Schedule of Events

Occidental College, Summer Undergraduate Research Conference, July 30, 2014

8:00 a.m.       Poster set-up
                 Academic Commons

8:30 a.m.       Registration, name badge pick-up
                 Arthur G. Coons Hall Stairs

9:00 a.m. - 10:00 a.m.
               Oral Presentations, Session One
               Fowler Hall,
               Rooms 111, 112, 202, 207, 209

10:15 a.m. - 11:15 a.m.
               Oral Presentations, Session Two
               Fowler Hall
               Rooms 112, 202, 207, 209

11:30 a.m. - 12:15 p.m.
               Poster Presentation, Session One
               Academic Commons

12:30 p.m.       Lunch
                 Gresham Dining Hall

1:30 p.m. - 2:15 p.m.
               Poster Presentations, Session Two
               Academic Commons

2:30 p.m. - 3:30 p.m.
               Oral Presentations, Session Three
               Fowler Hall
               Rooms 112, 202, 207, 209
ORAL PRESENTATIONS: Session 1
9:00 am – 10:00 am

Session 1A, Fowler Hall, Room 111
Chair: Nancy Dess

9:00  The Politics of Gender in the German Democratic Republic
Rachel Wilson, Mentor: Marla Stone, History

9:15  Back to the Future: Restoring Habana Vieja for the 21st Century
Samuel Wylie, Mentor: Eric Frank, Art History & Visual Arts

9:30  The Paradox of German Self-Hatred
Andrew Zarins, Mentor: Roger Boesche, Politics

Session 1B, Fowler Hall, Room 112
Chair: Kristi Upson-Saia

9:00  The Role of Meditation and Narrative in Contemporary Buddhist Social Justice
Shira Barlas, Mentor: Dale Wright, Religious Studies

9:15  Ancient Sexuality: The Phallus and Priapus in Roman Antiquity
Olivia Davis, Mentor: Kristi Upson-Saia, Religious Studies

9:30  Sustainability and Ethical Development: Looking at the Clean Development Mechanism through the Capabilities Approach
Cristina Checa, Mentor: Clair Morrissey, Philosophy

9:45  Religion Renewed: The Charismatic Movement of the 1960’s
Lichun (Lisa) Chang, Mentor: D. Keith Naylor, Religious Studies
Session 1C, Fowler Hall, Room 202  
Chair: Shana Goffredi

9:00  Mechanisms of Revival and Renewal: In Vitro Investigations of Fusogenic Events with Neurogenic Stem Cells and Neuronal Cells  
Frances Kim, Mentor: Kerry Thompson, Biology

9:15 Utilizing Neural Stem Cells as a Novel Targeted Therapy for Treating Ovarian Cancer  
Steve Luu, Mentor: Dr. Karen Aboody, MD, City of Hope

9:30 Identifying the Molecular Target of the Neuroexcitatory Peptide, c4h  
Eric Kazangian, Mentor: Joseph Schulz, Biology

9:45 Bringing the Taxonomy of the Moore Lab bird collection into the 21st Century  
Emily Ridley, Mentor: John McCormack, Biology

Session 1D, Fowler Hall, Room 207  
Chair: Damian Stocking

9:00 Quantum Puzzles, Many Worlds, and Agential Realism  
Tyler Ollanik, Mentor: Carolyn Brighouse, Philosophy

9:15 And Darkness Was Nothing: Explorations of Presence and Absence in Poetry and Short Fiction  
Marin Sieck, Mentor: Martha Ronk (English Literature) and Danzy Senna

9:30 Re-organ-izing the World  
Merrie Emmons, Mentor: Damian Stocking, Classical Studies

9:45 Survival (Dawkins through Derrida)  
Daniel Schecter, Mentor: Damian Stocking, Classical Studies
Session 1E, Fowler Hall, Room 209
Chair: Ron Buckmire

9:00  
**Cessation and Reorientation of Large-Scale Circulation in Rayleigh-Bénard Convection**  
Mike Ma, Mentor: Janet Scheel, Physics

9:15  
**Using Mathematics to Investigate Occidental’s Solar Array**  
James Slaney, Mentor: Ron Buckmire, Mathematics

9:30  
**Economical Extremal Hypergraphs for the Erdos-Selfridge Theorem**  
Emily Heath, Mentor: Eric Sundberg, Mathematics

9:45  
**Ionization Measurements of Low Energy Recoils in the DRIFT Dark Matter Detector**  
Alexander Lumnah, Mentor: Dan Snowden-Ifft, Physics

**ORAL PRESENTATIONS: Session 2**  
10:15 am – 11:15 am

Session 2A, Fowler Hall, Room 111
Chair: Bhavna Shamasunder

10:15  
**The New Wyvernwood**  
Paige Dow, Mentor: Peter Dreier, Urban and Environmental Policy

10:30  
**Translating DuBois and Trayvon Martin to the Palestinian Diaspora**  
Janan Burni, Mentor: James Ford, English and Comparative Literary Studies

10:45  
**Connections Between Improved Water Access and Maternal/Neonatal Health: Rural Cambodia**  
Beatrice Spirakis, Mentor: Bhavna Shamasunder, Urban and Environmental Policy

11:00  
**Right to Food**  
Chloe Azria, Mentor: Anthony Chase, Diplomacy and World Affairs
Session 2B, Fowler Hall, Room 112
Chair: Bevin Ashenmiller

10:15  The Prospect of Adding Green Space to Schools in LAUSD
      Daniel Tobin, Mentor: Bevin Ashenmiller, Economics

10:30  The Prospect of Adding Green Space to Schools in LAUSD
      Elwyn Pratt, Mentor: Bevin Ashenmiller, Economics

10:45  Santería: Religious Hybridity on the Moral Limitations of the Cuban Revolution
      Carlina Perna, Mentor: D. Keith Naylor, Religious Studies

11:00  Transgender Embodiment: Possibility in the Vulnerable, Possibility in the Liminal
      Rachel Buckner, Mentor: Heather Lukes, Critical Theory and Social Justice

Session 2C, Fowler Hall, Room 202
Chair: Alexandra Puerto

      Sarah Safuto, Mentor: Alexander Day, History

10:30  Tuberculosis in Early Twentieth Century Los Angeles
      Laurel Howard, Mentor: Sharla Fett, History

10:45  Chilean Arpilleras: Tapestries as a Gendered Form of Political Empowerment
      Christina Crittenden, Mentor: Alexandra Puerto, History
10:15  
20th Century Interpretation of the Ancient Maya through a Classical Greek Lens  
Marika Tripodes, Mentor: Lisa Sousa, History

10:30  
Death Becomes Life: Race, Queerness, and the Cultural Politics in the work of Cyclona  
Bobby Rodriguez Donoso, Mentor: Amy Lyford, Art History and the Visual Arts

10:45  
Love, Violence, and Counter-Hegemonic Discourse: Comparing Nicaraguan Women's Poetry from the Revolution and Today  
Brittany Wightman, Mentor: Adelaida Lopez, Spanish

---

10:15  
Teaching Children about Evolution through Analogical Encoding  
Cara Neal and Gabrielle Lindquist, Mentor: Andrew Shtulman, Psychology

10:35  
The Role of Language and Perceptual Features on Scientific Intuitions  
Columbia Shafer and Liza Comart, Mentor: Andrew Shtulman, Psychology
ORAL PRESENTATIONS: Session 3
2:30 pm – 3:30 pm

Session 3A, Fowler Hall, Room 111
Chair: David Kasunic

2:30  John Cage and Improvisation post-1970
     Alyssa Cottle, Mentor: David Kasunic, Music

2:45  The Exhibition and Presentation of Ancient Latin American Art at the Los Angeles
     County Museum of Art
     Georgia Tripodes, Mentor: Lisa Sousa, History

3:00  Analyzing the English Language Debate on Proposals of Currency Reform for China
     From 1900-1940
     Alexander Najarian, Mentor: Alexander Day, History

3:15  Deconstructing and Reimagining the Image of the Black Female Body: A Study of Self-
     Representation of Black Women in Social Media as a Form of Resistance and
     Empowerment
     Gabriella Ncube, Mentor: Allison de Fren, Art History and the Visual Arts
2:30  *Public Transportation in Los Angeles: Looking at Metro’s Proposed Fare Restructure, Choosing the Best Choice for Affordability and Accessibility*  
**Samantha Delgadillo**, Mentor: Mark Vallianatos, Urban and Environmental Policy

2:45  *Odor Learning: effects of emotion on odor memory*  
**Jenny Quilty**, Mentor: Carmel Levitan, Cognitive Science

3:00  *Uncovering the Experiences of Formerly Incarcerated Individuals in the United States*  
**Megan Olayinka**, Mentor: Richard Mora, Sociology

3:15  *The Smell of Jazz: Cross-modal correspondences between music, odor, and emotion*  
**Sara Charney**, Mentor: Carmel Levitan, Cognitive Science

---

Session 3C, Fowler Hall, Room 202  
Chair: Movindri Reddy

2:30  *Highland Park Ebell Club*  
**Elizabeth Noon**, Mentor: Jeremiah Axelrod, History

2:45  *Art and Community: A Case Study of the Santa Monica Museum of Art*  
**Mariel Rowland**, Mentor: Martha Matsuoka, Urban and Environmental Policy

3:00  *Race and the Transnational Anti-Slavery Movement*  
**Eden Belachew**, Mentor: Movindri Reddy, Diplomacy and World Affairs

3:15  *The Musical Identity: How Public Health Organizations Utilize Music to Educate Black Young Adults about HIV in Durban, South Africa*  
**Arielle N'Diaye**, Mentor: Movindri Reddy, Diplomacy and World Affairs
Session 3D, Fowler Hall, Room 207
Chair: Cheryl Okumura

2:30  Deconstructing with Creative Experimentations: Genetically Engineering a non-Anthropocentric Narrative for the Posthuman Reader
Tom Mirovski, Mentor: Cheryl Okumura, Biology

2:45  Streptococcus pyogenes persists in the lysosomal environment
Joshua Snipper, Mentor: Cheryl Okumura, Biology

3:00  Comparison of Enzymatic Activity and Immune Recognition of Mutant and Wildtype Phospholipase D: Approaches to Developing a C. Pseudotuberculosis Vaccine
Christopher Hino, Mentor: Roberta Pollock, Biology

3:15  Blue Copper Binding Proteins
Carlos Alvarez Razo, Mentor: Aram Nersissian, Chemistry

Session 3E, Fowler Hall, Room 209
Chair: Andrew Udit

2:30  Octadecyl-Functionalized Chitosan-Coated Magnetite Nanoparticles for Water Remediation
Anton Molina, Mentor: Eileen Spain, Chemistry

2:45  Fluorescence in situ hybridization (FiSH) of spatially-resolved Bdellovibrio bacteriovorus-Escherichia coli biofilms
Hyeong-Jin Edward Kim, Mentor: Eileen Spain, Chemistry

3:00  Fabrication & Analysis of Gold Nanostructure Doped Sensitized Solar Cells
Benjamin Clark, Mentor: Eileen Spain, Chemistry
# POSTER PRESENTATIONS

**Session One, Odd-numbered Posters, 11:30 am - 12:15 pm**

**Session Two, Even-Numbered Posters, 1:30 pm - 2:15 pm**

Posters will be on display on the main floor of the Academic Commons

<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Presenter(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mechanism and Kinetics of Substrate Binding to DNA-labeled Surfaces</td>
<td>Lisa Pangilinan</td>
</tr>
<tr>
<td>2</td>
<td>Enantioselective synthesis of DAB-1</td>
<td>Collrane Frivold, Seyedeh Amythis Soltani Arabshahi and Anasheh Sookezian</td>
</tr>
<tr>
<td>3</td>
<td>Does Lumosity Training Improve Working Memory?</td>
<td>Annemarie Schnedler</td>
</tr>
<tr>
<td>4</td>
<td>Synthesis of Iofagomine and Other Iminosugars</td>
<td>Alex Rand</td>
</tr>
<tr>
<td>5</td>
<td>How does the skin of the Giant Keyhole Limpet prevent infection?</td>
<td>Abigail Bailey and Marcos Demetrio</td>
</tr>
<tr>
<td>6</td>
<td>Analysis of DRIFT-IIe Dark matter Detector Data</td>
<td>Chongmo Tang</td>
</tr>
<tr>
<td>7</td>
<td>Palladium Catalyzed Friedel-Crafts Type Allylic Arylation</td>
<td>Alexander Graves</td>
</tr>
<tr>
<td>8</td>
<td>Solar Panel Robot</td>
<td>Yingshuang Sophia Zheng</td>
</tr>
<tr>
<td>9</td>
<td>Photoelectrochemistry of Ru(bpy)2bdppz2+</td>
<td>Anthony Quach and Omar Quddusi</td>
</tr>
<tr>
<td>10</td>
<td>The Borrowing Habits of Prussian Estates 1770-1850</td>
<td>Emily Fallick</td>
</tr>
<tr>
<td>11</td>
<td>Development of bacterial community within Neotropical Hispine beetles</td>
<td>Dana Michels</td>
</tr>
<tr>
<td>12</td>
<td>Social Activity versus Physical Activity: The Effects of Social Housing on Voluntary Wheel Running</td>
<td>Jacqueline Rojas</td>
</tr>
<tr>
<td>13</td>
<td>Identification of Blue Copper Proteins in <em>Physcomitrella patens</em> and <em>Selaginella moellendorffii</em></td>
<td>Darryenn G. Castellanos</td>
</tr>
<tr>
<td>14</td>
<td>Simulation of the Electron Dump Process in a Malmberg-Penning Trap</td>
<td>Jeffrey Johnson</td>
</tr>
<tr>
<td>15</td>
<td>Impact analysis of the TOPS Foundations science education outreach program</td>
<td>Donovan Dennis</td>
</tr>
<tr>
<td>16</td>
<td>Characterization of Gold Nanoparticles Using Atomic Force Microscopy</td>
<td>Jenny Wang</td>
</tr>
<tr>
<td></td>
<td>Title</td>
<td>Authors</td>
</tr>
<tr>
<td>---</td>
<td>----------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>17</td>
<td>Vaccine Development and Testing for <em>Corynebacterium Pseudotuberculosis</em> Infection and Pigeon Fever using a Murine Model</td>
<td>Gregory Chisholm</td>
</tr>
<tr>
<td>18</td>
<td>Effects of sedative-hypnotics on the developing brain</td>
<td>Katherine Yanagi</td>
</tr>
<tr>
<td>19</td>
<td>Perfluorododecanoic Acid Partitioning at the Air - Water Interface</td>
<td>James Hartanto</td>
</tr>
<tr>
<td>20</td>
<td>Characterization of potential tba-1 suppressor mutant</td>
<td>Kevin Kang</td>
</tr>
<tr>
<td>21</td>
<td>Effects of Anxiety on Flavor Preference in Rats</td>
<td>Jenny Craig</td>
</tr>
<tr>
<td>22</td>
<td>Examining the Spatial Distribution of a Poison Frog Species on Isla Colón, Panama</td>
<td>Louis Jochems</td>
</tr>
<tr>
<td>23</td>
<td>Onset of Rayleigh-Bénard Convection in Cylindrical Cells</td>
<td>Joshua Yu</td>
</tr>
<tr>
<td>24</td>
<td>Nutrient uptake and its effect on tank chemistry in tank bromeliads</td>
<td>Marvin Browne</td>
</tr>
<tr>
<td>25</td>
<td>Electrochemistry of Cytochrome P450 in surfactant films: “tunable” catalysts?</td>
<td>Kevin Hong</td>
</tr>
<tr>
<td>26</td>
<td>Analysis of Group A <em>Streptococcus</em> (GAS) suppress immune cell oxidate burst response</td>
<td>Maya McLain</td>
</tr>
<tr>
<td>27</td>
<td>Investigating Electromechanical Reshaping and Chemical Properties of Cartilage</td>
<td>Maya Herzig</td>
</tr>
<tr>
<td>28</td>
<td>Identifying High Titer Antibodies against the Novel Cone Snail Venom Peptides c4g and t1e</td>
<td>Megan Bull</td>
</tr>
<tr>
<td>29</td>
<td>Constructing a klp-7::GFP transgene to visualize KLP-7 activity in <em>C elegans</em> motor neurons.</td>
<td>Mealani Kaiser</td>
</tr>
<tr>
<td>30</td>
<td>Equine Immune Response to <em>Corynebacterium pseudotuberculosis</em></td>
<td>Pari Vanjara</td>
</tr>
<tr>
<td>31</td>
<td>Biocharacterization of Heparin Antagonist Virus-like Nanoparticles by Bio-Layer Interferometry</td>
<td>Myles Groner</td>
</tr>
<tr>
<td>32</td>
<td>Synthesis of an Artificial Electron-Relay for Cytochrome P450</td>
<td>Rebeca Fernandez</td>
</tr>
<tr>
<td>33</td>
<td>Characterization of Novel Conotoxins by Mass Spectrometry and In Source Decay</td>
<td>Roland Kars</td>
</tr>
<tr>
<td></td>
<td>Name</td>
<td>Title</td>
</tr>
<tr>
<td>---</td>
<td>-----------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>34</td>
<td>Sally Madiba</td>
<td>Expression, Isolation and Purification of Factor VIII Protein for use in Hemophilia A Treatment</td>
</tr>
<tr>
<td>35</td>
<td>Sabrina Moffly</td>
<td>Age Distribution and Growth Rates of Garibaldi from Santa Catalina Island</td>
</tr>
<tr>
<td>36</td>
<td>Travis Wilson</td>
<td>Exploration of the Impacts of Epileptic Seizures on Transplanted Neural Stem Cells</td>
</tr>
<tr>
<td>37</td>
<td>Samantha Carrasco</td>
<td>Cultivating Environmental Citizenship in Environmental Ethics</td>
</tr>
<tr>
<td>38</td>
<td>Taryn Ng</td>
<td>Directed polyvalent display of sulfate ligands on virus nanoparticles elicits heparin-like anticoagulant activity</td>
</tr>
<tr>
<td>39</td>
<td>Tianming Zhu</td>
<td>The Interfacial Interactions of the Redox Potential of cytochrome c 552</td>
</tr>
<tr>
<td>40</td>
<td>Viann Ho Yan Sin</td>
<td>Eco-cities in China</td>
</tr>
<tr>
<td>41</td>
<td>Zoe Goozner</td>
<td>The Abundance, Sizes, and Distribution of Endangered Acropora Corals in Isla Colón of Bocas del Toro, Panama</td>
</tr>
<tr>
<td>42</td>
<td>Christopher Discolo</td>
<td>Palladium Catalyzed Friedel-Crafts Type Allylic Arylation</td>
</tr>
<tr>
<td>43</td>
<td>Arvin Sookezian</td>
<td>A Spectroelectrochemical Analysis Of Phosphino Based Cobalt Complexes</td>
</tr>
</tbody>
</table>