

DUCURS 2026 – Oral & Poster Presentations – April 16, 2026

(Numerical order)

Poster Session 1 (1:30-2:20pm) Odd numbered posters presented

Poster Session 2 (2:50-3:40pm) Even numbered posters presented

Poster #	ABSTRACT TITLE
ORAL 12:45 pm	BEHAVIORAL EFFECTS OF EXOGENOUS 17B-ESTRADIOL FOLLOWING REPETITIVE NEUROTRAUMA IN MALE MICE James Neal, Biochemistry, Cell & Molecular Biology, College of Arts and Sciences; Christopher Huynh, Clinical and Medical Sciences, College of Pharmacy and Health Sciences; Dr. Eric Emmons (mentor), Department of Neuroscience, College of Arts and Sciences
ORAL 1:00 pm	Modeling the Hemodynamic Tolerability of High-Frequency Oscillatory Artificial Gravity Ayden Bockholt, Department of Chemistry and Physics, College of Arts & Sciences; Emma Jackovin, Department of Chemistry and Physics, College of Arts & Sciences Dr. Athanasios Petridis, (mentor) Department of Chemistry and Physics, College of Arts & Sciences
ORAL 1:15 pm	EFFECTS OF SUCROSE CONCENTRATION, ETHANOL AVAILABILITY, AND THE PRESENCE OF FOOD ON FEEDING BEHAVIOR IN DROSOPHILA MELANOGASTER Joici Par, Department of BCMB, College of Arts and Sciences, Christopher Kliethermes, (mentor), Department of Psychology, College of Arts & Sciences
1	NEW PARADIGM FOR QUANTITATIVE DETERMINATION OF METABOLITES USING FLUORINE-19 NMR SPECTROSCOPY: CASE STUDY WITH ZIMLOVISERTIB Avery Dolphin, Raman Sharma (mentor), Pfizer & Gregory Walker, (mentor) Pfizer
2	ABUNDANCE, DISTRIBUTION, AND HABITAT PREFERENCE OF GREY CROWNED CRANES (BALEARICA REGULORUM GIBBERICEPS) IN AMBOSELI NATIONAL PARK AND ITS ENVIRONS Oli Beigel, Department of Biology, College of Arts and Sciences, John Kiringe (mentor), School for Field Studies
3	BLUE JAYS (CYANOCITTA CRISTATA): ASSESSMENT OF ENRICHMENT USAGE IN A REHABILITATION FACILITY Bellastarr Jakresky, Environmental Science and Sustainability Department, College of Arts & Sciences, Keith Summerville (mentor), Environmental Science and Sustainability Department, College of Arts and Sciences
4	NITRITE REDUCTION BY THREE BRYOPHYTE HEMOGLOBINS Abi Ferguson, Department of Biochemistry, Cell and Molecular Biology, College of Arts & Sciences, Ryan Sturms, Ph.D. (mentor), Department of Chemistry, College of Arts & Sciences
5	ADDRESSING FUNCTIONAL INDEPENDENCE AND CAREGIVER BURDEN IN SPINAL CORD INJURY PATIENTS WITH TETRAPLEGIA IN RURAL INDIA: A CASE STUDY Ashley Rockhold OTS, Hanna Reeg OTS, and Savannah Ervin OTS Dr. Rachel Allen-McHugh OTD, MSOT, OTR/L, RYT, CEIM and Dr. Komal Thorat PT, Dr. Rachel Allen-McHugh
6	DOWN THE RABBIT HOLE: A THEMATIC ANALYSIS OF NEURODEVELOPMENTAL-BEHAVIORAL CARE IN THE EMERGENCY DEPARTMENT Grace Smith, Dylan Rains, Yaneli Perez, Megan Mann, Cassie Collins, Dr. Maria Valdovinos (mentor), Department of Psychology and Neuroscience, College of Arts and Sciences

7	<p>BIOINFORMATIC AND BIOPHYSICAL CHARACTERIZATION OF ESTROGEN RECEPTORS IN XENOPUS LAEVIS</p> <p>Divyanshi Srivastava BS'26, Department of Biology, Psychology & Neuroscience, College of Arts & Sciences, Dr. Debora Christensen, Department of Biology, College of Arts & Sciences</p>
8	<p>DEVELOPING A SENSORY-INFORMED HOME EXERCISE PROGRAM: THE IMPACT OF CAREGIVER ENGAGEMENT EDUCATION DURING SENSORY INTEGRATION INTERVENTIONS</p> <p>Kayla Jack OTS and Cana Phillips-Jones OTS, Department of Occupational Therapy Dr. Rachel Allen-McHugh OTD, MSOT, OTR/L, RYT, Department of Occupational Therapy & Dr. Tejas Borkar (PT), Dr. Tanvi Ghuge (PT), and Dr. Priti Tamble (PT), Department of Pravara Medical Institute Loni, India</p>
9	<p>BPA AND E2 SUPPRESSION OF COMPOUND ACTION POTENTIALS AND CONDUCTION VELOCITY IN MYELINATED XENOPUS SCIATIC NERVE</p> <p>Patricia Kowalkowski, BS'26¹, Eposi Anjorin BS'26⁴, Sara Huffman BS'27², Kyle Muhumuza BA'28², Divyanshi Srivastava, BS'26^{1,4}, Debora Christensen, PhD (mentor)¹ ¹Department of Biology, ²Biochemistry, Cell, and Molecular Biology, ³Kinesiology, ⁴Psychology and Neuroscience, College of Art and Sciences; ⁴Health Sciences, College of Pharmacy and Health Sciences, Drake University, Des Moines, IA</p>
10	<p>STUDY OF MEDICO-SOCIAL RISK FACTORS IN BREAST CANCER PATIENTS AT PRAVARA RURAL HOSPITAL, LONI, INDIA</p> <p>Kaitlyn Miller, Sydney Thiede, Dr. Pranita Dongargaonkar, Dr. Pramod B. Mahajan (mentor) and Dr. Vandana Jain, Vandana Jain Pravara Institute of Medical Sciences</p>
11	<p>EFFECTS OF STATIN TREATMENT ON MUSCULAR AND CARDIORESPIRATORY ADAPTATIONS TO HIGH INTENSITY INTERVAL TRAINING (HIIT) IN AGED MICE</p> <p>Lindy Odegard, Department of Health Sciences, College of Pharmacy and Health Sciences, Felicity Budelier, Department of Health Sciences, College of Pharmacy and Health Sciences, Rachel Wyganowski, Department of Health Sciences, College of Pharmacy and Health Sciences Kim Huey (mentor), Department of Health Sciences, College of Pharmacy and Health Sciences</p>
12	<p>BIRD MORTALITY FROM BUILDING COLLISIONS ON DRAKE UNIVERSITY CAMPUS</p> <p>Ava Sendelbach, Skye Streeter, Sabrina Delaney, Kennedy McCarthy, Dr. Muir Eaton (mentor), Department of Biology, College of Arts and Sciences</p>
13	<p>TWO MINUTES OF MASSAGE GUN (PERCUSSIVE) THERAPY ON CALVES DOES NOT IMPROVE VERTICAL OR LINE JUMP PERFORMANCE, REGARDLESS OF HERTZ USED</p> <p>Magnus Keswani, Will Kloos, Bio 133L Fall 2025 Class, Eric Swafford (mentor), David Senchina (mentor), Department of Biology, College of Arts and Sciences</p>
14 & ORAL 12:45 pm	<p>BEHAVIORAL EFFECTS OF EXOGENOUS 17B-ESTRADIOL FOLLOWING REPETITIVE NEUROTRAUMA IN MALE MICE</p> <p>James Neal, Biochemistry, Cell & Molecular Biology, College of Arts and Sciences; Christopher Huynh, Clinical and Medical Sciences, College of Pharmacy and Health Sciences; Dr. Eric Emmons (mentor), Department of Neuroscience, College of Arts and Sciences</p>
15	<p>EXPLORING THE EFFECTS DIFFERENT TEACHING MODALITIES HAVE ON PEER LEARNING ASSISTANTS</p> <p>Nicole Gilkey, Department of BCMB and Psychology and Neuroscience, College of Arts and Sciences, Dr. Andrea Van Wyk, (mentor) Department of Chemistry, College of Arts and Sciences</p>

16	<p>BEHAVIORAL CONSEQUENCES OF REPETITIVE MILD TRAUMATIC BRAIN INJURY IN MICE Rhea Bajwa, Achyuta Ambal, Tracy Chen, Eric Emmons (mentor), Department of Neuroscience, College of Arts & Sciences</p>
17	<p>THE DETECTION AND DISINFECTION OF DAHLIA MOSAIC VIRUS AND LEAFY GALL IN DAHLIA PLANTS Henry Stein, Hailey Jensen, Department of Biology, College of Arts and Sciences, Dr. Heidi Sleister, (mentor) Department of Biology, College of Arts and Sciences</p>
18	<p>GDM-ASSOCIATED CESAREAN SECTIONS IN RURAL INDIA Sara Huffman, Tory Meyer, Kinesiology, College of Arts and Sciences, Health Sciences Clinical and Medical, College of Pharmacy and Health Sciences, Dr. Pramod Mahajan (mentor), Pharmacy, College of Pharmacy and Health Sciences</p>
19	<p>EYE MOVEMENT AND MEMORIES RESEARCH: INSIGHT INTO EMDR THERAPY MECHANISMS Erin Nicklas, Department of Psychology, College of Arts & Sciences, Stevie Uthe, Department of Psychology, College of Arts & Sciences, Dr. Deb Cronin, (mentor) Department of Psychology, College of Arts & Sciences</p>
20	<p>BRIDGING GAPS IN MATERNAL HEALTHCARE ACROSS IOWA: EXPLORING CHALLENGES AND STRATEGIES Grace Stegen (Department of Health Sciences, College of Pharmacy and Health Sciences) and Felicity Budelier (Department of Health Sciences, College of Pharmacy and Health Sciences) Cassity Gutierrez (Department of Health Sciences, College of Pharmacy and Health Sciences)</p>
21	<p>THE CONNECTION BETWEEN NITROGEN FERTILIZERS AND CANCER: HINDERED BY A LACK OF WATER SURVEILLANCE Elise Smith, Waukee Aspiring Professional Experience (APEX), Jared Almandinger (mentor), Waukee Aspiring Professional Experience (APEX)</p>
22	<p>A FLOW CYTOMETRIC ANALYSIS OF CHICKEN LEUKOCYTES Bailey Lehnert, Department of Biology, College of Arts and Sciences, Dr. Lance Daharsh (mentor), Genvax Technologies, Ames, Iowa 50010</p>
23	<p>SOURCE TRACING CHLORIDE CONTAMINATION IN JORDAN CREEK Natalie Chanthaphon, Drew Dieke, Riley Gojkovich, Waukee Aspiring Professional Experience (APEX), Jared Almandinger (mentor), Waukee Aspiring Professional Experience (APEX)</p>
24	<p>EXAMINING VACCINE HESITANCY AND CONSPIRACY BELIEFS AMONG COLLEGE STUDENTS Salwa Hamade, Department of Biochemistry, Cell & Molecular Biology, College of Arts & Sciences Dr. Andreski, (mentor) Department of Pharmacy & Health Sciences, College of Arts & Sciences</p>
25	<p>INVESTIGATING THE EFFECTS OF IL-7 ON THE GROWTH OF MURINE LYMPHOMA CELLS Eva George, Bella Tsao, Jessica Kratky, Waukee Aspiring Professional Experience (APEX) Jared Almandinger (Mentor), Waukee Aspiring Professional Experience (APEX), Dr. Elitsa Ananieva (mentor), Des Moines University</p>
26	<p>IDENTIFYING GENES IMPORTANT FOR CHROMOSOMAL STABILITY IN SACCHAROMYCES CEREVISIAE Khushi Agrawal, Department of Biology, College of Arts & Sciences, Dr. Heidi Sleister, (mentor) Department of Biology, College of Arts and Sciences</p>

27	<p>INVESTIGATING CALCIUM-INDUCED CHANGES ON CENTRIN-SFI1 FROM SPIROSTOMUM Salwa Hamade, Department of Biochemistry, Cell & Molecular Biology, College of Arts & Sciences. Bailey Lehnert, Department of Biochemistry, Cell & Molecular Biology, College of Arts & Sciences. Davis Rennie, Department of Biochemistry, Cell & Molecular Biology, College of Arts & Sciences. Dr. Honts, Department of Biology, College of Arts & Sciences</p>
28	<p>EFFECTS OF CIRCADIAN RHYTHMS, ETHANOL VAPOR CONCENTRATION, & REPEATED EXPOSURE ON ETHANOL-INDUCED LOCOMOTION IN MALE & FEMALE DROSOPHILA MELANOGASTER, CANTON-S Renald J Daemicke, Department of Psychology, Drake University, Christopher Kliethermes (mentor) Department of Psychology, Drake University</p>
29	<p>NITRATE VARIABILITY IN AN AGRICULTURALLY DOMINATED WATERSHED IN CENTRAL IOWA FROM 2019-2025 Harrison Ziegler, Department of Environmental Science and Sustainability, College of Arts and Sciences, Drake University. Ethan Wing, Department of Natural Resource Ecology and Management, College of Agriculture and Life Sciences, Iowa State University, Dr. Claire Hruby (mentor), Department of Environmental Science and Sustainability, College of Arts and Sciences</p>
30	<p>UTILIZING SACCHAROMYCES CEREVISIAE AS A MODEL FOR FUNCTIONAL STUDIES TO REFINE ATM VARIANT CLASSIFICATION Alyssa Hendricks, Chloe Breen, Jay Wallace, and Dr. Heidi Sleister (mentor) Department of Biology, College of Arts & Sciences</p>
31	<p>DEVELOPING A PILOT-SCALE BUSINESS MODEL FOR MONETIZING CARBON CAPTURE ON SOLAR ENERGY FARMS Anders Olson-Brady, David Courard-Hauri, (mentor) Department of Environmental Science, College of Arts and Sciences</p>
32	<p>BIOPHYSICAL CHARACTERIZATION OF THE RYANODINE RECEPTOR CALMODULIN BINDING SITE Isaac Cho, Antonio Rrapi, Dr. Adina Kilpatrick (mentor), Isaac Cho, Clinical and Medical Health Sciences, College of Pharmacy and Health Sciences, Antonio Rrapi, Clinical and Medical Health Sciences, College of Pharmacy and Health Sciences Dr. Adina Kilpatrick, Department of Biology, College of Arts and Sciences Dr. Adina Kilpatrick, Department of Biology, College of Arts and Sciences</p>
33	<p>ANKLE, KNEE, AND HIP JOINT MECHANORECEPTORS' CONTRIBUTIONS TO FOOTWEAR MASS PERCEPTION Meg Wightman, Kinesiology, College of Arts and Sciences; Allison Claire, Kinesiology, College of Arts and Sciences Christopher Kliethermes (mentor), Department of Psychology, College of Arts and Sciences; David Senchina (mentor), Department of Biology, College of Arts and Sciences</p>
34	<p>HOW THE CLOSURE OF A FEEDLOT AFFECTS WATER QUALITY AT BRENTON SLOUGH Taylor Fruehling, Environmental Science & Sustainability, College of Arts & Science ; Addison Darrah, Environmental Science & Sustainability, College of Arts & Sciences Dr. Claire Hruby, (mentor), Department Environmental Science & Sustainability, College of Arts & Sciences</p>
35	<p>THE DESIGN OF A GAS CHROMATOGRAPHY-BASED EXPERIMENT FOR EXPLORING INTERMOLECULAR FORCES Cody Quam, Dr. Andrea Van Wyk, (mentor) Department of Chemistry, College of Arts & Science</p>

36	<p>ENHANCING MOTIVATION AND ENVIRONMENTAL CONTROL FOR MTBI COGNITIVE ASSESSMENT IN MICE</p> <p>Ethan Thomas-Gonzales, Department of Neuroscience, College of Arts and Sciences, Arnela Kovacevic, Department of Neuroscience, College of Arts and Sciences, Eric Emmons, Ph.D, (mentor) Department of Neuroscience, College of Arts and Sciences</p>
37	<p>COMPUTATIONAL INVESTIGATION OF THE CHEMICAL ENHANCEMENT MECHANISM IN SERS FOR PYRIDINE-GOLD COMPLEXES</p> <p>Mitchell D Hardy, Dr. Matthew C. Zweir (mentor) Department of Chemistry, College of Arts & Sciences</p>
38	<p>FIRST-GENERATION LIVED EXPERIENCE STUDY</p> <p>Reese Shannan, Leah Fox, Bliss Beck, Edie Musgrave, Dr. Greg Lengel, (mentor), Department of Psychology, College of Arts & Sciences</p>
39	<p>EVALUATING THE INTEGRATION OF SCIENCE PRACTICES IN A BIOCHEMISTRY LABORATORY CURRICULUM</p> <p>Tara Martin, Department of Chemistry, College of Arts & Sciences, Dr. Ryan Sturms, (mentor), Department of Chemistry and Physics, College of Arts & Sciences, Dr. Andrea Van Wyk, (mentor), Department of Chemistry and Physics, College of Arts & Sciences</p>
40	<p>ESTERIFICATION UNDER ACIDIC IONIC LIQUIDS</p> <p>Aidan Keefe, Chemistry & Health Sciences, College of Arts & Sciences College of Health Sciences</p> <p>Dr. Mirafzal, (mentor) Department of Chemistry, College of Arts & Sciences</p>
41	<p>A COST-EFFECTIVE ALTERNATIVE TO PYROLYSIS CHAMBERS FOR POLYMER IDENTIFICATION USING PY-GC-MS</p> <p>Jonah Augustyn, Micheala Schrock, Mark F. Vitha, Ph.D. (mentor) Department of Chemistry, College of Arts and Sciences; Drake University, Des Moines, IA,</p>
42	<p>MONTE-CARLO SIMULATIONS OF PARTICLE TRAJECTORIES IN A MAGNETIC FIELD</p> <p>X. Kwa, Department of Physics, College of Arts & Sciences, C. Noom-Duckworth, Department of Physics, College of Arts & Sciences, A. Sneddon, Department of Mathematics and Computer Science, College of Arts & Sciences, M. Tentis, Department of Physics, College of Arts & Sciences, F. Wohnoutka, Department of Mathematics and Computer Science, College of Arts & Sciences A. Petridis, (mentor) Department of Physics, College of Arts & Sciences</p>
43	<p>PHARMACOGENOMIC RECOMMENDATIONS OF HIGHLY PRESCRIBED PSYCHIATRIC MEDICATIONS</p> <p>Dorcas Egya-Mensah, Claudia Kern, Lilly Morphew, Alanna Orendorff, Amanda Prins, Isaac Ramirez-Linares, Brittany Youngblut, College of Pharmacy & Health Sciences, Pramod Mahajan, PhD, (mentor) Department of Pharmaceutical & Administrative Sciences</p>
44	<p>INFORMATION ENTROPY CHANGE DURING MEASUREMENT OF A FREE PARTICLE IN THE RELATIVISTIC QUANTUM CASE</p> <p>Alejandro Lobo, Justin Brutger, Grace Dunleavy, Daniel Deeter, Department of Physics and Chemistry, College of Arts & Sciences, Dr. Athanasios Petridis, (mentor) Department of Physics and Chemistry, College of Arts & Sciences</p>
45	<p>ASSESSING AQUATIC BIODIVERSITY IN IOWA WETLANDS USING ENVIRONMENTAL DNA (eDNA)</p> <p>Alexandria Colby, Dr. Claire Hrubby (mentor), Department of Environmental Science and Sustainability, College of Arts and Sciences</p>
46	<p>MODELING DEPORTATION ENFORCEMENT</p> <p>Franklin Wohnoutka, Department of Mathematics, Computer Science, and Data Analytics, College of Arts & Sciences, Dr. Anderw Becklin (mentor) College of Arts & Sciences</p>
47	<p>ANALYSIS OF CHEMICAL SIGNATURES FOUND IN COSMIC DUST</p> <p>Emma Jackovin, Department of Physics and Chemistry, Dr. Petridis, (mentor)</p>

48	ASSESSING E. COLI AND ENTEROCOCCUS DYNAMICS IN AN OKLAHOMA STREAM SYSTEM Evan Orme, Department of Environmental Science and Sustainability, College of Arts & Sciences Dr. Claire Hruby (mentor), Department of Environmental Science and Sustainability, College of Arts & Sciences
49	IODINE SOLVATOCHROMISM Matthew Urness (Johnston High School), Dr. Matthew Zwier, (mentor), Department of Chemistry, College of Arts & Sciences
50	VENOMX: AN AI-POWERED PENETRATION TESTING ASSISTANT Coleman Pagac, Department of Computer Science and Artificial Intelligence, College of Arts & Sciences, Drake University Jordan Martin, Department of Computer Science and Artificial Intelligence, College of Arts & Sciences, Drake University Khalid Mohammed, Department of Computer Science and Artificial Intelligence, College of Arts & Sciences, Drake University, Nick Guyette, Department of Computer Science and Artificial Intelligence, College of Arts & Sciences, Drake University, Christopher Porter (mentor), Department of Computer Science and Artificial Intelligence, College of Arts & Sciences, Drake University
51	SOURCE TRACKING IN CATFISH CREEK WATERSHED Paige Robertson, Dr. Claire Hruby (mentor), Department of Environmental Science and Sustainability, College of Arts and Sciences

PRESENTATIONS BY DISCIPLINE

Biology & Kinesiology: 7, 9, 12, 13, 17, 22, 26, 27, 30, 32, 33

Chemistry: 1, 2, 4, 35, 27, 40, 41, 49

Environmental Science: 3, 29, 31, 34, 45, 48, 51

Health Sciences & Pharmacy: 10, 11, 18, 43

Math & Computer Science: 46, 50

Occupational Therapy: 5, 8

Physics: 42, 44, 47, Oral 1:00

Psychology & Neuroscience: 6, 14, 16, 19, 28, 36, 38, Oral 12:45, Oral 1:15

STEM Education: 15, 39

Waukee High School APEX Program: 21, 23, 25