

11th annual

*Lyman Briggs
Research Symposium
Supported by MSUFCU
April 24-27, 2017*



Complete Schedule



LYMAN BRIGGS
COLLEGE

MICHIGAN STATE
UNIVERSITY

Classes Participating

Room	Specific Time	Class	Title
Monday Oral Presentations			
C7	11:30-2:20pm	LB 172L 007	Chemistry 2 Lab
C7	3:00-5:50pm	LB 172L 001	Chemistry 2 Lab
W40	5:20-7:10	LB 492	Evolutionary Medicine
C7	7:00-9:50pm	LB 172L 002, 15	Chemistry 2 Lab

Both
Lounges

Monday Poster Presentations

9:10-10:00am	LB 172	Chemistry and Our Environment
10:10-11:00am	LB 171	Double Edged Chemicals
12:40-1:30pm	LB 172	Chemistry and Our Environment
12:40-2:20pm	LB 492	Natural Products in Society
1:50-2:40pm	LB 172	Chemistry and Our Environment
3:00-3:50pm	LB 172	Chemistry and Our Environment
6:30-7:30pm	LB 492	Evolutionary Medicine

6-8pm

MSUFCU General Poster Session

Tuesday Oral Presentations

C7	8:00-10:50am	LB 172L 003	Chemistry 2 Lab
W40	10:20-12:10pm	LB 348	Research in Biology
C7	11:30a-2:20pm	LB 172L 004	Chemistry 2 Lab
W25E	12:40-2:30pm	LB 492	Science in the future
C-106	12:40-2:00pm	LB 145	Bio Core research projects
C7	3:00-5:50pm	LB 172L 005	Chemistry 2 Lab
W40	5:20-7:10pm	LB 492	Science in the future
C7	7:00-9:50pm	LB 172L 006, 018	Chemistry 2 Lab

Classes Participating

Room	Specific Time	Class	Title
Tuesday Poster Presentations			
East Lounge	10:20-11:40am	LB 144	Research in Organismal Biology
Wednesday Oral Presentations			
C7	11:30a-2:20pm	LB 172L 008	Chemistry 2 Lab
C7	3:00-5:50pm	LB 172L 009, 019	Chemistry 2 Lab
C7	7:00-9:50pm	LB 172L 010	Chemistry 2 Lab
Thursday Oral Presentations			
C7	8:00-10:50am	LB 172L 011, 021	Chemistry 2 Lab
C7	11:30a-2:20pm	LB 172L 012, 022	Chemistry 2 Lab
W40	12:40-1:30	LB 492	Computing
C-106	12:40-2:00pm	LB 145	Bio Core research projects
C7	3:00-5:50pm	LB 172L 013	Chemistry 2 Lab
C7	7:00-9:50pm	LB 172L 014, 024	Chemistry 2 Lab
Thursday Poster Presentations			
East Lounge	Evening	BS 191H	Honors Molecular Biology Research

Monday Oral Presentations

Room	Specific Time	Title	Presenter(s) (Class)
C7	11:30-2pm		LB 172L 007
	1	Red Cedar River Conditions for Aquatic Life	Melissa Bush, Caroline, Currier, Alisha Ungkuldee, and Haley Schultz
	2	Common Applications of Recrystallizations	Sean Hyslop, Ben Robertson, Connor McCormick, and Daniel Kash
C7	3:00-5:50		LB 172L 001
	1	Alt World Energy	Jayani Balaji, Ryan Crue, Addison Healey, Hailey Gosen
	2	Ocean Acidification	Macy Dahnke, Brie Coleman, Kelsey Koss
	3	Batteries	Morgane Chretien, Patrick Kurtz, Sara Kostecka
	4	Medical Applications of Ferrofluids	John Robertson, Abby Greene, Tori Morrill
	5	partial pressure of gasses and pharmaceuticals	Tim Dalton, Asia Frei, Skyler kerr
	6	Acid Effects on Soil from Nitrogen Fertilizer	Joey Agro, Amulya Jain, Olivia Woods
W40	5:30-6:30	Impacts of Evolution	LB 492
	5:30 PM	Improving Treatment of Opiate Addiction	Robert Coon
	5:45 PM	Insomnia: A Social Pandemic	Trevor Davis
	6:00 PM	Functional Relevance of Human Gut Microbiomes in Colorectal Cancer Carcinogenesis	Will Hanrahan
	6:15 PM	Loneliness: A Topic of Evolutionary Medicine	David McClendon

Note: Posters associated with this class will be displayed from 5:30 - 7:10 pm; poster presenters will be present from 6:30-7:10 pm

Monday Oral Presentations

Room	Specific Time	Title	Presenter(s) (Class)
C7	7:00-9:50p		LB 172L 002, 15
	1	Real World Application of the Partition Coefficient in a Breathalyzer	Miranda Maher, Sierra Alvarado, Aneesh Bal, Renee Kinne
	2	expansion on Cation Exchange Lab	Allison Swider, Brennan Regan, Alyssa Corpus, Jacqueline Harajli
	3	The Use of Henry's Law in Fire Extinguishers and Scuba Diving	Beth Feldman, Kelsey MacDonald, Viet Phan
	4	The Rate of the Furious Laws	Austin Parker, Zain Salman, Tom Floyd, Jackson Arold
	5	Exploring Runaway Greenhouse Effect on Venus	Katelyn Hadlich, Lakota Shehi, Olivia Boeberitz
	6	Greenhouse Gases	Jay Getzinger, Keelyn O'Brien, Jackie Carbone, Josiah Quinn
	7	Geodes	Danielle Guist, Joe Luca, Morgan Oneill
	8	Thermochromic Liquid Crystals	Ian Poage, Julia Riehl, Rashemia Powell

Monday Poster Presentations in East/West Lounges

Displayed Timeslot Morning 9:00-11:10am	Presenter at Poster 9:10-10:00am	Title	Presenter(s) (Class)	East/West East Only
			<i>LB 172 Presentations</i>	
		Sewage Pollution in the Great Lakes	Maddie Dodson-Garrett, Jessica Baxter, Dylan Wolschleger, Nourdeen Hussini, William Quackenbush	E(1)
		Eutrophication Effects	Bailey Montgomery, Courtney Accoursi, Lauren Miller, Morgane Chretien, Lottie Jay	E(2)
		Effect of Declining Bee Populations	Amanda Montgomery, Alexa Wright, Lauren Potter, Faith Slubowski	E(3)
		Oil spills and the environment	Joey Mukhtar, Jessica Burke, Alec Oconnor, Ali Kadouh, Ben Mancini	E(4)
		Clean Up: Ending the Oil Spill Problem	Aavikumar Bhakta, Ben Dolgikh, Allyson Conley, Vincent Milano, Luke Beauchamp	E(5)
		How Deforestation Impacts the Great Lakes	Morgan Sanders, Sierra jankowski, Amulya Padma, Brooke Bliznik, Andrea Young	E(6)
		Agricultural Runoff in the Great Lakes Region	Keelyn O'Brien, Parker Kelly, Ramya Erasala, Jay Garlapati	E(7)
		Water Contamination in Flint	Sydney Laub, Abby Schultz, Nick Hirschenberger, Harry Nguyen, Jake Van Ess	E(9)
		The Role of Animal Agriculture in Greenhouse Gas Emissions	Haley Schultz, Ann Marie Scazzero, Jacob Bloom, Unie Gu	E(11)
		Effects of CO2 on Oceans	Hanna Boardman, Connor Baker, Asia Frei, Stephanie Iorga, Renee Randolph	E(13)
		Petroleum	Jennifer Martz, Malan Norwood, Alexa Senkmajer, Lizzy Crorey	E(15)
		Great Lakes, Great Mistakes	Tulasi Talluri, Ryan Graff, Caroline Currier, Katie Bederka, Tom Floyd	E(17)
		Ocean Acidification and Coral Reef Bleaching	Brennan Regan, Rebecca Benson, Shelby Olin, Colleen Riling, Ryan Crue	E(19)
		Eutrophication and the Environment	Kristin Gunkelman, Amanda Hardwick, Sara Kostecka, Riley Reed	E(21)
		Sea Level Rising	Eleni Bills, Emily Graham, Sheridan Perry	W(1)
		Coral Reef Bleaching	Lauren Gregor, Chloe Bigwood, Avery Messina	W(2)
		Effect of Increasing Concentration of Atmospheric and Oceanic Carbon Dioxide and Temperatur	Jenny Menko, Renee Brewart, Kiersten George, Zahraa Jawad, Amanda Sasinski	W(3)
		Fertilizer Runoff and its Effect on the Great Lakes	Joe Bourdages, Rebecca Flynn, Alyssa Lopez, Kelsey McKaig, Rahee Patel	W(4)
		Flint Water Crisis	Alisha Ungkuidee, Julia Fudala, Kristin Luu, Kate Jackson, Jovonnie Storey, Sherri Thumma	W(5)
		Ocean Acidification and Coral Reef Bleaching	Brennan Regan, Shelby Olin, Rebecca Benson, Colleen Riling, Ryan Crue	W(6)

Monday Poster Presentations in East/West Lounges

Displayed Timeslot	Presenter at Poster	Title	Presenter(s) (Class)	East/West
		Nicotinoids and their effect on Insects	Ruchi Mangal, Ariel Anderson, Yuxin Chen, Lauren Sosinski, Amanda Liddicoat	W(7)
		Glacier Shrinkage	Avery Felty, Ece Erder, Katie Gariglio, Gregory Poole, Emily Whyte	W(8)
		Flint Water Crisis	Julia Fudala, Kate Jackson, Kristin Luu, Jovonnie Storey, Alisha Ungkuldee	W(9)
		Nitrogen Fertilizer's Hidden Effects	Liz Ross, Ben Robertson, Joe Luca, Joey Agro	W(11)
		How Deforestation Impacts the Great Lakes	Brooke Bliznik, Amulya Jain, Sierra Jankowski, Morgan Sanders, Andrea Young	W(13)
		Heavy Metal Contamination of Salmon in the Great Lakes	Josiah Quinn, Wirat Pipattanamaitree, Trevor Feldpausch, Tyler Bowen, John Robertson	W(15)
		Acid Rain: The Rain of Terror	Grace Lewis, Hailey Gosen, Owen Farber, Dean Wundrach, Brie Coleman, Paige Bimberg	W(17)
		Impacts of Hydrogen and Solar Power	Allyssa Grayson, Thomas Zammit, Sherri Thumma, Abigail Green, Patrick Kurtz	W(19)
SUTL Fellow		Exploring Introductory Physics Students' Conceptions of Diffusion	Luke Tunstall	W(20)
SUTL Fellow		Friend or Foe: Changing how Students Interact with Textbooks	Corrine Higley, Kevin Elliott	W(21)
SUTL Fellow		Changes in student understanding of biology concepts over time	So-Jung Youn, Peter White	W(22)
SUTL Fellow		Assessing the Efficacy of Dow STEM Scholar Program's Interventions	Younggon Bae, Mark Largent	W(23)
LB 273	puck?	How does the distance a stick travels on ice before a slapshot affect the motion of the	Sabrina Fowler, Jordan Richardson	W(24)

Monday Poster Presentations in East/West Lounges

Displayed Timeslot	Presenter at Poster	Title	Presenter(s) (Class)	East/West
10:20-11:10am		<i>LB 171 Presentations</i>		
		DDT	Jillian Yuhas Yuhas, Brianna Seymour, Marino Moccia, Diamond Scales, Michael Martinson	E(8)
		Propylene Glycol	August Jarzambek, Rachel Sidnam, Grace Lemley, Kambrea Sale	E(10)
		Double Edge Project	Jalisa McQueen, Tia Ford, Kelsey Holliday, Justin Lee	E(12)
		Sucralose	Raegan Vorce, Darian Thomas, Jaclyn Branton	E(14)
		Double Edged Chemical	Andy Wilson, Victor DiRita, Nolan Pakizer, Tara Metcalfe, Riley Eubanks	E(16)
		Chloroform: Double-edged Chemical	Anna Bunting, Ki Bronson, Dakota Shank, Jack Petsch	E(18)
		Sulfuric Acid	Maia Rozier, Emilie Hudgins, Camery Abram	E(20)
		Methylparaben a danger close to the skin	Leigha Brown, Amelia Schroeder, Chloe Fife, Lauren Grainger	E(22)
		Double Edged Chemical- Thalidomide	Kevin Lesser, Vanessa Rapthis, Chris Canu, Chris Sobeck	W(10)
		Codeine	Lindsey Michael, Hilda Herrera, Dawson King, Paul Blakey	W(12)
		Double-Edged Chemical- Morphine	Audrey Laport, Michaela Christenson, Sofia Sokansanj, Abby Wallace	W(14)
		Codeine	Lindsey Michael, Dawson King, Hilda Herrera, Paul Blakey	W(16)
		Formaldehyde	Shanna Hilborn, Kadee Rutkowske, Elaina Walling, Marie Savoie, Shay Oswald	W(18)
11:30-12:20am		<i>LB 172 Presentations</i>		
		Nitrogen Fertilizer Affecting the Great Lakes	Elaina White, Mia Fitzner, Brendan Carney	E(2)
		Effects of climate change on fresh water fish	Faith Sharp, Ali Stark, Jake Eller	E(4)
		CO2 Emissions	Ryan Himmel, Renee Kinne, Rebecca Schmidt, Danielle Guist, Sam Badri	E(6)
		Air Pollution effect on Climate Change	Taichi Suzuki, Reed Weisenberger, Jay Getzinger	E(8)
		How carbon dioxide effects dissolved oxygen?	Sierra Alvarado, Rakan Michael Haddad, Satya Chitturi	E(10)
		Dissolved oxygen with relation to algae	Breanna Koslowski, Kaylie Chiles, Austin Parker	E(12)
		Fusion Energy	Zakary Ferensic, Alexis Anderson, Aalayah Spencer	E(14)
		Ocean Acidification	Miranda Maher, Ryan Roelant, Maggie McGoff	E(16)
		Global Warming Contributions to Extreme Weather in the Great Lakes Region	Jayani Balaji, Kelsey Koss , Melissa Schott , Graham Parks	E(18)
	LB273	Exploring Students' Conceptions of Diffusion in LB273	Luke Tunstall	E(20)
	STT231	Assessing the Risk of Concussions in Football	Alexis Tangalos, Megan Colligan	E(22)

Monday Poster Presentations in East/West Lounges

Displayed Timeslot	Presenter at Poster	Title	Presenter(s) (Class)	East/West
12:40pm-2:40pm	12:40-1:30		<i>LB 172 Presentations</i>	
		Methane Production in Ruminants	Alaina Ableidinger, Kristin Fuller, Chloe Bruchnak	E(1)
		Impacts of Eutrophication	Katelyn Smiles, Megan Gildersleeve, Claire Mutch, Ian Welsch, Eli Falk	E(2)
		The impact of slow-releasing nitrogen fertilizers on crop yields	Anna Matun, Sonali Singh, Raveena Munnangi, Alexandra Calin, Leslie Asman	E(3)
		COLONY COLLAPSE: A BEE CRISIS	Montgomery Smith, Kourtney Bridges, Sarah Klein, Camryn Maloney, Nicole Scully	E(4)
		Effect of Fertilizers on The Great Lakes	Allison Swider, Katina Langen, Kalyani Ramamurthy, Sydney Pauls	E(5)
		Carbon fixation and its implications	Austin Chase, Evan Riley, Jennifer Zudor, Allison Kenny, Steven Staeb, Ariana Angarita	E(6)
		Destruction of the Coral Reefs	Tori Morrill, Macy Dahnke, Skyler Kerr, Kerri Kopicko, Samantha McDonald	E(7)
		Automotive Emissions and the Atmosphere	Kyle Huber, Tim Dalton, Augie Evered, Gavin Wilks, Chris Naco	E(8)
		The Dangers of Smog Pollution	Samantha Pettersen, Maya Ross, Kim Romph, Viet Phan	E(9)
		Climate Change's Effect on Nitrogen Fixing Bacteria	Samantha Brown, Jacqueline Carbone, Ashley Peer, Lakota Shehi	E(10)
		Flint Water Crisis	Nick Friedli, Jordan Gerras, Surya Sudarsan	E(11)
		Environmental Impact of Nuclear Pollution and Radioactive Waste	Erin Kurth, Joanna Yiu, Jocelyn Dinh, Chris Witte	E(12)
		Ocean Acidification	Maddy Trowbridge, Sophia Saco, Gilbert Chen, Arpita Nayak, Brianna Woodbeck	E(13)
		Carbon Increase Due to Deforestation	Sydney Seese, Ashley Greenleaf, Taylor Kish, Sarah Wennerstrom, Mackenzie Howard	E(14)
		Photochemical Smog	Mckenna Galloway, Madison Haynes, Monica Ward, Alex Leonowicz, Olivia Ruppert	E(16)
		The Effect of Plastic in the Ocean	Camille Green, Briana Magin, David Connolly, Morgan O'Neill, Anagha Kramadhathi	E(18)
		A Sea of Plastic	Briana Magin, David Connolly, Camille Green, Morgan Oneill, Anagha Kramadhathi	E(20)
		Ocean Acidification	Jacquelyn Harajli, Jacob Wolfe, Megan Kempa, Sadhana Chinnusamy, Hasaan Hayat	E(22)
		PCBs	Andrew Dagenais, Spencer Schab, Henry Burghadt, Ian Detroyer	E(24)
		Acid Rain	Jo Joo, emma verlinden, Bri Murray, noah storbeck, Noah heichel	W(16)
		Eutrophication in the Great Lakes Region	Melanie Harju, Aleksander Weiermiller, Joshua Richardson, Lauren Powell, Kaiqi Zhang	W(17)

Monday Poster Presentations in East/West Lounges

Displayed Timeslot	Presenter at Poster	Title	Presenter(s) (Class)	East/West
		Effect of Rainforest Deforestation on Soil Nutrients and Global Carbon Dioxide Levels	Nabiha Habib, Alyssa Corpus, Rohit Nair, Sarika Shah	W(18)
		Mercury Poisoning in Sea-life	Rachel Butler, Jacob Wright, Jackson Arold, Megan Pastrick, Jennifer Zudor	W(19)
		Climate Change and Coral Bleaching	Evan Corcorran, Nick Zaima, Celeste Czarnecki, Rei Doko, Addison Healey	W(20)
		Biodiesel Effects on the Air	Bailey Greene, Will Burke, Dominic Perelli, Jack Rodriguez	W(21)
		Algal Blooms	Anthony Nguyen, Emily Neag, Mihai Big, Jonathan Paulino, Ian Poage	W(22)
		Ozone Layer Depletion	Lauren Cole, Olivia Woods, Victoria Ottinger, Jobanpreet Singh, Ni	W(23)
12:40pm-2:40pm	12:40-2:20		<i>LB 492 Presentations</i>	
		Antidepressants	Trevor Nessel	W(1)
		Digitalis lanata	Danielle Saunders	W(2)
		A Review of Syphilis	Natham Helms	W(3)
		Antipsychotics	Devin Jager	W(4)
		Caffeine: The World's Choice in Psychoactive Drugs	Dominic Milano	W(5)
		Botulinum toxin	John Italiano	W(6)
		Vancomycin and Antibiotic Resistance	Kyle Rau	W(7)
		The Ketogenic Diet and Treatment of Epilepsy	Madison Osentoski	W(8)
		Morphine	Alaina Bernard	W(9)
		The effects of essential oils	Lindi Leppien	W(10)
		Genetically Modified Organisms	Alexis Faber	W(11)
		Breast Milk vs Infant Formula	Julia Kerwin	W(12)
		Botulinum Toxin in Society: Past and Present	Lauren Vercellone	W(13)
		Streptomycin	Paige Nodus-Rydahl	W(14)
		Veterinary Euthanasia	Rhiannon Pavlinac	W(15)

Monday Poster Presentations in East/West Lounges

Displayed Timeslot	Presenter at Poster	Title	Presenter(s) (Class)	East/West
3:00-5:00	3:00-3:50pm		<i>LB 172 Presentations</i>	
		Aerosols and their Effect on the Environment	Paige Pline, Kelsey MacDonald, Julia Riehl, Vanessa Mitchell, Kristin Konja	E(1)
		Ocean Acidification and the Coral Reefs	Anna Moody, Brooke Devries, Isabella Meunier, Sarah Clay	E(3)
		CFCs	Vanessa Mitchell, Kristin Konja, Paige Pline, Julia Riehl, Kelsey MacDonald	E(5)
		Atrazine	Danielle Miner, Lilli Celovsky, Laura Pavliscak	E(7)
		Chernobyl: An Environmental Impact	Ashlee Hendricksen, Lindsey Royer, Lindsay Mangin	E(9)
		Environmental Impacts of Surface Runoff	Samantha Bunk, Devin McLaughlin, Diana Kubacka, Maduwuba Ugochukwu	E(11)
		Chlorofluorocarbons	Ankit Rattan, Olivia Baylis, Sarah Shareef, Quadric Muhammad, Ali Jafrey	E(13)
		Bioventing: How Holes in the Dirt Can Restore Our Soil	Dria Hager, Maddie Bross, Ellese Jaddou, Amanda Huang, Meghan Korte	E(15)
		Save The Bees	Alex Haver, Isabella Ouellette, Zac Lanzon, Beth Feldman, Matt Barlow	E(17)
		Coral Reefs and the Carbonate Buffer System	Leonie Leslie, Jared Hogeterp, Kenzie Cannarile, Viktor Ilyasov, Zach Smith	E(19)
		Mercury in Fish	Anna Osella, Nicole Curtis, Joe Kelly	W(1)
		The Effect of Ocean Acidification on Marine Life	Melissa Henning, Fadumo Ali, Joseph Woodman, Rashemia Powell, Melissa Bush	W(3)
		Aerosol Impact on Precipitation	Mackenzie Budd, Katie Golinske, Maggie Gajda, Katarzyna Purzycka	W(5)
		Algal Blooms in the Great Lakes	Alyssa Sanderson, Jacob Gattuso, Sachin Kumar, Samantha Finkbeiner	W(7)
		Eutrophication of the Great Lakes	Emily Dedoyard, Raneem Sannah, Aaron Palmeri, Sonia Khalid	W(9)
		Nuclear Waste Disposal	Scott Nolan, Jordan O'Kronley, Maddy Scott, Ted Jewell, Kristin Knickerbocker	W(11)
		Alkali Soil: It's Basic Chemistry	Ryan Ferrigan, Mustafa Iqbal, Tim Roback, Zain Salman, Danny Terner	W(13)
		The Harmful Effects of Agriculture on the Environment	Jason Lin, Aneesh Bal, Kevin Raju, Joey Haddad	W(15)
		Effects of Excess Carbon Dioxide on the Oceans	Emma Mushaka, Rachel Hamrick, Caroline Baidoon, Kenzie Hogle, Lauren Larson	W(17)
		CFC's and the Ozone	Thomas Corner, Larisa Garza, Olivia Boeberitz, Ian Sorensen, Daniel Kashy	W(19)
		Different Ph Levels Of Bottled Water and Its Impact On The Human Body	Ashley Peer, Jalisa McQueen	W(21)

Monday Poster Presentations in East/West Lounges

Displayed Timeslot	Presenter at Poster	Title	Presenter(s) (Class)	East/West
Evening 6-8pm			 MSUFCU Poster Session	
		Expression of Deubiquitinating Enzymes in Mouse Dopaminergic Neurons	Lilly Karchalla, Harue Zhang, Brittany Winner, John Goudreau, Keith Lookingland	E(1)
		Is There a Chemical Basis for Neuronal Co-Transmission?	Katarzyna Purzycka	E(2)
		Neural Mechanisms by Which Neurotensin Neurons Sense Thirst and Regulate Water Intake	Sabrina Fowler	E(3)
		Morphine Induced Morphological Changes in VTA Dopamine Neurons	Katie Wheeler, Sarah Cooper, Dr. Michelle Mazei-Robison Lauren Eby, Madison Barrett, Helen Wang, Kyleigh Buckley,	E(4)
		Edaphology System	Thomas Brown, Katie Edwards	E(5)
		Investigating mechanisms of action against 2-component regulatory system DosRST of Mycobacterium tuberculosis	Marilyn Werner, Huiqing Zheng, Robert Abramovitch	E(6)
		Human RNA Polymerase II Mutations and Uterine Cancer	Jess VanElls, Emily Neag	E(7)
		Expression analysis of candidate risk genes for type 2 diabetes in liver tissue of a mouse backcross population	Sarah Walsh	E(8)
		In Vivo Analysis of Aerobic Terminal Reductases in Shewanella oneidensis	Brittany Ladson	E(9)
		Hernia Recurrence and Infection Rate in Elective Complex Abdominal Wall Repair Using Biologic Mesh	Andrea Hess	E(10)
		An Analysis of the Reduction of Bronchoconstriction Using Varied Vitamin C Supplementation via Spirometry	Marla Nazee	E(11)
		Role of Histone Deacetylase-9 on Vascular Remodeling of the Basilar Artery in Hypertension	Melody Marzjarani	E(12)
		Development of High-throughput Screening Method to Identify Potential Genetic Modifiers of TCDD Immunosuppression	Manvir Sandhu, Elizabeth Horn, Peter Dornbos, John J. LaPres	E(13)
		Retinal Function of the Developing CNGB3-Mutant Canine Retina	Hailey Gosen, Andras Komaromy, Christine Harman, Kristin Koehl	E(14)
		Respiration Arrest Sensitizes Staphylococcus aureus to Oxidative Stressors	Alexa Calas	E(15)

Monday Poster Presentations in East/West Lounges

Displayed Timeslot	Presenter at Poster	Title	Presenter(s) (Class)	East/West
		The Role Of OCT4 Pseudogenes In Embryonic Development	Hannah Guider	E(16)
		Early Life Adversity Affects ChAT Expression in the Gastrointestinal Tract	Katelyn Kerr, Calvin Pohl, Adam Moeser	E(17)
		Development of an Agrobacterium-mediated transformation system of the soil fungus <i>Mortierella elongata</i>	Abigail Bryson	E(18)
		Isolating <i>Mycobacterium smegmatis</i> mutants resistant to a novel Tuberculosis antimicrobial	Emily Juzwiak, Robert Abramovitch	E(19)
		The Role of RAGE in Liver Tissue	Justin Ingram, Carmen Hurtado del Pozo, Andisheh Abedini, Ann Marie Schmidt	E(20)
		Potential Evolutionary Similarity Between Adrenergic and Opioid Receptors	Miah Turke, Beth Churchill	E(21)
		Double blinded study on the effects of elevated blood glucose on the physiological stress response	Hayden Stoub, Samantha Leacher	W(1)
		Paramecium and Larval Interactions	Elizabeth Flannery, Michael Kaufman	W(2)
		Fungal Resistance in <i>Phytolacca americana</i> Seeds	Abby Sulesky	W(3)
		Protein Diffusion Around Bacterial Nucleoids	Emma Ford	W(4)
		Bacterial Motility	Marc Maldaver	W(5)
		Pulmonary Physics: Construction of a Cost-Effective and Portable Spirometer	Morgan Kiryakoza, Jaideep Prasad, Emily Sanders, Nandan Kodur, Jacob Wright, Kaiqi Zhang	W(6)
		Comparative Energy Analysis of Olympic Amanar Vault	Hannah Lufkin, Silvia Aluia	W(7)
		A Catalog of Velocity Systems of [SII] in the Crab Nebula	Huei Sears	W(8)
		Fire Burn and Cauldron Bubble: Modeling Galactic Feedback with Adaptive Mesh Simulations	Claire Kopenhafer, Brian O'Shea	W(9)
		Accelerating Convergence by Change of Basis for No-Core Configuration Interaction Calculations	Abraham Flores	W(10)
		Understanding Students' Perception of Biologists	Jalpa Patel, Madison Kraus, Shais Raza	W(11)
		The Bi/Pan Experience: Exposing Bi/Pan Marginalization on Michigan State University's Campus	Alyse Maksimoski, Katrina Groeller	W(12)

Monday Poster Presentations in East/West Lounges

Displayed Timeslot	Presenter at Poster	Title	Presenter(s) (Class)	East/ West
		Screencasts and Simulations in the Learning of Solubility	Brianna Martinez	W(13)
		Screencasts and Simulations in the Learning of Atomic Interactions	Alec Shrode	W(14)
		ANALYZING THE DEGRADATION OF CELLULOSE, THE FIRST SYNTHETIC POLYMER	Montgomery Smith	W(15)
		Analysis of E.coli using Nanochromatography	Zoe Wilton, Rebecca Lahr	W(16)
		Rosalind Franklin: The Pioneer of DNA Structure	Emily Liddicoat	W(17)
6:30-7:10			<i>LB 492 Poster Presentations</i>	
		The evolution of pain	Madison Blondin	W(19)
		Can We Resist Antibiotic Resistance?	Sahithi Chinnam	W(20)
		Evolution of Osteoporosis	Rahul Malewar	W(21)
		Using an Evolutionary Perspective to Better Understand Senescence	Jessica Porter	W(22)
		Mental Disorders & Natural Selection	Richard Smihula	W(23)
		Are Probiotics Beneficial	Mitch Vorce	W(24)

Tuesday Oral Presentations

Room	Specific Time	Title	Presenter(s) (Class)
C7	8:00-10:50a		LB 172L 003
	1	Ferrofluids in our Everyday Lives	Joey Haddad, Emily Dedoyard, Kristin Konja
	2	Societal Impacts of Henry's Law	Bailey Montgomery, Amanda Montgomery, Ashley Greenleaf
	3	Water Purity in Developing Nations	Jessica Baxter, Will Quackenbush, Paige Pline
	4	Toxic Effects of Carbon Dioxide	Holly Vangordon, Allyson Conley, Dylan Wolschleger

Room	Specific Time	Title	Presenter(s) (Class)
W40	10:20-12:10pm	Research in Biology	LB 348
	10:30 AM	Beauty of the Wax	Krista Dunger
	10:38 AM	TBA	Kelly Geith
	10:45 AM	Telomere length	Karam Hadid
	10:52 AM	Alcohol Flushing Reaction	Jordan Stern
	11:00 AM	Snacks or Fast: Effects on Fasting Plasma Glucose	Graham Wellens
	11:08 AM	ACL rupture	Yoshua Mathai
	11:15 AM	Power and Endurance Presentation	Phillip Brzezinski
	11:22 AM	Boom, Roasted! Coffee Consumption and Genotypes: Beanotypes	Michael Kuhn
	11:30 AM	ADA Loci: The "Cold Pillow" of your sleep genes	Benjamin Luttinen
	11:38 AM	MCAD Deficiency	Nick Zonca
	11:45 AM	Will This Presentation Make You Vomit? A Look at the Influence of Genes on Motion Sickness	Wanda Sankey
	11:52 AM	Migranes	Haley Fulco

Tuesday Oral Presentations

Room	Specific Time	Title	Presenter(s) (Class)
C7	11:30a-2:20p		LB 172L 004
		1 Applications of Ion Exchange in Desalination of Salt Water	Jacob Gattuso, Courtney Accorsi, Joe Kelly, Amanda Liddicoat
		2 Cation exchange and applications in agriculture	Joey Woodman, Trevor Feldpausch, Kristin Fuller, Jovonnie Storey
		3 Applications of Chemical Kinetics	Kevin Raju, Allyssa Grayson, Chris Naco, Kaiqi Zhang
		4 The Future Is Bright: The Purpose of LEDs	Mackenzie Budd, Jocelyn Dinh, Meghan Korte, Camryn Maloney
		5 Real-World Applications of Ferrofluids	Ali Stark, Devin McLaughlin, Ellese Jaddou, Jake Eller
W25E	12:40-2:20pm		LB 492
		The Influence of News Coverage on Americans' Perceptions of Military Drones	Blake Blanas and James Pontius
		The Future of Food	Alana O'Mara, Parul Gupta, Stephanie MacDonald, and Lilly Karchalla
		FREE	Xavier Brandon and Marla Nazee
		Virtual Reality: The Therapy of the Future	Kaitlyn Horner, Bria Volkhardt, Andy Sagante, and Graham Wellens
C-106	12:40-2:30pm		LB 145 - Biocore
		Linking homologous animal and human behavior to DNA sequences	
		Two presentations by top lab groups	

Tuesday Oral Presentations

Room	Specific Time	Title	Presenter(s) (Class)
C7	3:00-5:50p		LB 172L 005, 017
	1	Ocean Acidification effects on shells and marine organisms	Briana Magin, Nabiha Habib, Unie Gu, Reed Weisenberger
	2	The Reaction Rate of chemotherapy	Sophia Saco, Sherri Thumma, Alexa Wright, and Jordan Gerras
	3	How does acid rain affect copper structures	Ashlee Hendricksen, Alex Haver, Jason Lin, Bella Ouellette
	4	Partition coefficient of CO ₂ and O ₂ in the blood	Maddy Scott, Alex Leonowicz, and Hannah Boardman
	5	Phytoremediation in relation to cation exchange in soil	Surya Sudarsan, Yuxin Chen, Kalyani Ramamurthy
	6	Contributing Factors to Global Warming	Nourdeen Hussini, Amanda Huang, Sarah Shareef, Kat Purzycka
	7	Chemical Kinetics in Food and Medicine	Victoria Ottinger, Jennifer Zudor, Anaga Kramadhathi, Melanie Harju
	8	Real world applications of ferrofluids	Madison Haynes, Chloe Bigwood, Megan Gildersleeve, Tyler Bowen
	9	Ocean Acidification and Henry's Law	Zak, Nick, Erin, Emily
	10	Carbon Dioxide and the Environment	Silvia, Dean, Lizzy, Lauren
W40	5:20-7:10pm		LB 492
		Delta	Chelsea Bielicki, Sal Mancuso, and Jessica Overholser
		A Study Proposal for Public Opinion on CRISPR and Gene-Editing	William Clisham, Jordan Gardiner, Asa Graybuchta, and Lucas Weingartz
		Editing Our Way to the Future	Shelby Hooper, Julie Pearson, Haley Verbeek, and Kendra Wekenman
		Virtual Reality: Promoting Wellness and Inclusivity	Phalguni Kulkarni and Christopher Rhoades
C7	7-9:50p		LB 172L 006, 018
	1	TBD	
	2		
	3		
	4		

Tuesday Poster Presentations

General Timeslot 10:20-11:40am	Presenter with Poster 10:20-11:40am	Title	Presenter(s)	Location East/ West
		24 presentations on organismal biology		<i>LB 144</i> East Only
				E(1)
				through
				E(24)
	Research	Exploring Students' Ideas of the Origin of Genetic Variation	Hailey Cockerill, Andrea Bierema, John Merrill, Mark Urban-Lurain, Kevin Haudek	E(25)
	Research	Modeling Debye Length	Rei Doko	E(26)

Wednesday Oral Presentations

Room	Class order	Title	Presenter(s)
C7 11:30-2:20p LB 172L 008			
	1	Effects of Increased Carbon Dioxide on the Environment	Maggie Gajda, Katie Golinske, Yuchi Mangal and Ian Sorensen
	2	Soil Acidification and its Effects on the Environment	Kristin Gunkelman, Vanessa Mitchell and Alec O'Connor
C7 3-5:50p LB 172L 009, 019			
	1	ocean acidifcation	Renee Brewet, Rebecca Flynn, Gavin wilks, Brianna Woodbuck
	2	The effect of greenhous gases	Raveen munnangi, Sydney Seese, Hasaan Hayat
	3	Chemical kinetics of pharmaceuticals	Ashley peer, Anna matun, Alexandra Cailin, Gregory Poole
	4	Crystal Diffraction	Sonali, Arianna, Nihar
	5	Ferrofluids: HIP in the medical community	Augie Evered, Katrina Langen, Montgomery Smith, Maddy Trowbridge
	6	Emission and Absorbtion of Sunlight and effects on the skin	Ryan Himmel, Ryan Roelant, Elaina White, Shelby Olin
	7	Emission Spectra and the Habitability of Exoplanets	Parker Kelly, Rachel Butler, Rohit Nair, Amanda Hardwick
	8	Pharmacokinetics of Heroin	Nicki Scully, Evan Corcorran, Alexa Senkmajer, Megan Pastrick
	9	Relating Kinetics, Greenhouse gasses and nuclear energy	Austin Benedict, Kyle Huber, Emily Whyte, Thomas Zammit
	10	Phytoremediation and cation exchange in soil	Lauren Cole, Chloe Bruchnak, Graham Parks, Ben Dolgikh
W40 5:30-7:00pm Impacts of Evolution LB 492			
	5:30 PM	Dreams	Jasdeep Bathla
	5:45 PM	Addiction Treatment: A Problem Being Tackled Correctly?	Lauren Budas
	6:00 PM	Evolution of the Causes, Treatments, and Perceptions of Depression throughout History	Maya Ganapathy
	6:15 PM	Viral Evolution as a Function of Host Range	Connor Park
	6:30 PM	Opioid addiction and where drug abuse resistance education programs went wrong.	Kyle Stahlbaum
	6:45 PM	An Evolutionary Perspective on Anxiety Conditions	Sydnee Wargo

C7 7-9:50p**LB 172L 010, 020**

1	Superconductors: They're Irresistible	Jacob Wolfe, Ian Detroyer, Tim Roback, Lindsay Mangin
2	Phytoremediation in the Great Lakes	Grace Lewis, Emma Verlinden, Eli Falk, Ali Jafrey
3	The Water Treatment that Lead Flint Astray	Kim Romph, Lilli Celovsky, Tanner Porter, Mustafa Iqbal
4	Artificial Insulin Production	Anthony Nguyen, Sadhana Chinnusamy, Samer Badri, Ann Marie Scazzero
5	The Science Behind Marathon Running	Bree Koslowski, Josh Richardson, Ali Kadouh, Jonathan Paulino
6	Flint Water Crisis:The Cation Exchange	Faith Sharp, Matt Barlow, Anna Moody
7	Greenhouse Gases: Space and Us	Jessica Burke, Kristin Knickerbocker, Colleen Riling
8	A Closer Look and the Science of Scuba	Emily Neag, Andrew Dagenais, Fadumo Ali, Noah Heichel
9	Rock Candy	Sarika Shah, Zach Smith, Wirat Pipattanamaitree, Joban Singh
10	Exploring Coordination Complexes	Ece Erder, Sam Mcdonald, Andrea Young, Brooke Devries

Thursday Oral Presentations

Room	Class order	Title	Presenter(s)
C7	8:00-10:50a		LB 172L 011
		1 Micelles in Cancer Treatment	
		2 Equilibrium in the Blood Stream	
		3 Ocean Acidification on Sea Shells	
		4 Global Warming's Effect on Coral Bleaching	
		5 Medical Uses of Coordinated Complexes	
		6 Synthesis of Vitamin C	
C7	11:30-2:20p		LB 172L 012, 022
		1 Real World Applications of Henry's Law	Melissa Schott, Aaron Palmeri, Raneem Sannah, Arpita Nayak
		2 Chemistry Behind and Practical Applications of IR Spectroscopy	Faith Slubowski, Isabel Cary, Stephanie Iorga, Yuka Miyoshi
		3 The spectra in our stars	Satya Chitturi, Jo Joo, Nick Pryde, Emma Mushaka
W40	12:40-1:25pm	Computing	LB 492
		Computing	Thomas Bolden, Sydne Williams, Ray Preuss, Krista Decooke, and Colin Lesoski
C-106	12:40-2:30pm		LB 145 - Biocore
		Linking homologous animal and human behavior to DNA sequences	
		Two presentations by top lab groups	
C7	3-5:50p		LB 172L 013, 023
		1 The Carbon Cycle	Alaina Ableidinger, Allison Kenny, Chris Whitte
		Chemistry behind the breathalyzer and the equilibrium with blood:alcohol ratio	Rakan Michael Haddad, Melissa Henning, Mia Fitzner, and Sam Finkbeiner
		2 Acid effects on soil (mainly acid rain and how it effects plant growth)	Joey Mukhtar and Henry Burghardt
		3 Effect of Car Coolants on the Ozone Layer over Time	Connor Baker, Maddie Bross, Will Burke, Bailey Greene
		4 Buffer Equilibrium in the Body	Evan Riley, Andrew, David Connolly
		5 Scuba Divers and Solubility of Gases (with Henry's Law, equilibrium and PVnRT)	Mihai Big, Lauren Miller, Sierra Jankowski
		6 Ocean Acidification Affecting Coral Reef Ecosystems	Jenny Menko, Morgan Sanders, Lauren Sosinski
		Greenhouse Gasses Human Production, effects, projected quantities	Leslie Asman, Aavi Bhakta, Kerrie Kopicko, Ben Mancini
		7 The Chemistry of fertilizer runoff (cation exchange from soil)	Jay Garlapati, Joe Bourdages, Nick Zaima
		8 World Energy Efficiency	Ryan Ferrigan, Vincent Milano, Amanda Sasinski
		9 Synthesis of Medications	Ramya Erasala, Samantha Bunk, Connor Schury, Spencer Schab
C7	7-9:50p		LB 172L 014, 024
		1 Multiple Presentations TBD	
		2	
		3	
		4	
		5	
		6	

Thursday Poster Presentations

General Timeslot	Presenter with Poster	Title	Presenter(s)	Location East/ West
6:00-8:00pm	6:00-8:00pm	DNA Sequencing		<i>BS 191H</i> East Only
		Multiple Honors biology research projects		