

23rd Year UMD

Undergraduate Research & Artistic Showcase

Tuesday April 18th, 2017 11:00 – 2:00

Poster Presentations – Rafters

Oral Presentations – Garden Room

UMD Book Store Gift Certificates will be given to the student with the most people attending their oral presentation and the two students with the most people viewing their poster presentation. Please be sure to sign in at each oral presentation/poster board you view. Thank you.

Oral Presentations – Garden Room

Time	Presenter	College	Project Mentor	Project Title
11:00	Haley Ersfeld	SCSE	Jennifer Liang	Active Learning in the K-12 Biology Classroom
11:40	Ahnika Hesbjerg	CLA	Ryan Bergstrom	Demographic Sentiments Towards Development on Park Point
12:20	Robert Kajer	SCSE	Ahmed Heikal	Associated Anisotropy: A Non-invasive Fluorescence Based Analytical Method
1:00	Myra Garlid Sarah Stark	SCSE	Bethany Kubik	Quasi-Crowns
1:40	Emma Licht	SCSE	Ron Moen	Geographic comparison of fisher (<i>Pekania pennanti</i>) skull morphology in northern hardwoods and boreal forest ecoregions of Minnesota

Poster Presentations – Rafters

No.	Presenter	College	Project Mentor	Project Title	Author present
1	Sarah Muellner	SCSE	Thomas Hrabik	Juvenile Walleye Foraging at Different Light Intensities	11:00 - 2:00
2	Travis Hanson Sarah Muellner	SCSE	Jennifer Liang	Observed Regeneration in Planaria and Zebrafish	11:00 - 2:00
3	Danielle Bauer Dylan Beyer Cassandra Sorenson Jordan Wolf	SCSE	Jennifer Liang	Zebra Fish Regeneration	11:00 - 1:00
4	Erin Fisker	SCSE	Jennifer Liang	Melatonin and Early Development in Zebrafish	1:20 - 1:50
5	Haley Ersfeld Taylor Johnshoy Rebecca Sauter Malia Triebold	SCSE	Jennifer Liang	Regeneration in Zebrafish and Planaria Flatworms	11:00 - 1:00
6	Matt Ang Jacob Billings Whitney Wysocki	SCSE	Jennifer Liang	Zebrafish and Planaria regeneration	11:00 - 2:00

7	Sarah Christiansen Marianne Neba Akil Osamn	SCSE	Jennifer Liang	Abnormal Regeneration in Zebrafish and Planaria after Surgery	11:00 - 1:00
8	Abbygail Coyle Amanda Hunt Amber Schmidt	SCSE	Jennifer Liang	CRISPR/Cas9 Knockout in Zebrafish & Experimental Biology	11:00 - 12:00 1:00 - 2:00
9	Spencer Erickson Clare Magee Mikaela Naddy Pamela Vu	SCSE	Jennifer Liang	Zebrafish Caudal Fin Regeneration	11:00 - 1:00
10	Ben Block Shannon McCallum Benedict Monley Julia Narow	SCSE	Judi Roux	Duluth Journal of Undergraduate Biology	11:00 - 12:00 1:00 - 2:00
11	Julia Narow	SCSE	Thomas Hrabik	Effects of Barotrauma in Deepwater Fish	12:00 - 2:00
12	Nathan Wiklund	SCSE	Thomas Hrabik	The Effects of Water Clarity on the Visual Foraging Success of Juvenile Walleye	11:00 - 12:00 1:00 - 2:00
13	Alex Battalov Emily Segler	SCSE	Jennifer Liang	Difference in Cross Sectional Regeneration in Zebrafish	11:00 - 2:00
14	Emily Segler	CEHSP	Rebecca Gilbertson	Positive Family History of Alzheimer's Disease and Dementia and Completion of Cognitive Memory Tasks	11:00 - 2:00
15	Alyssa Zimmerman	CEHSP	Rebecca Gilbertson	The Effects of Caffeine and Caffeine Expectancy on Inattentive Blindness	11:00 - 2:00
16	Michaela Johnson	CEHSP	Julie Ernst	The Effect of Nature Based Preschools on Young Children's Resilience	11:00 - 2:00
17	Bingxuan Chen	SCSE	Haiyang Wang	Measurement and Analysis of P2P-based File Synchronizing System	12:00 - 1:00

18	Christopher Wagner	CLA	Geoff Sheagley	Correcting Vaccine Misinformation: Overcoming Ego Defense in Vaccine Messaging	11:00 - 12:30 1:00 - 2:00
19	Mackenzie Latterell	SCSE	Venkatram Mereddy	Tamoxifen as Chemopreventive Agent for Breast Cancer	1:00 - 2:00
20	Bailey Blazinski	SCSE	Venkatram Mereddy	Evaluation of MCT1/4 NO-Donor Hybrids	12:00 – 1:00
21	Jacob Daire	SCSE	Nathan Johnson	Pike Lake Residence Time	11:00 - 12:30
22	Hannah Kreibich	SCSE	Cody Sheik	Elucidating the mechanism of antimicrobial susceptibility in lactic acid bacteria	11:00 - 1:00
23	Nicole Bourgoyne	CEHSP	Robert Lloyd	Jealousy Response and Sexual Orientation	12:00 - 2:00
24	Alice Bygd	CEHSP	Robert Lloyd	Empathy and Spatial acuity related to gender	11:00 - 2:00
25	Cyrina Ostgaard	SCSE	Anne Hinderliter.	A Substitute for Dystrophin : Why Utrophin Fails	11:00 - 2:00
26	Robert Miller	SCSE	Anne Hinderliter	Cholesterol Modulating Membrane Phase Behavior upon Ca ²⁺ Induced Annexin a5 Binding	11:00 - 12:00 1:30 - 2:00
27	Erin Groth	SCSE	Anne Hinderliter	Gaining a predictive understanding of EGFR through single particle tracking	11:00 - 12:00
28	Janna Madden	SCSE	Arshia Khan	Comparative Study of the Effectiveness of “Internet of Things” Applications in Managing Cardiac Health in Rural and Urban Settings	11:00 - 2:00
29	Matthew McDermott	SCSE	Ben Dymond	Analysis of Post-Installed Glass Fiber- Reinforced Polymer Anchorage in Beam-Column Joints	11:00 - 12:00
30	Mark Kallevig	SCSE	Samuel Kelly	Analytical Solutions for Gravity Water Waves in a Rotating Cylinder	11:00 - 2:00

31	Madi Sachs	CLA	Andrew Snustad	Exploring Precious Metal Mining in Peru through Film	11:00 - 2:00
32	Xinyue Liu	CLA	Hairong Feng	Cultural Variations in Emotional Support between Americans and Chinese	11:00 – 11:30
33	Micki Grover	SCSE	Ona Egbue	An Analysis of Microgrid Design and Implementation	1:00 - 2:00
34	Alycia Chmielewski	CEHSP	Molly Harney	A Comparative Analysis of Early Life Experiences and Young Adult Career Choice	12:00 - 2:00
35	Tyler Untiedt	SCSE	Chanlan Chun	Discovering Novel Microbes Involved in Sulfur Cycling in Bioelectrochemical Systems	11:00 - 2:00
36	Faith Murphy	SCSE	Melissa Maurer-Jones	Effect of Plastic Irradiation on Partitioning of Organic Pollutant Molecules	12:00 - 1:30
37	Tana O'Keefe	SCSE	Melissa Maurer-Jones	Quantifying Oxidation in Accelerated Aged Polymers with ATR-FTIR	11:00 - 11:45
38	Tong Lee	SCSE	Melissa Maurer-Jones	Leaching of Additives in Plastic Films	11:00 - 1:50 1:20 - 2:00
39	Alayna Mackiewicz	SCSE	Allen Mensinger	Hearing Sensitivity of Bighead Carp (<i>Hypophthalmichthys nobilis</i>) and Silver Carp (<i>H. molitrix</i>)	11:00 - 1:00
40	Loranzie Rogers	SCSE	Allen Mensinger	Visual Sensitivity and Impacts of Strobe Light on Invasive Carp	11:00 - 2:00
41	Abby Savolt	LSBE	Christopher McIntosh	The Economic Impact of Mountain Biking in Duluth	11:00 - 2:00
42	Maria Lorenson	SCSE	Brian Hinderliter	Polymer Insulation of Electrical Cables and Polymer Degradation	12:00 - 1:30
43	Matthew Garfield	SCSE	Brian Hinderliter	Thermal Barrier Properties of Concrete	1:00 - 2:00

44	Laura Wadell	SCSE	Sara Zimmer	Interruption of Mitochondrial RNA Editing in <i>Trypanosoma cruzi</i>	11:00 - 12:00 1:30 - 2:00
45	Zheng Wei	LSBE	Neil Wilmot	The Volatility Interrelationships Between the Petroleum Price and USD Exchange Rate	11:00 - 2:00
46	Ann Hunt	SCSE	John Goodge	Field and petrographic evidence of migmatite formation near Lake Kabetogama, Voyageurs National Park, northern Minnesota	11:00 - 1:30
47	Jerome Doede	SCSE	Christina Gallup	Separation efficiency of fossilized corals by means of electrical (pulse) energy and mechanical means	11:00 - 1:30
48	Christy Atkinson	SCSE	Kathryn Schreiner	Under-ice organic carbon and nutrients in the St. Louis Estuary: A comparison between two winters	11:00 - 1:00
49	Jennifer Thomalla	SCSE	Andrew Skildum	CRISPR-Cas9: Determining PDK4's Role in the Metastatic Potential of Human Breast Cancer Cells	11:00 - 12:00
50	Sean Shearen	CEHSP	Kelley Holmes	The Reliability of a Wireless Blood Pressure Monitor During Exercise	12:00 - 1:00
51	Nhi Tran	SCSE	Zhihua Xu	A Degradation Study of Perovskite Solar Cells	1:00 - 1:45
52	Avery Morse	SCSE	Richard Davis	Computer Modeling of Iron Ore Pelletizing Thermal Processing in Grate Kiln Furnaces	12:30 - 2:00
53	Collin Christians	SCSE	Steve Berry	Characterization of PHS Mutants with an Oxygen Assay	11:00 - 12:00 1:15 - 2:00
54	Nicholas McCormick	SCSE	Steve Berry	Reduction and Oxidation of Azurin Using PHS Assays	11:00 - 12:00

55	Laura Raichel	CEHSP	Jolene Hyppa Martin	Inclusion of Communicative Competence in Medical and Educational Speech-Language Intervention Plans for Individuals Who Use Augmentative and Alternative Communication	11:00 - 2:00
56	Nathaniel Scherer	SCSE	Steven Sternberg	Modeling Flow in Heterogeneous Porous Media	11:00 - 2:00
57					
58	Jil Pavagadhi	LSBE	Jennifer Schultz	Evaluation of Minnesota Health Insurance Network Adequacy	11:00 - 12:00
59	Haowen Tang	LSBE	Yufei Ren	The Impacts of CPI on Government Bond Yield to Maturity in Chinese Bond Market	12:30 - 2:00
60	Luke McCutcheon	SCSE	Jean Regal	Controlling the Innate Immune Complement System in Pregnancy	11:00 - 12:00 1:15 - 2:00
61	Claire Sylvestre	CEHSP	Morris Levy	Temporal Comparison of Biomechanical Performance Determined by Keyboard Type	11:00 - 12:00 1:00 - 2:00
62	Elizabeth Marie Peshorn	CEHSP	Morris Levy	Temporal Comparison of Pianists with Varying Skill	1:00 - 2:00
63	Bryan Reutzel	SCSE	Alessandro Cembran	Sulfur-Aromatic Interactions in a Small Peptide	12:00 - 2:00
64	Alida Besch	SCSE	Alessandro Cembran	Dopamine β -hydroxylase Conformational Dynamics	11:00 - 12:00
65	Nicholas Ruha	SCSE	Alessandro Cembran	Applying force to Dystrophin spectrin repeats	12:00 - 1:00
66	Sam Butler Jacob Pilz	SCSE	Manik Barman	Thermal Resistance of Taconite Based Asphalt Mixture	11:00 - 12:00

67	Crystal Koontz	SCSE	Elizabeth Hill	Silica Aerogel	1:00 - 2:00
68	Lesheng Wang	SCSE	Bruce Peckham	Dynamics of a Singularly Perturbed Quadratic Family	1:00 - 2:00
69	Joe Johnson Mags Scanlon	SFA	Mark Harvey	The Complete Works of William Shakespeare (abridged)	1:15 - 2:00
70	Collin Lambrecht	SCSE	Subramanian Ramakrishnan	Effects of Lévy Flight on Piezoelectric Energy Harvesters	1:00 - 2:00
71	Allan Omete	SCSE	Viktor Zhdankin	Oxidative Cyclizations of with Hypervalent Iodine III Reagents	11:00 - 12:00
72	Michael Shea	SCSE	Viktor Zhdankin	Cyclic Hypervalent Iodine Reagents	11:00 - 12:00
73	Shawnee McMillian	SCSE	Richard Axler	Lake Superior North Shore Streams Water Quality: Potential impacts of watershed development and soil erosion	11:00 - 12:00
74	Noah Petters	CLA	Edward Downs	Perceptions of Women and Gaming: Exploring Implications of Intersectionality through Quantitative Analysis of Blog Comments	11:45 - 12:30
75	Claire Baetzold	SCSE	Erin Sheets	Expression and purification of fluorescent proteins	11:00 - 11:45
76	Mark Ruprecht	UMTC	Nathaniel Helwig	A Nonparametric Model for Right-Wing Authoritarianism	11:00 – 2:00

Thank you to

Carter Shades

School of Fine Arts major for the design of the Showcase poster and t-shirt