COMMENCEMENT
Class of 2018

May 12, 2018
3M Arena at Mariucci

UNIVERSITY OF MINNESOTA
2018 Commencement

The mission of the College of Biological Sciences is to improve human welfare and global conditions by advancing knowledge of the mechanisms of life through breakthrough discoveries and to prepare today’s students to create the biology of tomorrow. The College is committed to working with colleagues within the University, and with constituents in the community, government and industry to improve the quality of life for people in Minnesota, the nation and the world.

The Bachelor of Science Degree

A foundation of liberal education forms the guiding framework of all academic programs for undergraduate students on the University of Minnesota, Twin Cities campus. A liberal education allows students to explore the modes of inquiry and subject matter within the major branches of knowledge. To earn a bachelor of science degree, students must successfully complete at least 120 credits, including courses in the social sciences and humanities, history, chemistry, physics and math, as well as in the biological sciences. Students with B.S. degrees from the College of Biological Sciences have the academic foundation needed for a variety of careers and are well prepared for further study in graduate or professional schools.

Photographs

For your convenience, we made arrangements with a professional photographer to take a picture of each student crossing the stage. Family members and friends are encouraged to remain in their seats and enjoy the ceremony. Please do not block ramps or aisles. Thank you for your cooperation.

Musicians

Summit Hill Brass Quintet
Mike Breidenbach, Macalester College, bagpiper

Although care is taken to ensure the accuracy of the information presented here, there may be unintended errors or changes without notice. This is not an official University of Minnesota graduation list.
Academic Procession

SUE WICK, PH.D.
Professor, Biology Teaching and Learning; Plant and Microbial Biology
Co-Director of Undergraduate Studies, Biology Major
Mace Bearer

Sue Wick joined the College faculty as an assistant professor in the Department of Botany in 1985. She is an award-winning educator, having received the Horace T. Morse–University of Minnesota Alumni Association Award for Outstanding Contributions to Undergraduate Education and the Stanley Dagley-Samuel Kirkwood Undergraduate Education Award. She also contributed to the creation of the Foundations of Biology introductory course sequence, which received the Science Prize for Inquiry-Based Instruction. Wick’s research focuses on enhancing student learning and better understanding how to use team-based learning to improve students’ comprehension of course material and for problem solving. She received her doctorate in Biological Sciences from Stanford University in 1979.

CBS Class of 1968

Members of the class of 1968 mark the 50th anniversary of their graduation.

Faculty Marshals

Students choose faculty marshals to represent majors during the commencement ceremony.

LAURIE PARKER, PH.D.
Representing Biochemistry majors

ROBERT BROOKER, PH.D.
Representing Biology majors

EMILIE SNELL-ROOD, PH.D.
Representing Ecology, Evolution and Behavior majors

ANN ROUGVIE, PH.D.
Representing Genetics, Cell Biology and Development majors

CHRIS MOHR, PH.D.
Representing Microbiology majors

STEVEN MCLOON, PH.D.
Representing Neuroscience majors

FUMIAKI KATAGIRI, PH.D.
Representing Plant and Microbial Biology majors

DAVID MATTHES, PH.D.
Representing multiple majors
Multilingual greeting

Students will greet the audience in a number of languages using the following statement: “On behalf of the class of 2018, welcome to the undergraduate commencement ceremony for the College of Biological Sciences.”

Neha Sethi - English
Khaled Daifallah - Arabic
Malina Peterson - Japanese
Mandkhai Molomjamts - Mongolian
Minu Bhunia - Bengali
Omar Adam - Oromo
Soumya Marasakatl - Hindi
Melat Weldesalasie - Amharic

Welcome

VALERY FORBES, PH.D.
Dean, College of Biological Sciences
Professor, Ecology, Evolution and Behavior

Valery Forbes became dean of the College of Biological Sciences at the University of Minnesota in 2015. She served as director of the School of Biological Sciences at the University of Nebraska-Lincoln and was founding chair of the Department of Environmental, Social and Spatial Change at Roskilde University in Denmark. Her research focuses on population ecology and modeling, fate and effects of toxic chemicals in sediments, and ecological risk assessment. Forbes served on the Danish Natural Sciences Research Council, NATO’s Environmental Security Panel, as well as numerous European advisory panels and working groups. She currently serves on the board of the Freshwater Society. Forbes received her doctorate in coastal oceanography from SUNY-Stony Brook.

Student Spotlight

College of Biological Sciences graduating seniors reflect on their student experience in a brief video presentation.
Student Academic and Leadership Awards

CHURCHILL SCHOLARSHIP
Merrick Pierson Smela

FULBRIGHT RESEARCH GRANT
Chloe Fouilloux

ASTRONAUT SCHOLARSHIP
Merrick Pierson Smela

GILMAN SCHOLARSHIP
Karimatou Bah
Sarah Lentz

HOLLINGS SCHOLARSHIP
Melissa Drown

THOMAS BURNETT ADVANCED LEADERSHIP PROGRAM
Sarah Alabsi
Justin Dunnell
Evan Jobin
Amanda Nguyen
Bennett Olupo

SCHOLARLY EXCELLENCE IN EQUITY AND DIVERSITY AWARD
Leah Alemu
Bennett Olupo

JOSEF MESTENHAUSER STUDENT AWARD FOR EXCELLENCE IN CAMPUS INTERNATIONALIZATION
Melat Weldeselasie

PRESIDENT’S STUDENT LEADERSHIP AND SERVICE AWARD
Melissa Drown
Chloe Fouilloux
Jesus Garcia
Zakariya Hussein
Melat Weldeselasie

PHI BETA KAPPA
Leah Alemu
Danielle Amundsen
Johanna Back
Sarah Baker
Timmie Britton
Namrata Damle
Garrett Draper
Carmen Ebel
Madeline Ellert-Beck
Kari Falaas
Israel Falade
Joshua Gallop
Erin Gorman
Madelyn Gray
Katherine Hill
Katelyn Hoff
Mikayla Hong
Morgan Jackson
Madeline Jensen
Heather Kane
Gabriel Kaufmann
Ciana Keller
Kayleen Knoll
Kate Lauer
Sophia Lazzaroni
Sarah Corene Lentz
Leeore Levinstein
Jennifer Mangas
Daniel Mattinen
Benjamin Miller
Nicole Minnerath
Mark Mizrachi
Julia Olson
Reed Owens-Kurtz
Malina Peterson
Marissa Peyer
Amy Prichard
Carly Rasmussen
Megan Rhyner
Lynn Risser
Sienna Schaeffer
Jacob Solinsky
Kayla Switalla
Ryan Topp
Michael Wappes
Emily Yaklich
Kasey Zhou
Commencement Address

ROBIN WRIGHT, PH.D.
Director, Undergraduate Education Division, National Science Foundation
Professor, Biology Teaching and Learning

Robin Wright currently serves as the director of the Division of Undergraduate Education at the National Science Foundation (NSF). Prior to joining the NSF, Wright served as head of the Department of Biology Teaching and Learning in the College of Biological Sciences. She joined the College as a professor and associate dean in 2003 and made significant contributions to improving the undergraduate curriculum while maintaining her own research on how yeast adapt to cold temperatures. She led efforts to develop the award-winning Foundations of Biology courses for biology majors and launched the new Department of Biology Teaching and Learning, a first-of-its-kind department focusing on evidence-based teaching. Dr. Wright is a fellow of the American Association for the Advancement of Science and received the Genetics Society of America's 2014 Elizabeth W. Jones Award for Excellence in Education for significant, sustained impact on genetics education. She received her doctorate in biological sciences from Carnegie-Mellon University.

Presentation of the Candidates

JOHN WARD, PH.D.
Professor, Plant and Microbial Biology
Associate Dean for Undergraduate Education, College of Biological Sciences

John Ward joined the College’s faculty in 2001 and is a professor in the Department of Plant and Microbial Biology. His research is focused on understanding metabolite transporter proteins in plants using electrophysiology and molecular biology. He teaches general botany and is an instructor at Nature of Life at the Itasca Station. In his role as associate dean for undergraduate education, he works to improve the College’s undergraduate curriculum. Ward received his doctorate in botany from the University of Maryland.
Conferral of Degrees

DAVID MCMILLAN
Regent, University of Minnesota

David McMillan is executive vice president of Minnesota Power, where he has served in a variety of roles since 1989. He received a bachelor of arts degree in economics and history from the University of Minnesota Duluth and a law degree from the University of Minnesota, Twin Cities. McMillan has extensive board experience, previously serving as the board chair of the Minnesota Chamber of Commerce, the Natural Resources Research Institute, the Area Partnership for Economic Expansion, and Goodwill Industrial Vocational Enterprises. Active in his community, he is a past member of the Duluth Entertainment Convention Center’s board of directors and the board of directors of St. Luke’s Hospital.

Congratulations and Welcome

TIM TRIPP
College of Biological Sciences Class of 1996

Tim Tripp is the assistant director in the Office of University Economic Development at the University of Minnesota. He works to advance research and industry collaboration at the University. He was an active member of the Biological Sciences Alumni Society board for many years, serving as board president from 2012-14, and is a lifetime member of the University of Minnesota Alumni Association. Tripp is a three-time University of Minnesota alumnus. He received a bachelor’s degree in microbiology, a master’s degree in microbial pathogenesis and an MBA.

Closing Remarks

DEAN VALERY FORBES
HAIL! Minnesota

Led by Professor Emeritus Dr. John S. Anderson
accompanied by the Summit Hill Brass Quintet

Minnesota, Hail to thee!
Hail to thee, our college dear!
Thy light shall ever be
A beacon bright and clear.
Thy sons and daughters true
Will proclaim thee near and far.
They will guard thy fame, and adore thy name;
Thou shalt be their Northern Star!

Recessional

Please remain seated until the faculty and graduates exit completely.
Professional Awards & Recognition

American Academy of Arts and Sciences Fellow

RUTH SHAW, PH.D.
Professor, Ecology Evolution and Behavior

American Association for the Advancement of Science Fellows

DAVID BERNLOHR, PH.D.
Distinguished McKnight Professor, Cargill Chair in Systems Biology of Human Metabolism, Head of the Department of Biochemistry, Molecular Biology and Biophysics

REUBEN HARRIS, PH.D.
Distinguished McKnight Professor, Biochemistry, Molecular Biology and Biophysics

American Ornithological Society Brina Kessel Award

KEITH BARKER, PH.D.
Associate Professor, Ecology, Evolution and Behavior

American Society of Plant Biologists Fellow

NEIL OLSZEWSKI, PH.D.
Professor, Plant and Microbial Biology

Association for the Sciences of Limnology and Oceanography Sustaining Fellow

JAMES COTNER, PH.D.
Professor, Ecology, Evolution and Behavior
Charles Albert Shull Award

NATHAN SPRINGER, PH.D.
McKnight Presidential Endowed Professor, Plant and Microbial Biology

Ecological Society of America Fellows

ERIC SEABLOOM, PH.D.
Professor, Ecology, Evolution and Behavior

ALLISON SHAW, PH.D.
Professor, Ecology, Evolution and Behavior

National Society of Genetic Counselors Strategic Leader Award

HEATHER ZIERHUT, PH.D.
Assistant Professor, Genetics, Cell Biology and Development
Associate Director, Genetic Counseling Graduate Program

Royal Society of London Fellow

DAVID TILMAN, PH.D.
McKnight Presidential Chair and Regents Professor, Ecology, Evolution and Behavior

Sloan Research Fellow

FRANK ALBERT, PH.D.
Assistant Professor, Genetics, Cell Biology and Development

Stanley L. Miller Early Career Award

AARON ENGLEHART, PH.D.
Assistant Professor, Genetics, Cell Biology and Development

Whitman Center Early Career Fellow

G.W. GANT LUXTON, PH.D.
Assistant Professor, Genetics, Cell Biology and Development
University of Minnesota Awards and Recognition

Distinguished McKnight University Professor

MICHAEL TRAVISANO, PH.D.
Professor, Plant and Microbial Biology

Horace T. Morse - University of Minnesota Alumni Association Award for Outstanding Contributions to Undergraduate Education

DAVID MATTHES, PH.D.
Professor, Biology Teaching and Learning

McKnight Land Grant Professor

RAN BLEKHMAN, PH.D.
Assistant Professor, Genetics, Cell Biology and Development, and Ecology, Evolution and Behavior

University of Minnesota Outstanding Community Service Award

JIM KRUEGER
Building and Grounds Supervisor, Cedar Creek Ecosystem Science Reserve

University of Minnesota Outstanding Contributions to Graduate and Professional Education Award

MARGARET TITUS, PH.D.
Professor, Genetic, Cell Biology and Development
College of Biological Sciences Awards and Recognition

John & Abigail Wardle Chairs in Microbial Ecology

WILL HARCOMBE, PH.D.
Assistant Professor, Ecology, Evolution and Behavior

PETER TIFFIN, PH.D.
Professor, Plant and Microbial Biology

John S. Anderson Leadership Award

ABBY CONOVER
Coordinator of Undergraduate Initiatives, Biology Teaching and Learning

Stanley Dagley-Samuel Kirkwood Undergraduate Education Award

JAN NORRANDER, PH.D.
Assistant Professor, Genetics, Cell Biology and Development
Teaching Assistant Awards

These awards recognize students who demonstrate excellence in teaching or other instructional activities that enhance the educational experience for University of Minnesota students. Faculty and students nominate and select recipients.

JOHN ROHDE (BIOC 4521)
JUSTIN OAKLAND (BIOL 2005)
JOSIE GRIFFIN (EEB 3409)
AMANDA HAYWARD (BIOC 4025W)
KELLY WALLIN (BIOC 4331)
MITCHELL HEONIG (BIOL 1003)
Class of 1968

The College of Biological Sciences was founded in 1965. This year, the Class of 1968 celebrates its 50th anniversary. Members of that graduating class are listed below in recognition of this milestone.

DAVID GOENNER, BS
RICHARD KIRCHNER, B.S. BIOCHEMISTRY
SHIRLEY KRAEMER, B.S.
KIRK LONG, B.S. BIOLOGY
JAMES MACKIE*, B.S. BIOCHEMISTRY
GERALDINE NELSON, B.S. BOTANY
JOHN RAMQUIST*, B.S. MICROBIOLOGY
RICHARD SCHEDIN, B.S. BIOLOGY
MARSHALL STEIN, B.S. BIOCHEMISTRY
MARCIA THOLEN, B.S.

* deceased
Honors and Distinction Designations

College of Biological Sciences degree candidates may graduate with either Latin Honors, Distinction or both. These citations are provisional and do not become official until all requirements for the award are fulfilled.

Latin Honors Designations

Students graduating from the College of Biological Sciences through the University Honors Program took part in a rigorous course of study, research, scholarship or other creative work in the major, culminating in an Honors thesis representing independent work done under the direction of a faculty supervisor or mentor. Students graduating cum laude (with honor) have a minimum cumulative GPA of 3.50 for the last 60 graded credits at University of Minnesota, Twin Cities (UMTC). Magna cum laude (with great honor) awards require a minimum cumulative GPA of 3.66 and summa cum laude (with highest honor) awards require a minimum cumulative GPA of 3.75 in the final 60 graded credits at UMTC.

Distinction Designations

Students earn graduation “with distinction” or “with high distinction” based on cumulative GPA with at least 60 graded credits completed at UMTC. Students graduating “with distinction” must have earned a cumulative GPA of 3.75 or higher in UMTC coursework at the time of graduation; students graduating “with high distinction” must have earned a cumulative GPA of 3.90 or higher in UMTC coursework at the time of graduation. Students graduating with distinction are wearing gold cords and those graduating with high distinction are wearing maroon and gold cords.

Academic Regalia

Academic gowns worn at American commencement ceremonies originated at English universities during the 14th and 15th centuries. The markings, cut and colors of modern-day gowns indicate the degree, field of study and institution that granted the degree. The bachelor’s degree gown is untrimmed and has pointed sleeves. The master’s degree gown is untrimmed with winged sleeves. And the doctorate degree gown is trimmed in velvet, with three velvet bars on bell-shaped sleeves. Hoods are edged in velvet with the color indicating the wearer’s discipline and faced with the color(s) of the institution that conferred the degree.

At the University of Minnesota, mortarboard tassels indicate field of study for bachelor’s degree recipients. The College of Biological Sciences tassel is golden yellow. Honors students wear medallions with a maroon and gold ribbon.
Students graduating with the Community Engagement Scholars distinction have completed nine credits of service-learning course work, at least 400 hours of community service, a series of reflective essays and a sustainable project for a community organization. An ($) symbol indicates Community Engagement Scholars.

Students wearing silver cords are graduating with CBS Dean’s Scholars distinction. They have completed a leadership development program consisting of four credits of leadership coursework, service in the community, and a capstone project synthesizing their work as leaders while studying science. A (*) symbol indicates Dean’s Scholars.

Students wearing purple cords are graduating as part of the President’s Emerging Scholars Program. The President’s Emerging Scholars Program is a four-year opportunity for select undergraduate students at the University of Minnesota with diverse backgrounds and characteristics. A (+) symbol indicates President’s Emerging Scholars.

Students wearing blue and white cords are graduating as part of the North Star STEM Alliance program. The North Star STEM Alliance is a partnership among colleges and universities in Minnesota funded by the National Science Foundation. The grant provides academic support, community building, and professional development for underrepresented students earning bachelor’s degrees in science, technology, engineering, and mathematics (STEM).

Graduates who attended the Multicultural Center for Academic Excellence Celebration of Achievement received a hand-woven stole to wear at their formal college graduation ceremony. The stole was designed by a University of Minnesota MCAE Alum, ’97 and is patterned after the traditional African Kente cloth, hand woven in Ghana specifically for this event. Every stole is a work of art with slight variations in the weave and pattern and takes at least one day to make each. The symbols you see represent the three values of MCAE which are interconnectedness, unity, and wisdom and lastly, the vibrance reflected in these stoles symbolizes each of the barriers students have overcome on their journey.

Art professor Philip Morton designed the University of Minnesota mace. It consists of a sphere surmounted by the North Star, symbol of the state of Minnesota, on an aluminum handle set with the University Regents seal. Alfred Nier, Regents Professor of Physics, first carried in 1961 by at the inauguration of President O. Meredith Wilson.
BIOCHEMISTRY

Madeline Scout Kerker Allendorf
Danielle Brooke Amundsen (high distinction, summa cum laude, §)
Jacob Orval Anderson (high distinction)
Max Anderson (§)
Stephanie Lynne Aron
Ryan Dennis Baer
Mai Vu Beaulclaire (distinction)
Nicoile Marie Bergman
Layce Alaire Bernard
Lindsay Bell Breidenbach
Alexander Minh Quang Bui
Samuel F Carlson (*)
Jun Chen
Asef Zawad Chowdhury (high distinction, summa cum laude)
Michelle Clegg
Kendall Mariah Corty
Ty James Covey
Khaled Omar Daifallah
Zheng Diao (high distinction)
Evan A Eaton
Ayele Ekue
Blake Anthony Everett
Jonathan D Evers (distinction)
Kari Lynn Falaas (distinction)
Noah Daniel Farstad
Nathan Robert Feltman
Mateo Paul Frumholz
Uyanga Ganbaatar
Jonathan Howard Giesler
Alexander David Graves
Kathryn Ann Gray
Shivani Guduru
Henry Garner Halvorson
Thomas J Hodges
Katelyn Jo Hoff (distinction)
Eric Scott Huang (high distinction)
Shiyao Huang
Zakariya Hussein
Linh My Huynh
Ciana Tress Keller (distinction)
Jae Won Kim
Thomas J Klein
Kelsey Jean Klingel
Kayleen Anne Knoll
Spencer Gregory Kramer
Karl Norman Krecke
Dammy Yejide Kuti (distinction)
Jeffrey Lee Lafrance
Diego Paul Lala Quito
Boris F Law (*, +)
Jessica Ann Lettelleir (*, +)
Huiyu Li
Elsa Lin
Josiah Allen Lucas
Minh Bao Phan Luong
Shray Malik (distinction, summa cum laude)
Gregory Christopher Mannino (distinction)
Ralph Jerry Marseille (*)
Hannah Camille Marx (*)
Linnea Emily Mead (*)
Eric Robert Meyer (*)
Mandkhai Molomjamts
Nathan Barrash Monsein
Sara Elizabeth Morton
Conor C Nath (§)
Angela Nguyen
Dustin The Nath (*)
Ryan Connor Nicholson (distinction, summa cum laude)
Samantha Rae Osinski
Pranshu Rajeshkumar Parmar
John M Pederson
Marissa Anne Peyer (high distinction, summa cum laude, §)

* – Dean’s Scholars  § – Community Engagement Scholar  + – President’s Emerging Scholar
Merrick DeForest Pierson Smela (high distinction)
Amy Marie Prichard (high distinction)
Sabrina Ratsamy
Benji Donald Schuneman
Melissa Katherine Seiberlich
Neha Krishna Sethi (*)
Alicia Sherbanenko
Livia Dawn Songster
Alicia Claire St. Marie (distinction, *)

BIOLOGY

Jesse Abelson
Omar Ahmed Adam
Huda Yusuf Adam
Shivani Narayan Agrawal
Joseph Ahenkorah
Luke Gates Aldrich (distinction)
Leah Solomon Alemu (distinction, summa cum laude, *)
Elise Katherine Armstrong
Eliza Helen Arvold
August James Askegaard
Josephine Awotoye
Inhyop Bae
Karimatou Bah (+)
Alexander B Banerjee
Kylea Taylor Barnes
Ali Baydoun
Ethan Doeling Beach
Autumn Marie Beckman
Rachael Ann Berger
Carolin Bertler
Urvi Bhakta
Minu Madhubanti Bhunia
Atlanta Mae Bidinger (*)
Alexa Elaine Bloedow (high distinction)
Katherine Elizabeth Bluhm (distinction)
Nathan Lucas Bomm
Benjamin Brown
Morgan Emily Burkhart
Sierra Elysa Burr
Adam Lennes Busacker
Ryan Campbell

Jett David Stromswold (distinction)
Julia Anne VandenBoom
Leying Wang
Haley Ann Warmuth
Molly Margaret Westfield
Justin Michael York (distinction)
Zijun Zhang
Haolin Zhao
Yuqi Zhou (distinction, §)

Vincent Choi
Kara Lynn Churovich
Jesse Douglas Cohen (distinction)
Mikaela Ruth Craig
Christian Robert Daigle
Namrata Niteen Damle (high distinction, summa cum laude)
Meera Janani Damodaran
Jando Sabah Danial
Henry Thomas Davis
Alissa Kay Dean (*)
Abigail Christine Degroy
Kathleen Marie Delany
Andrew C Dewet
Madison Kaylan Duffy (distinction, summa cum laude)
Jordyn Virginia Dwyer
Chase Edward Eder
Mai Abbas Elkarib
Baila R Elkin (high distinction, summa cum laude, §)
Madeline Droz Ellert-Beck (distinction, summa cum laude)
Colin Andrew Emerson
Elizabeth June Etterman
Kathryn Joy Fajardo
Norma Josephine Farah
Saheer Fatima
Annika Jean Feight
Noah Thomas Fortmeyer
Matthew John Fuller
Nicholas Luther Fuqua (*)
Jesus Garcia Garcia
Emily Margaret Gerner
Chase Jordan Gertken
Calder E Glowac
Amanda Sabina Gordon
Samantha Dawn Gray (high distinction, summa cum laude)
Parker David Gross
Natalie Paige Groves
Macy Jean Haley
Hafez Yousef Hanna
Sophia Lynn Hanson
Paige Marie Hartman (high distinction, summa cum laude)
Tegan Alexandra Harty
Anam Faiza Hasan ( distinction)
Jacfar Hassan
Michael Patrick Haugan
Evelyn Anne Hayhurst (cum laude)
Megan Inez Heimermann
Hailey Anna Held ( distinction)
Kevin Brooks Henry
Pakou Her
Katherine Ann Hill (high distinction, summa cum laude)
Alyna Phuong-Nhi Ho
Georgie Ann Holm
Melinda Leona Holmstadt
Mikayla Catherine Hong ( distinction)
Tanner Huebner
Emma Marjorie Reiner Hughes
Syed Salman Hussain
Musse Abdullahi Hussein (*)
Hye In Hyun
Madeline Elizabeth Jensen ( distinction)
Kimberly Jeong (*)
Michelle Meiling Ji ( distinction)
Evan Joseph Jobin
Shaun Heimbichner Johnson (high distinction)
Isaac Julian Johnson
Rachel Lynn Johnson
Katherine Anne Johnston
Mary Grace Junko
Joshua Alexander Justison
Jared Robert Kain
Enoch Kan
Heather Jean Kane (*)
Nadia Mei Kane
Tigidankaye Kebbay
Hannah Marie Kempfer
Vanessa Sovana Keo
Elyse Kendra Kerian (high distinction)
Bill Kim
Amber Rose Koehnen (+)
Megan Kathleen Koenig
Vellerie Chindarithanie Kol
RaeAnne Nicole Kolasa
Varshethaa Krishnan (*)
Karly Marie Kroeten (*)
Morgan Mae Lange
Emily Nicole Larson
Trevan S Laundrie
Mikaela S Leifeld
Emily Michelle Lekah
Sarah Rosemary Corene Lentz (distinction, summa cum laude)
Megan Elizabeth Lesmeister
Christine Mengling Lian
Kasey Keegan Lofy
Jennifer Marie Mangas (distinction)
Soumya Marasakatla
Kevin Raksmy Math
Daniel Jacob Mattinen (distinction)
Sydney Ann McClure
Keegan McKye
Connor McMorrow
Jacob P Merritt
Anthony Patrick Meyer
Kate Minke (*)
Nicole Marie Minnerath (§)
Katie Marie Moenck
Jiyeong Moon
Ryan James Moenck
Caddie Jae Munson
Addie Rachel Nelson
Anna Nelson
Tyler James Nelson
Giradine Nadale Nguimatsa Momo
Amanda Hoang Nguyen (*, +, §)
Kevin Le Nguyen
Viet Nguyen
Natalia Jean Nice
Thalia Chiara Noegroho
Jeremiah Brandon Noon (distinction)
Gabriella Garcia Roma Novoa
Bennett Abayomi Olupo (*)
Angelica May Ortega
Salah Ahmed Osman
Emily Frances Owens
Grace Katherine Pankratz
Eunji Park
Alexandra Brooke Parker
Felicia Patel
Jessica Lynn Pauly
Lauren Jane Pelkey (magna cum laude)
Emily Josephine Petersen
Jake Raymond Peterson
Marcus Robert Peterson
Michael Westley Peterson
Camelia Camtu Pham (distinction)
Dieum Bich Pham
Alex Michael Pierce
Anchisa Pipatpinyopong ($)  
Shonice Percy Pooniwala (*)
Zain H Qarni
Matthew Rapcan
Rylee Cristine Reiche
Jonah Mitchell Resnick
Alexa Rae Rutherford
Dara Salour
Riley Sanocki (distinction)
Julia Mary Santucci
Hannah Elizabeth Sauve
Madeline Paige Schenk (high distinction)
Eric Benjamin Schlicker

Tess Anne Schneider
Ross James Screaton
Emily Sierra Sederstrom (distinction)
Victoria Rose Shimonek
Erik Paul Skoe
Waverly Slette
Shontel Olivia Smith (*)
Manoj Somasundaram
Katherine Spurlock (distinction)
Anne Keeler Steinberg
Coleman Dale Strosahl
Daina Brigitta Strub
Suzanne Elizabeth Strubel (*)
Vivian To
Bingle Jeslyn Torres Gavarrete (*)
Matthew Tran (high distinction)
Cody Daniel Tucholke (high distinction)
Kathryn Mary Van Heirseele
Mai Zoua Vang (*, +)
Alexandria Elizabeth Verbeten
Jiayi Wang
Michael Richard Wappes
Melat Weldeselasie (*)
Anne Elizabeth Weston
Tara Shea Whitlock
Jason Xiao
Ashley E Xiong
Jasmine Jia Yan
Sashank Yarlagadda
Hellen Yi (*)
Lila Torborg Yokanovich
Alicia Qi Zhang (distinction)

ECOLOGY, EVOLUTION AND BEHAVIOR

Erin Elizabeth Andrews (distinction)
Sydney Margaret Baum-Haines
Rachel Ann Berg (high distinction)
Jackson Charles Brooke
Melissa Kiley Drown
Traci Lynne Eicholz (distinction)
Chloe Allison Fouilloux

Kirstine Marguerite Grab
Ingrid Elizabeth Holstrom
Claire Mae Jaeger Mountain
Carolyn Rose Kalinowski
Kaitlyn Ryanne Knutson (high distinction)
Marisa Nicole Meleck
Melanie Pagge Menk

* = Dean’s Scholars  § = Community Engagement Scholar  + = President’s Emerging Scholar
Connor Joseph Neill (distinction, summa cum laude)
Will Reed
Caitlin Marie Renaud

David Alan Sannerud
Keri May Skelly (distinction)

GENETICS, CELL BIOLOGY AND DEVELOPMENT

Aaron Marcus Anderson
Mirza Ikram Baig
Joshua Jared Bayer (summa cum laude, §)
Leroy M Bondhus (high distinction)
Elizabeth Anne Bonnema
Meredith Noelle Campbell (distinction)
McKayla Michelle Carlson
Matthew Ryan Chrostek
Bailey Marie Clothier
Victor Manuel Corral
Christina Kale Dailey (cum laude)
Uyen Van Dinh
Garrett Michael Draper (distinction, summa cum laude)
Samuel Jordan Drummer
Justin Robert Dunnell (*)
Sonia Riva Ehrlich
Alexis Kay Elfstrum
Emily Anne Engelbrecht-Wiggans
Alexander David Framstad (distinction, summa cum laude)
Joshua Peter Gallop (high distinction, summa cum laude)
Matt Griesbach
Patrick J Griffin (distinction)
Annmarie Kendra Hawe (*)
Morgan Elizabeth Jackson (high distinction, summa cum laude)
Lukas William Jagger
Kristy Lee Jay
Brendan James Jenquin
Katie Ann Kallenbach (high distinction)
Marah Noelle Kays
Martin Jamal Khoury
Jennifer Kim
Nicholas Matthew Koes
Maria Carolyn Krautkremer
Sophia Marie Lazzaroni

Leeore Levinstein (distinction)
Natasha Lynn Lillie (*)
Nicholas J Malcore
Kimberly Chingyue Mao (distinction)
Jaye McEvoy
Jessica Mari McMullen
Connor Michael Navis (*)
Eugene Benjamin Ng (high distinction)
Ian R Nykaza (high distinction, summa cum laude)
Carrie Joanna O'Connor-Walker
Justin Thomas Oakland (high distinction, *)
Rael Kerubo Ogega
Andrew Park (distinction, summa cum laude)
Polina Prokhoda (*)
Scott Jass Rahn
Emily Shirley Rankine
Paige Nicole Ruh
Sienna Evon Schaeffer (distinction, summa cum laude)
Emily Renee Schommer
Lukas M Shelerud
Sajya Martineau Singh (high distinction, summa cum laude)
Aditi Soni
Carly Nicole Taschner
Evan Patrick Thielen (*)
Melody Truong
Carmen Gau-Man Tso
Brooke Elizabeth Vaillancourt
Talia D Valentini
Lindsey Elizbeth Walker
Caleb Nathaniel Walters
Dechen Wangmo (distinction)
Austin Scott Wilcox (*)
Kasey Hanming Zhou (summa cum laude)
Allison Renae Zinter
MICROBIOLOGY

Hiba Emadeldin Ahmed
Ishmael Asad Al-Ghalith
Anna K Beckstrom
Peter Louis Breimhurst (high distinction)
Thomas Jacob Butenhoff
Lydia Carol Cameron
Andrew Day
Matthew Joseph Freeman (high distinction, summa cum laude)
Erin Marie Gorman (distinction)
Eva Grace Graf
Carli Marie Grannes
Fereshteh Hajjaryzadeh
Kevin Jiang
Melissa Lynn Kruesel
Ajinkya Ravi Limkar (*)

NEUROSCIENCE

Nancy Yasser Abdelrahman
Justin David Aronson
Johanna Jisoo Back (summa cum laude)
Patrick Charles Barthman
Emily Elizabeth Beck (high distinction)
Johanna Rose Bixby
Tate J Bowe
Anna M Bowman (distinction)
Conor Killackey Burke-Smith (summa cum laude)
Elizabeth Marie Carlson
Seyoung Cha
Karim Cherniak
Susane Cho
Antoinette Eyram Danku (distinction, summa cum laude)
Joan Kim Dao
Cole Anthony Davis
Emily Lara Sierra Dawra (distinction)
Afomia Alemayehu Desalegn (+)
Carolyn Marie Domroese
Benjamin Dougen
Rads Lakshmi Edpuganti
Lilli Kay Gannon

Connor Daniel Lund
Liz MacDonald
Cole Thomas Minnick
Megan Nicole Olson
Grace Owens-Kurtz (distinction, summa cum laude)
Tenzin Paljor
Helen Mason Risser (summa cum laude)
Melissa Mary Rivi (distinction)
Carl Joseph Stone (magna cum laude)
Vetorah Socheata Tiev
Angelina Marie Venturo
Garritt E Wieking
Sara Marie Wixon (high distinction, summa cum laude)
Kelli Wysoglad (magna cum laude)

* = Dean’s Scholars  § = Community Engagement Scholar  + = President’s Emerging Scholar
Thomas R. McCullough
Ryan Dennis McMahon (distinction)
Andrew John Metz
Benjamin Edward Miller (distinction)
Lauren Susan Miller (summa cum laude)
Mark M Mizrachi (distinction, cum laude)
Hafsa Mohamud (*, +)
Nahom Mossazghi
Vy Nguyen
Alexandra James Noll
Adam Thomas Nygren-Larson
Matthew Paul Olocco (distinction)
Jeeva Palanisamy
Jean Pierre Pallais
Vesselina Marsyla Pearsall
Malina Yamashita Peterson (high distinction, summa cum laude)
Yaroslav Pochinka (high distinction, summa cum laude)
Jonah P Poynter
Paymon Patrick Rafian (high distinction, summa cum laude, *)

PLANT & MICROBIAL BIOLOGY
Jack Thomas Pirner (high distinction)

MULTIPLE MAJORS

Mohamed Ali Jama – Biochemistry; Genetics, Cell Biology and Development
Kate Victoria Lauer (distinction, summa cum laude) – Biochemistry; Genetics, Cell Biology and Development
Philip Ji Yan Leung (*) – Biochemistry; Genetics, Cell Biology and Development
Madeline Renee Nicol – Biochemistry; Microbiology
Andrew Alexander Sterling Norton (distinction, *) – Genetics, Cell Biology and Development; Microbiology; Neuroscience
Ellen Marie Paatela (distinction, summa cum laude) – Genetics, Cell Biology and Development; Microbiology
Maleena Shae Patel – Biochemistry; Ecology, Evolution and Behavior
Luke Remme – Genetics, Cell Biology and Development; Neuroscience
Sarah Elizabeth Stanley – Genetics, Cell Biology and Development; Plant and Microbial Biology
Romi Salim Salti - Biochemistry; Microbiology
Nikitha Temkar Sathish Kumar - Biochemistry; Genetics, Cell Biology and Development (*)
Caleb Steven Senger - Biochemistry; Genetics, Cell Biology and Development
Matthew Ellsworth Smith - Biochemistry; Genetics, Cell Biology and Development
Taylor Nicholas Takasugi - Biochemistry; Genetics, Cell Biology and Development (high distinction, summa cum laude)
Ammanuel Taye - Biochemistry; Genetics, Cell Biology and Development
Research universities such as the University of Minnesota offer students the opportunity to do more than just learn about discoveries made by others. We encourage students to work with faculty to make discoveries of their own. We recognize students and their mentors who have embraced this opportunity and advanced the boundaries of human understanding.

Omar Adam “Nonvascular T cell migration into nonlymphoid tissue,” Faculty Mentor: Dr. David Masopust

Huda Adam “Role of VEGF receptor 1 (Flt-1) gene in muscular dystrophy mice,” Faculty Mentor: Dr. Atsushi Asakura

Luke Aldrich “Domestication of new crop species, Pennycress,” Faculty Mentor: Dr. David Marks

Leah Alemu “Optimizing 3D collagen I gels for the study of fibroblasts and idiopathic pulmonary fibrosis,” Faculty Mentor: Dr. Peter Bitterman

Danielle Amundsen “The role of Sox7 in cardiovascular progenitors,” Faculty Mentor: Dr. Cindy Martin

Aaron Anderson “Characterization of the genetic interactions that regulate limb progenitors through appendicular skeleton phenotypes in mouse mutants,” Faculty Mentor: Dr. Yasuhiko Kawakami

Jacob Anderson “Site-directed mutagenesis to determine key amino acid residues in cell penetrating peptides,” Faculty Mentor: Dr. Michael Freeman

Erin Andrews “Decomposition of ectomycorrhizal necromass in boreal forests,” Faculty Mentor: Dr. Peter Kennedy

Stephanie Aron “Innate immunity driven by incoming viral polymerase,” Faculty Mentor: Dr. Ryan Langlois

Johanna Back “Blocking relapse-related behavior in cocaine addicted mice,” Faculty Mentor: Dr. Mark Thomas; “The blockade of endocytosis of GluR2-containing AMPARs in the nucleus accumbens and its effect on reinstatement for cocaine-seeking behavior,” Faculty Mentor: Dr. Mark Thomas

Sydney Baum-Haines “Communities, chimp calls and chimp actions,” Faculty Mentor: Dr. Michael Wilson

Mai Beauclaire “Probiotics manipulation of the turkey microbiome,” Faculty Mentor: Dr. Dan Knights

Emily Beck “Primate models to reduce drug abuse: Sex and hormonal influences comparing novel strategies for reducing drug abuse in male and female rhesus monkeys,” Faculty Mentor: Dr. Marilyn Carroll; “Vulnerability to drug abuse and treatment efficacy: Animal model sex differences, exercise, and progesterone effects on impulsivity, smoking and cocaine abuse,” Faculty Mentor: Dr. Marilyn Carroll
Autumn Beckman  “Sulf1 and Hs6st patterning in *Drosophila* embryo,” Faculty Mentor: Dr. Hiroshi Nakato

Rachel Berg  “Nesting behavior of *Glaucomys volans* within Itasca State Park,” Faculty Mentor: Dr. Joseph Whittaker

Minu Bhunia  “Understanding the role of the circadian clock gene *Bmal1* in astrocytes,” Faculty Mentor: Dr. Paulo Kofuji

Atlanta Bidinger  “Carcinogenesis chemoprevention,” Faculty Mentor: Dr. Lisa Peterson

Nathan Bomm  “Role of “Fourist” locus destabilization in cancer promotion in mice,” Faculty Mentor: Dr. York Marahrens

Peter Breimhurst  “Antibiotic resistance in *Salmonella*,” Faculty Mentor: Dr. Sinisa Vidovic

Alexander Bui  “Investigating the role of truncated FLCN in cancer parthenogenesis and how U2AF1 isoforms influence expression of tandem exon duplicates,” Faculty Mentor: Dr. Jeongsik Yong

Conor Burke-Smith  “Endogenous dystrophin gene activation using dCas9/guide RNA system,” Faculty Mentor: Dr. Atsushi Asakura; “Diabetic status and the effectiveness of glucose regulation for hyperglycemic patients in acute ischemic stroke,” Faculty Mentor: Dr. Rwoof Reshi

Morgan Burkhart  “Effect of gender in the classroom,” Faculty Mentor: Dr. Sehoya Cotner

Sierra Burr  “Investigation of phosphocreatine as a stimulant for repairing early life iron deficiency,” Faculty Mentor: Dr. Michael Georgieff

Lydia Cameron  “Improved determination of antibiotic treatment options for patients with cystic fibrosis,” Faculty Mentor: Dr. Ryan Hunter

McKayla Carlson  “Characterization of early biomarkers of dystrophinopathy in young mdx mice,” Faculty Mentor: Dr. Joseph Metzger; “Immunofluorescence of iPS cell derived cardiomyocytes for *in vitro* protein imaging,” Faculty Mentor: Dr. Joseph Metzger

Elizabeth Carlson  “The study of early life iron-dependent epigenetic modifications and their effects on neural gene regulation across the lifespan,” Faculty Mentor: Dr. Michael Georgieff

Jun Chen  “Neonatal hyperglycemia in rats,” Faculty Mentor: Dr. Raghavendra Rao

Susane Cho  “Analyzing the cognitive effects of topiramate and lorazepam,” Faculty Mentor: Dr. Susan Marino

Vincent Choi  “HTS approach for systematic discovery and analysis of new pharmacophore chemotypes that target pathological Ca leakage through RyR1,” Faculty Mentor: Dr. Razvan Cornea; “Sex-dependent alteration of cardiac cytochrome P450 gene expression by doxorubicin in C57Bl/6 mice,” Faculty Mentor: Dr. Beshay Zordoky

Asef Chowdhury  “Investigating the potential of chromosome correction in lowering DUX4 expression,” Faculty Mentor: Dr. Michael Kyba
Matthew Chrostek “Cerebral organoids as a novel source of dopaminergic neuron progenitors for cell-based treatment of Parkinson’s disease,” Faculty Mentor: Dr. Walter Low

Bailey Clothier “Examining the ability of flavone analogs to selectively inhibit bacterial topoisomerase I,” Faculty Mentor: Dr. Hiroshi Hiasa

Victor Corral “Molecular mechanisms of limb regeneration in salamanders,” Faculty Mentor: Dr. Karen Echeverri; “Cell-based assay of pediatric cancer: predisposition gene function,” Faculty Mentor: Dr. Logan Spector

Khaled Daifallah “Fluorescence lifetime imaging microscopy,” Faculty Mentor: Dr. Laurie Parker

Christina Dailey “Fatty acid efflux in brown adipose tissue,” Faculty Mentor: Dr. Douglas Mashek

Namrata Damle “In vivo evaluation of drug candidates that are selectively toxic to NF1-deficient human Schwann cells for the treatment of peripheral nerve sheath tumors,” Faculty Mentor: Dr. David Largaespada

Meera Damodaran “Pain and itch behavioral response in mice,” Faculty Mentor: Dr. Glenn Giesler Jr.

Antoinette Danku “Social gaze cueing in children that underwent a hemispherectomy,” Faculty Mentor: Dr. Kathleen Thomas

Joan Dao “Thalamic stimulation with DBS,” Faculty Mentor: Dr. Matthew Johnson

Cole Davis “Improved analysis of neurite tracings,” Faculty Mentor: Dr. Lorene Lanier

Emily Lara Dawra “Brain responses to drug cues predict relapse in stimulant-dependent patients,” Faculty Mentor: Dr. Brian Knutson

Andrew Day “Type three secretion in Burkholderia cenocepacia,” Faculty Mentor: Dr. Christian Mohr

Zheng Diao “Mapping of Arabidopsis genes associated with variations in immunity against Pseudomonas syringae combinatorial effector strains,” Faculty Mentor: Dr. Fumiaki Katagiri

Garrett Draper “Functional role of transcription factor ZNF217 in osteosarcoma,” Faculty Mentor: Dr. Branden Moriarity

Melissa Drown “Conservation of epigenetic marks on evolutionary timespans,” Faculty Mentor: Dr. Christopher Faulk; “A new approach to ocean acidification: Design and testing of a high frequency CO2 system,” Faculty Mentor: Dr. Christopher Chambers

Madison Duffy “Testing the protective effects of dormant origins of replication against UV-induced DNA damage in human RPE cells,” Faculty Mentor: Dr. Naoko Shima

Justin Dunnell “Validation of candidate drivers of osteosarcomagenesis with high-throughput in vitro screening,” Faculty Mentor: Dr. David Largaespada

Rads Edpuganti “GCS in relation to lactate levels and arterial blood pressure,” Faculty Mentor: Dr. Uzma Samadani; “Brain death in relation to biomarker levels,” Faculty Mentor: Dr. Uzma Samadani
Sonia Ehrlich “Evolutionary mechanisms acting on uncoupling proteins,” Faculty Mentor: Dr. Suzanne McGaugh; “Preventative treatment and control of zebra mussel infestation in Minnesota lakes,” Faculty Mentor: Dr. Michael McCartney

Ayele Ekue “Extracellular enzyme activity in prairie pothole lakes,” Faculty Mentor: Dr. Jessica Gutknecht

Alexis Elfstrum “Temporal and spatial characteristics of bone metastasis of breast and prostate cancer,” Faculty Mentor: Dr. Susanta Hui; “Do traditional African remedies induce hemolysis in a G6PD-deficient zebrafish model?” Faculty Mentor: Dr. Troy Lund

Madeline Ellert-Beck “Exploration of stem rust resistance in Midwestern oat varieties,” Faculty Mentor: Dr. Yue Jin

Emily Engelbrecht-Wiggans “Reverse sexual dichromatism in golden rocket frogs,” Faculty Mentor: Dr. Mark Bee

Blake Everett “Metabolically versatile Cyanobacteria,” Faculty Mentor: Dr. Trinity Hamilton; “Optimization of Streptomyces secondary metabolite production,” Faculty Mentor: Dr. Michael Smanski

Jonathan Evers “Quantitative chemical proteomic strategy for site-specific stoichiometric analysis of ubiquitination,” Faculty Mentor: Dr. Yue Chen

Kari Falaas “Yeast β-glucan on diabetes,” Faculty Mentor: Dr. Daniel Gallaher

Norma Farah “XenoGVHD induction by fresh vs. frozen/thawed PBMC,” Faculty Mentor: Dr. Keli Hippen

Saher Fatima “The effect of neonatal hyperglycemia on dendritic arborization and gene expression in the hippocampus,” Faculty Mentor: Dr. Raghu Rao

Chloe Fouilloux “The effects of bromeliad water quality of the presence of golden rocket frog tadpoles,” Faculty Mentor: Dr. Mark Bee; “Pseudomonas fluorescens pellicle dynamics as an expression of public goods,” Faculty Mentors: Dr. Neal Jahren and Dr. Michael Travisano

Alexander Framstad “Quantification of SIV-specific T cells in both lymph and non-lymph tissue,” Faculty Mentor: Dr. Pamela Skinner

Matthew Freeman “Understanding of the impact that UHRF2 plays in cell cycle differentiation in neoplasms,” Faculty Mentor: Dr. Timothy Hallstrom; “Design and use of tissue microarray to understand the role of UHRF2 in diffuse large B cell lymphoma and post-transplant lymphoproliferative disorder,” Faculty Mentor: Dr. Michael Linden

Joshua Gallop “Premature termination codons may lead to morphological change in Astyanax mexicanus,” Faculty Mentor: Dr. Suzanne McLaugh

Christina Garasky “Impact of genetic testing on the adjustment of international adoptees,” Faculty Mentor: Dr. Richard Lee

Jonathan Giesler “Identifying and validating TE polymorphisms related to stress response in the B73 and W22 backgrounds of Zea mays,” Faculty Mentor: Dr. Nathan Springer

Megan Glait “Neural pathways in rewarding behavior,” Faculty Mentor: Dr. Robert Meisel; “The lifestyle behavior lab,” Faculty Mentor: Dr. Traci Mann
Amanda Gordon “Disruption of PELP1 protein complexes with cell permeable peptides,” Faculty Mentor: Dr. Julie Ostrander

Kirstine Grab “Understanding how different acoustic rearing environments can impact mating behavior in crickets,” Faculty Mentor: Dr. Marlene Zuk; “Does the parental compensation hypothesis explain differences in parasite-host interactions?” Faculty Mentor: Dr. Sarah Knutie

Samantha Gray “The role of PTX3 in adipose inflammation,” Faculty Mentor: Dr. Xiaoli Chen; “Student perceptions of active-learning courses,” Faculty Mentor: Dr. Anna Mosser

Natalie Groves “Identification of novel DNA intercalators as topoisomerase I inhibitors,” Faculty Mentor: Dr. Hiroshi Hiasa

Zachary Haave “Abuse liability of e-cigarettes and related compounds,” Faculty Mentor: Dr. Andrew Harris

Paige Hartman “Prevalence of clinically actionable disease variants in exceptionally long-lived families,” Faculty Mentor: Dr. Bharat Thyagarajan; “Next-generation sequencing for clinical diagnostics: A review of the first five years of data,” Faculty Mentor: Dr. Bharat Thyagarajan

Anam Hasan “Exploring discussion of racism in the exam room,” Faculty Mentor: Dr. Brooke Cunningham; “Power to quit II,” Faculty Mentor: Dr. Rebekah Pratt

Jacfar Hassan “Screening of Crabp1 ligands in order to determine whether or not they affect the ability of Crabp1 to inhibit CaMKII activity,” Faculty Mentor: Dr. Li-Na Wei

Evelyn Hayhurst “Vector preference in single- and multi-host systems and implications for disease dynamics,” Faculty Mentor: Dr. Elizabeth Borer

Megan Heimermann “Understanding the evolution of rhizobia,” Faculty Mentor: Dr. Peter Tiffin

Hailey Held “Determination of the activity of prulifloxacin, a prodrug of a clinically important antibacterial drug ulifloxacin,” Faculty Mentor: Dr. Hiroshi Hiasa

Kevin Henry “Investigating small molecule inhibitor binding to HCMV terminase protein UL89,” Faculty Mentor: Dr. Robert Geraghty

Katherine Hill “Social norms and sodium consumption,” Faculty Mentor: Dr. Traci Mann; “Conditioned odor and taste preference,” Faculty Mentor: Dr. Jonathon Gewirtz

Meghan Hill “Structural correlations and white matter integrity across coordinated brain systems in age-associated cognitive decline,” Faculty Mentor: Dr. Jose Pardo; “Cognitive differences between APOE genotypes in healthy and pathological aging,” Faculty Mentor: Dr. Jose Pardo

Katelyn Hoff “Intratumoral choline as a biomarker for inhibition of PI3K signaling and endocrine resistance in breast cancer,” Faculty Mentor: Dr. Deepali Sachdev; “CDK4/6 inhibition blocks effects of IGFs and insulin in estrogen receptor positive and triple negative breast cancers: implications for co-targeting IGF1R/IR and CDKs,” Faculty Mentor: Dr. Deepali Sachdev
Bin Huang “LINCs: characterization of a novel inhibitory neuron population in the hippocampus,” Faculty Mentor: Dr. Esther Krook-Magnuson

Eric Huang “Determining the topographic distribution of beta-amyloid assemblies in human brains,” Faculty Mentor: Dr. Karen Ashe; “Quantification of delta-tau13 levels in Huntington’s disease brains,” Faculty Mentor: Dr. Peng Liu

Colleen Hutchison “Optogenetic induction of long-term depression in the infralimbic to accumbens shell circuit,” Faculty Mentor: Dr. Mark Thomas; “LTD-blocking of conditioned place preference reinstatement: morphine vs. cocaine,” Faculty Mentor: Dr. Mark Thomas

Morgan Jackson “The role of psychiatric and pain pharmacogenetics in predicting disease risk: a systematic review,” Faculty Mentor: Dr. Heather Zierhut; “The role of SALL4 in the spinal cord regeneration of axolotls,” Faculty Mentor: Dr. Karen Echeverri

Kristy Jay “Identifying novel mutations in the FOXP1 gene to confirm correlation with autism spectrum disorder and language disorder,” Faculty Mentor: Dr. Brian Van Ness

Michelle Ji “The role of CYP3A4 in development of progestin receptor positive breast cancer cells,” Faculty Mentor: Dr. David Potter; “To identify small RNA regulators that regulate biofilm formation in Enterococcus faecalis,” Faculty Mentor: Dr. Gary Dunny

Isaac Johnson “Investigating the role of nucleus accumbens astrocytes in reward signaling utilizing optogenetics and intracranial self-stimulation,” Faculty Mentor: Dr. Alfonso Araque

Katherine Johnston “Exposure to toxins/mutagens in diet causes plastic increases in antioxidant capacity of testes,” Faculty Mentor: Dr. Emilie Snell-Rood; “Generalized responses to novel toxins through constitutive upregulation of antioxidant pathways,” Faculty Mentor: Dr. Emilie Snell-Rood

Joshua Justison “Disentangling the effects of hybridization on macroevolutionary analyses,” Faculty Mentor: Dr. Emma Goldberg

Sruti Kalatoor “Identifying cancerous DNA sequences in neuroendocrine carcinomas,” Faculty Mentor: Dr. Faqian Li

Carolyn Kalinowski “Sodium in butterflies,” Faculty Mentor: Dr. Emilie Snell-Rood; “Transgenerational sodium in butterflies,” Faculty Mentor: Dr. Emilie Snell-Rood

Enoch Kan “Protein nanotube structures and multi-enzyme assembly behaviors,” Faculty Mentor: Dr. Ping Wang; “A Python extension for a web-based consensus finder,” Faculty Mentor: Dr. Romas Kazlauskas

Nadia Kane “The hexadehydro-Diels-Alder reaction approach towards the synthesis of fused ring heterocycles,” Faculty Mentor: Dr. Wayland Noland

Marah Kays “Pyrazinamide resistance in Mycobacterium tuberculosis,” Faculty Mentor: Dr. Anthony Baughn

Kayleen Knoll “The role of Xist deletion in cancer initiation,” Faculty Mentor: Dr. York Marahrens

Kaitlyn Knutson “Group foraging and social learning in butterflies,” Faculty Mentor: Dr. Emilie Snell-Rood
Emily Larson “Potential effect of iron deficiency on striatal neuron dopamine-dependent dendrite development,” Faculty Mentor: Dr. Lanka Dasanayaka

Kate Lauer “Biochemical and structural studies of APOBEC3H,” Faculty Mentor: Dr. Reuben Harris

John Leschisin “Investigating sex differences in motivated behavior and decision making in male and female mice,” Faculty Mentor: Dr. Nicola Grissom

Philip Leung “Discovery of activity improvements in a RNA ligase mutant library via a high throughput malachite green screening protocol,” Faculty Mentor: Dr. Burckhard Seelig; “A mechanistic analysis of dihydromethysticin as a carcinogen detoxifier,” Faculty Mentor: Dr. Chenggou Xing

Leeore Levinstein “Regulation of osteoclasts through gene expression of histone deacetylases,” Faculty Mentor: Dr. Kim Manskey

Natasha Lillie “Oxytocin pathway SNP analysis,” Faculty Mentor: Dr. Suma Jacob; “SPARK recruitment and retention,” Faculty Mentor: Dr. Suma Jacob

Ajinkya Limkar “Development of vaccines for treatment of opioid abuse using carrier proteins suitable for pharmaceutical manufacturing,” Faculty Mentor: Dr. Marco Pravetoni

Kelvin Loke “Estrogen activates astrocytes in the hippocampus,” Faculty Mentor: Dr. Alfonso Araque; “Response of astrocytes to electrical stimulation,” Faculty Mentor: Dr. Alfonso Araque

Lauren Madden “Effects of dopamine on MSNs in the basal ganglia,” Faculty Mentor: Dr. Lorene Lanier; “Orientation selective spinal cord stimulation,” Faculty Mentor: Dr. Matthew Johnson

Sray Malik “Prokaryotic non-homologous end-joining: characterizing the ternary complex between Ku, ligase D, & DNA,” Faculty Mentor: Dr. Hideki Aihara

Jennifer Mangas “A Caenorhabditis elegans model for understanding and treating DYT1 dystonia,” Faculty Mentor: Dr. David Greenstein

Kimberly Mao “Generation of a cell line with a targeting cassette at the β-actin locus of 293T cells,” Faculty Mentor: Dr. Nikunj Somia

Soumya Marasakatla “The Rock Band study,” Faculty Mentor: Dr. Philip Zelazo

Logan Massman “Adult hippocampal neurogenesis in aberrant light induced depression,” Faculty Mentors: Dr. William Engeland and Dr. Paulo Kofuji

Ryan McMahon “How the presence of CD200 in or on exosomes affects immune cell function,” Faculty Mentor: Dr. Michael Olin

Linnea Mead “Role of ATGL in beta-adrenergic signaling,” Faculty Mentor: Dr. Douglas Mashek

Melanie Menk “Growth analysis of black bear cardiac anatomies during hibernation,” Faculty Mentor: Dr. Paul Iaizzo

Andrew Metz “Quantitative analysis of cerebral adrenoleukodystrophy,” Faculty Mentor: Dr. Igor Nestrasil
Eric Meyer “Assessment of genetic polymorphisms associated with hyperuricemia or gout in the Hmong,” Faculty Mentor: Dr. Robert Straka; “Engaging Hmong adults in genomics/pharmacogenomics research: towards reducing health disparities in genomics knowledge using a community-based participatory research approach,” Faculty Mentor: Dr. Robert Straka

Mandkhai Molomjamts “Using experimental evolution to investigate the role of standing genetic variation in rate of adaptation,” Faculty Mentor: Dr. Mike Travisano

Nahom Mossazghi “Cranial prostheses for chronic, pan-cortical two-photon imaging in behaving mice,” Faculty Mentors: Dr. Suhasa Kodandaramaiah and Dr. Timothy Ebner

Ryan Moylan “Biofunctional interfaces: an adsorption study of cationic antimicrobial peptide GL13K vis QCMd,” Faculty Mentor: Dr. Conrado Aparicio

Connor Navis “Cellular identification of AML stem cell fractions,” Faculty Mentor: Dr. Zohar Sachs

Connor Neill “Parasite-mediated behavior in fathead minnows,” Faculty Mentor: Dr. Sehoya Cotner; “Women in science: Do female chemistry students participate less than their male counterparts?,” Faculty Mentor: Dr. Sehoya Cotner

Tyler Nelson “Research of wybutosine and its intermediates in Arabidopsis thaliana,” Faculty Mentor: Dr. Neil Olszewski

Vy Nguyen “Perspectives on colorectal cancer screening and preventive care in the Laotian community,” Faculty Mentor: Dr. Elizabeth Rogers; “Understanding barriers and facilitators to CRC screening in the Lao community,” Faculty Mentor: Dr. Elizabeth Rogers

Amanda Nguyen “Identification of the CD200 activation receptor signaling pathway,” Faculty Mentor: Dr. Mike Olin

Dustin Nguyen “Individually expressing the Ole gene cluster from Shewanella oneidensis in Escherichia coli to pursue the structure of the Ole BCD complex,” Faculty Mentor: Dr. Carrie Wilmot

Madeline Nicol “Regulatory effects on gene cluster expression,” Faculty Mentor: Dr. Michael Smanski

Thalia Noegroho “Chimpanzee pant-hoot,” Faculty Mentor: Dr. Michael Wilson

Andrew Norton “Genotyping and protein isolation of various Arabidopsis strains,” Faculty Mentor: Dr. Min Ni

Ian Nykaza “Immunoproteasome inhibition to target NRAS activated AML,” Faculty Mentor: Dr. Zohar Sachs

Justin Oakland “Imaging the phenotypic response and recovery of cereal grains to abiotic stressors,” Faculty Mentors: Dr. Nathan Springer and Dr. Tara Enders

Matthew Olocco “ST-segment elevation myocardial infarction resuscitation with intracoronary poloxamer 188 and CPR intervention,” Faculty Mentor: Dr. Demetri Yannopoulos

Megan Olson “Porcine model for NF1 syndrome,” Faculty Mentor: Dr. David Largaespada
Grace Owens-Kurtz “Characterizing the role of Rv2585c in Mycobacterium tuberculosis,” Faculty Mentor: Dr. Anthony Baughn; “Developing a model of SCA-5 in Drosophila,” Faculty Mentor: Dr. Tom Hays

Ellen Paatela “Regulation of melanoma cell proliferation by FKBP proteins,” Faculty Mentor: Dr. Nobuaki Kikyo; “Inhibition of rhabdomyosarcoma cell proliferation by selective FKBP5 inhibitor SAFit2,” Faculty Mentor: Dr. Nobuaki Kikyo

Jeeva Palanisamy “Developmental change in brain rhythms from early to middle childhood: Links to executive function,” Faculty Mentor: Dr. Stephanie Carlson

Jean Pierre Pallais “Activating transcription factor 6ε+ deficiency exacerbates oligodendrocyte death and myelin damage in immune-mediated demyelinating diseases,” Faculty Mentor: Dr. Wensheng Lin

Andrew Park “Polar localization studies of VirB4 in type IV secretion system,” Faculty Mentor: Dr. Anath Das

Felicia Patel “Circadian regulation of immunoproteosome,” Faculty Mentor: Dr. Deborah Ferrington

Lauren Pelkey “Dopamine: Enhancing branching in the growing medium spiny neuron: a Gq/phospholipase C dependent pathway,” Faculty Mentor: Dr. Lorene Lanier

Emily Petersen “Treatment of growing iron deficient neuron cultures with methylene blue to improve dendrite development and differentiation,” Faculty Mentor: Dr. Michael Georgieff

Malina Peterson “SALL4 regulates differentiation of neuromesodermal progenitors,” Faculty Mentor: Dr. Yasuhiko Kawakami

Marissa Peyer “Cuticular hydrocarbons in Teleogryllus Oceanicus: An analysis of experimental approach,” Faculty Mentor: Dr. Marlene Zuk

Camelia Pham “Mapping of Arabidopsis genes causal to variation in immunity against Pseudomonas syringae combinatorial effector strains: Developing a new and effective fungal growth assay,” Faculty Mentor: Dr. Fumiaki Katagiri

Alex Pierce “MicroRNAs are the link of obesity and hepatocellular carcinoma,” Faculty Mentor: Dr. Guisheng Song

Yaroslav Pochinka “Immunohistochemical characterization of long-range inhibitory nNOS-expressing cells,” Faculty Mentor: Dr. Esther Krook-Magnuson

Amy Prichard “The effect of histone H3 T3 phosphorylation on meiosis in Saccharomyces cerevisiae,” Faculty Mentors: Dr. David Kirkpatrick and Dr. Duncan Clarke

Shika Rai “Hippocampal astrocyte calcium dynamics during spatial learning,” Faculty Mentor: Dr. Alfonso Araque

Amy Rankila “Evaluating differences in flash-electroretinogram test results between female wild-type and serine-racemase knockout mice due to fluctuating oestrogen levels,” Faculty Mentor: Dr. Robert Miller

Emily Rankine “RNA expression signature of proteasome inhibitor responsiveness in multiple myeloma,” Faculty Mentor: Dr. Brian Van Ness
Carly Rasmussen “Kinematic factors underlying social interaction perception,” Faculty Mentor: Dr. Yuhong Jiang

Sabrina Ratsamy “Investigating meaning-based coping to help undergraduate biochemistry students manage stress,” Faculty Mentor: Dr. Beverly Smith-Keiling

Luke Remme “Dendritic arborization in MSNs in the striatum,” Faculty Mentor: Dr. Lorene Lanier

Megan Rhyner “Glial cells in neurodegenerative disease,” Faculty Mentor: Dr. Marija Cvetanovic

Helen Risser “Biological control of white nose syndrome,” Faculty Mentor: Dr. Christine Salomon

Melissa Rivi “Role of periplasmic cytochromes in Geobacter sulfurreducens,” Faculty Mentor: Dr. Daniel Bond

Paige Ruh “Aryl hydrocarbon receptor inhibition promotes hemato-lymphoid development from human pluripotent stem cells,” Faculty Mentor: Dr. Michael Verneris

Sienna Schaeffer “LIN-42 localization in regulatory mutant backgrounds,” Faculty Mentor: Dr. Ann Rougvie

Madeline Schenk “Neurological basis of suicidality and self harm in adolescents,” Faculty Mentor: Dr. Karina Quevedo

Emily Schommer “Testing the spore germination capacity of various Suillus fungi in the presence of compatible tree roots with a fungal inhibitor,” Faculty Mentor: Dr. Peter Kennedy

Benji Schuneman “Characterization of humanized Enterococcus faecalis strains,” Faculty Mentor: Dr. Gary Dunny

Emily Sederstrom “What were you thinking? Students recognize feedback as important for learning,” Faculty Mentor: Dr. Jenni Momsen; “Exploring the effect of nitrogen fertilization on plant traits that affect insect recognition cues and larval growth,” Faculty Mentor: Dr. Emilie Snell-Rood

Victoria Shimonek “Mapping of Arabidopsis genes causal to variation in immunity against Pseudomonas syringae combinatorial effector strains,” Faculty Mentor: Dr. Fumiaki Katagiri; “Plant immune signaling with MAMP and novel fungal growth assay,” Faculty Mentor: Dr. Fumiaki Katagiri

Sajya Singh “AAV biodistribution in mouse models of MPS I and II,” Faculty Mentor: Dr. R Scott McIvor

Livia Songster “Characterizing the effect of human familial hypertrophic cardiomyopathy mutations on the structure and function of myosin via site-directed electron paramagnetic resonance,” Faculty Mentor: Dr. Dave Thomas; “Role of MyTH4-FERM myosin in filopodia initiation within Dicyostelium discoideum,” Faculty Mentor: Dr. Margaret Titus

Aditi Soni “Analysis of an oncogenic non-coding RNA PVT1,” Faculty Mentor: Dr. Anindya Bagchi
Alicia St. Marie “Candida albicans growth, viability, and colony morphology phenotypic switching on synthetic defined media over time,” Faculty Mentor: Dr. Dana Davis

Sarah Stanley “Population dispersion of invasive knotweed,” Faculty Mentor: Dr. Alan Smith

Anne Steinberg “Analysis of HSV-1 and HSV-2 release mutants,” Faculty Mentor: Dr. Stephen Rice

Jeff Stolley “The role of thalamic VGF polypeptide in cortical development,” Faculty Mentor: Dr. Yasushi Nakagawa

Coleman Strosahl “Development of a rubric to evaluate student reflection essays in a clinical physiology course,” Faculty Mentor: Dr. Lisa Carney Anderson

Daina Strub “The effect of acoustic rearing environment on female fecundity in Teleogryllus oceanicus,” Faculty Mentor: Dr. Marlene Zuk; “Exploratory behavior in female Teleogryllus oceanicus,” Faculty Mentor: Dr. Marlene Zuk

Vetorah Tiev “Microbiota associated with cystic fibrosis,” Faculty Mentor: Dr. Michael Sadowsky

Matthew Tran “Statistical testing of baseline differences in sports medicine RCTs: A systematic evaluation,” Faculty Mentor: Dr. Steven Stvotz; “Effects of virtual reality exercise on college students’ physiological and psychosocial outcomes,” Faculty Mentor: Dr. Zan Gao

Danielle Tran “Predictors of neurocognitive scores in premature infants with spinal diversion device,” Faculty Mentor: Dr. Daniel Guillaume; “The impact of progesterone and atomoxetine on cocaine reinstatement,” Faculty Mentor: Dr. Marilyn Carroll

Melody Truong “Invasion population genetics at spatial scales useful to management: The roles of hub lakes and stratified dispersal in rapid spread of zebra mussels in lake-rich regions of Minnesota,” Faculty Mentor: Dr. Michael McCartney; “A field evaluation of low-dose copper treatments for population suppression of zebra mussels by targeting veliger larvae,” Faculty Mentor: Dr. Michael McCartney

Carmen Tso “Developmental roles of retinoic acid signaling in adult cognitive behaviors,” Faculty Mentor: Dr. Yasushi Nakagawa

Cody Tucholke “Oxidative phosphorylation and glycolysis in pancreatic islets,” Faculty Mentor: Dr. Josh Wilhelm

Mai Vang “Examining anxiety levels and test retakes,” Faculty Mentor: Dr. Sehoya Cotner

Lindsey Walker “Instructional practices in reformed undergraduate STEM learning environments: A study of instructor and student behaviors in biology courses,” Faculty Mentor: Dr. Abdi Warfa; “Process oriented guided inquiry learning (POGIL) marginally affects student achievement measures but substantially increases the odd of passing a course,” Faculty Mentor: Dr. Abdi Warfa

Hill Wang “Isolating exosomes,” Faculty Mentor: Dr. Iryna Khasabova

Leying Wang “Computational analysis of PTM on amino acid,” Faculty Mentor: Dr. Yue Chen
Dechen Wangmo “Role of ACKR4 in regulating colorectal cancer,” Faculty Mentor: Dr. Subbaya Subramanian

Henry Wei “Investigation for the schizophrenia onset differences between male and female SRKO mice in vivo with the application of D-serine eye drops and on the basis of visual signals,” Faculty Mentor: Dr. Robert Miller

Melat Weldeselasie “The emancipation of postcolonial slaves along the “Midwest Pipeline,” Faculty Mentor: Dr. DenYelle Kenyon

Molly Westfield “The influence of total nicotine equivalent variance on nicotine metabolite ratio stability in plasma samples,” Faculty Mentor: Dr. Sharon Murphy

Austin Wilcox “Sulf1 mosaic representation in heat shocked drosophila larva, Sulf1 and Hs6st visualization in drosophila larva,” Faculty Mentor: Dr. Hiroshi Nakato

Sara Wixon “Synergistic effects of Streptomyces and copper against common plant pathogenic fungi,” Faculty Mentor: Dr. Christine Salomon; “MESP1-induced stem cell skeletal muscle differentiation,” Faculty Mentor: Dr. Sunny Chan

Sashank Yarlagadda “Relationship between bumblebee melanization and heavy metal pollution,” Faculty Mentor: Dr. Emilie Snell-Rood

Lila Yokanovich “Impact of CD44/hyaluronan interaction on breast cancer progression,” Faculty Mentor: Dr. Kaylee Schwertfeger

Zijun Zhang “pH sensitive hyrdogel for cancer treatment,” Faculty Mentor: Dr. Jafar Golzarian

Cynthia Zheng “Effects of ceftriaxone on morphine reinstatement following withdrawal,” Faculty Mentor: Dr. Mark Thomas

Yuqi Zhou “Diels-Alder reaction of 2-(cyclo-oct-1-en-1-yl)thiophene with N-(4-Bromophenyl)maleimide,” Faculty Mentor: Dr. Wayland Noland

Kasey Zhou “Conditional gene knockout of Pax7 in muscle satellite cells on muscle regeneration,” Faculty Mentor: Dr. Atsushi Asakura; “Effects of cell cycle inhibitor p27 on skeletal muscle stem cell and muscle regeneration,” Faculty Mentor: Dr. Atsushi Asakura