

IOWA STATE UNIVERSITY

Department of Genetics, Development and Cell Biology

GDCB Faculty, Students and Staff Honors and Awards Recognition Luncheon

Wednesday, May 7, 2025 • Molecular Biology Building Atrium

Welcome

GDCB Chair Yanhai Yin

2025 Undergraduate Student Recognitions

Presenters: Karri Haen Whitmer, GDCB Associate Department Chair for Teaching; Jelena Kraft, GDCB Associate Teaching Professor; and Carly Manz, GDCB Assistant Chair for Teaching

Biology Sophomore Success Scholarship

Kennedy Courteau
Jacqueline Nettin

Ann-Sophie Mbimbi
Elianies Segarra

Irving W. and Natalie A. Knobloch Scholarship

Elizabeth Backer

Mary Kate Phillips Scholarship

Taylor Jeffery
Samantha Potts

Victoria Kutsch

David W. Staniforth Legacy Scholarship

Antonette Lamin
Nicollette Smith

Kira Petersen
Isaac Wilhelm

Marny and Pete Buck Genetics Scholarship

2024-2025 recipients

Sydney Gasser
Klayten Perreault

Marah Hansen
Makenna Rowekamp

Diane Marie Heimbuch Scholarship

Kacie Ging

Laura Mehmert

Darlene and Melvin Larsen Scholarship

Emma Donahey
Danielle Nagaito

Dylan Luong

Dr. John R. Ohlfest Memorial Scholarship

Lydia McCluggage

College of Liberal Arts and Sciences (LAS) Dean's High Impact Award for Undergraduate Research

Presenter: Geetu Tuteja, GDCB Professor

Spring 2025

Gilbert Laetitia Agossavi Ayenah
Audrey Boswell
McKenzie Flemming
Kyler Hegarty
Veronika Hokrova
Kylie Ridgway
Mackenzie Thackery
Emily Wermager

Brooklyn Boren
Caelen Camplain
Payton Hauersperger
Leticia Herrera
Jessica Johnson
Logan Roberts
Shandra Truong

Spring 2025 Graduating Seniors Highest GPAs

Presenters: Morrill Professor Don Sakaguchi, Director of Biology and Genetics Undergraduate Programs, and **Alexis Hobbs**, College of Liberal Arts and Sciences Academic Advisor

Bioinformatics

Hao Guo

Biology

Alyssa Allard
Abigail Champion
Tristin Hocraffer
Emma Kelley
Anna Nguyen
Lily Pumphrey
Kim Sellner

Charlotte Barnes
Emma Heaney
Robert Kaas
Sydney Marks
Kacy Oberbroeckling
Rachel Rosonke
Rori Wagner

Genetics

Kelsey Creten
Caroline Dickhausen
Ryan Padovani

Rachel Currant
Liya Mooradian
Mckenzie Sanden

Phi Beta Kappa Honor Society

Presenter: Morrill Professor Don Sakaguchi, Director of Biology and Genetics Undergraduate Programs

Alyssa Allard

Eliza Beebout

Cora Harvey

Robert Kaas

Bridget McGovern

Kacy Oberbroeckling

Peyton Scott

Shandra Truong

Ella VanHeuverswyn

Isabelle Appel

Eli Engelkes

Veronika Hokrova

Emma Kelley

Liya Mooradian

Lauren Sather

Reese Timmons

Isabella Valverde

Learning Communities

Presenter: Alison Esser, College of Liberal Arts and Sciences Academic Advisor

Biology Peer Mentors

Thea Alex

Emma Heaney

Grace Michael

Drew Szalat

Kaitlyn Christ

Dylan Luong

Dani Nagaito

Madi Vetter

(graduated Fall 2024)

Genetics and Bioinformatics Peer Mentors

Caroline Dickhausen

Gwen Froehlich (graduated fall 2024)

Elliana Fahey

Sui Tong Chan Fung Fund for the Promotion of Study and Research in Genetics Awards

Presenter: Norah Warchola, College of Liberal Arts and Sciences Experiential Learning Coordinator for Biology, Genetics and Environmental Science

Maria Daniela Cortes Hidalgo

Kyler Hegarty

Kassidy Molumby

Alison David

Lydia McClugage

Wren Murzyn

Graduate Student Recognitions

Presenter: Hua Bai, GDCB Graduate Affairs Committee Chair; and **Marna Yandau-Nelson**, Interdepartmental Plant Biology Graduate Program Chair and Director

Brown Fellowship

Sabrena Rutledge

David Gladson Scholarship

Anurag Das

Dale W. Young and W.E. Loomis Fund Travel Award

Jodi Callwood (S2025)

Panchali Chakraborty (F2024)

Vishadinie Jayasinghe (S2025)

Madison Lane (S2025)

Haris Variz (F2024)

Sui Tong Chan Fung Fund Travel Award

Rodolfo Calderon (F2024)

Jacinta Correia (S2025)

Anurag Das (F2024)

Ankur Kumar (S2025)

Min Jung Kwon (F2024)

Sabrena Rutledge (S2025)

Graduate College Research Excellence Award

Craig Cowling (S2025)

Abigail McCune (S2025)

Ashwini Rangaraj (S2025)

Sahiba Siddiqui (F2024)

Graduate College Teaching Excellence Award

Colin Patrick Finnegan (S2025)

Kelby Renae Kies (S2025)

Ashwini Rangaraj (S2025)

Landon Savoy (S2025)

Colin Schuller

(S2025 [Ecology, Evolution and Organismal Biology student])

2025 Interdisciplinary Biological Sciences Symposium

Madison Lane — 2nd place oral presentation competition

Masuma Khatun Usha — 2nd place poster presentation

Ludvin Mejia — 3rd place poster presentation

Catherine Fonder — 3rd place poster presentation

2024 GDCB Research Day poster awards

Kelby Kies, first place

Panchali Chakraborty, second place

Sabrena Rutledge, third place

Sahiba Siddiqui, third place

Departmental Recognitions and Faculty Promotions

Presenter: Mohan Gupta, GDCB Associate Professor

Departmental Awards for faculty, staff, postdocs and students

Sam Birkeland — For dedication to the Espin Palazon lab and going above and beyond what is expected from an undergraduate in supporting lab management.

Shobhana Ghimire — For outstanding efforts and strong work ethic, simultaneously handling a range of responsibilities supporting GDCB and BBMB in areas of course logistics, visiting speakers and guests, student workers, and many more. Her dedication and professionalism routinely go above and beyond to ensure GDCB operations run smoothly and efficiently.

Meredith Horrell — For excellence in dedication and performance in the daily operation of GDCB, with outstanding and proactive passion for future operations, and going above and beyond her responsibilities with boundless persistence to resolve complex issues.

Klayten Perreault and Hannah Soucek — For dedication to the Kang lab and going above and beyond what is expected from an undergraduate in team leadership.

GDCB Research Award

Michelle Guo — Outstanding contributions to the research mission of GDCB and ISU.

GDCB Teaching Award

Jeff Essner — Outstanding contributions to the educational mission of GDCB and to the success of our students.

Promotion from Assistant to Associate Professor

Joe Aung, associate professor (effective fall 2025)

Dior Kelley, associate professor (effective fall 2025)

College and University Teaching, Research and Service Recognitions, and Alumni Award

Presenter: Maura McGrail, GDCB Professor and Associate Chair for Research; and Yanhai Yin, GDCB Chair and Professor

Iowa Space Grant Consortium Curriculum Development Award

Karri Haen Whitmer

Iowa State University Division of Student Affairs Learning Communities Scholarship Award

The Sky is the Limit Team, which includes GDCB's Clark Coffman (*other team members include Corinna Most [EEOB] and Maria Espino [School of Education]*)

Miller Open Education Mini-Grant

Carly Manz and Chanda Skelton (EEOB)

2025 Early Achievement in Research Award — College of Agriculture and Life Sciences (CALs)

Dior Kelley

2025 Early Achievement in Teaching Award — CALs

Renu Srivastava

2025 Bailey Award to Fund Innovative Placental Research

Geetu Tuteja

College of Liberal Arts and Sciences (LAS) Frontier Science Fund
Mohan Gupta

LAS Frontier of Science Fund
Joe Aung

LAS Professional and Scientific Outstanding New Professional Award
Nick Schalinske

2024 Inclusive Excellence Award (LAS)

Team: Clark Coffman, Marna Yandeau-Nelson, Lander Geadelmann, Shobhana Ghimire, Sayali Kukday, Renu Srivastava and Vaishali Todi (including former team members: Abesh Bera, Zakayo Kazibwe and Stephanie Klein)

CALS Staff Champions
Danise Jones

LAS Outstanding Alumni Award — 2024
Stanley M. Duchman, M.D.

Concluding Remarks

Presenter: Yanhai Yin, GDCB Chair and Professor

GDCB Active Extramural Grants (As of May 2025)

CAREER: Determine the function of plasmodesmata as redox signaling hubs

National Science Foundation (NSF)
Kyaw (Joe) Aung, PI (100% contribution)
Total Funding: \$1,258,320
2024-2029

Role of peroxisome-mitochondrion communication in tissue aging

National Institutes of Health (NIH)/National Institutes on Aging (NIA) R01 (R01AG075156-01A1)
Hua Bai, PI (100%)
Total Funding: \$1,522,206
Project period: 2023-2028

Role of ether phospholipids in mitochondrial cristae integrity and cellular metabolism during aging

Hevolution Foundation
Hua Bai, PI; (Ping Kang, Co-I; Diao, Co-I)
Total Funding: \$1,849,728
2024-2028

CAREER: Understanding Peroxisomal Stress Responses

NSF-BIO-MCB (NSF 2046984)

Hua Bai, PI (100%)

Total Funding: \$1,212,704

2021-2026

Molecular dissection of hematopoietic stem cell specification triggered by inflammatory mediators

NIH-NIDDK R01

Raquel Espin Palazon, PI; Co-Is: Campbell, Essner

2022-2027

\$2,073,148

2022-2027

Targeted ingression of SNPs into the zebrafish genome

NIH, R21

Jeff Essner, PI

Total Funding: \$403,013

2024-2026

Elucidating Context-Specific FERONIA Receptor Kinase Signaling

NIH R35, 1R35GM155200

Hongqing (Michelle) Guo, PI (100% contribution)

Total Funding: \$1,841,133

2024-2029

CAREER: Dissecting the roles of individual tubulin isotypes in cellular microtubule functions

NSF

Mohan Gupta, PI (100% contribution)

Total Funding: \$1,115,426

2019-2025

Investigating the role of ATM1, a Class VIII myosin, in Arabidopsis root cell proliferation

NSF MCB

Dior Kelley, PI (Co-PIs: Justin Walley and Tessa Burch-Smith)

Total Funding: \$1,089,469

2024-2027

Regulation of root meristem differentiation by cell wall composition

NSF IOS

Dior Kelley (PI, 75%), Co-PI: Olga Zabolina (25%)

Total Funding: \$985,454

2021-2025

Conditional genetics and precision genome editing resources for Zebrafish

Maura McGrail, PI – (MPIs, Essner, Clark, Ekker)

NIH R24 OD036201

Total Funding: \$3,969,965

2024-2028

Development of tools for site-directed analysis of gene function

NIH R24 OD020166-08

Maura McGrail, PI (MPIs, Essner, Friedberg, Clark, Ekker)

Total Funding: \$3,938,410

2020-2025

Nanomanufacturing of Hybrid Nanocarriers and Understanding their Physicochemical Properties for Targeted Drug Delivery

NSF

Don Sakaguchi, Co-PI (PI, R. Bardhan)

Total Funding: \$649,999

2022-2025

RESEARCH-PGR: Role of cytokinin in regulating shoot apical meristem function in rice

NSF, IOS-Plant Genome Research Program |

Josh Strable Co-PI (PI: J. Kieber Univ. North Carolina-Chapel Hill)

Subaward to Strable (NCSU/ISU): \$781,310

2021-2025

Gata Factor Function in Trophoblast

NIH, National Institute of Child Health and Human Development (NICHD)

Geetu Tuteja PI (multi-PI Tuteja and Paul)

Subcontract Costs: \$641,779

2024-2029

Pathways affecting trophoblast development

NIH, NICHD

Geetu Tuteja PI (multi-PI Tuteja and Soares)

Subcontract Costs: \$597,070

2024-2029

Modeling normal and abnormal trophoblasts

NIH, NICHD

Geetu Tuteja, Co-I, (PI: Schulz - University of Missouri, Columbia)

Subcontract Costs: \$452,059

2023-2028

Trophoblast-Guided Uterine Transformation in the Establishment of Pregnancy

NIH, NICHD

Geetu Tuteja, Co-I, (PI: Soares - University of Kansas Medical Center)

Subcontract Costs: \$378,584

2022-2027

PlantSynBio: Deciphering the roles of genetic and biochemical redundancy and pathway regulation via refactoring the protective plant cuticle

NSF-MCB Systems and Synthetic Biology

Marna Yandea-Nelson, PI; Co-PIs: E Sparks (University of Delaware), B Nikolau (ISU), R Saha (University of Nebraska-Lincoln), A Campbell (ISU)

Total Funding: \$2,650,000 (\$1,817,243 to ISU)

2022-2025

Crosstalk Between Brassinosteroid and Autophagy Pathways in the Regulation of Plant Growth and Stress Responses

NIH, National Institute of General Medical Sciences (NIGMS)

Yanhai Yin, PI, (MPIs, Diane Bassham and Justin Walley)

Total Funding: \$1,302,530

2025-2029