

KEYNOTE SPEAKER



Colin Saldanha, PhD

Professor, Department of Biology, American University
Program Director, Neural Systems Cluster,
Integrative & Organismal Systems Division, National Science Foundation
<https://www.american.edu/cas/faculty/saldanha.cfm>

“Hormones & Neuroplasticity: Learning from a Resilient Brain”

Steroid hormones like estrogens have profound effects on the developing, adult, and aging brain in vertebrates of both sexes. Estradiol modulates various indices of neuroplasticity including neurogenesis, neuronal migration, synaptic connectivity, and cell death. This is particularly obvious in some species of songbirds, where entire circuits of the adult brain degenerate and regenerate annually. Some songbirds constitutively synthesize estradiol in neurons and synapses within the brain itself; and at levels high enough to affect complex behaviors like learning and memory. Estradiol synthesis can also be induced in glial cells following neurotrauma, where we are beginning to learn about the complex interactions between inflammatory processes and neural steroid synthesis. I will discuss some of our findings with emphasis on the critical roles of ecologically valid animal models and interdisciplinary approaches in neuroscience research and teaching.

UNDERGRADUATE STUDENT RESEARCH TALKS – ABSTRACTS



Aimee Judd, Aquinas College

Major(s): Mathematics, and Education with an emphasis in Learning Disabilities
Senior, Class of 2020

Research Mentor(s): [Joseph Fox, PhD](#) – Associate Professor of Mathematics

“Combinatorics of Citation Networks”



Meghan Schilthuis, Calvin College

Major(s): Biology
Senior, Class of 2019

Research Mentor(s): [Anding Shen, PhD](#) – Associate Professor of Biology

“Lymphatic Endothelial Cell Stimulation Promotes HIV-1 Infection in CD4+ T Cells”



Kathryn Sheets, Grand Valley State University

Major(s): Ecology & Evolutionary Biology
Senior, Class of 2018

Research Mentor(s): [Eric Snyder, PhD](#) – Professor of Biology

“Assessing the impact of mussel bed presence on aquatic macroinvertebrate communities and stream function”



Skylar Sundquist, Hope College

Major(s): Biochemistry and Molecular Biology
Junior, Class of 2020

Research Mentor(s): [Maria Hledin, PhD](#) – Professor of Biomedicine & Chemistry

“The Regulation of Cellular Proliferation by VACM-1/CUL5 is Dependent on its Posttranslational Modifications by NEDD8”

GRADUATE STUDENT RESEARCH TALKS – ABSTRACTS

(2:50 PM - Tomatis Auditorium)



Leslie Wyman, PhD Candidate – Cell and Molecular Genetics

Van Andel Institute Graduate School

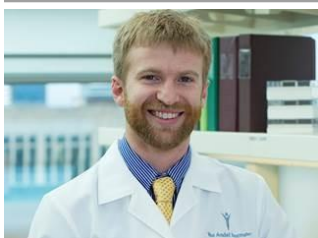
Alumna: Grand Valley State University – Bachelor of Science, Cell and Molecular Biology, 2015

Research Mentor: [Darren Moore, PhD](#)

“Mechanisms of LRRK2 dimerization and activity”

Co-Authors: Darren Moore, PhD

Student Profile: <https://vaigs.vai.org/current-students-alumni/students/leslie-wyman/>



Robert Vaughan, PhD Candidate – Cell and Molecular Genetics

Van Andel Institute Graduate School

Alumnus: Grand Valley State University – Bachelor of Science, Cell and Molecular Biology, 2012

Research Mentor: [Scott Rothbart, PhD](#)

“Growing with the scientific community in West Michigan”

Student Profile: <https://vaigs.vai.org/current-students-alumni/students/robert-vaughan/>

12TH ANNUAL
WEST MICHIGAN REGIONAL UNDERGRADUATE SCIENCE RESEARCH CONFERENCE

2018 POSTER PRESENTATIONS

Poster presentations

AUTHORS LIST

Pages 4-7 includes a table with a list of principal presenting authors by last name

Co-Presenting authors, co-authors and research mentors are included with the detailed poster information on pages 8-27

List of Principal Presenting Authors				
Last Name	First Name	Poster #	Institution	Field of Study
Andrews	Caroline	53	Hillsdale College	Biology
Apostle	Stefanos	47	Grand Valley State University	Biology
Apostle	Alexander	65	Michigan State University	Biology
Ausherman	Christine	25	Van Andel Research Institute	Biochemistry
Baker	Alyssa	70	Grand Valley State University	Biomedical Sciences
Becker	Sarah	17	Hillsdale College	Biochemistry
Best	Safiya	110	Grand Valley State University	Chemistry
Bhimani	Kevin	159	Kalamazoo College	Physics
Bhullar	Abhjeet	160	Kalamazoo College	Physics
Biel	Sara	98	Calvin College	Chemistry
Bleitz	Maria	32	Calvin College	Biology
Bobian	Andrew	109	Ferris State University	Chemistry
Bouwer	Miranda	1	Calvin College	Biochemistry
Bouwman	Rachael	99	Calvin College	Chemistry
Brantuo	Maame Adwoa	165	Calvin College	Psychology
Brouwer	Kelsey	122	Calvin College	Computer Science
Brunink	Schuylar	55	Hope College	Biology
Burroughs	Luke	100	Calvin College	Chemistry
Callahan	Brianna	162	Michigan State University	Physiology
Campbell	Molly	120	Lake Superior State College	Chemistry
Chang	Han	66	Taylor University	Biology
Charles	Joseph	45	Ferris State University	Biology
Cheap	Avery	29	Aquinas College	Biology
Chen	Shenghui	125	Calvin College	Engineering
Chew	Joyce	101	Calvin College	Chemistry
Chui	Kevin	71	Grand Valley State University	Biomedical Sciences
Cooper	Alexander	126	Calvin College	Engineering
Day	Carol	124	Cornerstone University	Ecology and Evolution
DeHeer	Katherine	141	Calvin College	Microbiology
Deighton	Jared	26	Calvin College	Bioinformatics & Biostatistics
DeJonge	Heather	150	Lowell High School	Neuroscience
Dewey	Emma	59	Indiana Wesleyan University	Biology
DeWitt	Ashley	48	Grand Valley State University	Biology
Dho	Jinsung	2	Calvin College	Biochemistry
Dible	Sarah	56	Hope College	Biology
Doran	Caitlyn	78	Ferris State University	Biotechnology
DuHadway	Kathryn	18	Hillsdale College	Biochemistry
Eapen	James	33	Calvin College	Biology
Ebels	Lauren	34	Calvin College	Biology
Evert	Lauren	148	Hope College	Neuroscience
Faitz	Zac	23	Indiana Wesleyan University	Biochemistry
Farrell	Regan	102	Calvin College	Chemistry

List of Principal Presenting Authors

Last Name	First Name	Poster #	Institution	Field of Study
Fish	Skyler	35	Calvin College	Biology
Fogg	Camille	130	Hope College	Engineering
Frasher	Breanna	171	Ferris State University	Public Health
Freiman	Andrew	85	Grand Valley State University	Cell and Molecular Biology
Fugate	Madeline	86	Grand Valley State University	Cell and Molecular Biology
Galla	Kylie	49	Grand Valley State University	Biology
German	Ryan	36	Calvin College	Biology
Giurini	Michael	113	Hope College	Chemistry
Goad	Blue	27	Davenport University	Bioinformatics & Biostatistics
Goeglein	Brock	60	Indiana Wesleyan University	Biology
Gomez	Jasper	75	Michigan State University	Biomedical Sciences
Green-Jackson	Lavar	147	Grand Valley State University	Neuroscience
Grey	Joshua	87	Grand Valley State University	Cell and Molecular Biology
Hall	Kelsey	137	Aquinas College	Mathematics
Hamilton	Katy	3	Calvin College	Biochemistry
Harlow	Olivia	134	Calvin College	Immunology
Harrah	Ashleigh	88	Grand Valley State University	Cell and Molecular Biology
Hartgerink	Colin	4	Calvin College	Biochemistry
Hashem	Tanwir	135	Michigan State University	Immunology
Hirakawa	Kento	62	Kalamazoo College	Biology
Horner-Richardson	Mary	5	Calvin College	Biochemistry
Hren	Zackary	15	Ferris State University	Biochemistry
Jang	Byoungchan	155	Calvin College	Physics
Jenkins	Sabrina	111	Grand Valley State University	Chemistry
Johnson	Mary	42	Cornerstone University	Biology
Johnson	Rebecca	114	Hope College	Chemistry
Jones	Taylor	154	Ferris State University	Pharmacy
Jonker	Patrick	6	Calvin College	Biochemistry
Judd	Aimee	136	Aquinas College	Mathematics
Karsten	Joel	20	Hope College	Biochemistry
Kazmierczak	Nathanael	103	Calvin College	Chemistry
Keller	Rahel	97	Cornerstone University	Chemistry
Kheder	Ashraf	43	Cornerstone University	Biology
Kim	Katherine	7	Calvin College	Biochemistry
Kim	Min Soo	116	Kalamazoo College	Chemistry
Kirby	Jacob	93	Indiana Wesleyan University	Cell and Molecular Biology
Kuiper	Sam	8	Calvin College	Biochemistry
Kuiper	Daniel	76	Calvin College	Biophysics
Lamberg	Olivia	37	Calvin College	Biology
Langholz	Anna	167	Hope College	Psychology
Lee	Sophia	9	Calvin College	Biochemistry
Lenz	Samuel	127	Calvin College	Engineering
Leuschner	Thomas	61	Indiana Wesleyan University	Biology
Lietz	Amanda	77	Ferris State University	Biotechnology
Lillard	Tyrese	112	Grand Valley State University	Chemistry
Lindemann	Reece	168	Hope College	Psychology
Lowe	Jared	115	Hope College	Chemistry
Mack	Curtis	143	Grand Valley State University	Microbiology

List of Principal Presenting Authors

Last Name	First Name	Poster #	Institution	Field of Study
Martinez	Deziray	117	Kalamazoo College	Chemistry
Mason	Miles	10	Calvin College	Biochemistry
Matusiak	Paige	72	Grand Valley State University	Biomedical Sciences
McMahon	Diana	145	University of Detroit Mercy	Microbiology
Mellinger	Joseph	142	Calvin College	Microbiology
Moore	Lindi	67	Taylor University	Biology
Murray	Shannon	79	Ferris State University	Biotechnology
Nguyen	Kenny	108	Aquinas College	Chemistry and Physics
Nishii	Akira	96	University of Michigan - Ann Arbor	Cell and Molecular Biology
Nowland	Gina	30	Aquinas College	Biology
Ohsiek	Ashley	73	Grand Valley State University	Biomedical Sciences
Omollo	Expery	24	Michigan State University	Biochemistry
Park	Amber	44	Davenport University	Biology
Park	Sung	63	Kalamazoo College	Biology
Paul	Gage	89	Grand Valley State University	Cell and Molecular Biology
Peterson	Elizabeth	11	Calvin College	Biochemistry
Peterson	Hannah	12	Calvin College	Biochemistry
Pham	Han	50	Grand Valley State University	Biology
Porter	Cedric	131	Hope College	Engineering
Proksch	Emily	16	Ferris State University	Biochemistry
Pruim	Jason	121	Calvin College	Computational Biology / Bioinformatics
Pynes	Rosemary	19	Hillsdale College	Biochemistry
Reyes-Gonzalez	Luis	164	Grand Rapids Community College	Political Science
Rice	Micaela	46	Ferris State University	Biology
Ross	Jackson	104	Calvin College	Chemistry
Rulison	Forest	156	Hope College	Physics
Schilthuis	Meghan	39	Calvin College	Biology
Scholten	Bradley	38	Calvin College	Biology
Schutt	Elizabeth	166	Calvin College	Psychology
Scoville	Riley	105	Calvin College	Chemistry
Senti	Mackenna	22	Hope College	Biochemistry
Shaffer	Gregory	151	Ferris State University	Pharmacology
Shammami	Marcelio	146	University of Detroit Mercy	Microbiology
Sheets	Kathryn	51	Grand Valley State University	Biology
Shllaku	Nikol	68	University of Detroit Mercy	Biology
Shultz	Jeremiah	69	Calvin College	Biomedical Sciences
Sims	Jonathan	161	Calvin College	Physiology
Smith	Austin	57	Hope College	Biology
Song	Youngtae	118	Kalamazoo College	Chemistry
Stegenga	Ashley	169	Hope College	Psychology
Stewart	Shannon	13	Calvin College	Biochemistry
Stokes	Lynn	28	Indiana Wesleyan University	Bioinformatics & Biostatistics
Sundquist	Skylar	21	Hope College	Biochemistry
Sutton	Elizabeth	80	Ferris State University	Biotechnology
Sweeney	David	40	Calvin College	Biology

List of Principal Presenting Authors

Last Name	First Name	Poster #	Institution	Field of Study
Szarowicz	Carlye	81	Ferris State University	Biotechnology
Terrell	Nicholas	90	Grand Valley State University	Cell and Molecular Biology
Teunis	Katrina	139	Grand Valley State University	Mathematics
Thaxton	Kanedra	133	Michigan State University	Human Biology
Thiel	Allie	170	Hope College	Psychology
Thomas	Haryana	128	Calvin College	Engineering
Thomas	Audrey	144	Kalamazoo College	Microbiology
Thompson	Leah	41	Calvin College	Biology
Thompson	Isabel	52	Grand Valley State University	Biology
Thurber	Stacy	82	Ferris State University	Biotechnology
Tolsma	Rachael	54	Hillsdale College	Biology
Tran	Jennifer	83	Ferris State University	Biotechnology
Tu	Yukun	106	Calvin College	Chemistry
Urban	Nicholas	74	Grand Valley State University	Biomedical Sciences
Van Baren	Megan	152	Ferris State University	Pharmacology
Van De Burg	Jaimie	107	Calvin College	Chemistry
Van Houten	Bethany	140	Hope College	Mathematics
Van Huis	Dana	123	Aquinas College	Ecology and Evolution
Van Winkle	Taylor	64	Kalamazoo College	Biology
VanDenTop	Austin	91	Grand Valley State University	Cell and Molecular Biology
Velazquez	Alexis	92	Grand Valley State University	Cell and Molecular Biology
Vennard	Christopher	119	Kalamazoo College	Chemistry
Ver Beek	Noah	129	Calvin College	Engineering
Vettukattil	Tejas	94	Kalamazoo College	Cell and Molecular Biology
von Seeger	William	157	Hope College	Physics
Wilcox	Kamaron	158	Hope College	Physics
Williams	Lorrayya	138	Calvin College	Mathematics
Willson	Alyssa	31	Aquinas College	Biology
Wingrove	Catherine	153	University of Virginia	Pharmacology
Winslow	Lindsey	84	Ferris State University	Biotechnology
Wisneski	Tiffany	132	Ferris State University	Forensic Biology
Wolf	Elysa	14	Calvin College	Biochemistry
Woodford	Elizabeth	149	Hope College	Neuroscience
Wyeth	Alexandra	58	Hope College	Biology
Young	William	95	Lansing Community College	Cell and Molecular Biology

2018 POSTER TITLES

1. Miranda Bouwer, Calvin College

Biochemistry

Co-Authors: Katy Hamilton, Dr. Brendan Looyenga, Dr. Larry Louters

"NMS-873 stimulates glucose uptake by inhibiting oxidative phosphorylation"

2. Jinsung Dho, Calvin College

Biochemistry

Co-Authors: Professor Minah Suh and Hye Jin Park, Center for Neuroscience Imaging Research (CNIR), Institute for Basic Science (IBS), Sungkyunkwan University, Suwon 16219, Republic of Korea

"Roles of Anti-Inflammatory Drugs and Systemic Inflammation in Neurovascular Coupling on rodents"

3. Katy Hamilton, Calvin College

Biochemistry

Co-Authors: Miranda Bouwer, Dr. Looyenga and Dr. Louters

"Evaluating fluorescent glucose analogs in GLUT1 function and localization"

4. Colin Hartgerink, Calvin College

Biochemistry

Co-Authors: Matthew D. Rossler, Dr. Carolyn E. Anderson

"Synthesis of Trisubstituted Indolizines: Optimization and Scope Studies"

5. Mary Horner-Richardson, Calvin College

Biochemistry

Co-Presenting Authors: Sarah Catlin

Co-Authors: Eric Arnoys

"Searching for GLUT1 PDZ Interactions"

6. Patrick Jonker, Calvin College

Biochemistry

Co-Authors: Dr. Brendan Looyenga

"Characterization of NF2-deficient Renal Tumor Cells"

7. Katherine Kim, Calvin College

Biochemistry

Co-Authors: Hasini Kalpage, Junmei Wan, Maik Hüttemann

"The Expression and Purification of Acetylmimetic Cytochrome c"

8. Sam Kuiper, Calvin College

Biochemistry

Co-Presenting Authors: Patrick Jonker

Co-Authors: Brendan Looyenga

"Glutamine Availability Regulates Ligand-Independent Pseudo-Activation of MET"

9. Sophia Lee, Calvin College

Biochemistry

"Investigating the Effects of Antibiotic Perturbation on Lactobacillus Species Metabolomics Profiles"

10. Miles Mason, Calvin College	Biochemistry
Co-Authors: Leslie Nickerson, Emily Zerull, Dr. Carolyn Anderson	
<i>"Synthesis of Trisubstituted Indolizines: Mechanistic Studies"</i>	
11. Elizabeth Peterson, Calvin College	Biochemistry
Co-Authors: Daniel Torrente and Daniel A. Lawrence, PhD	
<i>"An Immunofluorescent Characterization of Neuroserpin Expression in the Central Nervous System"</i>	
12. Hannah Peterson, Calvin College	Biochemistry
Co-Authors: Neikelyn Burgos-Tirado; Jiayan Liu; Richard Auchus, MD-PhD	
<i>"Understanding Genetic Disorders: A Case of 17-Hydroxylase Deficiency"</i>	
13. Kalina Reese and Shannon Stewart, Calvin College	Biochemistry
Co-Authors: Drs. Rachael Baker and Amy Wilstermann, Calvin College	
<i>"Elucidating Genotype-Phenotype Connections in Bcs1L Mutations"</i>	
14. Elysa Wolf, Calvin College	Biochemistry
Co-Authors: Dr. Rachael A. Baker, Dr. Amy M. Wilstermann	
<i>"Combating Antibiotic Resistance with Novel Fluoroquinolone-Based Compounds"</i>	
15. Zackary Hren, Ferris State University	Biochemistry
Co-Authors: Luis Rivera-Rivera	
<i>"Pressure Effects on the Relaxation of an Excited Ethane Molecule in an Argon Bath"</i>	
16. Emily Proksch, Ferris State University	Biochemistry
Co-Presenting Authors: Connor Willitts	
Co-Authors: Dr. Yumuna Kollalpitaya	
<i>"Investigating the Relationship Between 3β- hydroxysteroid dehydrogenase 2 and Tim17 Through Co-immunoprecipitation and Western Blot Analysis"</i>	
17. Sarah Becker, Hillsdale College	Biochemistry
Co-Authors: Dr. Francis Steiner	
<i>"The Effects of Extracellular Glucose on Methicillin and Hyperosmolarity Resistance Proteins in S. aureus Biofilms"</i>	
18. Kathryn DuHadway, Hillsdale College	Biochemistry
Co-Authors: Dr. Francis Steiner	
<i>"Detection of Methyl Syringate's Desmutagenic Activity in Manuka Honey via the S.O.S. Chromotest"</i>	

19. Rosemary Pynes, Hillsdale College	Biochemistry
Co-Authors: Dr. Francis Steiner	
<i>"Analysis of Novel Quinolines as Photosensitizers against Staphylococcus Aureus Biofilms"</i>	
20. Joel Karsten, Hope College	Biochemistry
<i>"Use of the CRISPR/Cas9 Gene Knockout system to the effects of VACM-1/Cul5 on Cellular Proliferation"</i>	
21. Skylar Sundquist, Hope College	Biochemistry
Co-Authors: Si Eun Lee, Dr. Maria Burnatowska-Hledin	
<i>"The Regulation of Cellular Proliferation by VACM-1/CUL5 is Dependent on its Posttranslational Modifications by NEDD8"</i>	
22. Mackenna Senti, Hope College	Biochemistry
Co-Presenting Authors: Alicia M. Bostwick, Alexandra J. Wyeth, Catherine, L. Wingrove	
<i>"Investigating mechanisms of regulation of mitochondrial DNA transcription"</i>	
23. Zac Faitz, Indiana Wesleyan University	Biochemistry
Co-Authors: Justin Hazel, Stephen Leonard, Dr. W. Scott McCullough	
<i>"Parameterization, Docking, and Molecular Dynamics Generated Binding Affinity for SHP2 in silico"</i>	
24. Expery Omollo, Michigan State University	Biochemistry
Co-Authors: Shahin Sayed, Zahir Moloo	
<i>"Quality improvement for breast cancer predictive and prognostic biomarkers"</i>	
25. Christine Aushman, Van Andel Research Institute	Biochemistry
Co-Authors: Robert M. Vaughan, Brad M. Dickson, Kevin Shaw, Evan M. Cornett, and Scott B. Rothbart	
<i>"Antagonizing the Histone Binding Domain of UHRF1"</i>	
26. Jared Deighton, Calvin College	Bioinformatics & Biostatistics
Co-Presenting Authors: Abbi Stratton, Matthew Bone	
Co-Authors: Stacy DeRuiter, Randall Pruiem	
<i>"Clean Water for Liberia - Data Analysis"</i>	
27. Blue Goad, Davenport University	Bioinformatics & Biostatistics
Co-Authors: Laura Harris	
<i>"Gene expression profile of macrolide resistance in Streptococcus pneumoniae"</i>	

-
- 28. Lynn Stokes, Indiana Wesleyan University** **Bioinformatics & Biostatistics**
Co-Authors: W. Matthew Sattley, Michael T. Madigan, Austin M. Huntington, Emma D. Dewey, Brad M. Burchell, Kathryn N. Shaffer
“Cultivation and characterization of icebound microorganisms from the South Pole”
-
- 29. Avery Cheap, Aquinas College** **Biology**
Co-Authors: Dr. Timothy Henshaw
“The Enzymatic Kinetic Profile of Class D β -Lactamase Variants Against Several Antibiotics”
-
- 30. Gina Nowland, Aquinas College** **Biology**
Co-Authors: Jennifer Hess
“The Study of Natural Extracts Inhibiting the Growth of Oral Bacteria and Safe Relative Pathogens”
-
- 31. Alyssa Willson, Aquinas College** **Biology**
Co-Presenting Authors: Stephanie Clark
Co-Authors: Dr. Rebecca Humphrey
*“Abiotic factors affecting the prevalence of *Rosa multiflora* (Rosaceae) populations at Pierce Cedar Creek Institute (Hastings, Michigan, USA)”*
-
- 32. Maria Bleitz, Calvin College** **Biology**
Co-Presenting Authors: Laura Dykstra and Gillian Gardner
Co-Authors: Keith Grasman
“Monitoring reproductive and immunological effects in colonial waterbirds to support management decisions at contaminated Great Lakes sites”
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- 33. James Eapen, Calvin College** **Biology**
Co-Presenting Authors: Gabriela Pineda
Co-Authors: Darren Proppe
“The effects of anthropogenic noise on bluebird reproductive success and health”
-
- 34. Lauren Ebels, Calvin College** **Biology**
Co-Authors: Brian Nault; Ashley Leach
*“Associations between onion growth characteristics and *Thrips tabaci* densities”*
-
- 35. Skyler Fish, Calvin College** **Biology**
Co-Authors: Benjamin Steenwyk, Deanna Geelhoed, Dr. Dave Warners
“Stormwater capture via green infrastructure in the Plaster Creek watershed”
-

-
- 36. Ryan German, Calvin College** **Biology**
Co-Authors: Dr. Amy Wilstermann and Dr. Rachael Baker
*“The Care and Maintenance of Zebrafish (*Danio rerio*)”*
-
- 37. Olivia Lamberg, Calvin College** **Biology**
Co-Presenting Authors: Jenna Atma, Alexandra Kamphuis, Connor Shea, Kaitlyn Vredevoogd
Co-Authors: Chace Scholten, Kristin Strydhorst, Darren Proppe
“A drone-mounted thermal camera is as effective as traditional methods for locating grassland bird nests.”
-
- 38. Bradley Scholten, Calvin College** **Biology**
Co-Authors: Randall DeJong
“New Techniques to Detect Swimmer's Itch Parasites in Lakes”
-
- 39. Meghan Schilthuis, Calvin College** **Biology**
Co-Authors: Brianna Busscher, Maria Emerson, Anding Shen
“Lymphatic Endothelial Cell Stimulation Promotes HIV-1 Infection in CD4+ T Cells”
-
- 40. David Sweeney, Calvin College** **Biology**
Co-Authors: Dr. Andy Read, Dr. Nicola Quick
*“Short-finned pilot whale (*Globicephala macrorhynchus*) near-surface behavioral states in relation to previous dive characteristics”*
-
- 41. Leah Thompson, Calvin College** **Biology**
Co-Authors: Dr. Tao Yang and Di Lu
“The Effects of Anti-Sumoylation Drugs in Inhibiting Osteosarcoma Cell Expansion”
-
- 42. Mary Johnson, Cornerstone University** **Biology**
Co-Authors: Heather Carlson, **Research Mentor:** Dr. Robert Keys
“Coaching Stress and the Physiological Response”
-
- 43. Ashraf Kheder, Cornerstone University** **Biology**
Co-Authors: Lucien Bahinga, Nigel Crompton
“Cadmium's harmful effects on mammalian cells”
-
- 44. Amber Park, Davenport University** **Biology**
Co-Authors: Laura Harris
*“Gene expression and pathway enrichment profiles of azithromycin response in *Pseudomonas aeruginosa*”*
-

-
45. Joseph Charles and Trevor Polisuk-Balfour, Ferris State University Biology
Co-Authors: Jacklyn Zvonar and Dr. Changqi Zhu
"The Role of Atg1 Gene in Fruit Fly Lifespan Regulation through Adult Muscle Tissues"
-
46. Micaela Rice, Ferris State University Biology
Co-Authors: Dr. Daniel Adsmond
"Investigation of Amide Coformers for Sulfa Drug Cocrystals"
-
47. Stefanos Apostle, Grand Valley State University Biology
"Gaining Consciousness to the Mysteries of Anesthetics: Applications of chloroform, a model anesthetic, to Chara internodal cells"
-
48. Ashley DeWitt, Grand Valley State University Biology
Co-Presenting Authors: Alyssa DeWitt, Kasey Forton
Co-Authors: Sam Super, Christina Byl, Dr. Bruce Ostrow
"Development of Sugar Glider (Petaurus breviceps) Genitalia and Gliding Membrane"
-
49. Kylie Galla, Grand Valley State University Biology
Co-Presenting Authors: Amanda Forner
"Changes in behavior of Amur tigers (Panthera tigris altaica) following introduction to a new enclosure at John Ball Zoo"
-
50. Han Pham, Grand Valley State University Biology
Co-Presenting Authors: Mia Diaz
Co-Authors: Jodee Hunt, Isabel Thompson
"Changes in behavior of Canada lynx (Lynx canadensis) following introduction to a new enclosure at John Ball Zoo"
-
51. Kathryn Sheets, Grand Valley State University Biology
Co-Presenting Authors: Justin Radecki, Ana Wassilak, Raelee Olson
Co-Authors: Eric Snyder
"Assessing the impact of mussel bed presence on aquatic macroinvertebrate communities and stream function"
-
52. Isabel Thompson, Grand Valley State University Biology
Co-Authors: Dr. Jodee Hunt
"Effects of enclosure complexity on the behavior of big cats at John Ball Zoo"
-

-
- 53. Caroline Andrews, Hillsdale College** **Biology**
Co-Authors: Jerry Fowler, Sasha Jakubek, Paul Scheet
“Evaluation of Sensitivity and Specificity of Computational Techniques for Detecting Allelic Imbalance”
-
- 54. Rachael Tolsma, Hillsdale College** **Biology**
“Generating NIH/3T3 based hnRNP-A1 knockout cell lines using CRISPR-Cas”
-
- 55. Schuylar Brunink, Hope College** **Biology**
Co-Presenting Authors: Emma Wabel
Co-Authors: Sarah O’Mara, Philip Versluis, and Dr. Maria Burnatowska-Hledin*
“Knockout of Truncated VACM-1(KLB22) in HUVEC Using CRISPR-Cas9”
-
- 56. Sarah Dible, Hope College** **Biology**
Co-Authors: Dr. McDonough
“The Role of OPI1 In The Regulation of OLE1 Expression”
-
- 57. Riley Draper and Austin Smith, Hope College** **Biology**
Co-Authors: Virginia McDonough, PhD
“Arv1p influences the regulation of the stearyl-CoA desaturase”
-
- 58. Alexandra Wyeth, Hope College** **Biology**
Co-Authors: Gonzalo Quiroga Artigas, Christine E. Schnitzler
“A detailed head regeneration timeline in the cnidarian Hydractinia symbiolongicarpus”
-
- 59. Emma Dewey, Indiana Wesleyan University** **Biology**
Co-Authors: W. Matthew Sattley, Jennifer Baker, Lynn M. Stokes, Austin M. Huntington, Kathryn N. Shaffer, Brad M. Burchell, Michael T. Madigan
“Complete genome analysis of the alkaliphilic and minimalistic phototrophic bacterium Heliorestis convoluta”
-
- 60. Brock Goeglein, Indiana Wesleyan University** **Biology**
Co-Authors: Thomas Leuschner, Michael Gongwer, Lexi Shepherd, Hannah Caringal, Boriana K. Tchernookova, Robert P. Malchow, & Matthew A. Kreitzer
“Muller Cell ATP-induced acidification is shaped by extracellular pH and carbonic anhydrase activity.”
-
- 61. Thomas Leuschner, Indiana Wesleyan University** **Biology**
Co-Authors: Michael Gongwer, Boriana K. Tchernookova, Lexi Shepherd, Hannah Caringal, Brock Goeglein, Thomas Leuschner, Robert P. Malchow, & Matthew A. Kreitzer
“Characteristics of ATP-induced extracellular acidification from retinal Müller (glial) cells.”
-

-
62. Kento Hirakawa, Kalamazoo College Biology
Co-Authors: Santiago Salinas
“Phenotypic variation of fathead minnows (Pimephales promelas) under extreme temperature and salinity conditions”
-
63. Sung Park, Kalamazoo College Biology
“Wnt3a treatment induces transcriptional upregulation of CTGF in HEK-293A and MCF7 cells”
-
64. Taylor Van Winkle, Kalamazoo College Biology
Co-Authors: William R. Morrison III
“The behavioral response of stored product pests, Rhyzopertha dominica (Coleoptera: Bostrichidae) and T. castaneum (Coleoptera: Tenebrionidae) to moldy grain volatiles”
-
65. Alexander Apostle, Michigan State University Biology
Co-Authors: Keith Mason, Rufus Isaacs
“Effect of Integrated Pest Management on Spotted Wing Drosophila in Michigan Vineyards”
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66. Han Chang, Taylor University Biology
Co-Authors: Dr. Jessica Vanderploeg
“PCP localization and screen for novel PCP proteins”
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67. Lindi Moore, Taylor University Biology
Co-Authors: Dr. Jessica Vanderploeg
“Fruit Fly Research: Pointing us in the right direction; Structural dynamics of Drosophila planar cell polarity”
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68. Nikol Shllaku, University of Detroit Mercy Biology
Co-Presenting Authors: Angelina Antonyan, Alex Jackman, Diana McMahon, Marcelio Shammami
Co-Authors: Johnathan Finkel
“Discovery and Analysis of Genes Regulating Biofilm Formation of Candida albicans”
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69. Jeremiah Shultz, Calvin College Biomedical Sciences
Co-Authors: Barbara J. Bailey, Pankita H. Pandya, Jixin Ding, Kevin Van der Jeught, M. Reza Saadatzadeh, Xiongbin Lu, and Karen E. Pollok
“Chk1 target validation in recurrent mutant p53 pediatric tumors”
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70. Alyssa Baker, Grand Valley State University Biomedical Sciences
Co-Authors: Dr. John Capodilupo
“The Role of Synthetic Thyroid Hormone in Weight Management Among Patients with Hypothyroidism”
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- 71. Kevin Chui, Grand Valley State University** **Biomedical Sciences**
Co-Authors: Cynthia M June, Bradley J Wallar, David A Leonard
“Mutations at arginine-148 in the ADC-7 cephalosporinase confer the ability to hydrolyze cefepime”
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- 72. Paige Matusiak, Grand Valley State University** **Biomedical Sciences**
Co-Presenting Authors: Sidney Weaver, Yousif Slim, Cally Gooch
Co-Authors: John Capodilupo
“Improving resolution of GAP-43 isoforms: A potential biomarker for Alzheimer's disease”
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- 73. Ashley Ohsiek, Grand Valley State University** **Biomedical Sciences**
Co-Authors: John Capodilupo
“Evolution of breakthrough chimeric antigen receptor T-cell (CAR-T) therapy and current implications”
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- 74. Nicholas Urban, Grand Valley State University** **Biomedical Sciences**
Co-Authors: Jake Knowlton, Monica Peters, Ruijie Liu
“Study the Cardio-Protective Effect of ERK1/2 Using Genetically Modified Mice”
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- 75. Jasper Gomez, Michigan State University** **Biomedical Sciences**
Co-Authors: Kyle J. Card, and Richard E. Lenski
“Predictability and contingency in the evolution of antibiotic resistance after multiple decades of relaxed selection”
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- 76. Daniel Kuiper, Calvin College** **Biophysics**
Co-Authors: Paul E. Harper
“Structural Parameters of MNd Measured by X-ray Diffraction”
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- 77. Amanda Lietz, Ferris State University** **Biotechnology**
Co-Authors: Timothy Frey, Dr. Christopher G. Taylor
“Effect of Ionotropic Receptors on Nematode Chemotaxis”
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- 78. Caitlyn Doran, Ferris State University** **Biotechnology**
Co-Authors: Schuyler Pike, Ph.D and David Griffith, Ph.D
“Identification of the Neaphaenops tellkampfi Alarm Pheromone”
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- 79. Shannon Murray, Ferris State University** **Biotechnology**
Co-Authors: Lawrence I. Grossman (PI), and Neeraja Purandare
“The Effect of Insulin on Mitochondrial Function of MNRR1”
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80. Elizabeth Sutton, Ferris State University	Biotechnology
Co-Authors: Dr. Schuyler Pike, Dr. Clifton Franklund	
<i>“Analysis of Municipal Wastewater for Estrogen Derivations”</i>	
81. Carlye Szarowicz, Ferris State University	Biotechnology
Co-Authors: Anne-Sophie Bohrer, Anthony Schillmiller, Dr. Dan Jones, and Dr. Hideki Takahashi.	
<i>“Optimization of LC-MS analytical methods for metabolite profile characterization of switchgrass cultivars”</i>	
82. Stacy Thurber, Ferris State University	Biotechnology
Co-Authors: Schuyler Pike, Rich Haugland, Shannon Briggs and Mike Solomon	
<i>“Quantification of Escherichia coli Levels in Recreational Water by qPCR”</i>	
83. Jennifer Tran, Ferris State University	Biotechnology
Co-Authors: S. Eric Nybo, Ph.D.	
<i>“A BIOBRICKS SYNTHETIC BIOLOGY TOOLBOX FOR BIOSYNTHESIS OF ANTHRACYCLINONES”</i>	
84. Lindsey Winslow, Ferris State University	Biotechnology
Co-Authors: Amanda Kovach, Lin Bai, Huilin Li	
<i>“Purification of BiP – an Hsp70 family chaperone that helps nascent proteins cross the ER membrane”</i>	
85. Andrew Freiman, Grand Valley State University	Cell and Molecular Biology
Co-Authors: Dr. Margaret Dietrich	
<i>“Abnormal growth patterns of P. patens mutant phenotype may be due to disrupted miRNAs”</i>	
86. Madeline Fugate, Grand Valley State University	Cell and Molecular Biology
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<i>“Effects of supraphysiological dose of testosterone on breast cancer cells”</i>	
87. Joshua Grey, Grand Valley State University	Cell and Molecular Biology
Co-Authors: David A. Leonard, Agnieszka Szarecka	
<i>“Force field parameters for doripenem for use in molecular dynamics simulations of OXA-66-doripenem complex”</i>	
88. Ashleigh Harrah, Grand Valley State University	Cell and Molecular Biology
Co-Authors: Brooke Armistead, Sok Kean Khoo	
<i>“miRNA-34b/c as disease progression biomarkers for Parkinson’s Disease”</i>	

89. Gage Paul, Grand Valley State University	Cell and Molecular Biology
Co-Presenting Authors: Diego Flores	
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<i>"β-synuclein as treatment for Parkinson's symptoms in Drosophila"</i>	
90. Nicholas Terrell, Grand Valley State University	Cell and Molecular Biology
Co-Authors: Osman V Patel	
<i>"Short-term androgen therapy inhibits proliferation of breast cancer cells"</i>	
91. Austin VanDenTop, Grand Valley State University	Cell and Molecular Biology
Co-Authors: Dylan Thompson, Steve McKenzie, Dr. Matthew Christians	
<i>"The COP9 Signalingosome plays a role in ethylene signaling in model plant Arabidopsis thaliana"</i>	
92. Alexis Velazquez, Grand Valley State University	Cell and Molecular Biology
Co-Authors: Osman Patel	
<i>"Effects of testosterone on androgen-dependent and -independent prostate cancer cells"</i>	
93. Jacob Kirby, Indiana Wesleyan University	Cell and Molecular Biology
Co-Authors: Dan Jones	
<i>"Rescue of Zoledronate-Induced Death in Normal Human Oral Keratinocytes"</i>	
94. Tejas Vettukattil, Kalamazoo College	Cell and Molecular Biology
Co-Authors: Dr. Eric Kort (Research Mentor), Dr. Stefan Jovinge (Research Mentor), Dr. Santiago Salinas (Faculty Advisor)	
<i>"miRNA hsa-miR-144-3p and hsa-miR-1260a are differentially expressed across human circulation"</i>	
95. William Young, Lansing Community College	Cell and Molecular Biology
Co-Presenting Authors: Laura Hunnicutt, Lalith Gopi Nagaruri, Benjamin Oudsema, William Young, and Dr. Melinda Wilson	
Co-Authors: Dr. Melinda Wilson	
<i>"DNA Barcoding Analysis of Honey: A Sticky Bzzzzness"</i>	
96. Akira Nishii, University of Michigan - Ann Arbor	Cell and Molecular Biology
Co-Authors: Hiroyuki Mori, Colleen Dugan, Ameena Benchamana, Ormond A. MacDougald	
<i>"Temperature Regulation of Lipid Desaturation and Lipolysis in Adipocytes"</i>	
97. Rahel Keller, Cornerstone University	Chemistry
Co-Authors: Ryan Reynolds, Dr. Robert Keys	
<i>"Effectiveness of Purell against Mold"</i>	

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98. Sara Biel, Calvin College Chemistry
Co-Authors: Dr. Michael Barbachyn
"Progress Toward the Synthesis of Novel Bacterial Topoisomerase Inhibitors Derived from Fluoroquinolones. N-1 Alkyne Derivatives"
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99. Rachael Bouwman, Calvin College Chemistry
Co-Authors: Kumar Sinniah
"G-Quadruplex Topology and Stability as a Function of DNA Length"
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100. Luke Burroughs, Calvin College Chemistry
Co-Presenting Authors: Joshua Kuperus and Evamarie Medendorp
Co-Authors: Dr. Michael Barbachyn
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101. Joyce Chew, Calvin College Chemistry
Co-Authors: Nathanael P. Kazmierczak, Dr. Douglas A. Vander Griend
"Defining the Relationship: Computer-Driven Characterization of the Binding of Host and Guest Molecules"
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102. Regan Farrell, Calvin College Chemistry
Co-Authors: Roger L. DeKock
"A Theoretical Foundation for the Slater-Zener Screening Constant Model"
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103. Nathanael Kazmierczak, Calvin College Chemistry
Co-Authors: Joyce A. Chew, Dr. Douglas A. Vander Griend
"The Tie That Binds: Optimal Design of Equilibrium Spectrophotometric Titrations"
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104. Jackson Ross, Calvin College Chemistry
Co-Presenting Authors: Sam Schellenberg
Co-Authors: Lindsay Pederson, Emma Schroer, Dr. David Benson*
"Comparing Fe- to Cu-Mediated Formation of a Tyrosine Cofactor"
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105. Riley Scoville, Calvin College Chemistry
Co-Authors: Dr. Michael Barbachyn
"Progress Toward the Synthesis of Aminomethyl-Substituted QPT-1 Bacterial Topoisomerase Inhibitors."
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106. Yukun Tu, Calvin College Chemistry
Co-Authors: Mark Muyskens
"How Models Improved Understanding of Fluorescence of Esculetin"
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- 107. Jaimie Van De Burg, Calvin College** **Chemistry**
Co-Presenting Authors: Benjamin Boss
Co-Authors: Carolyn Anderson
“Synthesis of Trisubstituted Indolizines: Substitution, on the Pyridine Ring”
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- 108. Kenny Nguyen, Aquinas College** **Chemistry and Physics**
Co-Authors: Dr. Xin Du, Assistant Professor of Physics, Aquinas College
“Dynamics of Polydispersed Emulsion System in T-Shaped Chamber”
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- 109. Andrew Bobian, Ferris State University** **Chemistry**
Co-Authors: Dr. Dan Adsmond
“Using Amidines as Centerpieces of Ternary Cocrystal Design”
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- 110. Safiya Best, Grand Valley State University** **Chemistry**
Co-Authors: Richard Rediske, Molly Lane, Brian Scull
“A comparison study of Colilert and Quantitative Polymerase Chain Reaction (qPCR) methods at Pere Marquette Beach in Muskegon County, MI”
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- 111. Sabrina Jenkins, Grand Valley State University** **Chemistry**
Co-Authors: Dr. Scott N Thorgaard
“Sensing of Single Bacteria Using Blocking Electrochemical Collisions and the Dependence of Current Transients on Supporting Electrolyte Concentration”
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- 112. Tyrese Lillard, Grand Valley State University** **Chemistry**
Co-Presenting Authors: Jarvis Tran, Christina Seppala
Co-Authors: George McBane, Stephanie Schaertel
“Pressure Broadening of Carbon Monoxide Infrared Absorption Lines by Neon”
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- 113. Michael Giurini, Hope College** **Chemistry**
Co-Authors: Dr, Kenneth L. Brown
“New Electrode Surface for Glucose Biosensors”
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- 114. Rebecca Johnson, Hope College** **Chemistry**
Co-Authors: Ethan M. Heyboer, Grace C. Ahlgrim, Kimberly S. DeGlopper, Megan R. Kwiatkowski, Trey C. Pankratz, Mason D. Yoder, and Jeffrey B. Johnson
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- 115. Jared Lowe, Hope College** **Chemistry**
Co-Presenting Authors: Kjersti Oberle, Chloe Hutchison, Gretchen Fata, Ryan Lash, Anna Bauer
Co-Authors: Christopher R. Turlington
“New Directions for Organocatalyzed Polymerization Reactions”
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- 116. Min Soo Kim, Kalamazoo College** **Chemistry**
Co-Authors: Dwight Williams Ph.D.
“Design, Synthesis and Biological Evaluation of 5-Hydroxy-2-(3-phenylpropyl)chromone Derivatives as 5-HT2B Receptor Ligands”
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- 117. Deziray Martinez, Kalamazoo College** **Chemistry**
Co-Authors: Dr. Dwight Williams, Dr. Regina Stevens-Truss
“Design, Synthesis, and Biological Evaluation of Melatonin-Coumarin Hybrids as Potential Antibacterial Agents”
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- 118. Youngtae Song, Kalamazoo College** **Chemistry**
Co-Authors: Ramakrishna Guda
“Plasmon Enhanced Light Emitting Diodes based on Silver and Gold Nanoparticles Interaction with Perovskite Nanocomposites”
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- 119. Christopher Vennard, Kalamazoo College** **Chemistry**
Co-Authors: Mya Gough, Dwight Williams
“Design and Synthesis of Coumarin-Yanglingmycin Hybrids as Potential Antibiotics”
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- 120. Molly Campbell, Lake Superior State University** **Chemistry**
Co-Authors: Dr. Adam Mosey
“A One-Pot Reaction Involving a Pictet-Spengler-type Cyclization Step for the Synthesis of Quaternary 3,4-Dihydroquinazolines”
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- 121. Jason Pruijm, Calvin College** **Computational Biology / Bioinformatics**
Co-Authors: Paul Harper
“Lung Surfactant, Alkanes, and Lipid Structures”
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- 122. Kelsey Brouwer, Calvin College** **Computer Science**
Co-Authors: Professor Joel Adams
“Audializations: An Exploration in Sound”
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<p>123. Dana Van Huis, Aquinas College</p> <p>Co-Presenting Authors: Carol Day</p> <p>Co-Authors: Dr. Robert Keys</p> <p><i>“Bringing Biodiversity to Restored Grasslands”</i></p>	<p>Ecology and Evolution</p>
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<p>124. Carol Day, Cornerstone University</p> <p><i>“The Effects of Vegetation Biomass Density on Grassland Bird Nesting”</i></p>	<p>Ecology and Evolution</p>
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<p>125. Shenghui Chen, Calvin College</p> <p>Co-Authors: Professor Randall Brouwer; Professor Yoon Kim</p> <p><i>“Remote Sensing of Energy Efficient Windows”</i></p>	<p>Engineering</p>
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<p>126. Alexander Cooper, Calvin College</p> <p>Co-Authors: Renard Tubergen</p> <p><i>“Balancing Dormatory Temperatures”</i></p>	<p>Engineering</p>
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<p>127. Samuel Lenz, Calvin College</p> <p>Co-Authors: Dr. David Wunder</p> <p><i>“Micron Sand Filtration: Proof of Concept for Ethiopia”</i></p>	<p>Engineering</p>
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<p>128. Haryana Thomas, Calvin College</p> <p><i>“Software Integration of Control and Automation Lab”</i></p>	<p>Engineering</p>
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<p>129. Noah Ver Beek, Calvin College</p> <p>Co-Authors: Professor Matthew Heun</p> <p><i>“Societal Exergy Analysis: Energy History of Honduras”</i></p>	<p>Engineering</p>
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<p>130. Camille Fogg, Hope College</p> <p>Co-Authors: Courtney A. Peckens</p> <p><i>“Bio-Inspired Iterative Learning Techniques for More Effective Control of Civil Infrastructure”</i></p>	<p>Engineering</p>
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<p>131. Cedric Porter, Hope College</p> <p>Co-Presenting Authors: Taylor Rink</p> <p>Co-Authors: Courtney Peckens</p> <p><i>“Wireless Sensor Networks for Long-Term Monitoring of Urban Noise”</i></p>	<p>Engineering</p>
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132. Tiffany Wisneski, Ferris State University Forensic Biology
Co-Authors: Nicole Chinnici
“Determining the Ability to Identify Animal Species from Incinerated Remains”
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133. Kanedra Thaxton, Michigan State University Human Biology
Co-Authors: Tanwir Hashem, Hyun Hee Lee, Rupali Das
“GENERATION OF CD2^{-/-} MICE ON BALB/C GENETIC BACKGROUND”
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134. Olivia Harlow, Calvin College Immunology
Co-Authors: Natalie Anumolu, Shannon Manning, PhD, and Erica Boldenow, PhD
“Hemolytic and Non-Hemolytic Group B Streptococcus Strains Impact on Infection and Inflammation in Human Placental and Immune Cells”
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135. Tanwir Hashem, Michigan State University Immunology
Co-Authors: Ananth K. Kamala, Ryan M. Griffin, Manthan Patel, Kellie E. Mullany, Hariharan Subramanian, Rupali Das
“Ruxolitinib ameliorates the Th1 cytokine-associated immune response in a murine model of severe asthma”
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136. Aimee Judd, Aquinas College Mathematics
Co-Authors: Dr. Joseph Fox
“Combinatorics of Citation Networks”
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137. Kelsey Hall, Aquinas College Mathematics
Co-Authors: Dr. Michael McDaniel, Nick Grabill, Emma Schmidt
“New Theorems of Old”
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138. Lorryya Williams, Calvin College Mathematics
Co-Authors: Ly Pham and Michael J Noto M.D. PhD.
“Pilus-Expressing Acinetobacter baumannii, mediated Enhanced Bacterial Clearance Involving Inflammasomes Signaling.”
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139. Katrina Teunis, Grand Valley State University Mathematics
“The Combinatorics of RNA”
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140. Bethany Van Houten, Hope College Mathematics
Co-Presenting Authors: Geordan Stuke, Angela Vito
Co-Authors: Dr. Joseph Stuke
“Arrested Development – Impact of Temperature on the Isolation Frequency and Lytic Cycle Growth of Cluster K Mycobacteriophages”
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- 141. Katherine DeHeer, Calvin College** **Microbiology**
Co-Authors: Joseph Mellinger, Tobeckukwu Ndika, Dr. Kelly DuBois
“Microbial Responses to Green Infrastructure in the Plaster Creek Watershed (Bacteriophage)”
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- 142. Joseph Mellinger, Calvin College** **Microbiology**
Co-Authors: Katherine DeHeer, Tobeckukwu Ndika and Dr. Kelly DuBois
“Microbial Responses to Green Infrastructure in the Plaster Creek Watershed (E. coli and Coliform Bacteria)”
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- 143. Curtis Mack, Grand Valley State University** **Microbiology**
Co-Authors: Ian Cleary
“Examining the Growth of C. albicans Filamentous Mutants In Embedded Conditions”
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- 144. Audrey Thomas, Kalamazoo College** **Microbiology**
Co-Authors: Heather Kroh, Madison Wright, Lars Plate, D. Borden Lacy
“Characterization of Clostridium difficile TcdR, a sigma factor that controls bacterial toxin production”
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- 145. Diana McMahon, University of Detroit Mercy** **Microbiology**
Co-Authors: Angelina S. Antonyan, Alex B. Jackman, Marcellio Shammami, Nikol Shllaku, Jonathan S. Finkel Ph.D.
“Fungal Pathogen Candida albicans GAL10 Gene is Imperative to Biofilm Formation”
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- 146. Marcelio Shammami, University of Detroit Mercy** **Microbiology**
Co-Authors: Marcelio Shammami, Angelina Antonyan, Alex Jackman, Diana McMahon, Nikol Shllaku, Jonathan S. Finkel Ph.D.
“Determining Drug Targets in Candida albicans Biofilm Formation”
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- 147. Lavar Green-Jackson, Grand Valley State University** **Neuroscience**
Co-Authors: Glenn R. Valdez
“CRF2 Receptor of Depressive-Like Behavior During Protracted Ethanol Withdrawal”
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- 148. Lauren Evert, Hope College** **Neuroscience**
Co-Presenting Authors: Gonzalo Moya
Co-Authors: Garrett Fogo, Nicholas Rozema, Ryann Felton, Sarah Plowman, Tymi Staub, Leah Chase, & Andrew J. Gall
“Mixed Mood State Behaviors and Circadian Dysfunction following Homocysteic Acid Treatment: Potential Animal Model for Bipolar Disorder”
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- 149. Elizabeth Woodford, Hope College** **Neuroscience**
Co-Authors: Chelsea Miskelley (co-author), Peter Vollbrecht (Faculty Advisor)
“Exploration into Executive Function in Selectively Bred Obesity-Prone and Obesity-Resistant Rats through Behavioral Analysis”
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- 150. Heather DeJonge, Lowell High School** **Neuroscience**
Faculty Advisor/Research Mentor: Heather DeJonge, Lowell High School and Van Andel Research Institute
Co-Presenting Authors: Lucas Sherman, Marlie Fowler and Leanna Rose – Lowell High School
Co-Authors: Brianna Roest, Dawn Kondor, Irving Vega and Cassandra Wygant – Lowell High School
“Effects Of Garlic Compound, SAC, In Its Ability To Rescue Phenotypic Deficits In C. elegans Models Of Tauopathies Disease”
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- 151. Gregory Shaffer, Ferris State University** **Pharmacology**
Co-Authors: Dr. Jennifer Lamberts
“Understanding the Role of Neuroinflammation in Parkinson's Disease”
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- 152. Megan Van Baren, Ferris State University** **Pharmacology**
Co-Authors: Felix Amisshah, Ph.D.
“Impact of Cyclooxygenase Inhibitor/Polyunsaturated Fatty Acid Combination on Rho GTPase Function in Lung Cancer Cells”
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- 153. Catherine Wingrove, University of Virginia** **Pharmacology**
Co-Authors: Katelyn Ahern, Dr. Thurl Harris
“Oxidized Fatty Acids Regulate Insulin Signaling During Acute Stress”
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- 154. Tayler Jones, Ferris State University** **Pharmacy**
Co-Authors: Dr. Kim Hancock
“Dissolution of Antidepressant Medications in a Vertical Sleeve Gastrectomy Dissolution Simulation”
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- 155. Byoungchan Jang, Calvin College** **Physics**
Co-Presenting Authors: Byoungchan Jang, Joshua Gilmore, Conrad Kuz
Co-Authors: Dr. Matthew Walhout
“Computational Modeling of Dynamics and Pattern Formation of Dielectric-barrier discharges (DBDs)”
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- 156. Forest Rulison, Hope College** **Physics**
“Ion beam Analysis for Silicon Carbide Crystals and Battery Materials”
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- 157. William von Seeger, Hope College** **Physics**
Co-Authors: Paul DeYoung, Artemis Spyrou, Jason Gombas
“Determining the β Decay Strength Function of ^{91}Rb ”
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- 158. Kamaron Wilcox, Hope College** **Physics**
Co-Authors: Dr. Jennifer Hampton
“The Effect of Potassium Hexacyanoferrate (III) Concentration on Prussian Blue Analogue Charge Storage”
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159. Kevin Bhimani, Kalamazoo College	Physics
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<i>"Cavitation of Electron Bubbles In Liquid Helium-4"</i>	
160. Abhjeet Bhullar, Kalamazoo College	Physics
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<i>"6-D Viral Phase Transformations"</i>	
161. Jonathan Sims, Calvin College	Physiology
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<i>"Developing a high throughput assay for nitric oxide detection in adult mouse cardiomyocytes"</i>	
162. Brianna Callahan, Michigan State University	Physiology
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<i>"Osthole, a natural plant derivative inhibits MrgprX2-induced mast cell responses"</i>	
163. WITHDRAWN	Physiology
164. Luis Reyes-Gonzalez, Grand Rapids Community College	Political Science
Co-Authors: Meghan VanderMale	
<i>"Voting and Measures of Compactness"</i>	
165. Maame Adwoa Brantuo, Calvin College	Psychology
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<i>"Cultural mismatches between students and professors in the classroom"</i>	
166. Elizabeth Schutt, Calvin College	Psychology
Co-Authors: Maame Adwoa Brantuo, Herb Fynewever	
<i>"Validation of a Teaching Personality Survey"</i>	
167. Anna Langholz, Hope College	Psychology
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<i>"Measures of resilience in undergraduate students"</i>	
168. Reece Lindemann, Hope College	Psychology
Co-Authors: Kelly Teahan, Daryl Van Tongeren	
<i>"Religious De-identification and the Religious Residue Effect"</i>	

169. Ashley Stegenga, Hope College

Psychology

Co-Presenting Authors: Trevor Sooy

Co-Authors: Dr. Katelyn Poelker

“U.S. Adolescents’ Views of the Ideal Person”

170. Allie Thiel, Hope College

Psychology

Co-Presenting Authors: Nicholai Shaw

“The Effect of Religiousness and Spirituality on Health Behaviors”

171. Breanna Frasher, Ferris State University

Public Health

Co-Authors: Dr. Michael Reger

“Phytoestrogen Intake and the Risk of Total and Advanced Colorectal Cancer”
