Symposium Schedule at a Glance

8:30-8:45am  Welcome and Opening Remarks  
Highlander Union Building (HUB) 302 South

8:50-10:05am  Session I (Oral Presentations)  
HUB 302 South

10:05-10:20am  Break

10:20-12:00pm  Session II (Oral Presentations)  
HUB 355

12:00-1:00pm  Lunch  
HUB 302 South

1:00-2:45pm  Session III (Poster Presentations)  
HUB 302 North

2:45-3:00pm  Break

3:00-4:45pm  Session IV (Posters)  
HUB 302 North

4:45-5:30pm  Break

5:30-7:30pm  Closing Banquet and Acknowledgement Ceremony  
HUB 302 South
Summer Research Program Symposium

Scholars

In
MSRIP, UC LEADS, MSP, UNAM, UABC, TEC, USDA Bridges

Alphabetical Listing

Almeria, Hollie
Whittier College

Arthur, Isaac
University of California, Riverside

Awan, Rashid
University of California, Riverside

Bavadian, Niusha
University of California, Riverside

Blas, Ilia
University of California, Riverside

Bonilla, Javier
Universidad Nacional Autónoma de Baja California

Burton, Alex II
Riverside City College

Bustamante Lopez, Eric
Universidad Nacional Autónoma de Baja California

Cardenas, Magali
University of California, Riverside

Clark, Jennifer
University of California, Riverside

x
<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contreras, Leopoldo</td>
<td>Tecnológico de Monterrey</td>
<td>III-9</td>
</tr>
<tr>
<td>Cortez, Mayra</td>
<td>University of California, Riverside</td>
<td>IV-1</td>
</tr>
<tr>
<td>Davis, Lindsey Renee</td>
<td>California Polytechnic University, Pomona</td>
<td>I-2</td>
</tr>
<tr>
<td>Deo, Michael</td>
<td>University of California, Riverside</td>
<td>III-1</td>
</tr>
<tr>
<td>Diaz, Diana</td>
<td>University of California, Riverside</td>
<td>III-17</td>
</tr>
<tr>
<td>Etuale, Myra</td>
<td>University of California, Riverside</td>
<td>IV-9</td>
</tr>
<tr>
<td>Garcia, Michael</td>
<td>University of California, Riverside</td>
<td>III-14</td>
</tr>
<tr>
<td>González Orozco, Rubén</td>
<td>Universidad Nacional Autónoma de Baja California</td>
<td>III-15</td>
</tr>
<tr>
<td>González Parra, Elisa</td>
<td>Universidad Nacional Autónoma de Baja California</td>
<td>IV-15</td>
</tr>
<tr>
<td>Hernandez, Gerardo</td>
<td>Universidad Nacional Autónoma de México</td>
<td>III-16</td>
</tr>
<tr>
<td>Irianto, Igor</td>
<td>University of California, Riverside</td>
<td>III/IV-3</td>
</tr>
<tr>
<td>Jamal Orozco, Nabila</td>
<td>University of California, Riverside</td>
<td>II-3</td>
</tr>
<tr>
<td>Jimenez, Jennifer</td>
<td>University of California, Riverside</td>
<td>I-5</td>
</tr>
<tr>
<td>Karam, Joshua</td>
<td>University of California, Riverside</td>
<td>IV-2</td>
</tr>
<tr>
<td>Kaushal, Raman</td>
<td>University of California, Riverside</td>
<td>IV-13</td>
</tr>
</tbody>
</table>
Lopez, Evelyn  IV-6
University of California, Riverside

Lopez, Marisa Nicole  IV-18
University of California, Irvine

Luna, Ramón  III-5
Universidad Nacional Autónoma de Baja California

Maldonado, John  I-4
University of California, Riverside

Mercado, Marco  IV-24
Universidad Nacional Autónoma de Baja California

Oranusi, Chinedum  IV-5
University of California, Riverside

Paredes, Ricardo  III-19
Tecnológico de Monterrey

Paredes Ruvalcaba, Nerli  II-2
University of California, Riverside

Phan, Robert  IV-11
University of California, Riverside

Pinedo Castaneda, Hali  I-1
University of California, Los Angeles

Pompa, Daniella  III-2
Universidad Nacional Autónoma de Baja California

Pronovost, Geoffrey  IV-14
University of California, Riverside

Rage, Gibran  IV-22
Universidad Nacional Autónoma de México

Ramírez-Mendoza, Marcela  III-12
Universidad Nacional Autónoma de México

Razo, Aladino  IV-16
University of California, Riverside
Riehn, Robin
University of California, Riverside

Rivera Servín De la Mora, Fernando
Universidad Nacional Autónoma de Baja California

Rodriguez, Carlos Andres
Universidad Nacional Autónoma de México

Sánchez, Luis Enrique
Tecnológico de Monterrey

Suchilt, Luisana
University of California, Los Angeles

Sycks, Melody Marie
California Polytechnic University, Pomona

Taylor, Cody
Riverside City College

Tianliang, Liang
Universidad Nacional Autónoma de Baja California

Tran, Brandon
University of California, Riverside

Tran, Jimmy
University of California, Riverside

Vargas, Raul
Universidad Nacional Autónoma de Baja California

Veronica, Maria
University of California, Riverside

Watkinson, Felipe Santiago
Universidad Nacional Autónoma de Baja California

White, Daniel
Riverside City College

Zárate, Vareska
Universidad Nacional Autónoma de Baja California

Zimmerman, Zachary
University of California, Riverside
Summer Research Program Symposium
Title and Author Schedule

8:30-8:45am Welcome and Opening Remarks- Highlander Union Building (HUB) 302 South.

8:50-10:05am Session I Oral Presentations
   Panel A – HUB 302 South
   I-1 Intrinsic Approach to Health Care Access in Latino Communities, Hali Pinedo, Juliann Allison and Ellen Reese, School of Public Policy, Department of Political Science, Department of Sociology, University of California, Riverside.
   I-2 Rights Discourses in the New Atheist Movement, Lindsey Davis and Katja Guenther, Department of Sociology, University of California, Riverside.
   I-3 Incidence of Diabetes Among Disaggregated Hispanic Groups, Magali Cardenas and Augustine Kposowa, Department of Sociology, University of California, Riverside.
   I-4 Disavowed Authorship: Neoliberal Statecraft and Border Spectacle, John Maldonado and Dylan Rodriguez, Department of Ethnic Studies, University of California, Riverside.
   I-5 Interrupting Supervision: Mothers' Responses to Distractions in Child Care, Jennifer Jimenez, Sharon Rushing, and Juliet McMullin, Anthropology Department, University of California, Riverside.

10:05-10:20am Break

10:20am-12:00pm Session II Oral Presentations
   Panel B – HUB 355
   II-1 The Effects of Latina Mothers’ Immigrant Status on Their U.S. Born Children, Hollie Almeria and Tuppett Yates, Department of Psychology University of California, Riverside.

xv
II-2 Breastfeeding Characteristics and Long-Term Effects on Child Intelligence and Achievement, Nerli Paredes Ruvalcaba, Tamar Y. Khafi, and Tuppett M. Yates, Department of Psychology, University of California, Riverside.

II-3 The Effects of Emotion Regulation Strategies on Global Information Processing Nabila Jamal Orozco, Elizabeth Davis, and Parisa Parsafar, Department of Psychology, University of California, Riverside.

II-4 Children's Use of Emotion Regulation Strategies: Do Ethnicity, Income, and Parental Responses to Children's Negative Emotions Matter? Luisana Suchilt, Laura Quiñones-Camacho and Elizabeth Davis, Department of Psychology, University of California, Riverside.

II-5 Pronoun Usage by Doctors and Patients in Surgical Consultations, Brandon Tran, Angelica Falkenstein, and Kate Sweeny, Department of Psychology, University of California, Riverside.

II-6 People’s Perception of the Taste of Water from Different Sources, Isaac Arthur, Daniel Harmon and Mary Gauvain, Department of Psychology, University of California, Riverside.

12:00- 1:00pm   Lunch- HUB 302 South

1:00-2:45pm   Session III, HUB 302 North

Posters - Biomedical, Biological, Life and Physical Sciences & Bourns College of Engineering

III-1 The Cytocompatibility of Magnesium Alloys on Human Urothelial Cells, Michael Deo, Qiaomu Tian and Huinan Liu, Department of Bioengineering, University of California, Riverside.

III-2 Efficacy of Chlorine as a Disinfectant for Escherichia coli O157:H7 On Spinach Leaves, Daniella Pompa, Nichola Kinsinger and Sharon Walker, Chemical and Environmental Engineering, University of California Riverside.

III-3 Examining the Effects of In Vitro Gastric Digestion of Titanium Dioxide Nanoparticles, Alex Burton, Igor Irianto, Daniel White, Travis Waller and Sharon Walker, Department of Chemical and Environmental Engineering, University of California, Riverside.
III-4  Pin Mapping for Digital Microfluidic Biochip Synthesis, Zachary Zimmerman and Philip Brisk, Department of Computer Science and Engineering, University of California, Riverside.

III-5  Chemical Vapor Deposition for Scalable Growth of MoS\textsubscript{2} Monolayers, Ramón Luna, Peter Byrley, Janele Galaz and Ruoxue Yan, Department of Chemical and Environmental Engineering, University of California. Riverside.

III-6  Elucidation of the Mechanism By Which B-Arrestin Regulates LIM Kinase 1 and Cofilin Upon PAR-2 Activation, Rashid Awan, Kyu Lee, Alice Lin and Kathryn DeFea, Department of Biomedical Sciences, University of California, Riverside.

III-7  Crystallization Of Bax1 Endonuclease Protein Of Sulfolobus tokodaii, Melody Sycks, Kevin DuPrez and Li Fan, Department of Biochemistry, University of California, Riverside.

III-8  Measuring Potential Difference on Electrically Conducting Membranes, Cody Taylor, Wenyan Duan and David Jassby, Department of Chemical and Environmental Engineering, University of California, Riverside.

III-9  Control of Defect & Microstructure in Platinum Thin Films Through Electrical Pulses, Leopoldo Contreras and Sandeep Kumar, Department of Mechanical Engineering, University of California, Riverside.

III-10  AUDT AutoScript – Automate Autodock and VINA for DNA and Ligands Docking, Javier Bonilla and Ian Wheeldon, Department of Chemical and Environmental Engineering, University of California, Riverside.

III-11  Poly (lactic-co-glycolic acid) (PLGA) Composites With Magnesium Wires Altered Adhesion and Networking of Primary Neurons, Vareska Zárate, Catherine Augello and Huinan Liu, Department of Bioengineering and Department of Biomedical Sciences, University of California, Riverside.

III-12  The Role of Microstructure and Processing Parameters on the Thermoelectric Properties of Magnesium Tin (Mg-Sn) Based Thermoelectric Materials, Marcela Ramírez Mendoza, Anthony Fong and Javier Garay, Department of Mechanical Engineering, University of California, Riverside.
III-13  Probing for Gene Markers of PACAP and Vasopressin Signaling in the Brain of Mice Exposed to Polybrominated Diphenyl Ethers During Development, Ilia Blas and Margarita Curras-Collazo, Department of Cell Biology and Neuroscience, University of California, Riverside.

III-14  Role of EphrinB1 Signaling in Astrocytes, Michael Garcia, Jordan Koeppen and Iryna Ethell, Division of Biomedical Sciences, University of California, Riverside.

III-15  The Effects of Chloride and Bicarbonate on in situ Chemical Remediation of Groundwater Using Persulfate, Rubén González Orozco, Wei Li and Haizhou Liu, Department of Chemical and Environmental Engineering, University of California, Riverside.

III-16  Performance Assessment of Microinjection and Cells Capture from Technique of Microelectromechanical Systems Based Ultrahigh Throughput Mechanoporation Devices, Gerardo Hernandez, Harish Dixit and Masaru Rao, Department of Mechanical Engineering, University of California, Riverside.

III-17  Zinc (II) Mediated Dimerization of Nucleobase Analogs, Diana Diaz and Christopher Switzer, Department of Chemistry, University of California, Riverside.

III-18  Android Monitoring System, Liang Tianliang and Qi Zhu, Department of Electrical and Computer Engineering, University Of California, Riverside.

III-19  Development of a Self-Folding Polymer Bilayer (PVA/PAA) for Use in Three-Dimensional (3D) Paper Microfluidic Devices, Ricardo Paredes, Brent Kalish, and Hideaki Tsutsui, Department of Mechanical Engineering, University of California, Riverside.

III-20  Elucidating the Conformational Dynamics of the DNMT1 N-Terminal Domains in Response to DNA Binding, Jennifer Clark and Jikui Song, Department of Biochemistry, University of California Riverside.

2:45- 3:00pm    Break

3:00-4:45pm    Session IV – HUB 302 North

Posters  - Biomedical, Biological, Life and Physical Sciences & Bourns College of Engineering

xvii
IV-1  Anodization of Mg-Based Materials for Biomedical Applications: Substrate Effects, Mayra Celene Cortez, Aaron F. Cipriano, and Huinan Liu, Department of Bioengineering and the Materials Science and Engineering Program, University of California, Riverside.

IV-2  Decellularization of the Mouse Brain, Joshua Karam, Mike Hsu, and Devin Binder, Division of Biomedical Sciences, University of California, Riverside.

IV-3  Examining the Effects of In Vitro Gastric Digestion of Titanium Dioxide Nanoparticles, Alex Burton, Igor Irianto, Daniel White, Travis Waller and Sharon Walker, Department of Chemical and Environmental Engineering, University of California, Riverside.

IV-4  Behavior Study and Frequency Measurement of Optical Thermocavitation, Raul Vargas, Darren Banks and Guillermo Aguilar, Department of Mechanical Engineering, University of California Riverside.

IV-5  Bis Carbene-Borates in Route to Low Valant Group 13 Complexes, Chinedum Oranusi, Jordan Taylor and Hill Harman, Department of Chemistry, University of California, Riverside.

IV-6  Synthesis of Lithium Incorporated Diaminocycloalkane with Possible Applications in Solid State Lithium Ion Batteries, Evelyn Lopez, Jay-Ar Bendo, and Thomas Hellman Morton, Department of Chemistry, University of California, Riverside.

IV-7  Acellular Degradation of Poly(lactic-co-glycolic acid) and Hydroxyapatite Doped with Magnesium Oxide, Jimmy Tran, Cheyann Wetteland, and Huinan Liu, Department of Bioengineering, University of California, Riverside.

IV-8  Prefrontal Circuitry Supports Fear Memory Accuracy and Generalization, Niusha Bavadian and Edward Korzus, Neuroscience Program, University of California, Riverside.

IV-9  Characterizing the Potency of SUMOylation Pathway Inhibitor (STE) Derivatives Using Western Blot Methodology, Myra Etuale, Xuejun Yu and Jiayu Liao, Department of Bioengineering, University of California, Riverside.

IV-10 GPU Acceleration of Fast Feature Pyramids for Object Detection, Felipe Santiago Watkinson Medina, Xiaoyin Ma and Walid Najjar, Computer Science and Engineering Department, University of California, Riverside.
IV-11 Development of Perineuronal Nets in the Auditory Cortex of *Fmr1* Knockout Mice, a Mouse Model of Fragile X Syndrome, Robert Phan, Teresa Wen, and Iryna Ethell, Department of Biomedical Sciences, University of California, Riverside.

IV-12 Design and Characterization of a Stem Cell Bioreactor Using Computational Fluid Dynamics, Fernando Rivera Servín de la Mora and Hideaki Tsutsui, Department of Mechanical Engineering, University of California, Riverside.

IV-13 Compromised Endoderm Specification Causes Stochastic Phenotypes in Adult Nematodes, Raman Kaushal, Gina Broitman-Maduro, and Morris Maduro, Department of Biology, University of California, Riverside.

IV-14 Correlation or Causation: the Roles of TREM2 and P2Y12 on Microglial Surveillance Following Traumatic Brain Injury, G.N. Pronovost, Y. Otani, Y.Y. Grinberg, E. Ly, A. Madany and M.J. Carson, Division of Biomedical Sciences, Center for Glial-Neuronal Interactions, University of California, Riverside.

IV-15 Design, Calibration, and Operation of a Volatility Tandem Differential Mobility Analizer (TDMA), Elisa González Parra and David Cocker, Department of Chemical and Environmental Engineering, University of California, Riverside.

IV-16 Nicotine Analysis in Tasty Puff “Do it Yourself” Flavoring Solutions for Electronic Cigarettes, Aladino Razo, Barbara Davis, Eugene A. Nothnagel, and Prue Talbot, Department of Cell Biology and Neuroscience and Department of Botany and Plant Sciences, University of California, Riverside.

IV-17 Collective Swarm Dynamics Based On Attractive-Repulsive Interactions, Andres Rodriguez and Fabio Pasqualetti, Department of Mechanical Engineering, University of California, Riverside.

IV-18 Degradation of Mg-Sr and Mg-Ca-Sr Alloys and Their Cytocompatibility with BMSCs for Orthopedic Implant Applications, Marisa Lopez, Aaron Cipriano, Amy Sallee, Huinan Liu, Department of Biomedical Engineering, University of California, Irvine, Department of Bioengineering and Materials Science & Engineering Program, University of California, Riverside.

IV-19 Metal Ion Promoted Dimerization of Purine-like Nucleobases, Maria Veronica and Christopher Switzer, Department of Chemistry, University of California, Riverside.
IV-20 Refolding of MMP-14 for Therapeutic Antibody Discovery, Eric Norberto Bustamante Lopez, Carlos Rodriguez, Dong Hyun Nam and Xin Ge, Department of Chemical and Environmental Engineering, University of California, Riverside.

IV-21 Transport of Latex Nanoparticles Over a Silicon Micromodel, Robin Riehn, Stacey Nwagbara, Chen Chen and Sharon Walker, Department of Chemical and Environmental Engineering, University of California, Riverside.

IV-22 Visualization of Turbulent Flow Using Air Bubbles in Water, Gibran Rage, Campbell Dinsmore and Marko Princevac, Department of Mechanical Engineering, University of California, Riverside.

IV-23 Synthesis of Silicon/Carbon and Silicon/NiO Nanocomposites Through Pyrolysis to be Used as Anodes in Lithium-Ion Batteries, Luis E. Sánchez, Lanlan Zhong and Lorenzo Mangolini, Department of Mechanical Engineering, University of California, Riverside.

IV-24 Large-Area Graphene Single Crystals Grown by Low-Pressure Chemical Vapor Deposition on Copper, Marco Mercado, Chun-te Kou and Ming Liu, Department of Electrical and Computer Engineering, University of California, Riverside.

5:30-7:30 Closing Banquet and MSRIP Acknowledgement Ceremony HUB 302 South.