

# 2024 Bethel University SCIENCE SYMPOSIUM

## 2024 Science Research Symposium

Saturday, April 11, 2024

BC Atrium

**1:30-2:15 – Poster Session I – all odd numbered posters**

**2:15-3:00 – Poster Session II – all even numbered posters**

**3:00-4:00 – Reception**

Poster #	Poster Title	Department	Authors
1	Effects of Single Ionic Foot Bath on Urinary pH in Healthy College-aged Individuals	Applied Health Sciences	Joey Kidder, Drake Fraser, Dr. Seth Paradis
2	The Effects of Multitasking on Reading Retention	Psychological Services	Shannon Kraemer, Kylie Dillner, Dr. Joel Frederickson
3	Compatibility of Human Nkx2.1 in the Xenopus Model as Shown by the Expression of Sftpc, Sox2, Ptf1a, and Tbx-4	Biological Sciences	Cullen Olsen, Dr. Brian Hyatt
4	Dynamic Reciprocity between Fibroblasts and Extracellular Matrix in Cardiomyopathy	Biological Sciences	Eric Puumala, Callie Knapp, Dr. Jackie Towner (Bethel Advisor), Dr. Rachelle Crosby, Dr. Kirk Hansen
5	The Effect of Targeted Heart Rate Maximum Percentages on Cognitive Function in College-aged Adults	Applied Health Sciences	Emily Snider, Isabel (Izzy) Smith, Dr. Christopher Carroll
6	Laser Tweezing & Tracking	Physics and Engineering	Tranquil Gauss, Dane Stoyanoff, Dr. Nathan Lemke
7	Caffeine and its Effect on Daily Activities	Psychological Services	Drew Johnson, Aireia Parker
8	Newborn Hearing Screening Technician	Biological Sciences	Mara Miller
9	The Effect of Vision on Lower Quarter Balance During Y-Balance Test Testing in College Students	Applied Health Sciences	Nathan Smith, Katelyn Mehr, Dr. Leah Jackson

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10	Method Development and Validation of a Home-Built Open-Source Spectrophotometer	Chemistry	Erin O'Neal, Joshua Hahn, Vivian Marchan, Dr. Carl Albing, Dr. Brandon Winters
11	Internship in Biology: Lab Assistant at Twin Cities Dermatopathology	Biological Sciences	Emma Ryks
12	Anti-immigrant Sentiment: The Role of Perceived Locus of Control and Sex	Psychological Services	Ian Young, Ron Enos, Dr. Angela Sabates
13	Acute Effects of Virtual Reality Gameplay on the Visual System: An Observational Study	Applied Health Sciences	Gavin Rataj, Aaron Loe, Dr. Leah Jackson
14	Improving Healthcare One Chart at a Time	Biological Sciences	Caleb Meeker
15	Gender and Student Satisfaction: Men & Women are More Similar than Expected	Psychological Services	David Grant, Dr. Joel Frederickson
16	Inflammation Effects of Curcuma Longa on RAW264.7 Cells	Biological Sciences	Elayna Kawlewski, Erin O'Neal, Abigail Shearer, Dr. Joy Doan
17	A Putative YesMN Two-component System Ortholog in Streptococcus gordonii Impacts Biofilm Formation in a Zinc-dependent Manner	Biological Sciences	Georgi A. Aus, Bruno P. Lima, Dr. Brittany Nairn (advisor)
18	In-Vitro Validation of CRISPR-Mediated Cleavage of Integrin ITG $\beta$ 3	Biological Sciences	Harrison Simmonds, Dr. Paula Soneral
19	The Influence of Music Tempo on Bench Press Power Production in College-aged Males	Applied Health Sciences	Sam Linderbaum, Reese Pantila, Dr. Leah Jackson
20	Personality Statements and the Barnum Effect	Psychological Services	Gretchen Mugglin, Dr. Joel Frederickson
21	Experiences Selling Drugs as a Pharmacy Technician	Biological Sciences	Andrew Fossum
22	Sound of the Mind: The Effects of Music on Anxiety	Psychological Services	Cassidy Yates, Dr. Joel Frederickson
23	Caffeine's Impact on Heart Rate Variability During Short-Term Exercise in University Students	Applied Health Sciences	Maya Spinler, Morgan Payne, Dr. Christopher Carroll
24	Spectral Characterization of High-Speed SERS Fluctuations	Physics and Engineering	Makayla M. Schmidt, Emily M. Farley, Marit A. Engevik, Nathan D. Lemke, Alexandre G. Brolo, Dr. Nathan Lindquist
25	DHT Increases Lipid Storage in Liver Cells and Upregulates eNOS, AKT 1/2/3, and GSK-3 $\beta$ Phosphorylation	Chemistry	Annah Chriske, Dr. Angela Stoeckman
26	The Effects of Concussion History on Balance Performance in Collegiate Football Players	Applied Health Sciences	Cade Montgomery, Evan Braesch, Dr. Leah Jackson
27	Inflammation Effects of Curcuma Longa on RAW264.7 Cells	Biological Sciences	Erin O'Neal, Abigail Shearer, Elayna Kawlewski, Dr. Joy Doan

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28	Turmeric Essential Oil Acts as an Anti-inflammatory Agent in IFN- $\gamma$ and LPS Stimulated RAW 264.7 Cells	Biological Sciences	Jack Hanson, Jacob Hall, Dr. Joy Doan
29	Copaiba Essential Oil as Modulator of IFN- $\gamma$ and LPS Stimulated RAW 264.7 Cells	Biological Sciences	Brenner Klein, Tristan Rudolph, Caroline Pauls, Dr. Joy Doan
30	RAW 264.7 Cells Treated with Helichrysum Essential Oil Experience Inhibition of Activation by IFN- $\gamma$ and LPS	Biological Sciences	Mirah Eichten, Emma Ryks, Ashley Hess, Dr. Joy Doan
31	Helichrysum Oil Inhibits IFN- $\gamma$ and LPS Activity in RAW 264.7 Cells	Biological Sciences	Leah Everson, Harrison Simmonds, Caroline Reding, Dr. Joy Doan
32	Inhibitory Effects of Copaiba Essential Oil on the Inflammatory Response of RAW 264.7 Cells Treated with IFN- $\gamma$ or LPS	Biological Sciences	Ben Ostlie, Jon Rosenthal, Brian Smith, Dr. Joy Doan
33	Ankle Mobility and Balance in a Healthy College Population: A Correlational Study	Applied Health Sciences	Elisa Stewart, Anna Johnson, Dr. Leah Jackson
34	A Flavorful Adventure: Interning at Old Dutch Foods	Biological Sciences	Ashton Olson
35	EPPA Scribe Program	Biological Sciences	Renee Virtue
36	Estimation of Anagram Solving Abilities for Peers and Self	Psychological Services	Amia Hall, Dr. Joel Frederickson
37	The Relation Between Strength, Power Output, Mobility, and Physical Traits with Maximum Baseball Throwing Velocity	Applied Health Sciences	Ryan Parker, Zach Thompson, Dr. Christopher Carroll
38	Search for Vector-like B Quarks in CMS Run 2	Physics and Engineering	Kalin Johnson, Xiaohe Shen, Dr. Julie Hogan
39	Quality Sleep & Well-Being	Psychological Services	Cayla Paumen, Dr. Joel Frederickson
40	Navigating and Caring for Mental Health in a Group Home Setting	Biological Sciences	Constance Azonwu
41	3D Printed Lens	Physics and Engineering	Travis Allen, Dr. Nathan Lindquist
42	3-D Printed Optics	Physics and Engineering	Noah Rempel, Jake Herter, Dr. Nathan Lemke
43	40 HZ Sound Wave Effects on Cardiovascular System: Nitric Oxide Release in College-aged Individuals	Applied Health Sciences	Lucas Johnson, Ben Doherty, Dr. Seth Paradis
44	Human Gross Anatomy Laboratory Teaching Assistant	Biological Sciences	Grace Ginter
45	Simplified Optical Tweezing	Physics and Engineering	Tranquil Gauss, Dane Stoyanoff, Dr. Nathan Lemke
46	Internship with EPPA	Biological Sciences	Masha Kasperovich
47	The Psychology of Fandom	Psychological Services	Riken Frost, Dr. Joel Frederickson

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48	Philips IGTD Clinical Operations Manager: Define GPS Study	Biological Sciences	Christina Dierkhising, Dr. Amy Dykstra
49	Commit Suicide or Die by Suicide	Psychological Services	Emma Carmichael, Elsie Broersma, Dr. Joel Fredrickson.
50	Gross Anatomy TA Internship	Biological Sciences	Alex Domeyer
51	College Student's Attitudes Towards Speech Disorders	Psychological Services	Morgan Dean
52	Mind Over Matter: The Impact of Mindsets on Performance	Psychological Services	Joyce Ngwa, Dr. Joel Frederickson
53	Internship at Emergency Physician Professional Association (EPPA)	Biological Sciences	Bryan Tran
54	Streptococcus gordonii SGO_0454 Gene Deletion in Biofilm Formation Under Fluid Shear	Biological Sciences	Hunter Pratt, Dr. Brittany Nairn
55	Embracing Diversity: Insights from ACR Homes Experience	Biological Sciences	Brookelyn Huisenga
56	Sleep Patterns	Psychological Services	Azza Lestage, Elizabeth Meiners, Dr. Joel Fredrickson