MBH 438 at 11:55 a.m.
Bharwani, Shaheen ’19: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 52
Birdsey, Calder ’20: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 49
Bista, Oshin ’20: Oral Session III—MBH 538 at 2:10 p.m.
Blachly, Adam ’21.5: Oral Session I—MBH 303 at 9:15 a.m.
Blue, Kahari ’19: Oral Session III—MBH 303 at 1:50 p.m.
Boudreau, Samuel ’19: Oral Session II—MBH 538 at 12:15 p.m.
Braun, Tatum ’20: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 33; Evening—MBH Observatory at 8:30 p.m.
Breen, Conor ’22: Oral Session II—MBH 216 at 11:15 a.m.
Brencher, George ’20: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 48
Brown, Jack ’22: Oral Session I—MBH 220 at 9:15 a.m.

C

Cacciatore, Charlie ’20: Oral Session I—MBH 220 at 9:15 a.m.
Carhillane, Charlotte ’19.5: Oral Session II—MBH 411 at 11:35 a.m.
Carvajal Janke, Niko ’20: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 48
Castillo, Laura ’19: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 54
Champagne, Madeleine ’19: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 11; Oral Session II—MBH 303 at 11:55 a.m.
Claman, Kate ’19: Oral Session I—MBH 104 at 10:15 a.m.
Clarick, Sasha ’19: Oral Session III—MBH 438 at 1:30 p.m.;
Evening—MBH Observatory at 8:30 p.m.

Coffin, Sadie ’19: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 12; Evening—MBH Observatory at 8:30 p.m.

Cohen, David ’20: Oral Session III—MBH 438 at 1:30 p.m.;
Evening—MBH Observatory at 8:30 p.m.

Cohen, Ethan ’19: Oral Session IV—MBH 403 at 4:30 p.m.

Collins, Austin ’19: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 16

Collins, Kaitlynd ’19: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 55

Colton, Ellen ’19: Oral Session II—MBH 403 at 11:55 a.m.

Corrigan, Katherine ’19: Oral Session II—MBH 311 at 11:55 a.m.

Cowper, Emma ’20.5: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 7

Cox, Heather ’19: Oral Session II—MBH 538 at 11:55 a.m.;
Oral Session IV—MBH 411 at 3:30 p.m.

Crane, Claire ’19: Oral Session III—MBH 311 at 2:30 p.m.

Criscitiello, Kathleen ’19: Oral Session II—MBH 311
at 11:35 a.m.

D

Davis, Isabelle ’21: Oral Session III—MBH 220 at 2:10 p.m.

Dayton, Amy ’19: Oral Session I—MBH 220 at 9:15 a.m.

de Beer, Miranda-Max ’19: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 58

de la Rosa, Alexis ’19: Oral Session I—MBH 311 at 9:15 a.m.

Dean, Erica ’20: Poster Session I—MBH Great Hall
at 10:30 a.m., Poster 3

DesBois, Margot ’19: Oral Session II—MBH 303 at 11:15 a.m.

Diak, Christopher ’19: Oral Session II—MBH 220 at 11:35 a.m.

Ding, Yihao ’19: Oral Session I—MBH 438 at 9:35 a.m.

Druckman, Adam ’19: Oral Session III—MBH 403 at 1:30 p.m.

Dunn, Juliana ’19: Oral Session II—MBH 438 at 11:35 a.m.

Duong, Vee ’19: Oral Session II—MBH 411 at 12:15 p.m.

Duras, Rebecca ’19: Oral Session IV—MBH 216 at 3:30 p.m.

Dutton, Sarah ’19: Oral Session III—MBH 411 at 1:30 p.m.;
Oral Session IV—MBH 438 at 4:30 p.m.

Ebner, Wynne ’19: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 8

Echeverria, Mariana ’19: Oral Session III—MBH 303 at 2:30 p.m.

Edmondson, Marisa ’20: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 56

Estudillo Velasco, Veronica ’19: Oral Session I—MBH 411 at 9:15 a.m.; Oral Session IV—MBH 411 at 3:30 p.m.

F

Forde, Alex ’19: Oral Session III—MBH 216 at 1:50 p.m.

Formen, Jeffrey ’19: Oral Session III—MBH 104 at 2:30 p.m.

Fort, Gabby ’19: Poster Session I—MBH Great Hall
at 10:30 a.m., Poster 11

Freedman, Ben ’19: Oral Session II—MBH 104 at 11:35 a.m.

Freiler, Kyle ’19: Oral Session II—MBH 220 at 12:15 p.m.;
Oral Session III—MBH 104 at 1:50 p.m.

French, Emily ’19: Oral Session IV—MBH 220 at 4:10 p.m.

Friedman, Grant ’19: Oral Session I—MBH 311 at 10:15 a.m.

G

Garcia, Diego ’20: Oral Session II—MBH 438 at 12:15 p.m.;
Poster Session II—MBH Great Hall at 2:45 p.m., Poster 41

Garcia, Zoe ’22: Oral Session II—MBH 216 at 11:15 a.m.

Garrett, Briana ’19: Oral Session I—MBH 411 at 9:15 a.m.

Glennon, Rhys ’22: Oral Session I—MBH 104 at 9:35 a.m.

Goldstein, Adrienne ’20: Oral Session III—MBH 303 at 2:30 p.m.

Golnik, Zeke ’22: Oral Session II—MBH 216 at 11:15 a.m.

Gorman, Rebecca ’20: Oral Session III—MBH 403 at 2:10 p.m.
Gosselin, John '20: Oral Session II—MBH 403 at 11:15 a.m.
Green, Caleb '19.5: Oral Session IV—MBH 216 at 4:10 p.m.
Green, Will '19: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 2
Grindon, Lucy '19: Oral Session II—MBH 219 at 11:15 a.m.
Grinnan, Lucy '19.5: Oral Session IV—MBH 216 at 4:10 p.m.
Haefele, Mikayla '20.5: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 44
Haigh, Hollie '19: Oral Session I—MBH 411 at 9:15 a.m.
Hall, Griffin '20.5: Oral Session I—MBH 220 at 9:15 a.m.
Hall, Henley '19: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 15
Hanson, John Henry '20.5: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 49
Harlan, Grace '22: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 1
Harris-Weidner, Ming '22: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 36
Hegedus, Acadia '22: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 25
Helper, Emma '19: Oral Session II—MBH 311 at 12:15 p.m.
Hinchman, Abigail '19: Oral Session I—MBH 216 at 10:15 a.m.; Oral Session III—MBH 311 at 1:30 p.m.
Holland, Jeff '19: Oral Session III—MBH 216 at 2:10 p.m.
Holmes, Sarah '20: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 34
Hornbostel, Summer '22: Oral Session II—MBH 216 at 11:15 a.m.
Horning, Naina '19: Oral Session I—MBH 411 at 9:15 a.m.
Hower, Julia '19: Oral Session II—MBH 538 at 11:15 a.m.
Hoynes, Erin '19: Oral Session I—MBH 216 at 10:15 a.m.
Hulina, Jake '20.5: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 51
Huynh, Julie '20: Oral Session II—MBH 311 at 12:15 p.m.
Hwang, Michelle '19: Oral Session IV—MBH 219 at 4:30 p.m.
Isquith, Toria '19: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 31
Jeong, Rachel '22: Oral Session II—MBH 216 at 11:15 a.m.
Jin, Yiyi '19: Oral Session IV—MBH 219 at 4:30 p.m.
Joseph, Maggie '20: Evening—MBH Observatory at 8:30 p.m.
Juster, Hal '19: Oral Session I—MBH 104 at 9:55 a.m.
Kaelin, Sam '19.5: Oral Session III—MBH 411 at 1:50 p.m.
Kelley, William '19: Oral Session III—MBH 403 at 1:50 p.m.
Kelly, Rory '19: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 11
Kerrouchi, Karima: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 9
Kim, Khan '19: Oral Session III—MBH 411 at 2:30 p.m.
Kirby, Ryan '22: Oral Session II—MBH 216 at 11:15 a.m.
Kirkby, Amanda '19: Oral Session III—MBH 438 at 1:30 p.m.
Kline, Gray '19: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 29
Knox, Margaret '19: Oral Session I—MBH 219 at 9:35 a.m.
Kondi, Mishel '19: Oral Session III—MBH 403 at 2:30 p.m.
Kozhukhova, Anastasiia: Oral Session III—MBH 311 at 1:50 p.m.
Krugman, Daniel '21: Oral Session III—MBH 303 at 1:30 p.m.
Kuzmicki, Jessie '19: Oral Session I—MBH 219 at 9:15 a.m.
Lagerstrom, Josie '22: Oral Session II—MBH 216 at 11:15 a.m.
Landrigan, Jack '22: Oral Session II—MBH 216 at 11:15 a.m.
Lantz, Asher '19.5: Oral Session IV—MBH 438 at 3:50 p.m.
LaPrade, Abbott ’21: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 51
Lehman, Michelle ’19: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 32
Lepinard, Octave ’19.5: Oral Session IV—MBH 438 at 4:10 p.m.
Levato, Alexis ’19: Oral Session III—MBH 538 at 1:30 p.m.
Li, Qian ’19: Oral Session III—MBH 303 at 2:10 p.m.
Lightman, Rebecca ’19: Oral Session I—MBH 438 at 10:15 a.m.
Lindsay, Isabel ’19: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 5
López, Marcelo ’19: Oral Session III—MBH 219 at 1:50 p.m.
Low-Beinart, Violet ’19: Oral Session IV—MBH 411 at 3:30 p.m.
Lu, Yining ’21: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 46
Lucas, Max ’21: Oral Session III—MBH 220 at 2:10 p.m.
Lumley, Jamie ’19: Oral Session IV—MBH 403 at 3:50 p.m.

M
Majerus-Collins, Mary ’19: Oral Session II—MBH 311 at 12:15 p.m.
Makutonina, Mariia ’21: Oral Session IV—MBH 216 at 3:30 p.m.
Marotta, Jenna ’19: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 30
Martin, Reed ’19: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 27
Martinez, Geovany ’19: Oral Session I—MBH 403 at 10:15 a.m.
Masinter, Jessica ’19: Oral Session II—MBH 220 at 11:15 a.m.
Massey, Charlotte ’19: Oral Session I—MBH 411 at 9:15 a.m.
McDonagh, Emma ’19: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 49
McGillicuddy, Corinne ’19: Oral Session II—MBH 303 at 11:35 a.m.
McNicholas, Jenna ’19: Oral Session I—MBH 311 at 9:35 a.m.

Mehler, Peter ’20: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 6; Evening—MBH Observatory at 8:30 p.m.
Mei, Katelyn ’22: Oral Session II—MBH 216 at 11:15 a.m.
Meijer, Miles ’19: Oral Session IV—MBH 403 at 4:10 p.m.
Michelson, Andrew ’19: Oral Session III—MBH 538 at 2:30 p.m.
Midthun, Annie ’22: Oral Session II—MBH 216 at 11:15 a.m.
Miller, Stephanie ’20: Oral Session II—MBH 311 at 11:15 a.m.; Poster Session II—MBH Great Hall at 2:45 p.m., Poster 55
Moffat, Kye ’19: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 42
Molkenthin, Allegra ’19.5: Oral Session II—MBH 219 at 12:15 p.m.
Monaco, Tommaso ’20: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 35
Mukasa, Kwame ’19: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 52

N
Nahirny, Rachel ’21.5: Evening—MBH Observatory at 8:30 p.m.
Nakhlawi, Salma ’19: Oral Session I—MBH 411 at 9:15 a.m.
Ng, Nathan ’19: Oral Session I—MBH 104 at 9:15 a.m.

O
O’Brien, Joseph ’19: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 39
Odoy, Mari ’20: Oral Session IV—MBH 216 at 3:30 p.m.
O’Grady, Daniel ’19: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 59
Oh, Jungbin ’20: Oral Session IV—MBH 303 at 4:10 p.m.
Okazaki, Kenzo ’21: Evening—MBH Observatory at 8:30 p.m.

P
Packer, David ’20: Oral Session I—MBH 403 at 9:15 a.m.
Pan, Audrey ’19: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 19
Pandey, Kailash ’19: Oral Session II—MBH 104 at 11:55 a.m.
Paredes-Cruz, Samantha ’20: Oral Session III—MBH 403 at 2:10 p.m.

Passarelli, Natalie ’20: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 10

Patel, Mayher ’19: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 4

Patel, Ravi ’19: Oral Session II—MBH 303 at 12:15 p.m.

Perrotta, Liz ’19: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 53

Phillips, Maggie ’19: Oral Session III—MBH 220 at 1:50 p.m.

Plume, Nicolas ’19.5: Oral Session III—MBH 311 at 2:10 p.m.

Pollack, Catherine ’19: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 47

Price, Rowen ’19: Oral Session I—MBH 403 at 9:55 a.m.

Pritchard, Robert ’19: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 26

Pucker, Bella ’21.5: Oral Session I—MBH 303 at 9:15 a.m.

Q

Quintanilla, Sabrina ’19: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 61

R

Radanovic, Zorica ’19: Oral Session IV—MBH 411 at 3:30 p.m.

Ramadhito, Garda Muhammad ’19: Oral Session I—MBH 403 at 9:35 a.m.

Reigle, Margo ’19: Oral Session IV—MBH 311 at 4:10 p.m.

Robinson, Nia ’19: Oral Session IV—MBH 220 at 3:30 p.m.

Rosen, Anna ’22: Oral Session II—MBH 216 at 11:15 a.m.

Rustad, John ’19.5: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 20

Ruxin, Talia ’20: Oral Session IV—MBH 311 at 3:30 p.m.

Ryder, Olivia ’19: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 57

S

Sakamoto, Masa ’19: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 40

Salzman, Dylan ’19: Oral Session III—MBH 219 at 2:10 p.m.

Sanderson, Travis ’19: Oral Session I—MBH 311 at 9:15 a.m.; Oral Session II—MBH 438 at 11:15 a.m.

Santoso, Monique ’21: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 46

Sather, Nell ’19: Oral Session I—MBH 216 at 9:35 a.m.; Oral Session I—MBH 216 at 10:15 a.m.


Schmitz, Katrin: Oral Session II—MBH 219 at 11:35 a.m.

Schwartz, Orli ’20: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 49

Sela, Mateja ’19: Oral Session III—MBH 219 at 1:30 p.m.

Sennett, Jackson ’19: Oral Session III—MBH 411 at 2:10 p.m.

Shaikh, Fazl ’20: Oral Session III—MBH 104 at 2:10 p.m.

Shi, Yvette ’19: Oral Session IV—MBH 219 at 4:30 p.m.

Siemann de Athayde Silva, Julia ’19: Oral Session I—MBH 411 at 9:15 a.m.; Oral Session IV—MBH 411 at 3:30 p.m.

Simmons, Elizabeth ’21: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 21

Simon, Rebecca ’19: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 37

Simpson, William ’18.5: Oral Session IV—MBH 220 at 3:50 p.m.

Siqueira, Sofia ’19: Oral Session IV—MBH 303 at 4:30 p.m.

Sloan, Liam ’22: Oral Session II—MBH 216 at 11:15 a.m.

Smart, Hannah ’19: Oral Session II—MBH 538 at 11:35 a.m.

Smith, Andrew ’19: Oral Session IV—MBH 219 at 4:10 p.m.

Soriano, Stephanie ’21: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 46

Stabler, Emily ’19: Oral Session IV—MBH 303 at 3:50 p.m.

Stauffer, Jill ’19: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 24

Staver, Sarah ’19: Oral Session III—MBH 104 at 2:30 p.m.

Stewart, Walker ’19: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 50
Stewart-Boldin, Madison ‘19: Oral Session II—MBH 403 at 11:35 a.m.

Struzyna, Jules ‘19.5: Oral Session III—MBH 216 at 2:30 p.m.

Torres, Alfredo ‘19: Oral Session I—MBH 411 at 9:15 a.m.

Tsuruta, Sonomi: Oral Session III—MBH 104 at 1:30 p.m.

Uhrynuk, Emily ‘19: Oral Session III—MBH 220 at 1:30 p.m.

Vedock, Grace ‘20: Oral Session IV—MBH 303 at 3:30 p.m.

Velie, Elaine ‘19.5: Oral Session II—MBH 411 at 11:15 a.m.

Vijayakumar, Varsha ‘20: Oral Session III—MBH 403 at 2:10 p.m.

Vinton, Elizabeth ‘19: Oral Session III—MBH 216 at 1:30 p.m.

Voncujoji, Pele ‘19: Oral Session I—MBH 411 at 9:15 a.m.

Wagner-Carlberg, Noah ‘19: Oral Session IV—MBH 438 at 3:30 p.m.

Wang, Sabrina ‘19: Oral Session I—MBH 216 at 9:55 a.m.

Weber Cravioto, Isabel ‘19.5: Evening—MBH Observatory at 8:30 p.m.

Weinstein, Brigett ‘20: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 38

White, Alexander ‘21.5: Oral Session I—MBH 220 at 9:15 a.m.

Williams, Nia ‘22: Evening—MBH Observatory at 8:30 p.m.

Willig, Anna ‘20: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 23

Winger, Kylie ‘19: Oral Session I—MBH 311 at 9:55 a.m.

Wishnie, Rebecca ‘20: Oral Session I—MBH 216 at 10:15 a.m.; Oral Session II—MBH 104 at 12:15 p.m.

Woodhull, Jesse ‘19.5: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 17

Wright, Kyle ‘19: Oral Session I—MBH 219 at 10:15 a.m.

Wright, Logan ‘19: Poster Session I—MBH Great Hall at 10:30 a.m., Poster 13

Wu, Fan ‘19: Oral Session I—MBH 438 at 9:15 a.m.

Wu, Julianne ‘20: Poster Session II—MBH Great Hall at 2:45 p.m., Poster 46

Xu, Vick ‘19: Oral Session I—MBH 216 at 9:15 a.m.; Oral Session IV—MBH 219 at 3:30 p.m.

Xu, Xingzi ‘19: Oral Session II—MBH 220 at 11:55 a.m.

Zeng, Shan ‘19: Oral Session I—MBH 411 at 9:15 a.m.; Oral Session II—MBH 104 at 11:15 a.m.

Zetterberg, Emma ‘19.5: Oral Session IV—MBH 220 at 4:30 p.m.

Zhou, Lulu ‘19: Oral Session III—MBH 219 at 2:30 p.m.
Academic Departments
The foundation of on-campus student research, individual academic departments provide the framework and advising that allow students to pursue research projects. Many departments also share information about undergraduate and postgraduate research opportunities.
go.middlebury.edu/depts

Center for Careers and Internships (CCI)
CCI provides resources and advising for internships, careers, health professions, and other graduate school programs. CCI supports summer research, independent projects, and career-related internships.
go.middlebury.edu/cci

Center for Community Engagement (CCE)
CCE supports students and faculty interested in connecting their Middlebury education to the wider goals of our global society. CCE provides advising, funding, and resources for community-connected research projects that meld theory with practice.
go.middlebury.edu/cce

Center for Teaching, Learning, and Research (CTLR)
CTLR supports Middlebury’s undergraduate educational community and offers faculty and student resources to foster growth as learners, teachers, and researchers. The center offers programs through the Digital Liberal Arts, Fellowships and Undergraduate Research, Learning Resources, Peer Tutoring, STEM and Quantitative Skills Support, and the Writing Center.
go.middlebury.edu/ctlr

Middlebury College Library
Library staff members help students conducting research explore topics, organize searches, locate references, build research databases, manage notes and citations, prepare documentation, utilize technology, and create successful presentations of their work.
go.middlebury.edu/lib

Rohatyn Center for International Affairs (RCFIA)
As Middlebury’s international research and resource center, the RCFIA offers grants to support student research abroad.
go.middlebury.edu/rcfia

Undergraduate Research (URO) and Fellowships
In addition to overseeing the Spring Student Symposium, URO promotes opportunities for undergraduate research on and off campus and supports faculty-mentored research at Middlebury. URO oversees funds supporting senior work, academic travel, and summer research. Fellowships staff provide advising for students seeking competitive national fellowship opportunities during their undergraduate years and after graduation. Both URO and fellowships are part of the Center for Teaching, Learning, and Research.
go.middlebury.edu/uro
ngo.middlebury.edu/fellowships