

Fall Student Research Symposium Participants
September 6, 2018
University of Puget Sound

Presenter/Major	Poster Title	Research Mentor/Department
Andersen, Chris <i>Molecular & Cellular Biology</i>	Impact of ROS Presence on Oncogenic Ras Activity	Leslie Saucedo, Biology
Blakely, Todd <i>Biochemistry</i>	Converting Glycosidases to Glycosynthetases: Catalysts in Synthesis of Peptidoglycan Fragments	John Hanson, Chemistry
Bomhof, Jan Morgan <i>Biochemistry</i>	An enzymatic synthesis of thioglycoside analogs of bacterial cell wall	John Hanson, Chemistry
Bordokas, Blake <i>Chemistry</i>	Synthetic Efforts Towards New 1,3,4-Oxadiazole-Based Liquid Crystal Compounds	Eric Scharrer, Chemistry
Brennan, Joe and Jacqueline Van Ardenne, <i>Chemistry</i>	Investigation of the adsorption behavior of desferrioxamine-B with the hematite/water interface using nonlinear spectroscopy	Amanda Mifflin, Chemistry
Brooks, Will <i>Biology</i>	The Role of Song in Reproductive Isolation in a New Secondary Contact Zone of White-crowned Sparrows (<i>Zonotrichia leucophrys</i>)	Peter Wimberger, Biology
Dillon, Noah <i>Biology</i>	Exposure to bisphenol-S alters spinal cord GnRH-3 neuron development in <i>Danio rerio</i>	Siddharth Ramakrishnan and Alyce DeMarais, Biology
Duell, Adam <i>Molecular & Cellular Biology</i>	Method for Comparative Proteomics in Tomato Seedling Utilizing Liquid-Chromatography Mass-Spectrometry	Andreas Madlung, Biology
Ferguson, Gloria <i>Geology</i>	Petrology of the Naches Formation, Central Washington Cascades: A Record of Eocene Tectonic Transition	Jeffrey Tepper, Geology
Fleming, Anneke <i>Molecular & Cellular Biology</i>	Characterizing a Stress-Response Module in <i>Arabidopsis</i>	Bryan Thines, Biology
Fulton, Elena <i>Molecular & Cellular Biology</i>	F-Box Protein Interactions in <i>Arabidopsis thaliana</i> Stress Response Pathways	Bryan Thines, Biology
Gonzalez, Samuel <i>Molecular & Cellular Biology</i>	Mapping the Munchies: Dissecting the Neural Connections between Fat-Sensing and Feeding circuits	Akhila Rajan, PhD, Basic Sciences Division, Fred Hutch Cancer Research Center
Graf, Anna <i>Biology</i>	Kefir Frontiers: Integrity and Maintenance of Bacterial Communities in Kefir SCOBY	Mark Martin, Biology
Grahn, Emily <i>Biology</i>	Extending the Host Range of Predatory Bacterium <i>Ensifer adherens</i>	Mark Martin, Biology
Grainger, Katie <i>Biochemistry</i>	Evaluation of candidate stuttering associated mutations: Variants in sex hormone metabolizing genes	Dr. Dennis Drayna, National Institute of Health, Laboratory of Communication Disorders
Gray, Katie <i>Chemistry</i>	Quantitative Three-Dimensional Basal Ice Roughness from Scanning Electron Microscopy (SEM)	Steven Neshyba, Chemistry
Guzman, Alex <i>Chemistry</i>	Development of Bifunctional Thiourea Catalysts for Effective Direct Amidation Reactions	Luc Boisvert, Chemistry
Hamilton, Kaela <i>Biology</i>	Epiphyte distributions vary with structural heterogeneity in <i>Acer macrophyllum</i>	Carrie Woods, Biology
Imanaka, Matthew <i>Molecular & Cellular Biology</i>	Fluorescence Microscope Imaging of Lipid Rafts with Various Compositions Under the Influence of Membrane Anchored Protein Driven Phase Segregation	Il-Hyung (Eli) Lee, Chemistry
King, Maxx <i>Biology</i>	<i>Canis familiaris</i> – The Influence of Food Reward on Point Following in Domestic Dogs	Alexa Tullis, Biology
Lamar, Annie K. <i>Computer Science, Classics</i>	Preserving Persona Through a Pivot Language: Low-Resource NMT of Ancient Languages	America Chambers, Math & Computer Science

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Lamont, Angus <i>Exercise Science</i>	Quantifying Passive Joint Stiffness at the Elbow Following EIMD of the Elbow Flexors	Gary McCall, Exercise Science
Lenti, Quintin <i>Mathematics</i>	Comparing and Creating Metrics of Gerrymandering	Courtney Thatcher, Math & Computer Science
Lindauer, Jack <i>Geology</i>	Quantifying Nutrient Loading Responsible for Hazardous Algal Blooms in Spanaway Lake, Pierce County Washington	Jeffrey Tepper, Geology
Lisovsky, Angela <i>Biochemistry</i>	Optimization of the Synthetic Route and Phase Behavior of Substituted Oxadiazole Based Liquid Crystals	Eric Scharrer, Chemistry`
Long, Julian <i>Physics</i>	Measuring the Fluorescence Lifetimes of Quantum Dots for use in Luminescent Solar Concentrators	Amy Spivey, Physics
Maple, Ashley <i>Chemistry</i>	Understanding Non-Toxic Oil Dispersants at the Oil and Water Droplet Interface	Dr. Geraldine Richmond, University of Oregon, Department of Chemistry
Marchand, Anna <i>Biology</i>	<i>Hylocomium splendens</i> : Microhabitat Selection and Potential Role in Forest Succession	Carrie Woods, Biology
McHugh, Gabriel <i>Molecular & Cellular Biology</i>	Chemosensory Role of a Reproductive Hormone: Associating GnRH Neurons with Taste and Olfactory Systems in Teleost Fish	Siddharth Ramakrishnan, Biology
Mejia Natividad, Isabel <i>Molecular & Cellular Biology</i>	Determining the Effect of Raindrops Impact Location on Seed Dispersal of Splash-Cup Plants	Rachel Pepper, Physics
Miyahira, William <i>Physics, Mathematics</i>	Polarizing Majorana Fermions	David Latimer, Physics
Modhal, Emmi <i>Biochemistry</i>	Tug of War: In Vitro Reconstitution Study of Interaction Between Protein Driven Phase Separation and Lipid Driven Phase Separation on Cell membranes	Il-Hyung (Eli) Lee, Chemistry
Moro, Saad <i>Mathematics</i>	The Geometry of the Perron-Frobenius Theorem for Markov Chains	Courtney Thatcher, Math & Computer Science
Moser, Marlowe <i>Biology</i>	The effects of depth on microplastics distribution and ingestion by a biological indicator species: <i>Mytilus galloprovincialis</i>	Peter Hodum, Biology
Nania, Tessa <i>Biology</i>	Using Age to Assess Retention Time of Ingested Plastic in Seabirds	Peter Hodum, Biology
Nicholson, Erin <i>Biology, Neuroscience (Minor)</i>	Can the Bumblebee <i>Bombus impatiens</i> Provide a Non-Mammalian Model for Parkinson's Disease?	Sue Hannaford, Biology
Parlan, Emily <i>Molecular & Cellular Biology</i>	Interactions of the <i>Arabidopsis thaliana</i> F-BOX STRESS INDUCED (FBS) Protein Family	Bryan Thines, Biology
Perotti, Olivia <i>Molecular & Cellular Biology</i>	Does Flowing Water Change Cell Body Orientation in <i>Vorticella convallaria</i> ?	Rachel Pepper, Physics
Polonitza, Jared <i>Mathematics & Computer Science</i>	Geofiversification for small data centers	David Chiu, Math & Computer Science
Proctor, Theresa <i>Molecular & Cellular Biology</i>	Using molecular biology and growth characteristics to describe new oomycete pathogen species isolated from <i>Zostera marina</i> roots	Joel Elliott, Biology
Richards, Kyla <i>Biology</i>	Effects of salinity, temperature, light, and gall score on zoospore production rates by a <i>Phytophthora</i> parasite of eelgrass in Puget Sound	Joel Elliott, Biology
Rockow, Sara <i>Biochemistry</i>	Progress Towards the Synthesis of Iron-Based Hydrogenation Catalysts Using Hydroxypyridine Bidentate and Tetridentate Ligands	Luc Boisvert, Chemistry

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Running, Zoe <i>Geology</i>	Petrology and Geochronology of the Oso Volcanics: An Early Phase of the Cascade Arc	Jeffrey Tepper, Geology
Salido, Elsa <i>Biology</i>	The Role of Phytochrome E in Tomato Plant Early Growth and Development	Andreas Madlung, Biology
Schuelein, Emily <i>Chemistry</i>	Synthesis of a Fluorescent Muramic Acid Derivative	John Hanson, Chemistry
Schumann, Aidan <i>Mathematics, Physics</i>	Gravitational Radiation from a Toroidal Source	David Latimer, Physics
Segar, Kate <i>Molecular & Cellular Biology</i>	Modulating the Cancerous Effects of Src through Reactive Oxygen Species	Leslie Saucedo, Biology
Sevier, Emma <i>Geology</i>	The role of log mat biofilm in the Spirit Lake ecosystem after the eruption of Mount St. Helens	Kena Fox-Dobbs, Geology
Shaffer, Jacob <i>Biology</i>	Effects of tun formation on the microbiome of the tardigrade	Mark Martin, Biology
Stewart, Erin <i>Biology</i>	An Ear for Fear: The Influence of Background Noise on the Foraging Behavior of <i>Peromyscus maniculatus</i> (Woodland Deer Mice)	Michael Cramer, Department of Biological Sciences, University of Notre Dame
Stewart, Noah <i>Mathematics, Physics</i>	Identifying Gerrymandering in New Mexico	Courtney Thatcher, Math & Computer Science
Sullivan, Grace <i>Molecular & Cellular Biology</i>	Advantages of Bioluminescence in the Marine Bacterium <i>Photobacterium leiognathi</i>	Mark Martin, Biology
Van Boven, Caleb <i>Exercise Science</i>	The Effects of Functional Overload on Myosin Heavy Chain Composition of the Plantaris Muscle of MMP-9 Knockout Mice	Jung Kim, Exercise Science
Vora, Priyanki <i>Molecular & Cellular Biology, History</i>	Genotyping Higher Order Phytochrome Mutants in <i>Solanum lycopersicum</i> (Tomato)	Andreas Madlung, Biology
Walker, Ali <i>Molecular & Cellular Biology</i>	Using CRISPR to Induce a Knock-out of dPRL-1 in <i>Drosophila melanogaster</i>	Leslie Saucedo, Biology
Walling-Bell, Sarah <i>Computer Science</i>	EEG Experiment Scripting Tool for Novice Programmers	David Chiu, Math & Computer Science
Ward, Abby <i>Biochemistry</i>	Protein-Ligand Docking: Neuraminidase Mutation Resistance to Antiviral Drugs	Jeff Grinstead, Chemistry
Warner, Isabelle <i>Chemistry</i>	Exploring Effects of Lateral Substituents on the Phase Behavior of Oxadiazole-Based Liquid Crystals	Eric Scharrer, Chemistry
Wigger, Patrick, <i>Physics</i>	Measuring Fluorescence Lifetimes Using Upconversion Spectroscopy	Amy Spivey, Physics
Wilcox, Deanna <i>Biology</i>	Gull and Crow Food Preferences in Relation to Intertidal Diversity and Sea Star Wasting Disease	Joel Elliott, Biology
Zamani, Andre <i>Psychology, Neuroscience (Minor)</i>	A Sociocognitive Perspective of the Uncanny Valley	David Andresen and Erin Colbert White, Psychology