



Carleton

UNDERGRADUATE STUDENT RESEARCH AND INTERNSHIP SYMPOSIUM

WEITZ CENTER FOR CREATIVITY COMMONS

4:30 - 6:00 PM

OCTOBER 15, 2021

www.carleton.edu/research/symposium/2021-symposium/

*** DIRECTORY ***

1. Akyianu, Awurama

Title: *An enolase inhibitor for the targeted treatment of ENO1-deleted cancers*

2. Alexander, Ariel

Title: *Summer Public Policy Internship with Laura Baker Services Association*

3. Arch, Evan

Title: *Magnetic Configurations of Mesoscale Permalloy Dots*

4. Arora, Aryan

Title: *Community Organizing with the IAF*

5. Ashurst, Dan

Title: *Grateful Gatherings: Sharing Stories of Hope*

6. Bailon, Avi

Title: *Immigration Law at the James H. Binger Center for New Americans at the University of Minnesota*

7. Bassekle, Grace

Title: *Affordable Housing with Beacon Interfaith*

8. Bastimar, Ruken

Title: *Assessing Ways of Knowing and Preferences for Online vs. In-Person Learning*

9. Bastimar, Ruken

Title: *The Academic Experiences Survey (AES): Assessing Undergraduate Perception of the Liberal Arts Experience*

10. Bauer, Nate

Title: *Intern for State Representative Todd Lippert (D-20B)*

11. Block, Alison

Title: *Room-Temperature Fabrication of Dielectric Ceramics*

12. Bloom, Malachy

Title: *Dispersion Analysis of Gravitational Waves*

13. Bobadilla Riquelme, Vicente

Title: *Network Loss Prediction for Low Latency Video Streaming*

14. Boerma, Sally

Title: *Investigating the Function of Histone 3 Lysine 36 in X-Chromosome Dosage Compensation*

15. Boulis, Maddie

Title: *Quantifying the Microbiome of the Lost City Vent Field*

16. Brewster, Ben

Title: *Probing C–H Activation by Rhodium Silyl Pincer-Type Complexes*

17. Brooks, Athena

Title: *Disrupting leukemia-meningeal cell adhesion to overcome acute lymphoblastic leukemia chemoresistance in the central nervous system*

18. Bui, Kevin

Title: *Discussify*

19. Cai, Eway

Title: *Discovering Emerging Medical Technology*

20. Callahan, Corrina

Title: *Kirigami and Tunable Adhesives*

21. Cameron, Alison

Title: *Keep your frenemies close: Lysogenic bacteriophage benefitting their hosts evolve to be temperate populations*

22. Cannell, Isabel

Title: *Characterization of Secondary Metabolites in Marine Egg Mass Microbiomes*

23. Cauthorn, Sarah

Title: *Probing a Proposed Hydroxylation in the Biosynthesis of Bleomycin in *Streptomyces verticillus**

24. Chaffee, Isabella

Title: *Summer Internship with URACA Basiliade*

25. Chappell, Garrett

Title: *Evolution and Radiation of Bacterial Sulfur Cycling Genes*

26. Chen, Theresa

Title: *Using Machine Learning Techniques and ICESAT-2 Data to Analyze Sea Ice Features*

27. Cheng, Allen

Title: *Investigating Immune Cell Abundance in Pediatric Osteosarcoma*

28. Cheng, Eric

Title: *Classical Conditioning of Asian Carp*

29. Chu, David

Title: *Behavior Analysis in Starcraft II*

30. Cleveland, Jackson

Title: *Achieving Regioselective C-H Activation Through Silicon/Iridium Cooperation*

31. Cohen, Ashley

Title: *Designing a New Website for Anega Energies*

32. Coker, Acacia

Title: *TMEM127 Regulation of RET Accumulation and Activation*

33. Cooney, Mika

Title: *Diophantine m-Tuples*

34. Cordova, Ineke

Title: *Pay Attention*

35. Cota, Alé

Title: *Queer-Romancing: Sensuality, Futurity, and the War on Intimacy in Ocean Vuong's On Earth We're Briefly Gorgeous*

36. Crown Manesis, Isaac

Title: *Facets 2021 Summer Internship Festival Programing Assistant and Summer Camp Assistant*

37. Cunningham, Ella

Title: *Farm Intern in Windham, VT*

38. Danks, Maia

Title: *Interning at Kids Saving the Rainforest*

39. Davis, Hannah

Title: *Analyzing the Efficacy and Ethicality of Wisconsin's GPS Tracking Program*

40. Delgado, Andi

Title: *Reduce, Reuse, Respire: Two Environmental Factors' Effects on Mussel Respiration*

41. Delgado, Jennifer

Title: *The Mill Creek Dam Removal: Re-rooting STEM in Indigenous Knowledge*

42. Dilulio, Lydia

Title: *In the Community with Growing Up Healthy*

43. DiNardo, Zach

Title: *Computational Investigation of C-H Activation by Group 9 Transition Metal Silyl Complexes*

44. Donahue, Larry

Title: *Continuing Development of a Search Tool for LIGO Noise Data*

45. Donnelly, Marc

Title: *Understanding the Relationship between Gray Whale Behavior and Habitat Across Spatial Scales*

46. Drennan, Allison

Title: *Historic Preservation in Charleston, South Carolina*

47. Ellis, Angela

Title: *Life at an Anglican Monastery with Forty-Four Cashmere Goats*

48. Emlen, Tali

Title: *Food Access Summer Internship*

49. English, Keyra

Title: *White: a Stop Motion Short*

50. Eriksen, Dawson

Title: *Public Scholarship in Religious Studies: ReligionMN*

51. Eversoll, Soren

Title: *The Carleton Student Farm*

52. Fan, Pinchen

Title: *Comparison of Skymaps from Multiple Gravitational-Wave Event-Finding Methods*

53. Farr, Elizabeth

Title: *The Role of miR9 and its 5q14.3 Enhancer in Retinal Vasculature*

54. Farwell, Grace

Title: *What Features of a Talking Facilitate Speech Recognition?*

55. Feldberg-Bannatyne, Maya

Title: *Reconstruction of the Mid Atlantic Bight Oceanic Conditions Using Sclerochronology*

56. Felland, Max

Title: *Visualizing molecular chaperones in *C. elegans* using a system of split fluorescence*

57. Fick, Lydia

Title: *Automated Leveling Apparatus for Probe-Tack Tests*

58. Fisher, Keely

Title: *The Benefits of Outdoor Adventure Recreation: A Longitudinal Study of Impacts and Young Adults' Perspectives*

59. Forster, Brie

Title: *Sex Differences in Liver Ugt1a9 Gene Expression in Heterogenous Stock Rat Founding Inbred Strains*

60. Franco, Jocelyn

Title: *The Influence of Marianismo in the Experiences of Latinx Daughters as Represented Throughout I Am Not Your Perfect Mexican Daughter*

61. Franzen, Elias

Title: *Water Policy Internship with the Environmental Policy Innovation Center*

62. Freedman, Miriam

Title: *Summer Internship Work*

63. Gao, Eunice

Title: *Carleton Farm Internship*

64. Geist, Katherine

Title: *Molecular Insights in Cation Behavior in Zeolites*

65. GhaneaBassiri, Kamala

Title: *Exhibition Research for the Oregon Jewish Museum and Center for Holocaust Education*

66. Gillen, Fiona

Title: *Lakota Language Preservation on Pine Ridge Reservation*

67. Goenka, Maanya

Title: *systemd-analyze*

68. Goldberg, Elijah

Title: *My Summer Experience Working at Dodge Center Ambulance Services*

69. Grader, Louisa

Title: *Todd Lippert Campaign*

70. Graham, Esme

Title: *Exploring Curation at the Rochester Art Center*

71. Gudgel, Riley

Title: *Measuring the Effects of Community Development Initiatives in Dublin, Ireland*

72. Gunnarsson, Marianne

Title: *From Wanghong to Tuhao: The Culture of Livestreaming in Contemporary China*

73. Gwin, Anna

Title: *Collaboration in Conservation: Tracking Marmots & NGO Relationships*

74. Haddock, Clay

Title: *Social Justice Internship: Lakota Immersion Program*

75. Hadjiyanis, Eva

Title: *Community Organizing Internship: IAF Northwest*

76. Hall, Charlie

Title: *Characterizing Nanobubbles at the Copper-Graphene Interface*

77. Han, Wenlai

Title: *Metal-Silicon Cooperative Conversion of Alkyl Azide to Isocyanate Enabled by a Labile Si-OTf Interaction*

78. Harmon, Bailey

Title: *Differences in In Vivo and In Vitro cDC1 Maturation After Stimulation with Different TLR Agonists*

79. Hazen, Gavin

Title: *Creating Cheaper Mixed Metal Oxide Films for Renewable Hydrogen Production*

80. He, Sue

Title: *Direction, Locus of Control, and Target-Trigger Distance Have Little Impact on Phonological Learning of Sibilant Harmony*

81. Hein, Ella

Title: *Cooking Should Not Kill: Indoor Air Quality in Urban Ethiopian Households*

82. Hettle, Arlo

Title: *Community Organizing in Des Moines Iowa*

83. Heuchert, Klara

Title: *Animal Care Internship at the Wildlife Science Center*

84. Hodge, Shakeal

Title: *Evolutionary stability of host-endosymbiont mutualism is decreased by multi-infection*

85. Hofmann, Maya

Title: *What's Your FQI? Using Floristic Quality Indices to Foster Urban Conservation*

86. Hope Csikszentmihalyi, Kinga

Title: *Comprehensive Medication Management Internship, California Department of Public Health*

87. Horne, Lily

Title: *Podcast Production Intern*

88. Horwitz, Becca

Title: *Investigating the Overlap between the Mid-Atlantic Bight Cold Pool and Leased Off-Shore Wind Sites*

89. Hussain, Khalid

Title: *Data for Organizing Intern at TakeAction Minnesota*

90. Ifedi, Chiamaka

Title: *Expanding Speech Perception Research Beyond “Native English Speakers”*

91. Intasin, Pear

Title: *Viral Tissue Tropism of a Picornavirus in Two Different Zebrafish Lines*

92. Jaffar, Shaheer

Title: *Economic opportunity Intern*

93. Jehng, Moses

Title: *Environmental Law Centers and Policy*

94. Jin-Lee, Helen

Title: *The Effects of a New Anti-PD-L1 Antibody on CD8+ T Cell Tumor Infiltration and Functionality*

95. Johnson, Teagan

Title: *Dragon Architect 2.0*

96. Johnston, Julia

Title: *Grave Regrets: The Psychology of Farewell During the COVID-19 Pandemic*

97. Jones, Trevor

Title: *Leveraging The Cancer Dependency Map to Predict Novel Functional Interactions in the Ubiquitin System*

98. Julie, Shira

Title: *Linear Dependence Relationships of Canonical Algebraic Curvature Tensors as Described by Weighted Directed Graphs*

99. Kadam, Simran

Title: *Carleton Organic Farm Student Manager*

100. Kaushikkar, Nina

Title: *A Feminist Transitional Justice: Jineology in Syrian Conflict Resolution*

101. Keen, Ally

Title: *Correcting Telluric Absorption Lines with TelFit*

102. Kelly, Riaz

Title: *Animal Guessing Game at SayKid*

103. Kline, Miah

Title: *Hyperglycemia Induced Endoplasmic Reticulum Stress in Cardiomyocytes*

104. Knutsen, Elise

Title: *Simulation of Magnetic Configurations In Mesoscale Permalloy Dots*

105. Knutson, Logan

Title: *Summer Intern - Criminal Defense Paralegal*

106. Kortanek, Evie

Title: *Neural Mechanisms of Aging and Cognitive Decline: Tamarins as a Model of Human Aging and Alzheimer's Disease*

107. Kotler, Alec

Title: *The Effects of Asparagine Synthetase on Cellular Metabolism across Leukemia and Liver Cancer Cells*

108. Kropp, Amy

Title: *Examining the Feasibility of Adding a Facility Dog to the Rice County Attorney's Office*

109. Lazo, Bethany

Title: *Science Writing at Concussion Alliance*

110. Leone-Getten, Siena

Title: *MN350 Communications Internship - Andersen Foundation Fellowship*

111. Lo, Carly

Title: *Impact of Temperature on Vertical and Latitudinal Ranges of Four Barnacle Species Along the California Coast*

112. Lopez, Naomi

Title: *Children of Incarcerated Caregivers*

113. Luo, Jadie

Title: *Programming Intercultural Conversations at the Hong Kong International Literary Festival*

114. Maag, Sophia

Title: *Understanding Healthy Masculinity and Work Culture with Maine Boys to Men*

115. Majumdar, Manjari

Title: *Institution-Based Organizing in Portland, OR*

116. Malter, Astrid

Title: *Rooftop Films Summer Internship*

117. Maneenoi, Jeep

Title: *The Influence on the Expansion Rate of Soundless Cracking Demolition Agents (SCDAs) By Different Concentration of Chemical Accelerators and Viscosity Enhancing Agents (VEAs)*

118. Mangena, Thandie

Title: *Enhancement of type 1 interferon induction with drug and radiation treatments to increase anti-tumor immunity*

119. Martin, Aidan

Title: *Exploring the Neuropathology Of PTSD*

120. Maxwell, [Redacted]

Title: *Internship With Yes4Minneapolis*

121. McGehee, James

Title: *U/Pb Detrital Zircon Provenance of the Chugach-Prince William Terrane, Baranof Island, SE Alaska*

122. Meesena, Ton

Title: *Minimizing Age of Information in Uplink Networks with Processing Constraints*

123. Mer, Elie

Title: *Processing X-ray Free-Electron Laser (XFEL) Data for Protein X-ray Crystallography*

124. Michael, Sidra

Title: *The Black Arts Movement in 1960s and '70s Chicago*

124.5 Colleen Milligan

Title: *Why so late? Flowering phenology and pollination activity in four species of late-flowering asters (*Symphotrichum*)*

125. Misra, Arya

Title: *Convivencia Triumphant in La Catedral del Mar on TV/ Netflix*

126. Misra, Arya

Title: *Original Programming at HBO*

127. Mohamed, Suad

Title: *Glycolysis Increases Multivesicular Bodies in Hepatic Stellate Cells*

128. Moriyama, Ayaka

Title: *Electrowetting Pump on a Chip (E-PunCh) Project – Experimental Characterization of Efficient Tesla Valves*

129. Mukherji, Anwasha

Title: *Murphy Avenue Pet Clinic: Veterinary Internship*

130. Nachreiner, Libby

Title: *Nelson for WI Campaign Internship*

131. Navarro, Jordan

Title: *Effects of Preview Advertisements on Attitudes About Full-Length Advertisements*

132. Nguyen, Chi

Title: *Evaluating the Integrals of Grashteyn and Ryzhik*

133. Nowak, Katherine

Title: *Effects of Different TLR Agonists on in vivo cDC1 and in vivo cDC2 Activation*

134. Nystrom, Kenyon

Title: *Analysis of Viral Composition at the Lost City Hydrothermal Vent Field Using Modern 'Omics' Pipelines*

135. Oda, Katy

Title: *Exploring the Distribution of Nearby M Dwarfs in the Context of the Habitable Zone Planet Finder*

136. O'Grady, Frances

Title: *GrowingChange: Flip the Prison*

137. Oguh, Chisom

Title: *Decoding Tech Support: Expertise Identification From a Tech Support Dataset*

138. Ooi, Win Wen

Title: *Markets, Chickens, and Hungry Ghosts: Cultural Heritage in the Age of COVID-19 in Penang, Malaysia*

139. Orepo-Orjay, Sade

Title: *Hallelujah Nation Productions*

140. Paine, Mark

Title: *Purification and Quantification of HIV Genomic RNA*

141. Pandey, Kanishk

Title: *Galactic Isotopic Decomposition for the Sculptor Dwarf Spheroidal Galaxy*

142. Petropoulos, Astrid

Title: *Effects of Age are Not Uniform Across Cognitive Processes: A Repeated-measures ERP Study*

143. Polley, Michaela

Title: *Recycling Photopolymerizable 3D Printing Resin*

144. Qi, Leo

Title: *Broadening the Scope of a Spectrophotometric Aminoacylation Assay*

145. Qin, Shaw

Title: *Online Collaborative Library Research in Educational Psychology and Organizational Psychology*

146. Rabago, Alek

Title: *Cooking Should Not Kill: Indoor Air Quality in Rural Households in Ethiopia*

147. Rahman, Samihat

Title: *CsPbBr₃ Perovskite Nanocrystals: The Effect of Changing Surface Ligands on Photoluminescence*

148. Ramirez, Trent

Title: *Financial Analyst Summer Internship at Yavruco Capital*

149. Randa, Lora

Title: *Stabilizing an Unstable and Pathogenic Mutant Protein*

150. Reyes Rojas, Carlos

Title: *The Immigrant Law Center of Minnesota*

151. Rhyneer, Silas

Title: *Machine Vision Engineering at Clean Energy Associates*

152. Rodriguez, Diana

Title: *Cooking Should not Kill: Restaurant Indoor Air Quality in Addis Ababa, Ethiopia*

153. Rogers, Maya

Title: *Mapping Misperceptions: Ideological Threat Shapes Visual Representations of Public Health Organizations*

154. Rohde, Magdalena

Title: *Investigation into Potential Supernova Remnant Candidate "Bubbles" in Galaxy M33*

155. Safdar, Hashir

Title: *Software Engineer Internship*

156. Satish, Adi

Title: *The Community Action Center of Faribault*

157. Schulenberg, Emily

Title: *Ocean Memory*

158. Shafer, Scott

Title: *Translating the Life of Jean Bolland: A Study in the Hagiography of Scholarship in the 17th-Century*

159. Shah, Ananya

Title: *Clinical Characteristics and Outcomes of Patients with Myocardial Infarction with No Obstructive Coronary Arteries (MINOCA) Presenting with ST-Segment Elevation*

160. Shahid, Mehdi

Title: *Assessing the Speed and Accuracy of Real-time Motion Tracking Algorithms for Abdominal Organ Motion Management in a 1.5T MR-Linac System*

161. Shapiro, Lucy

Title: *Food Systems and Reclamation Research Internship*

162. Shen, Ming

Title: *Determining a Pathological Model for Delayed Gut Transit in Parkinson's Disease Using Drosophila*

163. Shen, Yicheng

Title: *Exploring the Finite-sample Behavior of Residual Diagnostics for Linear Mixed-effects Models*

164. Simons, Isaac

Title: *Travelers Insurance: A Case Study to Explain Reinsurance*

165. Smith, Cassie

Title: *Effects of heterogeneity on inferred stress directions using borehole breakout orientations: A physical modeling approach*

166. Smith, Collin

Title: *The Importance of Being Discrete: Dynamics of Flow-Kick Disturbance Models*

167. Smith, Madi

Title: *Interacting With Nature: Research With The Watson Lab*

168. Snidman, Leah

Title: *Examining Differences in the Binding Sites of Succinyl Transferases DapD and TabB*

169. Soehlin, Natalie

Title: *Contextualizing CRISM Clay Mineral Detections in Glen Torridon, Gale Crater, Mars, Using MARDI on the Curiosity Rover*

170. Sottrel, Henry

Title: *Probe Fabrication for Probe Tack Tests*

171. Steiner-Manning, Astrid

Title: *Internship With the Boston Outdoor Preschool Network*

172. Strathman, Annabella

Title: *CDC25A Mediates Acquired Resistance to CHK1 Inhibitors in Ovarian Cancer*

173. Surdutovich, Osip

Title: *In Search of the Galactic Center Excess: New Templates for the Inner Galaxy*

174. Tas, Bahar

Title: *Media Genome Analysis*

175. Thompson, Drew

Title: *An Investigation into Morphologically Unique HII Regions*

176. Thurman, Aubrey

Title: *Northfield Area Family YMCA Marketing and Communications Internship*

177. Tian, Zichen

Title: *Proximity labeling proteomics of dystrophic neurite in mTOR knock-out AD mice model*

178. Tinajero, Ahtziry

Title: *My Work Experience with the Carleton-Faribault PAR Collaboration*

179. Tine, Amadou

Title: *Commercial Export Internship at GESTOCI*

180. Turner, Ben

Title: *Investigating the Drift of the Habitable Zone Planet Finder Astro-Etalon Calibration System*

181. Uchitel, Jack

Title: *Ditransitives in Insular Scandinavian and Korean*

182. Uyeda, Hana

Title: *Resisting Line 3*

183. Vadnais, Saraswati

Title: *LearningWorks Summer Teaching Fellowship*

184. Vera Leyva, Samantha

Title: *The Politics of Deservingness for Queer Asylum Seekers at the US-Mexico Border*

185. Villanueva, Jed

Title: *Investigating the Effect of Noise on Listening Effort and Passage Recall*

186. Viswanathan, Aswath

Title: *Industry Analyst at Arnell Capital*

187. Walker, Bryson

Title: *Investment Analyst Research Presentation*

188. Walsh, Mickey

Title: *The Advocates for Human Rights: Communications Internship*

189. Walters, Alexis

Title: *Detrital Zircon U-Pb Dating of the Charleston Metamorphic Group, South Island, New Zealand*

190. Wang, Hongshen

Title: *Quantification of DNA Repair Related Foci Rad51 by Utilizing Fluorescence Intensity*

191. Way, Lauren

Title: *Can transition state analogs be used to predict properties of a chemical reaction?*

192. Wege, Sam

Title: *Small Cycladic Islands Project 2021*

193. Welch, Piper

Title: *Endosymbiosis or Bust:*

Influence of Ectosymbiosis on the Evolution of Obligate Endosymbiosis

194. White-Davis, Julian

Title: *Balkan Echoes: Archival Assistant*

195. Williams, Jan

Title: *Data-Driven Sensor Placement for Fluid Flow Reconstructions Using a Shallow Decoder*

196. Wilson, David

Title: *Exploring Helminth Aminoacyl-tRNA Synthetases*

197. Winston, Lea

Title: *Summer in Museum Education*

198. Woollen, Beck

Title: *Climate Justice Internship at MN350*

199. Wright, Ada

Title: *Screen Time and Student Behavior: An Examination of Emotional Health and Physical Activity*

200. Wu, Josh

Title: *Internship at Versiti Blood Research Institute*

201. Xiang, Xinyan

Title: *Weak S-Process Nucleosynthesis in Massive Stars*

202. Xiang, Xinyan

Title: *Gravitational Wave Veto Algorithm Comparison*

203. Xiong, Xavier

Title: *Lipid Energetics of Bullnose Rays: Comparison of TAG and FFA Concentration in Different Tissue Types*
Lipid Energetics of Bullnose Rays: Comparison of TAG and FFA Concentration in Different Tissue Types

204. Yaming, Jaren

Title: *Field trials and greenhouse experiments quantifying the carbon sequestration of enhanced weathering with basaltic soil amendments*

205. Yanai, Jill

Title: *Methodologies, Barriers, and the Politics of Space: A Fieldworker's Approach to Recruitment and Retention of Participants for Clinical Trials at a Rural South African Clinic*

206. Yang, Michael

Title: *Dispersion Analysis of Gravitational Waves*

207. Yum, Karina

Title: *"Deconstructing" the House Upon the Rock: An Analysis of Ex-Evangelical Media*

208. Zappa, Mathew

Title: *Rare Plant Surveys in the Carleton Arboretum*

209. Zhang, Mary

Title: *Developing a Cell-based Sensor for Ang1-7 and AngII*