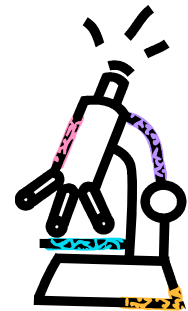


*5th annual*

*Lyman Briggs  
Research Symposium  
April 25-26, 2011*



Complete Schedule



**LYMAN BRIGGS**  
**COLLEGE**

**MICHIGAN STATE**  
**UNIVERSITY**

## Monday Oral Presentations

Room	Specific Time	Title	Presenter(s) or Class
<b>C-102</b>	<b>8:00-9:50</b>		<b>LB 492</b>
	8:00	The buildup to the Cold War	Ann Dvorak
	8:12	The development of nuclear weapons, tactics, and delivery platforms	Mark Grinzinger
	8:24	Radiation and its effect on nuclear policy	Matt Kristoff
	8:36	Freedom of Speech and the H-bomb	Nalin Lalwani
	8:48	The diversity of nuclear weapons	Bryan Lenneman
	9:00	Nuclear proliferation in Iran	Saurabh Mohanachandran
	9:12	The Soviet Union and nuclear espionage	Aaron Rozental
	9:24	A.Q. Khan, nuclear proliferator	Ryan Timmis
	9:36	One large step closer: the LHC and Higgs Boson	Colby Ward
<b>C-106</b>	<b>10:20-12:40</b>		<b>LB 494</b>
	10:30	The Effect of Kernel Size Distribution on the Overall Quality of Microwave Popped Popcorn	Steven Lesner, Monica Pomaville
	10:50	Popcorn Kernel and Flake Structure Differences between High and Low Expansion Genotypes	Fazaldin Moghul, Lydia Oehring
	11:10	Relationship of fatty acid composition and popcorn explosivity amongst popcorn genotypes	Matt Fountain, Meghan Miotto
	11:30	Effect of Kernel Size and Susceptor Use on High Popped Volume and Low Unpopped Kernels of Medium Expansion Popcorn	Alexandra Collins-Webb, Jessica Lee

# Monday Poster Presentations in East/West Lounges

## 9:00-11:10 am

Presenter at Poster	Title	Presenter(s) (Class)	East/West
<b>9:10-10:00am</b>		<i>LB 172 Presentations</i>	
	The Effects of Lead on the Environment	Rachel Culp, Hannah Sim, Dorothea Kaiser, Rachna Pannu	E
	Biofuels: An alternative fuel source	Jodi Meyer, Andrew Morton, Alyssa Rawling, Lynne Davis	E
	The Impacts of CO2 on Ocean Acidity and Coral Reefs	Leah Creech, Lora Anderson, Kevin Leikert, Lisa Hanna, Rachel Rudlaff	E
	Endocrine Disruptor Bisphenol-A (BPA): Effects on the Environment and Individuals	Bhanu Swamy, Sarah Conroy, Megan Neill, Monica Randall, Sam Swartzmilller	E
	Landfills And Water Quality	Brandy Haskin, Kelly Warsinske, Kara Menzie, Adalis Sifuentes, Kyle Kluck	E
	Coal Pollution and Solutions	Forrest Rapp, Josh Mesclier, Eileen Chang, David Thomas, Cari Lewandowski	E
	Solar Power: A Dual Approach to the Energy Crisis	Ross Clyma, David Tacia, Hunter Piegols, Brandon Coughlin, Kevin Steelman	E
	Solar-powered Energy	Lauren Kustasz	E
	Hydrogen Fuel Cells	Alexandria Mayes, Nathan Schmidt , Anjali Patel, Nicole Kaufman	E
	Acid Rain	Kilian LaFreniere, Josh Tolinsk, Paul Matouka, Jamie Devlin	E
	Chemical Weathering: An Analytical Perspective on Acid Rain	Nicolas Waldecker, Christi Decker, Josyln	E
	The Effects of Methane from Cows on the Environment	Erica Allen, Faye Tata, Shanice Akoto, Dana Balek, Tristan Blanchette	W
	Fertilizers Affect on the Enviornment	Kelsey Prochazka, Dustin Brabrandt, Katie O'Brien, Jacob Lunau, Nicole Patel	W
	Wind Energy	Jenna Marte, Haley Bissonnette, Erik Grodus, Adam Devine	W
	Dioxins Environmental Effects	Adam MacDonald, Matthew Alcott, Nick Somers , Beth Cole	W
	Chemical Strategies for Dealing with Oil Spills	Jeff Cross, Chris Bualteng, David Brancaleon, Patrick Chouinard	W
	Nuclear Energy	Josh Corteville, Siegfried Bierekoven, Ryan Koster, Brandon Scott	W
	Ground Level Ozone	Jon Busken, Abby Grey, Leah Brynaert, Ryan Paul	W
	Nuclear Chemistry	Elizabeth Wertz, Alex Beaudry, Erin Lucian, Colleen Milster, Hannah Slajus	W
	Pesticide and Fertilizer Runoff	Mitchell Goheen	W
	The Environmental Impact of Coal Plants	Natalie Tonomi, Corinne Francisco, Emma Spatz, Annelise McGoff, Ryan Schultz	W

# Monday Poster Presentations in East/West Lounges

## 9:00-11:10 am

Presenter at Poster	Title	Presenter(s) (Class)	East/West
<b>LB 273/274</b>	Physics Video Honors Options		E
<b>Research</b>	Epidemiology and definition of mating type genes of two <i>Ascochyta</i> sister species	Joseph Meleca	W
<b>10:20-11:10</b>			<i>LB 172 Presentations</i>
	Acid Rain	Allison Chan, Meredith Woodward, Jeffrey Fisher, John Herdman, Jasmine Ross	E
	on Photochemical Smog	Matthew Lawson, Cera Bloomquist, Jon Weiss, Joanna Kukla, Kevin Wheelock	E
	Hydrogen Fuel Cell	Katie Swanic, Gabbi Wright-Nagel, Tim Oja, Mariah Wilson, Michelle Pomerleau	E
	The Impact of Nuclear Power on the	Lucas Friedli, Mike VanAntwerp, Adam Eggleston, Andrew McLeod, Chris LaMarche	E
	Smog and its Environmental Tendencies	Jon Weiss, Kevin Wheelock, Joanna Kukla, Cera Bloomquist, Matt Lawson	E
	Biodegradable Plastics	Cynthia Amstutz, Emily Cannell, Sarah Davis, Megan Weidman, Ciana Rogers	E
	The effect of estrogen on water	Sarah Abdmahmoud, Brooke Ritter, Hannah Kuperus, Michelle Golembieski, John Rotondo	E
	Endocrine Disrupting Hormones	Monica LaPointe, Katie Artz, Steve Carnaghi, Beri Bragiel, Ashley Mucha	E
	Polychlorinatedbiphenyl (PCB) toxic spills and environmentally safe cleanup	Shelby Hemker, John Mager, Riley Marshall, Timothy Kroninger, Andrew Oshtosh	E
	Effects of Methane on the Atmosphere	Michael Havern, Roger Mullet, Megan Frayer, Madelyn Shoup, Jasneet Jhita	E
	Alternative Fuels	Alyson Feenstra, Dhaval Ruwala, Sunny Singh, Allie Berichon, Rachael Toepfer	E
	Alternative Fuel - Ethanol	Rachel Emory, Lauren Garelik, Brittley Leppien, Terese McQueen, Nate Downing	E
	Alternative Fuel Sources	Samantha Caramagno, Nicholas Bhaskaran, Chris Palazzo, Karl Supal, Sam Moore	W
	Dioxin	Meghna Dhir, Rachel Norman, Victoria Zielinsky, Denise Sirias, Hub Stowe	W
	Ground Level Ozone	Leah Brynaert, Ryan Paul, Abby Gray, John Jonbusken	W
	French-Fry Fuel	Travis Lunsford, Hillary Cullison, David Hurley, Cory Miller, David Mackool	W
	Wind Energy	Katharine Lee	W
	Oil Spills	Haley Vos, Sean Hand, Lindsey Phillips, Kory LaPree, Emma Beasley	W
	Cadmium Mining	Smeralda Bushi, joshua christy, eric pehr, pierce rouse, sean carroll	W
	Nuclear Produced Hydrogen Fuel	Rachel Shoemaker, Michael Cornelius, Phil Mangum, Ally Mooty, Chuck Ternes	W

Monday Poster Presentations in East/West Lounges  
9:00-11:10 am

Presenter at Poster	Title	Presenter(s) (Class)	East/ West
Pollution of Marine Habitats	Linda Yuen, Trevor Emerick, Carmen Diaz, Aditi Patel, Bradly Davis	W	
LB 415 Applications of Mathematical Physics		E	

# Monday Poster Presentations in East/West Lounges

## 11:30am - 2:40pm

Presenter at Poster	Title	Presenter(s) (Class)	East/ West
<b>11:30-12:20pm</b>		<i>LB 172 Presentations</i>	
	Wind Energy	Alistair Beerens, Daniyal Bashir, Mackey Daniel	E
	Compressed Natural Gas: Environmental Friend or Foe?	Jordan Lawal, Susan Thompson, Phoebe Huberty	E
	PFOA/PFOS	Erika Michelin, Ashley Sabourin, Kellie Moran	E
	Hydrogen Fuel	Maggie Mikus, Grace Davis, Vanessa Marinas, Karlie Kashat, Lexi Marissa Ceresnie, Ari Walter, Maryann Donnan, Dominic Taylor, Carolyn Daley,	E
	Battery/Electric Powered Cars	Robin Lawson	E
	Polychlorinated biphenyls (PCBs)	Julia Miller, Anzar Abbas, Sarah Grimm, Vanessa Salmo	E
	Solar Energy	Kristen Kenny, Katherine Kosko, Krishna Tikiwala, Kiyana Weatherspoon	E
	Bio Fuel as an Alternative Energy	Josh Reside, Chan Joo, Alex Schimpke, Natasha Mehta, Karolyn Clever Hannah Winget, Alexa Bennett, Joseph Conley, Thomas Dambrosio, Cary Krug,	E
	Geothermal Energy	Andrea Watts	E
	Alternative Energy: Wind	Jordyn Winship, Victoria Verkest, Lauren Powell, Megan Penkevich, Jeremy Ratiu	E
	Hydro	Maria Foley, Sophie Pokhrel, Nikhil Gandhi, Kyle Latouf	E
	Global Dimming	John Shanley, Marlie Patel, Trevor Schulte, Shivani Bhagwan	W
	Biodiesel	Laura Grabowski, Blair Murphy, Cole Spruyt, Adrienne Adamczyk, Matt Heydenburg	W
	Polychlorinated Biphenyls: Chemistry and our Environment	Jennifer Michalski, Ashley Wood, Eileen Stefansky	W
	Solar Energy	Jordyn Ferris, Mike Frakes, Emily Marr, Sarah Dobson	W
	Nuclear Fission	Stephen Manning, Jacob Gill, Fenlon Everson	W
	Alternative Energy Sources: Biofuel	Karolyn Clever	W
	Alternative Energy- Hydrogen	Dakwale	W
	CFC-12	Sadie Boyd, Jordan Tejchma, Nick Linstruth, Drake Deitch	W
	LB 172 Chemistry II Energy Group Project - Solar Energy	Ryan Babik, Michael Swabash, Andrew Campbell, Laine Ryckman	W
	Off Shore Drilling	Josh Daien, Gretchen Dull, Shivani Rami, Brian Rashid	W
	Nuclear Powerplant Meltdown	Justin Dusaj, Michael Visser, Elizabeth Lemieux	W
	Yucca Mountain Nuclear Waste Repository	Steven Smiley, Ben Rathbun, John Lundy	W

# Monday Poster Presentations in East/West Lounges

## 11:30am - 2:40pm

Presenter at Poster	Title	Presenter(s) (Class)	East/ West
<b>LB 415</b>	Applications of Mathematical Physics		E
	Applications of Mathematical Physics		E
<b>LB 172</b>	Greenhouse Gases	Katie Artz	W
	The effect of feeding a C16:0-enriched fat supplement on milk fatty acid composition	Kelsey DeLand	W
<b>MMG</b>	The Body as a Circuit	Nicole Zokvic, Erin Smigielski	W
	An Examination Of The VHL Tumor		
<b>LB 145</b>	Suppressor Gene	Nicolas Waldecker	W

# Monday Poster Presentations in East/West Lounges

## 3:00pm - 5:00pm

Presenter at Poster 3:00-3:50pm	Title	Presenter(s) (Class)	East/ West
		<i>LB 172 Presentations</i>	
	Oil Spills and Chemistry	Josh Drost, Lauren Jackson, Laura Harding, Caitlin McCarthy	E
	Ocean Acidification: An Underrepresented Issue?	Abigail Tomlinson, Natalie Davenport, Lana Raouf	E
	Hydrogen Fuel Cells	Srividya Kakulavarapu, Martin Mugerian, Frank Loomis, Hillary Albert, Luke Verghese	E
	Algae Fuel	Sydney Ruhala, Carolyn Wiest, Ellen White	E
	Wind Power	Alex Dutcher, Dan Wright, Sam DeMarco, Ben Drullinger	E
	Water Crisis	Jennifer Pierluissi, Nick Campbell, Daniel Aaron, Sondra Weaver, Jason Meldau	E
	Benifits of Geothermal Heating	George Murphy III, James Hermiz, James , Sam Perez	E
	DDT and its Effect on the Environment	Cassie Gendernalik, Caitlyn Stahlbaum, Jared Fitch, Jon Huck	E
	Solar Power	Xi Wang, Patricia Malang, Ericka Chant	E
	Algae Biofuel	Alexus Cox, Adam Schroeder, Eric Lee, Ross Buckley	E
	Solar Thermal	Michael Gurnee, Curtis Dickey, Michael Darnell	E
	Fusion	Aaron Senchuk, Nicole Bendt, Steven Maas, David Stromberg	E
	Section 17 Hydro Power	Kevin Kelly, Brittney Miller, Bill Bohlen, Stephanie Hamilton	E
	Biodiesel as a Fuel Source	Isabella Schember, Fletcher Smith, Lestella Bell, and Andy Krause	E
	Dioxins	Carly Lesoski, D'Nae Hearn, Alex Herrington, Prashanth Viswanathan, Derek Wooster	E
	Nitrogen Pollution in Aquatic Ecosystems	Carl Kirsch, Usman Majeed, Stephen Kerr, Allison Bosink	E
	<b>LB 415</b> Applications of Mathematical Physics		E
	Applications of Mathematical Physics		E
	Effects of gRNA poly-U tail on gRNA/mRNA		
<b>Research</b>	Hybridization	Jasmine Lucas	E
<b>Research</b>	Reference Lakes of Michigan	Kimberly Schoch	E
<b>LB 171</b>	Overcoming Challenges	Cynthia Amstutz, Sarah Davis	E
	Detection of BRCA-1 Mutation Via PCR and		
<b>LB 145</b>	gel electrophoresis	Nathaniel Zeitler	E
<b>LB 290A</b>	Cholera in Haiti	Leah Brynaert, Cindy Amstutz, Ryan Paul	E



# Monday Poster Presentations in East/West Lounges

## 3:00pm - 5:00pm

Presenter at Poster	Title	Presenter(s) (Class)	East/ West
<b>Research</b>	The Interaction Between Lactobacillus jensenii and Streptococcus agalactiae	Emily Rustad	E
<b>4:10-5:00pm</b>			
<b>LB 415</b>	Applications of Mathematical Physics		E
	Applications of Mathematical Physics		E

## Monday Poster Presentations in East/West Lounges 6:00pm - 8:00pm

	Title	Presenter(s) (Class)	East/ West
<b>LB 171</b>	Antoine Lavoisier: 'The Father of Modern Chemistry'	Hunter Piegols	E
<b>LB 145</b>	Crohn's Disease (allele-specific PCR assay)	Cassie Wieckhorst	E
<b>LB 492</b>	Value Matrix Theorem and its Applications To Two Player Matrix Games	Mitchell Wood	E
<b>LB 492</b>	Lyman Briggs Students' Beliefs About Minorities in Science	Christine Meister	E
<b>Research</b>	Do college introductory biology courses increase student ecological literacy?	Xuemei Ye	E
<b>ST 231</b>	LAKE TROUT EGG AND FRY ANALYSES	Joe Parzych	E
<b>LB 290A</b>	Mission to Mars	Andrew Morton, Luke Friedli, Nick Hadorn, Dhaval Ruwala	E
<b>LB145</b>	AS-PCR of CALU-3 DNA in diagnosis of Phenylketonuria mutation R408W	Zachary Gaudette	E
<b>Research</b>	Characterizing the Milky Way Stellar Halo	Monica Derris	E
<b>LB145</b>	Identification of F2853S Mutation of PKD in S9 cells using site-specific primers in PCR and gel electrophoresis	Joy Burrell, Laura Kwasnik, Nick Rochte, Alex Reid	E
<b>LB 290A</b>	HIV and AIDS in Africa	Marissa Ceresnie, Jamie Devlin, Cera Bloomquist, Stephanie Zdeb	E

## Tuesday Poster Presentations in East/West Lounges 3:00 - 5:00pm

Presenter at Poster	Title	Presenter(s) (Class)	East/ West
<b>3:00-3:50</b>			
<b>LB 499</b>	A phylogenomic analysis of the effect of DNA repair enzyme repertoires on mutation bias.	Nathan Johns	E
<b>LB 492</b>	If you Belief Racial Minorities are Underrepresented in Science, will you Believe Women are too?	Laura Schroeder	E
<b>UG 201</b>	Scientists' Anxiety: Publication of Negative Results	Lauren Sabatowski	E
<b>4:10-5:00pm</b>			<b>LB 145 Posters</b>
	The Use of Allele-Specific Primers Which Anneal To Wild Type or C282Y Mutated Human DNA To Detect Haemochromatosis	Jordon Van De Velde, Josh Andaloro, Kate Devries, Sam Pace	E
	Positive BLMash Mutation Identification By Use of PCR and Gel Electrophoresis in Homo sapiens.	Dean Sharrard, Lindsey Armstrong, Lynne Davis, Keaton Quinn	E
	Genotypic Identification of the W1282X mutation in CF human IB3 and HeLa cells	Jillian Harold, Jacob Aubry, Emily Schmitt-Matzen, Soo Hur	E
	Using Polymerase Chain Reaction to Identify Arg212His Mutation in MYO7A Gene of Human DNA	Carolyn Schupp, Joshua Christy, James Dupuie, Jr., Madeline McDonald	E
	Using PCR to Successfully Identify the G1138A Point Mutation in the FGFR3 Gene in Achondroplasia Human Patients	Melanie Hardin, Shubhi Kalwani, Rachael Hume, Nick Hadorn	E
	Detection of 1510 bp Band using PCR and Gel Electrophoresis to Diagnose E6V Sickle Cell Anemia in Human Genomic DNA	Tyler Ash, Kristina Knirk, Jon Walters, Nicole Arcy	E
	PCR Based Identification of the VHL R167W Mutation	Erin Smigielski, Paul Singh, Victoria Braman	E
	Determining the Risk Factor of Human Cells for Huntington's Disease by Using PCR	Amy Jamieson, Ashley Grosso, Mary Hniang, Sean Benner	E
	Achondroplasia	Megha Patel, Chris Chacko, Laura Collins	E
	Positive Genomic Identification of Mutation G529 in Leukocytes of CALD Patients Using PCR Allele Amplification	Brooke Pallas, Eric Kontowicz, Alex McNeill, Sophia Herrera	E
	A Successful PCR Assay for the Microsatellite Repeat Status of the FMR1 Gene in Homo Sapien Suspended Epithelial Cells	Kelsey Leicht, Kaitlyn Beels, Alyssa Seel, Justin Zaleski	E
	Positive PCR amplification of mutated CAG repeat on Htt gene and social study of Huntington's Disease patients	Shelbe Vollmer, Daniel Buhlinger, Kelsey Burgess, Emily Bassman	E

## Tuesday Poster Presentations in East/West Lounges

### 3:00 - 5:00pm

Presenter at Poster	Title	Presenter(s) (Class)	East/ West
	Successful Diagnosis of Duchenne Muscular Dystrophy Using PCR to Detect the Deleted 45th Exon of the human DMD Gene	Andrea Parker, Katie Buhlinger, Jose Zamora-Sifuentes, Steve Muresans	E
	Diagnosing the PS1-E280A mutation in human brain cell of Alzheimer's patients using PCR and electrophoresis	Leah Jackson, John Cochrane, Julie Adamo, Casey Spooner	E
	Identification of C282Y Mutation on HFE gene of CALU-3 DNA by Allele Specific PCR and Gel Electrophoresis	Raef Fadel, Nicole Hanley, Samantha Voorhorst, Paul Kelly	E
	Unsuccessful PCR of (CAG) repeats on HTT gene in S9 epithelial cells using a threshold HOXD8/10 ladder	Lauren Lenzion, Charlotte Lee, Aaron Rivkin, Devon Pyykkonen	E
	Identification of GM Zea mays by Detection of Bacillus thuringiensis Cry1A Gene and CaMV 35S Promoter Using PCR	Julie Nguyen, Kelsey Sill, Jared Guttman, William Darden	E

## Tuesday Poster Presentations in East/West Lounges 6:00 - 8:00pm

Presenter at Poster	Title	Presenter(s) (Class)	East/ West
	The Evolution of Optimal Foraging Strategies in Populations of Digital Organisms	Jacob Walker	E
<b>Research</b>	Arabidopsis defense signaling: MYC2-Jas Interaction	Ben MacNeille	E
<b>LB 172</b>	Lise Meitner: A Career in Science	Stephanie Hamilton	E
	A Comparison of Personalities in the Lyman Briggs and James Madison Residentail Colleges	Madelyn Shoup, Vanessa Marinas	E
<b>Research</b>	Determining If the Symbiotic Small Colony Form of Photorhabdus Luminescens Develops A Higher Incidence of Antibiotic Tol	Alexander Martin, Shelby Hemker, Sarah Kuenzel	E
<b>STT 231</b>	Solar Powered Energy and Statistics	Lauren Kustasz	E
<b>LB 290A</b>	Medical Marijuana	Emily Cannell, Denise Sirias, Kris Saunders, Ziggy Bierekoven	E
<b>LB 290A</b>	Oceanic Dead Zones	Mitchell Goheen	E
<b>Research</b>	Isolation and Characterization of Ferroblobus indicus sp nov: A Novel Hyperthermophilic Fe(III)-Reducing Archaeon	Lauryn Przeslawski	E
<b>LB 145</b>	Huntington's disease detected in Homo sapien Calu lung epithelial cells based on CAG microsatellite in mHTT via PCR	Anthony Lai, Olivia Allen, Amber Faasen, Mitch Kelley	E

## Wednesday Evening Poster Presentations

6-8pm

### **LB 144 Posters**

36 posters

## Thursday Evening Poster Presentations

6-8pm

### **Honors Biology Posters**