

# Commencement



2008



College of Biological Sciences

---

UNIVERSITY OF MINNESOTA

## THE COLLEGE OF BIOLOGICAL SCIENCES

The mission of the College of Biological Sciences is to advance knowledge of the mechanisms of life through breakthrough discoveries and to prepare today's students to create the biology of tomorrow. CBS provides students with a world of opportunities—from molecules to ecosystems—to improve human health, develop renewable resources for energy and materials, enhance agriculture and restore the environment. The College is committed to working with colleagues within the university, and with constituents in the community, government and industry to advance knowledge of biological sciences and to apply that knowledge to improve the quality of life for people in Minnesota, the nation and the world.

### **SIGN LANGUAGE INTERPRETER**

A sign language interpreter will be located on the stage.

### **CELL PHONES AND PAGERS**

Please turn off all cell phone and pager ringers before the ceremony begins.

### **PHOTOGRAPHS**

For your convenience, we have made arrangements with a professional photographer to take a picture of each student crossing the stage. This service will enable each student to have a photograph of this special event. Family members and friends are encouraged to remain in their seats and enjoy the ceremony. However, photographs may be taken from the orchestra pit. Please do not block the ramp or the aisles. The graduates need to proceed down the ramp and back to their seats in a timely manner. Thank you for your cooperation.

*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.*

# PROGRAM

## ACADEMIC PROCESSION

### **Patrice Morrow, Ph.D.**

#### **Mace Bearer**

A longtime professor of Ecology, Evolution and Behavior (EEB), Patrice Morrow received her doctorate from Stanford University. She was a Fulbright Fellow and biological sciences faculty member at the Australian National University before coming to the University of Minnesota in 1976. She has returned to Australia many times to study forest ecology. She also has studied prairie plants and insects in Minnesota over the years. In 1982, she was named a Guggenheim Fellow. Dr. Morrow is also a fellow of the American Association for the Advancement of Science. She served as EEB department head for five years.

## FACULTY MARSHALS

### **Frank Barnwell, Ph.D.**

*Department of Ecology, Evolution and Behavior*

### **Dale Branton, Ph.D.**

*Department of Neuroscience*

### **Janet Dubinsky, Ph.D.**

*Department of Neuroscience*

### **Jeffrey Galnick, Ph.D.**

*Department of Microbiology*

### **Peter Merriman, Ph.D.**

*Department of Genetics, Cell Biology and Development*

### **Neil Olszewski, Ph.D.**

*Department of Plant Biology*

### **Jane Phillips, M.S.**

*Biology Program*

### **Paul Siliciano, Ph.D.**

*Department of Biochemistry, Molecular Biology and Biophysics*

## WELCOME

### **Robert Elde, Ph.D.**

#### ***Dean, College of Biological Sciences***

Robert Elde was named Dean of the University of Minnesota's College of Biological Sciences in 1995. A 1969 honors graduate of North Park College in Chicago with a bachelor's degree in biology and chemistry, he received his doctorate in anatomy in 1974 from the University of Minnesota. He joined the University faculty in 1977 and is the J. B. Johnston Land Grant Professor of Neuroscience in the Department of Neuroscience.

## STUDENT ADDRESSES

### **"Yes, And"**

#### **Amit Goyal, Biology**

Amit Goyal was born in Australia. He credits his parents, Arun and Archana Goyal, with his character and wisdom. Amit has one younger sister who will attend the College of Biological Sciences beginning this fall. While at the University of Minnesota, Amit was a member of the Student Health Advisory Committee and the Pre-Med Honors Society. His interests range from stand-up comedy to neurology. Amit's post-graduation plans include backpacking through Europe with his best friend and attending medical school.

### **"Karibu Kwa Siku Zako Za Usoni"**

#### **Adena Hicks, Biology**

Adena Hicks grew up in St. Paul, Minnesota with three siblings and her parents, Eddie and Peggy Hicks. Adena has taken advantage of many opportunities while at the University of Minnesota including participating on the student board while enrolled in General College and studying abroad in Kenya. She plans to attend medical school. Her career aspirations include serving on a regulatory committee and working to eradicate inequalities in medicine.

## VIDEO PRESENTATION

### **The CBS Experience**

## AWARDS FOR TEACHING EXCELLENCE

*Presented by Dean Robert Elde*

**Stanley Dagley-Samuel Kirkwood Undergraduate Education Award**  
**Donald Alstad, Ph.D.**

***Department of Ecology, Evolution and Behavior***

Don Alstad grew up in New England and earned his bachelor's degree at Amherst in 1969. He holds a master's degree in engineering from the University of Iowa and a doctorate in biology from the University of Utah. Dr. Alstad joined the faculty of the Department of Ecology, Evolution and Behavior at the University of Minnesota in 1982.

**John S. Anderson Academic Leadership Award**

**Jane Phillips, M.S.**

***Biology Program***

Jane Phillips is an associate director of the Biology Program and coordinates the instructional laboratories in the College of Biological Sciences. She also teaches introductory biology courses, promotes campus-level changes that enhance student learning, and is involved in biology curriculum activities at the K-12 and college levels.

## TEACHING ASSISTANT AWARDS

**Rachel Mills**

Her organizational skills, energy, knowledge and wit are a few of the qualities that make Rachel a great teaching assistant. "I looked forward to attending lab sessions," says one of her students, "because I knew Rachel would make it worthwhile and enjoyable."

**Rachel Morpew**

Rachel's students describe her as a powerful communicator who is approachable and kind. "Rachel is not an outstanding teaching assistant, but rather a phenomenal one," says one of her students. "Her commitment to teaching is unparalleled."

**Andrew Von Duyke**

Andrew's students note his ability to inspire, calling him extremely knowledgeable and charismatic. One student says: "I never thought I could actually enjoy handling cockroaches or observing squirrels' feeding habits, but Andy's genuine passion for animal behavior was contagious."

**John Heldt**

John's outgoing personality and positive, friendly demeanor are a few of the qualities that set him apart. His students note that he's extremely responsive and always willing to take the time to help them better understand a concept or procedure.

**AWARDS FOR STUDENT LEADERSHIP**

**Fulbright Grant—2008-09, Finland**

**Brian Arnold**, *Plant Biology*

**Deutscher Akademischer Austausch Dienst (DAAD)**

**Summer Research Internships in Science and Engineering**

**Jessica van Lengerich**, *Biochemistry*

**Deutscher Akademischer Austausch Dienst (DAAD)**

**Graduate Study Scholarship**

**Jessica van Lengerich**, *Biochemistry*

**Howard Hughes Medical Institute**

**Exceptional Research Opportunities Program**

**Temilola Abdul**, *Biology*

**Jack Kent Cooke Graduate Scholarship**

**Temilola Abdul**, *Biology*, 2008 Nominee

**Phi Beta Kappa**

**Leah Betcher**, *Biology*

**Saydi Chahla**, *Biochemistry*

**Ruba Darwish**, *Biology*

**Bryan Eberle**, *Biology*

**Mary-Ann Em**, *Neuroscience*

**Sally Gesembe**, *Biology*

**Elina Kudishevich**, *Genetics, Cell Biology and  
Development, Neuroscience*

**Colleen Lockman**, *Microbiology*

**Lyuba Megits**, *Genetics, Cell Biology and Development*

**Lindsey Taylor**, *Biology*

**President's Student Leadership and Service Award**

**Clinton Been**, *Biology*

**Saydi Chahla**, *Biochemistry*

**Kenneth Dodd**, *Neuroscience*

**Tom Burnett Advanced Leadership Award**

**Tarrek Hegab**, *Genetics, Cell Biology and Development*

**Benjamin Robert Kennedy Roller**, *Microbiology*

**University Alumni Association Award**

**Kenneth Dodd**, *Neuroscience*

**CBS Student Volunteer Award**

**Clinton Been**, *Biology*

## COMMENCEMENT ADDRESS

### **"A Vision of 2020 ... and Your Role in It"**

#### **G. Steven Burrill**

##### ***CEO, Burrill & Company***

A leader in the biotechnology industry, G. Steven Burrill serves as CEO of Burrill & Company, a life sciences merchant bank and venture capital firm. He is a sought-after adviser and has served as a catalyst for some of the industry's most notable companies. Burrill has been named a top biotech investment visionary by *Scientific American*. He serves on numerous biotechnology company boards.

## PRESENTATION OF THE CANDIDATES

#### **Robin Wright, Ph.D.**

##### ***Associate Dean for Faculty and Academic Affairs, College of Biological Sciences***

Robin Wright received her doctorate from Carnegie-Mellon University in 1985. She joined the College of Biological Sciences in 2003 as associate dean. Dr. Wright is professor of genetics, cell biology and development. She is recognized for her research in this field. She was named a National Academies Education Mentor in the Life Sciences.

#### **Brian Van Ness, Ph.D.**

##### ***Professor and Department Head, Genetics, Cell Biology and Development***

Brian Van Ness is professor and head of the Department of Genetics, Cell Biology and Development. His research focuses on how different genes can influence disease progression and therapeutic response, particularly with regard to multiple myeloma. Dr. Van Ness is also co-director of the International Myeloma Foundation's Bank On A Cure®, the world's first databank of myeloma patient DNA and information.

## CONFERRAL OF THE DEGREES

#### **Steven Hunter**

##### ***Regent, University of Minnesota***

Steven Hunter is the secretary/treasurer of the Minnesota AFL-CIO. He has served as Minnesota political action director for the American Federation of State, County and Municipal Employees. Hunter graduated from the University of Minnesota and has served on numerous governing boards, including the Resource Center for the Americas, Transit for Livable Communities, Twin City Area Labor Management Council, American Civil Liberties Union of Minnesota and the Community Solutions Fund.

## CONGRATULATIONS AND WELCOME

### **Michael Thompson, Ph.D.**

#### ***President, Biological Sciences Alumni Society***

Michael Thompson received bachelor's degrees in biology and chemistry from the University of Colorado in 1984 and a doctorate in botany at the University of Minnesota in 1993. He has worked in the area of plant molecular biology in academia and industry for more than two decades. Dr. Thompson currently heads the DNA Technologies division at seed testing company BioDiagnostics Inc.

## CLOSING REMARKS

### **Dean Robert Elde**

## HAIL! MINNESOTA

### **Led by Dr. John S. Anderson accompanied by Beacon Hill Brass**

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 have completely exited the auditorium.*



## THE BACHELOR OF SCIENCE DEGREE

A foundation of liberal education forms the guiding framework of all academic programs for undergraduate students on the 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 (30 courses), including courses in social sciences and humanities, history, chemistry, physics and math, as well as in biological sciences. Students with B.S. degrees from the College of Biological Sciences have the academic foundation needed for a variety of careers in industry, education, government and other fields, and are well prepared for further study in graduate or professional schools.

## HONORS AND DISTINCTION DESIGNATIONS

Students in the College of Biological Sciences may graduate with Distinction, with Honors, or both, depending upon their grade-point average and the completion of an honors curriculum.

Graduation with Distinction is conferred to all students who have completed at least 60 credits at the University of Minnesota with a grade-point average of at least 3.900 for *high distinction* or 3.750 for *distinction*.

Honors study is divided into two general parts. In the first and second years, the emphasis is on liberal education. Students who have completed at least three honors courses, a freshman seminar and maintained a grade-point average of at least 3.5 during their first two years are indicated in this program by an asterisk (\*).

In the third and fourth years of study, the emphasis is on the research experience and a two-semester honors seminar, which exposes students to the breadth of biological inquiry and promotes interactions among the honors students. Students who complete the junior-senior part of the honors program graduate with a Latin Honors degree, based on the grade-point average earned throughout their last 60 credits as follows: *summa cum laude* (at least 3.750), *magna cum laude* (at least 3.666), or *cum laude* (at least 3.500).

Students graduating with the Community Engagement Scholars distinction have completed at least nine credits of service-learning course work, at least 400 hours of community service and a series of reflective pieces. They also have completed an integrative community engagement project that results in the creation of a sustainable project for a community organization—an (S) indicates Community Engagement Scholars.

## 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.

## THE MACE

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

## DEGREE CANDIDATES

### BIOCHEMISTRY

Mutiat Adekemi Adeyemi  
Taofeek Ayodeji Akinpelu  
Nadar A Ali  
Benjamin Edward Armstrong  
Frank Adam Bettmann III  
Wyatt Bordewyk  
Laura J Brown  
Scott Louis Casper  
Saydi Elia Chahla (*summa cum laude, high distinction, \**)  
Nhien Vinh Chau  
Allison Cherry (*summa cum laude, distinction*)  
Sonam Chodon  
Jason Kenneth Daniels  
Susan L Toffolo Dooly  
Taysia Dowuona-Mensah  
Paul Duane Enberg  
Joshua Enwright  
Milkeesso Hama Foge (\*)  
Jillian L Frisch  
Tatsiana Gerassenkov (*distinction*)  
Dennis John Gerold (*high distinction*)  
David A Ghorbanpoor  
Justin William Grunewald  
Leonardo N Hagmann  
Jade Hambacher (*distinction*)  
Michael Harvey  
Merima Helic (*cum laude, \**)  
Aaron John Henderson  
Samuel Elkan Henly (*cum laude, \**)  
Joshua Adam Hicks  
Katherine Lorraine Hill (*distinction*)  
Brian J Hoiium  
Nathan Edward Kaiser  
Gerry Lawrence Kegley  
Michael William Kesti  
Shazia Khatoon  
Christina Nguyen Kim  
Ryan Manjae Kim (\*)  
Aleksandar Dushan Knezevich (*high distinction*)  
Michael Lee Knudsen  
Tyler J Kohlmetz  
Hilary Ann Larson  
Natalie Thao Le  
True Lee  
Kyle Maloney  
Joan Elizabeth Manzara  
Ashley Marie Mathison  
Sara McChesney  
Val Triya Muenyi  
Priya Devi Muthu (*magna cum laude, \**)  
Jennifer M Nguyen  
James E Nogler

Elaine E O'Brien  
Kenneth Edward Olson  
Ana Belen Oromendia  
Ayokunle Tolulope Osho  
Oluwasegun Samson Osholowu (*magna cum laude*)  
Neil Michael Otto  
Cattleya K Ounekeo  
Yuliya Vasilyevna Perepelitsa  
John Blaise Pflugl  
Jesse W Ping (*magna cum laude*)  
Sarah Elizabeth Porter  
Benjamin Randall Pothen  
Erin Kathryn Renier (*summa cum laude, high distinction, \**)  
Zachary Nichols Rhodes  
David William Roy  
Oleg Alexandrovich Ryabinin  
Kristina Jo Schieffert  
Kevin John Schiller  
Willie James Seger  
Mengistu Kifle Shekur  
Lucas Michael Sjeklocha  
Brandon Gerald Smith  
Erik Gunar Strungs (*summa cum laude, high distinction*)  
Debrae Lynn Tebedge  
Jason H Townsend  
Christopher P Tveter (*distinction*)  
Jessica van Lengerich (*summa cum laude, high distinction, \**)  
Dan Patrick Walsh  
Emily Kaye White  
John Sadek Youssef

### BIOLOGY

Khadar Ali Abdi  
Temilola Yvonne Abdul (*summa cum laude, \**)  
Alefiyah K Adam  
Hamdi A Ali  
Maha Abdalla Ali  
Shahzad S Ali  
Ashley Marie Anderson  
Eric John Anderson  
Heather V Anderson  
Brady Michael Andvik (*high distinction*)  
Elizabeth Renae Angstman (*summa cum laude, high distinction, \**)  
Tonya Marie App  
Emmanuel Makuach Ayuel  
Jason Leo Bakeberg  
Kirsten Kay Baker  
Mary K Baker  
Samuele Ramon Banks  
Laura Kim Bantle  
Clinton Shiva Been

**BIOLOGY** (continued)

David J Belair Jr  
David Curtis Berg  
Alison Marie Bernhardt (*distinction*)  
Leah Ann Betcher (*summa cum laude, distinction*)  
Heather Ann Bishop  
Carol J Bjorklund  
Megan Marie Bohn  
Lindsey Ann Boortz  
Grant Tyler Bowers  
Konstantin Alexander Brakefield  
Jenna Lee Braun  
Jamie Lee Brown  
Gita P Byraiah  
Amber Lorraine Ann Callahan  
Jade Cao  
Sherwin Chanakarnjanachai  
Ryan W Chicoine  
Anna Mary Colestock  
Ryan Patrick Corcoran  
Brittni Grace Crane  
Joseph Michael Cuffel  
Ruba F Darwish  
Anna Davis  
Batool G Dawood  
Ellen Marie Denzen  
Rozalin Rae Dickson  
Tara R Dowling  
Nirjhar Dutta (S)  
Bryan Anthony Eberle (*summa cum laude, high distinction, \**)  
Stephanie Elizabeth Eonta  
Lauren Elizabeth Estep (*cum laude*)  
Eric Thomas Evenson  
Sarah A Ezzat  
Nicholas John Fabeck  
Sarah Elizabeth Farnia  
Hasti Saedi Fashandi  
Jason Anthony Fehr  
Tiffany Tae-Yeon Felts  
Danielle Elizabeth Feser  
Carolyn Mary Fisk  
Erika Lindsay Fuchs  
Nelson Garcia  
Mayuri Garikepati  
Candace A Gename  
Sally Magoma Gesembe  
Shawn Rohan Gherau  
Mikhail Paul Golben  
Amit Goyal (*summa cum laude, high distinction*)  
Courtney Ann Haller  
Chelsey Lynn Hannah  
Katherine Marie Harrington (*distinction*)  
Kari Lee Haug  
Hyeyeun Jeong Heacock  
Kanchana Nilupul Herath (*summa cum laude, distinction, \**)  
McKenzie J Herges  
Jimmy Doua Herr  
Clay Alexander Hickman  
Adena Marie Hicks  
Timothy James Hohn  
Miyoun Hong  
Tyrel R Hoopman  
Tara Marie Houska  
Kjerstin L Howe (*distinction*)  
Angela Dawn Jacobsen  
Emily Ann Javore  
Jeremiah Joseph Johnson  
Joseph Wong Johnson  
Kristin Marie Johnson  
Judd Michael Jones  
Meera Kannan  
Laura Louise Karkhoff  
Karrie Ann Kasperbauer  
Kyrsten Ann Kelley (*cum laude*)  
Arshya Nishat Khan  
Aditi Khanna  
Angela Suejin Kim  
Hyungee Kim  
Amber Lynne Klatt  
Kourtney Colleen Klingberg  
Joseph T Knapper (*high distinction*)  
Kathryn Ann Knippenberg (*distinction*)  
Mitchell Ryan Koenig  
Robert John Kolts  
Austin John Kuhrmeyer  
Jessica La Roque  
James Gaelen Lane  
Mary Elizabeth Larson  
Joshua R Laughlin  
Catherine Le (*summa cum laude, high distinction*)  
Anthony Louis LeBlanc  
Susan C Lee  
Kimberly Suzann Leslie  
Jared Jon Liebelt  
Alice C Lin  
Amy Lin  
Xiaosong Liu  
Kristen Lynn Lokken  
Jessica Erin Lorenz  
Marissa Christina Makey  
Samantha Ann Mantz  
Raksa Mark  
Elycia Rene Matushin (*distinction*)  
Joshua Alexander McCarra  
Heather Marie McJunkin  
Garrett McLean (*summa cum laude*)  
Justine Coy Meierhofer  
Christian D Meland (*distinction*)  
Nicholas Milanowski  
Heidi M Miller  
Joshua Virgene Miller  
Kate Ashton Miller  
Meghan Ashley Mitchell

**BIOLOGY** (continued)

Kevin Henry Moore  
Robert Lee Morris  
Farhia Mohamud Mursal  
Zahra A Nathani  
Jennifer Elizabeth Nelson (*distinction*)  
Andrew Victorovich Nemchenko  
Kimberly Joy Newman  
Courtney Lynn Nibbe  
Shannon Louise Nord (*cum laude*)  
Ashley Marie Nyberg  
Irene May Ogden  
Ijeoma Vivian Okechukwu  
Katherine Jo Olson  
Robert Matthew Olson  
Chimezie Uchenna Ononenyi  
Gad C Onyeneho  
Sarah Ann Osborne (*summa cum laude, distinction, \**)  
Kimberly Elizabeth Park Overman  
Sanela Ovnovic  
Sagar Patel (*summa cum laude, distinction, \**)  
Jake W Pemberton  
Jonathan A Peterson  
John Joseph Prindl  
Dawn Nan Qiu  
Phillip Michael Armand Radke (*high distinction, \**)  
Rebecca Lyn Ratzlaff  
Travis Clark Reisch  
Liliya Andreyevna Rezekulova  
Keith Nelson Richard  
Kasen Riemersma  
Peter R Saad  
Padideh Safavi  
Samiro Ali Said  
Emily M Sauer  
Melissa Mary Schager  
Andrea Marie Schemenauer  
Brian Anthony Schmidt  
Caitlin Marie Schneider  
Matthew James Schneider (*distinction*)  
David Romero Schuweiler  
Scott Gregory Seaburg  
Andrea Tamar Sewell  
Andrea Jo Shamp  
Danielle Norrine Shegstad  
Anthony Michael Sprague  
Jenna Stangland  
Daniel Kirkland Stark  
Abigail Frances Stoddard  
Mariam Sultani  
Harrison Tam  
Anthony Gapngong Tamngwa  
Lindsey Taylor  
Madeline Brianna Teisberg  
Caitlin Rose Tharaldson  
Michael Bradley Theiler

John Michael Thurston  
David Allen Tkach  
Leslie Ann Tracy  
Olivia Trittipio  
Nichole Jean Tyndall  
Tougeu Vang  
Xiong P Vang  
Chelsee Jo VonWald  
Thao-Ngoc Thi Vu  
Elise Katherine Wehrman  
Lindsay G Werkmeister  
Gregory Williams  
Sarah Elizabeth Williams  
Alexandra Marie Wilson  
Chue Xiong  
Youa Xiong  
Houa Yang  
Catherine Hyun Yi  
Daniel Joseph Zachman  
Wilfried Sahiet Zehourou

**ECOLOGY, EVOLUTION AND BEHAVIOR**

Emily Anne Copeland  
Matthew Charles Kaiser (*summa cum laude, high distinction, \**)  
Bethany Krebs  
Krista Louise Leach  
Jacob Henry Lindeman  
Holly Ann Meier  
Jacob MacLennan Musser (*summa cum laude*)  
Kevin Christopher Poss  
Kristy Marie Rasmussen  
Amber Elizabeth Schissel  
Tracy Lee Smelter  
Andrew James Thomas (*summa cum laude*)  
Natasha Marie Tworoski  
Alexa Spencer Unruh  
Amanda Ramirez Wadsworth  
Jessica Louise Waite

**GENETICS, CELL BIOLOGY AND DEVELOPMENT**

Maro Stephanie San Juan Andaya  
Joshua Adam Baller  
Kelsey K Bergstrom (*high distinction*)  
Cory M Buschmann (*high distinction*)  
Eric J Chapman  
Mindy N Clark  
Melissa Anne Cornwell  
Michelle Anne Dina  
Michael P Drozdowicz (*distinction*)  
Brandon Lee Erickson  
Megan Louisa Flannery  
Srividya Gainedi  
Audrey Garnatz (*summa cum laude, high distinction*)

## GENETICS, CELL BIOLOGY

### AND DEVELOPMENT (continued)

Daniel Paul Glapa  
Christina Frances Gonzalez  
Andrea Ileana Guitart  
Tarrek Hassan Hegab  
Stephanie Howie  
Kristopher Hunt  
Sarah Jane Jarvis  
Kelsey L Johnson  
Casey Duncan Katerndahl  
Jeffrey Donald Kendall (*summa cum laude, high distinction, \**)  
Guinevir Ruth Koff-Wakely  
Katherine Anne Krieser  
Nicholas James Larson  
Jonathon Leider  
Danielle M Lindgren  
Alexis M Lund  
Rebecca Kathleen Marcus (*summa cum laude, high distinction, \**)  
Lyuba Megits  
Erica JoAnne Mendesh  
Jeffrey John Merkel  
Noelle Shea Moncada  
Charles Joseph Nelson  
Christine Elizabeth Nelson  
Rebecca Susan Nelson  
Courtney Brynn Odella  
Holly Ann Olson  
Jeffrey Michael Olson (*high distinction*)  
Roma Gautam Patel  
Sapna Navin Patel  
Christopher James Pierick  
Sindhuja Mohan Rao (*summa cum laude, distinction*)  
Kristen Lee Reyna  
Allison Marie Ritter  
Katherine Claire Ruegsegger  
Joseph Sabir (*distinction*)  
Cosmo Augustus Saunders  
Jordan Mary Schoephoerster  
Milcah Carol Scott  
Andrew Selin  
Tamer Mahmoud Shaker (*magna cum laude, \*, §*)  
Gregory M Sindberg  
Erik Russell Sogaard (*distinction*)  
David H Somsen  
Angela Teresa Soo Hoo  
Gema Souto-Adeva  
David Michael Starkey  
Nathan Alexander Steere  
Holly Johanna Stevens  
Joshua James Talarico  
Jenelle Victoria Thoms  
Mallory A Turner (*summa cum laude, \**)  
Varun A Verma

Michael P Wagner  
Amber Jean Walker  
Alexandra Marie Windhorn (*summa cum laude, high distinction*)  
Ther Yang  
Eric Douglas Young

## MICROBIOLOGY

Austin James Adams (*distinction*)  
Netsanet T Alemu  
Ian Nicholas Babson  
Aaron Thomas Charlson  
Ellie Michelle Clarkson (*high distinction*)  
Rosemary Bandera Collins  
Ahkillah Nicole Davis  
Yuliya Sergeevna Didkovskaya  
Rina Samir Farah  
Erin Anne Forster (*cum laude*)  
Mary Elizabeth Horn  
Spencer Thomas Hosman  
Asha Yassin Jama  
Mary Patricia Krzesowiak  
Kerry Maxine Leehan  
Colleen Mary Lockman (*distinction*)  
David Richard Mains  
Nimo B Mohamed  
Muktar Mohamed Mohamud  
Vy Thuy Nguyen  
Zhi Pan  
Carsten Paulson (*cum laude*)  
Katelyn Nicole Reagan  
Benjamin Robert Kennedy Roller  
Nicholas Andrew Rossi  
Shaker Mahmoud Shaker  
Abdisa Seyoum Taddese  
Judy Thao  
Theresa Kathryn Umhoefer (*summa cum laude, high distinction, \**)  
Jennifer Ruth Vigliaturo  
Peter Petrovich Voronchak  
Hung Trong Vu  
Jennifer Wasieleski  
Mary A Weinzierl (*cum laude, \**)  
Ashly Cathleen Westrick  
John Yeboah

## NEUROSCIENCE

Tatiana Moeller Anderson (*summa cum laude, distinction*)  
Carmen Gloria Avendaño  
Karen Christine Baker  
Daniel Aaron Bernal  
John Timothy Bezdek (\*)  
Mark Joseph Bluemke  
Stephanie Nicole Buchanan (*summa cum laude, high distinction, \**)  
Miriam Chun  
Amanda Renee Dickson

## **NEUROSCIENCE** (continued)

Kenneth Wayne Dodd (*summa cum laude, distinction, \**)

Mary-Ann Em (*distinction*)

Adrienne Jeanette Escher

Rebecca Emily Frino (*\**)

Jonathan Charles Hall

Patrick John Johnson

Shane Benjamin Johnson

Ashford Holland Kroll

Windy Lynch

Jennifer Ellen Plum

Joseph Lee Ransdell

Jocelyn Rose Schneider

Josiah Donald Severin

Laura Marie Sorcic

Kelly A Sovell (*distinction*)

William Howard Tanberg

Joseph A Tossey

Natalie Zlebnik (*distinction*)

## **PLANT BIOLOGY**

Brian John Arnold (*summa cum laude, high distinction*)

Matt J Weldy

Joelle Marie Wicker

## **MULTIPLE MAJORS**

Nicole Amber Beauchene - Genetics, Cell Biology and Development, Biochemistry (*summa cum laude, distinction, \**)

Brett Weston Bennett - Neuroscience, Genetics, Cell Biology and Development (*cum laude, \**)

Aaron Robert Christensen-Quick - Genetics, Cell Biology and Development, Biochemistry

Eric William Cross - Genetics, Cell Biology and Development, Microbiology (*summa cum laude, distinction*)

Kevin Michael Dorn - Genetics, Cell Biology and Development, Plant Biology

Seth Robert Flaaten - Biochemistry, Microbiology (*\**)

Eric Huynh - Genetics, Cell Biology and Development, Microbiology

Zachary Willis Johnson - Ecology, Evolution and Behavior, Plant Biology

Joshua Vinson Jones - Genetics, Cell Biology and Development, Biochemistry

Sinthuja Kanagarajah - Microbiology, Genetics, Cell Biology and Development

Elina Kudishevich - Genetics, Cell Biology and Development, Neuroscience (*magna cum laude*)

Melissa Pui-Lum Lee - Microbiology, Genetics, Cell Biology and Development (*distinction*)

Stephanie Pui-Kay Lee - Microbiology, Genetics, Cell Biology and Development (*distinction*)

Ryan Anthony Lesniewski - Genetics, Cell Biology and Development, Biochemistry

Kelly Rose Linnihan - Biochemistry, Genetics, Cell Biology and Development (*summa cum laude, distinction, \**)

Jennifer Elaine Miller - Genetics, Cell Biology and Development, Ecology, Evolution and Behavior

Michael David Moths - Biochemistry, Genetics, Cell Biology and Development

Malaak Nasser Moussa - Ecology, Evolution and Behavior, Neuroscience

Katherine Ann Peterson - Biochemistry, Genetics, Cell Biology and Development (*cum laude*)

Mark Phillip Peterson - Genetics, Cell Biology and Development, Ecology, Evolution and Behavior

Jonathan Stanley Popko - Genetics, Cell Biology and Development, Neuroscience

Caleb Steven Schmidt - Neuroscience, Genetics, Cell Biology and Development

Sarah Anne Smestad - Genetics, Cell Biology and Development, Biochemistry

Erin Souhan - Biochemistry, Neuroscience

Jason Daniel Vevea - Biochemistry, Microbiology

Nils C Wubbels - Neuroscience, Genetics, Cell Biology and Development (*summa cum laude*)

## UNDERGRADUATE RESEARCH

Research universities such as the University of Minnesota offer students the opportunity to do more than just learn about discoveries made by others. Our students are encouraged to work with faculty to make discoveries of their own. We recognize our students and their mentors who have embraced this opportunity and advanced the boundaries of human understanding.

**Temilola Abdul** "Nitric Oxide Biology in Sickle and Normal Mice" Faculty Mentor: Dr. Robert P Hebbel; "Endothelial Biology of Blood Outgrowth Endothelial Cells in Caucasians and African Americans" Faculty Mentor: Dr. Robert P Hebbel

**Netsanet Alemu** "The Role of Inflammation in Sickle Cell Disease" Faculty Mentor: Dr. Gregory Vercellotti

**Nadar Ali** "Synthesis of Tetrahydrocarbazole" Faculty Mentor: Dr. Wayland Noland

**Shahzad Ali** "Internalization of PMCA Following Excitotoxicity" Faculty Mentor: Dr. Stanley A Thayer

**Heather Anderson** "Modified Knee Outcome Scale" Faculty Mentor: Dr. Elizabeth Arendt

**Tatiana Anderson** "Morphological Characterization of Spinal Interneurons in Larval Zebrafish" Faculty Mentor: Dr. Mark Masino

**Elizabeth Angstman** "Withdrawal From Acute Nicotine, Measured Using Startle Response in Rodents" Faculty Mentor: Dr. Jonathan Gewirtz

**Tonya App** "Trichromatic Vision in Rodents" Faculty Mentor: Dr. Sharon Jansa

**Brian Arnold** "Elucidating Gibberellin Signal Transduction Using Green Fluorescent Protein-Tagged RGA" Faculty Mentor: Dr. Neil Olszewski

**Samuele Banks** "Genetic Characterization of *Pimephales promelus* Populations in Minnesota" Faculty Mentor: Dr. Loren Miller

**Nicole Beauchene** "Comparative Analysis of Four *Medicago truncatula* NBS-LRR Resistance Genes Between Sixteen Ecotypes" Faculty Mentor: Dr. Nevin Young; "A Study of the Function of Cohesin at Centrosomes in Human Cells Using Fluorescence Live Cell Video Microscopy" Faculty Mentor: Dr. Duncan Clarke

**Clinton Been** "*In Vitro* Dentin Bond Strengths—Effects of Cavity Configuration" Faculty Mentor: Dr. Jorge Perdigao; "Multiplex PCR for the Differential Diagnosis of Infectious Arthritis" Faculty Mentor: Dr. Simone Oliveira

**Brett Bennett** "The Genetic Basis of Drug Resistance in *Candida albicans*" Faculty Mentor: Dr. Judith Berman; "The Correlation of Neuronal Morphology and Physiological Function in Hippocampal and Cortical Regions" Faculty Mentor: Dr. LiLian Yuan

**Leah Betcher** "Subcloning of Metallothionein-3 in pET28 and Expression in *E. coli*" Faculty Mentor: Dr. Ian Armitage

**Wyatt Bordewyk** "Coordinate Glucose Regulation of a Bidirectional Promoter" Faculty Mentor: Dr. Howard C Towel

**Grant Bowers** "Inheritance Pattern of Orange and Yellow Flowers in *Asclepias curassavica*" Faculty Mentor: Dr. Karen Oberhauser

**Stephanie Buchanan** "Pharmacological Effects and Findings on Pathological Gambling Disorder" Faculty Mentor: Dr. Suck Won Kim

**Gita Byraiah** "DNA Repair Activity in Breast Cancer Patients" Faculty Mentor: Dr. Myron Gross; "The Role of Osteopontin in FGFR1-Mediated Breast Tumorigenesis" Faculty Mentor: Dr. Kaylee Schwertfeger

**Jade Cao** "Relative Induction of IL-15 in Different Tumor Cells by Interferon" Faculty Mentor: Dr. Robert Fleischmann

**Allison Cherry** "The Role of DNA Ligase III in Fas-Induced Cell Death" Faculty Mentor: Dr. Colin Campbell; "The Role of XRCC1 in Apoptosis" Faculty Mentor: Dr. Colin Campbell

**Sonam Chodon** "Cell Division and Cancer Formation" Faculty Mentor: Dr. Ryoko Kuriyama

**Mindy Clark** "Characterizing Sugar Response Genes in *Arabidopsis thaliana*" Faculty Mentor: Dr. Sue Gibson

**Ellie Clarkson** "Comparison of Gene Expression Alterations in Prion Disease Infected Mice to Theiler's Murine Encephalomyelitis Virus Infected Mice" Faculty Mentor: Dr. Pamela Skinner

**Ryan Corcoran** "Comparative Cardiac Anatomy" Faculty Mentor: Dr. Paul Iuzzo

**Melissa Cornwell** "The Role of ADAP and SKAP55 in T-cell APC Conjugation" Faculty Mentor: Dr. Yoji Shimizu

**Eric Cross** "Identification and Characterization of Cellular Factors Necessary for Retroviral Infection" Faculty Mentor: Dr. Nikunj V Somia; "Role of RNAi in Meiotic Crossing Over in *Drosophila melanogaster*" Faculty Mentor: Dr. Michael Simmons; "Environmental Influence on Differentiation of Leaf Epidermal Cells" Faculty Mentor: Dr. M David Marks

**Ahkillah Davis** "Is Dimerization Required for AID Function" Faculty Mentor: Dr. Reuben Harris

**Rozalin Dickson** "Synthesis of Indoles With Potential Anti-Cancer Activity via Diels-Alder Reactions of N-Tosyl-2-Vinyl-1H-Pyrroles" Faculty Mentor: Dr. Wayland Noland

**Nirjhar Dutta** "Cholinergic Replacement Therapy for Alzheimer's Disease" Faculty Mentor: Dr. Esam El-Fakahany

**Bryan Eberle** "Sex-Dependent Differences in Stem/Progenitor Cells in Normal Subjects and in Patients With Early Cardiovascular Disease" Faculty Mentor: Dr. Doris Taylor; "Quality Assurance of Blood Pressure and Lipid Control in a Lipid Clinic" Faculty Mentor: Dr. Daniel Duprez

**Paul Enberg** "Early Eukaryotic DNA Replication Protein Responsibilities" Faculty Mentor: Dr. Anja-Katrin Bielinsky

**Stephanie Fonta** "Multi-Digit Control of Contact Forces During Rotation of a Hand-Held Object" Faculty Mentor: Dr. John Soechting

**Lauren Estep** "Migration of Schwann Cells in a Collagen Matrix" Faculty Mentor: Dr. Paul Letourneau

**Hasti Fashandi** "Glioblastoma Multiforme Immunotherapy Research" Faculty Mentor: Dr. John Ohlfest

**Carolyn Fisk** "Genotyping of O6-Alkylguanine-DNA Alkyltransferase in Human Liver Samples" Faculty Mentor: Dr. Lisa A Peterson



**Milkeesso Foge** "Genetic Screen of Secretion Mutuants in *Chlamydomonas*"  
Faculty Mentor: Dr. Anton Sanderfoot; "RIP140 Biology in Glucose Intolerance via Modulating Glute4/Glute1 Partitioning" Faculty Mentor: Dr. Li-Na Wei; "The Effect of VEGF and E2 on the Ephrin, VEGF-R2, and MAP Kinase Pathways in Human Uterine Smooth Muscle Cells" Faculty Mentor: Dr. Darlene Dixon

**Erin Forster** "Omega-3 Fatty Acid in *Shewanella* Bacteria" Faculty Mentor: Dr. Jeff Gralnick

**Rebecca Frino** "Regulation of Circadian Rhythms in Adrenal PER-2 Expression" Faculty Mentor: Dr. William C Engeland; "Regulation of Circadian Rhythms in the Adrenal Gland and Spinal Cord" Faculty Mentor: Dr. William C Engeland

**Audrey Garnatz** "Identification of Substrates O-GlcNAc Modified by SECRET AGENT" Faculty Mentor: Dr. Neil Olszewski

**Candace Gename** "Developing a Complementation System for Human Cytomegalovirus (HCMV) Mutants Expressing Mutant Forms of the Tegument Protein pUL69" Faculty Mentor: Dr. Wade Bresnahan

**Tatsiana Gerassenkov** "Engineering New Catalytic Activities in *Pseudomonas* Fluorescence Esterase" Faculty Mentor: Dr. Romas Kazlauskas

**Sally Gesembe** "Biochemistry of Heart Failure" Faculty Mentor: Dr. David D Thomas

**Shawn Gherau** "Purification of Phospholamban" Faculty Mentor: Dr. Gianluigi Veglia

**Daniel Glapa** "Identifying Microsatellite Markers Associated with the Pistillate Trait in Wild Rice" Faculty Mentor: Dr. Ronald Phillips and Alex Kahler; "Toward Mapping the Gene Controlling" Faculty Mentors: Dr. Ronald Phillips and Alex Kahler

**Amit Goyal** "Sugar Response Pathways in *Arabidopsis*" Faculty Mentor: Dr. Sue Gibson; "Estrogen/Progesterone Treatment to Treat Cocaine Addiction" Faculty Mentor: Dr. Marilyn Carroll

**Andrea Guitart** "Cell Biological and Genetic Analysis of Vesicle Trafficking in *Chlamydomonas*" Faculty Mentor: Dr. Anton Sanderfoot

**Katherine Harrington** "RT-qPCR of Potentially Overexpressed Ovarian Cancer Tissue and Cell Line mRNA" Faculty Mentor: Dr. Amy P N Skubitz

**Tarrek Hegab** "The Role of Alpha-Catenin in the Nephric Duct and Ureteric Bud of Developing Kidneys" Faculty Mentor: Dr. Michael Bendel-Stenzel

**Samuel Henly** "The Discounting-by-Interruptions Hypothesis: Model and Experiment" Faculty Mentor: Dr. David W Stephens; "Action of a Novel Hydrolase on 2-Chlorobutyric Acid" Faculty Mentor: Dr. Lawrence P Wackett; "Daily Cycling of Neural Auditory Response in the Zebra Finch" Faculty Mentor: Dr. Teresa A Nick

**Katherine Hill** "Impact of Wnt Signaling on Endothelial Progenitor Development From Human Embryonic Stem Cells" Faculty Mentor: Dr. Dan S Kaufman

**Miyoun Hong** "The Movement and Location of Ion Within Skeletal Muscles During Continuous Activation" Faculty Mentor: Dr. John B Broadhurst

**Kristopher Hunt** "Metabolic Engineering of *Shewanella oneidensis* for Use as a Biocatalyst" Faculty Mentor: Dr. Jeff Gralnick

**Patrick Johnson** "Schizophrenia Review Paper" Faculty Mentor: Dr. Matt Chafee

**Shane Johnson** "Thin-Sheet Laser Imaging Microscope (T-SLIM)" Faculty Mentor: Dr. Peter Santi; "Immunolabeling of Cochlea for T-SLIM" Faculty Mentor: Dr. Peter Santi

**Judd Jones** "Nuclear Division in the Aquatic Fungus *Smittium culisetae*" Faculty Mentor: Dr. David J McLaughlin; "The Diets of the Prairie Ringneck Snake and the Northern Ringneck Snake" Faculty Mentor: Dr. Tony Gamble

**Matthew Kaiser** "Green Lacewing and Monarch Butterfly Ecology" Faculty Mentor: Dr. Karen Oberhauser

**Karrie Kasperbauer** "Imp9" Faculty Mentor: Dr. David Stephens

**Casey Katerndahl** "The Internalization of the Interleukin-7 Receptor and Its Role in B and T Lymphocyte Development" Faculty Mentor: Dr. Michael Farrar

**Kyrsten Kelley** "Video Analysis of Transvenous Pacing" Faculty Mentor: Dr. Paul Iazzo; "Optimizing Cardiac Perfusion Fixation" Faculty Mentor: Dr. Paul Iazzo

**Angela Kim** "Environmental Effects on Potato Virus Y (PVY) Expression in Potato Leaves" Faculty Mentor: Dr. Christian A Thill

**Christina Kim** "Polymeric Nanoparticles for Targeted Nucleic Acid Delivery" Faculty Mentor: Dr. Jayanth Panyam

**Ryan Kim** "mTOR Complex 2-Regulated GLUT4 Translocation?" Faculty Mentor: Dr. Do-Hyung Kim

**Michael Knudsen** "Chemotherapeutic Drug Resistance Studies Using Lentiviral Vectors" Faculty Mentor: Dr. R Scott McIvor

**Elna Kudishevich** "Characterization of Tyrosine Hydroxylase-Luciferase Mice for the Study of Parkinson's Disease" Faculty Mentor: Dr. Walter Low

**Mary Larson** "Characterizing Sugar Response Mutants in *Arabidopsis thaliana*" Faculty Mentor: Dr. Sue Gibson

**Catherine Le** "Pilot Study on Brain Function in Mucopolysaccharidosis I" Faculty Mentor: Dr. Elsa Shapiro

**True Lee** "Analyzing the Interaction Between Mcm10 and Mec3" Faculty Mentor: Dr. Anja-Katrin Bielinsky

**Kerry Leehan** "Examining Specific Expression on the pAPEC-O1-R Plasmid Under Heavy Metal Stress in Extraintestinal *E. coli*" Faculty Mentor: Dr. Randall Singer

**Ryan Lesniewski** "Characterization of Suspected Iron Oxidizing Bacteria from the Soudan Mine" Faculty Mentor: Dr. Jeff Gralnick; "Analyzing the Microbial Community of the Soudan Mine Using 16s rRNA Gene Sequences" Faculty Mentor: Dr. Jeff Gralnick

**Jared Liebelt** "The Effect of Protein Modification on the Formation of RIP-140/CtBP Coregulatory Complex" Faculty Mentor: Dr. Li Na Wei

**Kelly Linnihan** "Identification of X-linked Locus Associated With Acute Rejection" Faculty Mentor: Dr. William S Oetting

**Jessica Lorenz** "The Role of PP1 and NOM1 in the Stability and Phosphorylation of c-MYC" Faculty Mentor: Dr. Kathleen Conklin

**David Mains** "Conversion of Bone Marrow Stem Cells to Inner Ear Sensory Cells" Faculty Mentor: Dr. Steven K Juhn; "Effects of a Novel Antioxidant on Age-Related Hearing Loss" Faculty Mentor: Dr. Steven K Juhn

**Kyle Maloney** "Thermodynamics of Biostabilization" Faculty Mentor: Dr. Alptekin Aksan

**Joshua McCarra** "Choroid Plexus Development in Zebrafish (*Denio rerio*)" Faculty Mentor: Dr. Lisa Shimmmenti

**Lyuba Megits** "Novel Antioxidant Administration for the Prevention of Presbycusis" Faculty Mentor: Dr. Steven K Juhn

**Holly Meier** "Measuring Nitrification Rates in Lake Superior Sediments" Faculty Mentor: Dr. Jacques Finlay

**Jennifer Miller** "Learning and Memory in *Drosophila* Flies" Faculty Mentor: Dr. Amy Dunlap

**Mukhtar Mohamud** "Lymphocyte Trafficking" Faculty Mentor: Dr. Thomas Molitor

**Malaak Moussa** "Characterizing Spontaneous Withdrawal Following Acute Morphine Administration and its Role in Psychomotor Sensitization" Faculty Mentor: Dr. Mark Thomas

**Val Muenyi** "Analysis of the Amount of Nicotine and Cotinine in Teen Samples" Faculty Mentor: Dr. Sharon Murphy

**Jacob Musser** "Phylogeography of *Icterus cayanensis*" Faculty Mentor: Dr. Keith Barker and Dr. Scott Lanyon

**Priya Muthu** "Embryonic Stem Cells Contribute to Mouse Chimeras Independent of a Cell Fusion Mechanism" Faculty Mentor: Dr. Catherine Verfaillie

**Zahra Nathani** "Host Response of Oral Epithelial Cells to Polymicrobial Infection With Oral Bacteria" Faculty Mentor: Dr. Joel D Rudney

**Charles Nelson** "Potential Role of CG11984 in Autophagy" Faculty Mentor: Dr. Thomas Neufeld; "Creating a Null Mutation in Atg-13" Faculty Mentor: Dr. Thomas Neufeld; "An Analysis of Genetic Suppressors of GTL-2" Faculty Mentor: Dr. Lihsia Chen

**Jennifer Nguyen** "Screening, Design and Optimization of Novel Small-Molecule, Druglike Anthrax Toxin Lethal Factor Inhibitors" Faculty Mentor: Dr. Elizabeth Amin

**Vy Nguyen** "Genes Responsible for Biofilm Formation in *Enterococcus faecalis*" Faculty Mentor: Dr. Gary Dunny

**Shannon Nord** "Biomarkers of Tobacco Carcinogen Exposure" Faculty Mentor: Dr. Stephen Hecht

**Katherine Olson** "Heme Oxygenase-1 and Low Doses of Carbon Monoxide Prevent Apoptosis in Hepatocytes" Faculty Mentor: Dr. Gregory Vercellotti

**Jeffry Olson** "Recognition of Apoptosis Markers and Islet Quality" Faculty Mentor: Dr. Klearchos Papas

**Holly Olson** "Loss of Heterozygosity in Canine Mammary Tumors" Faculty Mentor: Dr. Elizabeth A McNeil

**Ana Oromendia** "Elucidation of Genes Involved in Biofilm Formation of *Enterococcus faecalis*" Faculty Mentor: Dr. Gary Dunny

**Sarah Osborne** "Lipopolysaccharides as a Model of Depression" Faculty Mentor: Dr. Alice Larson

**Ayokunle Osho** "Survival of *Escherichia coli* to Desiccation Stress" Faculty Mentor: Dr. Janet Schottel

**Oluwasegun Osholowu** "Studies of Yeast Mitochondrial Pre-Isocitrate Dehydrogenase" Faculty Mentor: Dr. Leonard J Banaszak

- Cattleya Ounekeo** "Effects of Retinal Treatment on *Synechococcus* PCC 7942 Cells" Faculty Mentor: Dr. Erin K Marasco
- Sagar Patel** "A Comparative Analysis of the Response of *Tetrahymena thermophila* Metallothionein Promoters to Elevated Heavy Metal Ion Concentrations" Faculty Mentor: Dr. Daniel Romero
- Carsten Paulson** "Evolution of Drug Resistance in *Candida albicans*" Faculty Mentor: Dr. Judith Berman
- Yuliya Perepelitsa** "Association Between Olfactory Impairment and Pathology of Alzheimers Disease in Tg4510 Mice" Faculty Mentor: Dr. Walter Low
- Mark Peterson** "Memory Retention Across Generations of Experimental Evolution in *Drosophila melanogaster*" Faculty Mentor: Dr. David Stephens; "Memory Retention Across Generations of Experimental Evolution in *Drosophila melanogaster*" Faculty Mentor: Dr. David Stephens; "Transposon Control in *Drosophila melanogaster*" Faculty Mentor: Dr. Michael Simmons
- Christopher Pierick** "Sequencing of Porcine HPRT1 Locus" Faculty Mentor: Dr. Scott Fahrenkrug
- Sarah Porter** "Development of a Model System to Study F26BP Signaling" Faculty Mentor: Dr. Alex Lange
- Dawn Qiu** "Muscle Force Assessment and Fatigue in MDX and Normal Mice" Faculty Mentor: Dr. Paul Iuzzo
- Phillip Radke** "Keratin 18, R-Cadherin, and Fascin Expression in IPF and Normal Lung Fibroblasts" Faculty Mentor: Dr. Craig Henke
- Katelyn Reagan** "Relationship of emm-scpA Genetic Locus in Human Group C and G Streptococci to Group A Streptococci" Faculty Mentor: Dr. P Patrick Cleary; "Characterization of a Gene Deletion in SCPB of Group B Streptococcus Serotype V Strains" Faculty Mentor: Dr. P Patrick Cleary
- Erin Renier** "Mechanisms and Selectivities of the Reactions of 2-Mercaptopyridine with Thiocarbonate and Thiocarbamate Polysulfide Substrates" Faculty Mentor: Dr. George Barany
- Kristen Reyna** "Genetic and Molecular Analysis of *C. elegans* Heterochronic Genes" Faculty Mentor: Dr. Ann Rougvié
- Keith Richard** "Deficiency Screen for Suppressors of Tsc1 in *Drosophila*" Faculty Mentor: Dr. Thomas Neufeld
- Kasen Riemersma** "Auditory Stream Segregation" Faculty Mentor: Dr. Mark Bee; "Spring Peeper Call Habituation" Faculty Mentor: Dr. Mark Bee
- Allison Ritter** "The *S. cerevisiae* Protein Yra1 and its Role in DNA Replication" Faculty Mentor: Dr. Deanna Koepp
- Benjamin Roller** "Microbiology of Iron Springs Bog, a High Iron (III), Neutral pH Environment Rich in Members of the Acidobacteria" Faculty Mentor: Dr. Daniel Bond
- Nicholas Rossi** "The Effects of Temperature on Microbial Stoichiometry" Faculty Mentor: Dr. James Cotner
- Oleg Ryabinin** "Nestin-Cre/Lentiviral Neuron Labeling" Faculty Mentor: Dr. Walter Low

**Joseph Sabir** "Blood Labyrinth Barrier Permeability in Response to Inflammatory Mediators" Faculty Mentor: Dr. Steven K Juhn; "The Role of Novel Antioxidants in Mitigating Presbycusis" Faculty Mentor: Dr. Steven K Juhn

**Kristina Schieffert** "Analysis of Transposon-Induced Tumors in p53 Mutant Mice" Faculty Mentor: Dr. David Largaespada

**Kevin Schiller** "Regulation of Zeb-1 by miR200c in Reproductive Tissue" Faculty Mentor: Dr. Michel Sanders; "Expression of SIP1 in Mouse Adipogenesis" Faculty Mentor: Dr. Michel Sanders

**Matthew Schneider** "Litter Decomposition and Microbial Dynamics During the Dormant Season at Cedar Creek Ecosystem Science Reserve" Faculty Mentor: Dr. Jennifer Powers

**Jocelyn Schneider** "Mouse Model of Huntington's Disease: Metabolic Assay" Faculty Mentor: Dr. Janet Dubinsky

**Tracy Smelter** "Eliurus majori Complex (Phylogeographic Analysis)" Faculty Mentor: Dr. Sharon Jansa

**Sarah Smestad** "Identification and Analysis of lin-42 Suppressors" Faculty Mentor: Dr. Ann Rougvie

**Laura Sorcic** "Characterization of a Model of Cutaneous Inflammation Based on Ultraviolet Irradiation" Faculty Mentor: Dr. Chris Honda

**Gema Souto-Adeva** "The Role of ER Quality Control in Cold Adaptation: Screen for Bypass Suppressors and Enhancers of the Cold Sensitive Phenotype of Ubc7 & #916 in *Saccharomyces cerevisiae*" Faculty Mentor: Dr. Robin Wright; "Analysis of Putative Tumor Suppressor Gene, HOP, in Head and Neck Cancer" Faculty Mentor: Dr. Frank Ondrey; "Involucrin Expression in Oral Leukoplakia and Head and Neck Squamous-cell Carcinomas" Faculty Mentor: Dr. Frank Ondrey

**Jenna Stangland** "Hypotensive Anesthesia for Maxillary Osteotomy Procedure Comparing Nicardipine Versus Nitroprusside" Faculty Mentor: Dr. Tom Laberge; "Effects of Dietary Composition on Exercise Tolerance in Obese Adults" Faculty Mentor: Dr. Mark Pereira

**Nathan Steere** "The Effects of MCM2-7 SNPs on Genomic Stability" Faculty Mentor: Dr. Naoko Shima

**Erik Strungs** "Determination of Metabolite Levels in Post-Infarction Hearts Infused With Ribose" Faculty Mentor: Dr. John Foker

**Abdisa Taddese** "Identifying Malaria Resistance Gene in Mosquito" Faculty Mentor: Dr. Kenneth Vernick; "Identifying Pesticide Resistance Gene in Corn" Faculty Mentor: Dr. Wen-Ping Chen; "Determining the Existence and Use of Phalate Rhizobium" Faculty Mentor: Dr. Mike Sawdowsky

**Joshua Talarico** "The Effects of Drugs of Abuse on Planarians" Faculty Mentor: Dr. Jonathan Marchant; "Mechanisms of Pharmacology in Planarians" Faculty Mentor: Dr. Jonathan Marchant

**Harrison Tam** "Cytochrome P450 Protein-Protein Interactions" Faculty Mentor: Dr. Tim Tracy

**Caitlin Tharaldson** "An Anchorage Independent Growth System as for Analysis of Hyaluronan Receptors on Prostate Cell Lines" Faculty Mentor: Dr. James McCarthy; "Studies of Spinothalamic Tract Neurons Activated by Itch-Producing Stimuli in Mice" Faculty Mentor: Dr. Glenn Giesler

**Andrew Thomas** "Analysis of Dinosaurian and Mammalian Morphospace via Skull Morphometrics" Faculty Mentor: Dr. David Fox

**Jenelle Thoms** "MCM7 Breast Cancer Gene Research" Faculty Mentor: Dr. Naoko Shima

**Natasha Tworoski** "The Effect of Visitor Numbers on Zoo-Housed Gorillas" Faculty Mentor: Dr. Anne Pusey; "Odor Discrimination Capabilities in Goldfish" Faculty Mentor: Dr. Peter Sorensen

**Nichole Tyndall** "The Effects of Morphine on Endothelial Cells Sprouting and Angiogenesis" Faculty Mentor: Dr. Sabita Roy

**Theresa Umhoefer** "Role of IL-15 in Mediating Tumor Immunity Induced by B16 Alpha Vaccine Cells" Faculty Mentor: Dr. W Robert Fleischmann

**Jessica van Lengerich** "Enzymatic Metabolism of Tobacco Carcinogens" Faculty Mentor: Dr. Sharon Murphy

**Jennifer Vigliaturo** "Hypoxia Response Pathway Genes and Delayed Kidney Allograft Function" Faculty Mentor: Dr. Ajay Israni

**Hung Vu** "Ecology and Evolution of Bacteria *Escherichia coli* in Soils" Faculty Mentor: Dr. Michael Sadowsky

**Jessica Waite** "Senescence Research in Primates" Faculty Mentor: Dr. James W Curtsinger

**Amber Walker** "Study of Sjogren's Syndrome on a Population of Patients Around the United States" Faculty Mentor: Dr. Nelson Rhodus

**Mary Weinzierl** "Genomic Instability in the Opportunistic Fungal Pathogen *Candida albicans*" Faculty Mentor: Dr. Judy Berman

**Ashly Westrick** "Identification and Analysis of the Emm-Like Genes in *Streptococcus pyogenes*" Faculty Mentor: Dr. Edward Kaplan

**Sarah Williams** "Impulsivity and Drug Self-Administration in Rhesus Monkeys" Faculty Mentor: Dr. Marilyn Carroll

**Gregory Williams** "Functional Analyses of Resistance Genes from the Solanaceae" Faculty Mentor: Dr. Brett Couch

**Alexandra Windhorn** "The Effect of RNA Interference Targeting HPV 16 E6/E7 on Telomerase Activity in Cervical Cancer Cell Lines" Faculty Mentor: Dr. Levi S Downs Jr, "The Effect of Lymphovascular Invasion for Stage I-IIA Endometrioid Endometrial Carcinoma on Loco-regional and Distal Recurrence Rate, Progression-Free Survival, and Overall Survival" Faculty Mentor: Dr. Levi S Downs Jr, "Efficacy and Functional Validation of Vorinostat in Pre-Clinical Models of Ovarian Cancer" Faculty Mentor: Dr. Levi S Downs Jr.

**Youa Xiong** "Cold Adaptation in Yeast" Faculty Mentor: Dr. Robin Wright

**Eric Young** "Expression of Alpha Smooth Muscle Actin in Zebrafish" Faculty Mentor: Dr. Steve Ekker; "Characterization of Choroid Plexus in Zebrafish" Faculty Mentor: Dr. Lisa Schimmenti

**Natalie Zlebnik** "The Effects of Cocaine Hydrolase on Cocaine Self-Administration in Rats" Faculty Mentor: Dr. Marilyn Carroll

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

This publication/material can be made available in alternative formats for people with disabilities.  
Direct requests to Peggy Rinard, 612-624-0774.