Toxicology Interdepartmental Graduate Program
2019-2020 summary of activities

Director of Graduate Education: Dr. Aileen Keating (CALS)

Supervisory Committee: Dr. Steven Bradbury (CALS), Dr. Jacek Koziel (CoE; CALS), Dr. Joel Coats (CALS), Dr. Richard Martin (CVM), Dr. Boris Jovanovic (CALS)

Program Administrator: Seth Shatto

2019-2020 Toxicology graduate students
Ahmed Abdalla (Dr. Anumantha Kanthasamy)
Caleb Corona (Dr. Coats)
Colin Wong (Dr. Coats)
Dharmin Rokad (Dr. Anumantha Kanthasamy)
Maria Gonzalez Alvarez (Dr. Keating)
Maura Hall (Dr. Coats)
Courtney Huerter (Dr. Coats)
Jacob Johnson (Dr. Coats)
James Klimavicz (Dr. Coats)
Niranjana Krishnan (Dr. Bradbury)
Bailey McGuire (Dr. Keating)
Scott Radke (Dr. Ensley (now KSU))
Cristina Santana (Dr. Gauger)
Dwayne Schrunk (Dr. Ensley (now KSU))
Rachel Sorensen (Dr. Jovanovic)
Mengisteab Wolday (Dr. Martin)
Hannah Wickham (Dr. Anumantha Kanthasamy)

Bharathi Palanisamy (TOX minor; Dr. Anumantha Kanthasamy)
Sireesha Manne (TOX minor; Dr. Anumantha Kanthasamy)

New students to the program in 2019:
Hannah Wickham (Dr. Anumantha Kanthasamy)
Nur Ashiqin Mohd Ridzuan Nirmal (Dr. Jovanović)
Imaobong Inyang (in rotation)

Graduating students (Since Summer 2019 and current employment):

<table>
<thead>
<tr>
<th>Degree</th>
<th>Mentor</th>
<th>Current Employment</th>
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<tbody>
<tr>
<td>PhD</td>
<td>Dr. Kanthasamy</td>
<td>Study Director at Covance Laboratories</td>
</tr>
<tr>
<td>Mengisteab Wolday</td>
<td>MS</td>
<td>Dr. Martin</td>
</tr>
<tr>
<td>Sireesha Manne</td>
<td>PhD</td>
<td>Dr. Kanthasamy</td>
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**Incoming students (Fall 2020):**
Christian Haffner (MS)
Alyssa Otto (PhD)
Charity Nya (PhD) *international student, travel complications with COVID-19

**Budget details:**

Tox Budget for 2019-2020: $60,716  
Carryover funds from 2018-2019: $22,658.52  
Total Funds Available: $83,374.52

Total used to support student tuition/stipend/benefits: $54,026.52

Total used for DOGE incentive: $5,303

Total used for miscellaneous: $819.87 for Food. $60 for Application Fee Waiver

Total Spent as of 6/23/2020: $60,503.20  
Unspent from 2019-2020 year: $22,871.32

**Graduate student awards:**

**Dharmin Rokad – Kanhasamy research group**

Travel Grant from the American College of Toxicology (2019) and presented his work in November of 2019 at the ACT conference.


**Niranjana Krishnan – Bradbury research group**

Invited to present the following research in November 2019 at the Entomological Society of America Meeting:

Krishnan N, Bidne K, Hellmich R, Coats J, Bradbury S. 2019. Estimating the risk of insecticide exposure to the monarch butterfly (*Danaus plexippus*) at the patch and landscape scales. Talk at the Entomological Society of America, St. Louis, MO.

Krishnan N, Coats J, Bradbury S. 2019. Comparing the insecticide sensitivity of monarchs to bees and other butterflies. Poster at the Entomological Society of America, St. Louis, MO.

Awarded the Henry and Sylvia Richardson Research Incentive Grant by the Entomology Department at Iowa State University.

**Cristina Santana - Gauger research group**

*American Association of Veterinary Laboratory Diagnostics Conference 2019*

Low level exposure to hydrogen sulfide increases the pathogenicity of influenza a virus in swine. $1,500 travel award included.

*Central States Society of Toxicology Conference 2019*

Effects of low level hydrogen sulfide exposure on the pathogenicity of influenza a virus in a swine model.

*Society of Toxicology Conference 2020*

A simple large-animal whole-body inhalation exposure system to study environmentally relevant toxicant exposures.

**James Klimavicz – Coats research group**

Leadership Award – ISU Graduate and Professional Student Senate

**Jacob Johnson – Coats research group**

*2019 Entomological Society of America* (Photo Below)
**Estefania Gonzalez Alvarez & Bailey McGuire – Keating research group**


**Rachel Sorensen – Jovanovic research group**

Rachel received the prestigious ISU Brown Graduate Fellowship 2020-2021 from the office of VPR.

Rachel was also accepted into the 2020-2021 ISU DataFEWSion Traineeship Program

Honorable Mention by the National Science Foundation's Graduate in the Graduate Research Fellowship Program

**Faculty awards:**

Dr. Gary Munkvold
September 2019 Regents’ Faculty Excellence Award – Iowa Board of Regents.

Dr. Kevin Schalinske
2019 Marget Ellen White Graduate Faculty Award – ISU.

2019 USDA Food and Agriculture Sciences Excellence in Teaching Award. Presented at the APLU meeting in San Diego, CA.

Dr. Joel Coats
August 2019 Fellow of the American Chemical Society.

Dr. Jacek Koziel

2019 Global Peer Review Award, Top 1% in Field: Cross-Field Award, Publons. (https://publons.com/awards/peer-review/2019/by-field/)

Dr. Aileen Keating
2019 Stephen B. Harris Mid-Career Research Award, Reproductive and Developmental Toxicology Specialty Section (Inaugural winner).

2019 Iowa State University Mid-Career Achievement in Research Award.

2019 Gamma Sigma Delta Honors Society Research Mission Award.

**Toxicology Graduate Student Organization**
The Toxicology Graduate Student Organization organized TOX trivia this March (Photo below). TSGO also met virtually through Webex in June and several other times throughout the 2019-2020 academic year.

![Photo of TSGO members](https://example.com/toxicology_grad_student_organization.jpg)

**Pharmacology and Toxicology Undergraduate minor**
We had 11 students registered for the Pharmacology and Toxicology minor in 2019-2020.
Current Toxicology Faculty

Agricultural and Biosystems Engineering
Jacek Koziel, Professor

Animal Science
Stephanie Hansen, Professor
Aileen Keating, Associate Professor and Director of Graduate Education for Toxicology
Stephan Schmitz-Esser, Associate Professor

Biochemistry, Biophysics and Molecular Biology
Marit Nilsen-Hamilton, Professor

Biomedical Sciences
Vellareddy Anantharam, Adjunct Assistant Professor
Chandrashekhar (Chandru) Charavaryamath, Assistant Professor
Michael Cho, Professor and Lloyd Chair in Biomedical Sciences, Co-Director, Center for
Advanced Host Defense, Immunobiotics and Translational Comparative Medicine (CAHDIT)
M. Heather Greenlee, Associate Professor
Anumantha Kanthasamy, Distinguished Professor, Eugene and Linda Lloyd Professor,
Director of Iowa Center for Neurotoxicology
Arthi Kanthasamy, Associate Professor
Richard Martin, Professor for Toxicology and Biomedical Sciences, M.R.C.V.S., Dip. E.C.V.P.T.
Jonathan Mochel, Associate Professor
Alan Robertson, Research Associate Professor
Ravindra Singh, Professor and Salsbury Chair
Thimmasettapp Thippeswamy, Professor

Chemical and Biological Engineering
Laura Jarboe, Associate Professor

Entomology
Keri Carstens, Collaborator Assistant Professor
Joel Coats, Distinguished Professor

Food Sciences and Human Nutrition
Ruth MacDonald, Professor, FSHN Department Chair
Aubrey Mendonca, Associate
Manju Reddy, Professor
Kevin Schalinske, Professor

Genetics Development and Cell Biology
Jo Anne Powell-Coffman, Professor
Natural Resource Ecology and Management
Steven Bradbury, Professor
Boris Jovanovic, Assistant Professor

Plant Pathology and Microbiology
Gary Munkvold, Professor

Veterinary Microbiology and Preventive Medicine
Qijing Zhang, BVsc, Professor and Frank Ramsey Endowed Chair, Associate Dean for Research and Graduate Studies, College of Veterinary Medicine