



# 2022 Gamma Sigma Delta Gazette

## Important 2022 Dates

PSU GSD New Member Nominations Due:	January 28 <sup>th</sup>
Faculty Award Nominations Due:	January 28 <sup>th</sup>
Abstracts for Research Expo Due:	February 25 <sup>th</sup>
GSD Research Exhibition:	March 24 <sup>th</sup>
Celebration of Excellence Ceremony:	March 31 <sup>st</sup>

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## Message from the Chapter President: Tara L. Felix

What an interesting few years for Gamma Sigma Delta! Like many organizations, we have had a few of “firsts” this year. I want to kick off our 2022 newsletter recognizing the 2021 past-president, Dr. Daniel Foster, and our current past-president, Dr. Jonathan Campbell. These gentlemen led our organization through a very challenging time. We had to cancel the 25<sup>th</sup> Annual (2020) Gamma Sigma Delta Research Expo, after tremendous time and effort had already gone in to planning that event. But, Dr. Foster took charge to make sure that the 2021 Research Expo went off without a hitch....Online! A first for the Penn State chapter of GSD. While we missed the opportunity to fellowship together, our team appreciated the participation by members and the encouragement to the student. Thanks to the hard work of our departmental representatives and members, the first-ever online GSD Research Expo hosted XX graduate students and YY undergraduate students and boasted successful engagement in the online platform!

It was a great privilege this year to recognize those students that were judged top in their sections at the virtual 2021 Celebration of Excellence, as well as to induct 44 new members at and to have 28 members renew their membership. Your renewal affirms your commitment to our mission to celebrate excellence in agriculture and we value your continued support! But, we also could not operate as an organization without the support of college administration. The generous financial support from the Office of Undergraduate Education and the Office of Research and Graduate Education allows us to conduct meaningful activities, like the research expo, where we awarded over \$6,000 dollars to amazing students last year.

Gamma Sigma Delta was excited to celebrate 100 years at Penn State this fall. This celebration took the place of our 3<sup>rd</sup> annual Fall Spotlight Activity. Our celebration reviewed the rich history of our chapter, listened to our leadership team, through Dr. Steven Loerch, share how GSD served the mission of the College of Ag Sciences, and discussed how GSD has made our students better candidates to serve agriculture with a distinguished panel of our past-presidents.

I want to take a moment to thank Dr. Jonathan Campbell in my letter this year. Shortly after my joining the faculty at Penn State, I noticed a GSD plaque on Dr. Campbell's desk. I said, “Hey, I was inducted in grad school. Is there a chapter here?” He responded affirmatively and followed up with his own question “Want to get involved?” ***Let's all take a similar approach this year and encourage just one more colleague to get involved.***

Yours in service,



Tara Felix

2021-2022 PSU GSD President  
tfelix@psu.edu; @DrTaraFelix



## 26<sup>th</sup> Gamma Sigma Delta Student Research Expo Winners

On March 24, 2021 57 research posters (32 graduate and 25 undergraduate students) were presented virtually by students from all academic units across the College. Approximately \$6,000 was distributed to students who placed in one of eight categories in the Expo.

### 2021 Gamma Sigma Delta Research Expo Award Winners- Undergraduate Division

#### **Environmental Systems for Undergraduate Students (7 entries)**

<b>Place</b>	<b>Winner</b>	<b>Title</b>
1	Chloe Destremau	<i>Isolated Wildlife and the Decision to Relocate</i>
2	Chloe Roberts	<i>Blacklegged tick (Ixodes scapularis) burdens on mice (Peromyscus spp.) based on four animal identification methods</i>
3	Joshua Gershey	<i>Combined effects of climate change and competition on tree survival and growth of Juglans nigra natural populations</i>

#### **Human behavior and Social Systems for Undergraduate Students (6 entries)**

<b>Place</b>	<b>Winner</b>	<b>Title</b>
1	Eamonn Powers	<i>Trout Citizen Science - Color and Pattern Variation in Trout</i>
2	Matthew Haines	<i>Dietary Behavior, Gustatory and Olfactory Function in a University Student Population</i>
3	Hilary Snyder	<i>An Evaluation of The Sustainability of Urban Forests of The Northeast Through Current Tree Inventories and Urban Forest Management Programs</i>

#### **Animal Systems for Undergraduate (7 entries)**

<b>Place</b>	<b>Winner</b>	<b>Title</b>
1	Jasmine Morgan	<i>Assessing the epidemiology of Avia Influenza Virus in ducks from Northwest Pennsylvania, 2015-2018</i>
2	Hailey Mattice	<i>Assessment of the effects of intrauterine dextrose infusion after calving on uterine health, metabolic stress, systemic inflammation and daily milk yield in post-partum dairy cows</i>
3	Jack Ibinson	<i>The Role of IRE1α and p53 in HaCaT Keratinocyte Survivability Following UV-B Irradiation</i>



## Plant Systems for Undergraduate Students (6 entries)

Place	Winner	Title
1	Anjalie Sapre	<i>Utilizing broth microdilution and microdilution for validations of the results of novel rapid antimicrobial susceptibility testing method based on dynamic laser speckle imaging</i>
2	Vancie Peacock	<i>Life-cycle assessment of anaerobic digestion with hydrothermal carbonization</i>
3	Nicole Dustzman	<i>A checklist of fungi in the Alan Seeger Natural Area, Rothrock State Forest, Jackson Township, PA USA</i>

## 2021 Gamma Sigma Delta Research Expo Award Winners- Graduate Division

### Biological Sciences for Graduate Students (8 entries)

Place	Winner	Advisor	Title
1	Bailey Basiel	Tara Felix and Chad Dechow, ANSC	<i>A comparison of feedlot growth and performance of beef x Holstein crossbred steers and Holstein steers</i>
2	Devyn McPheeters	Mary Ann Bruns	<i>Impacts of One-time Tillage Compared to No-Tillage on Soil Health in a Diverse Rotational Cropping System</i>
3	Jasmine Harris	Tara Felix	<i>The effects of mechanical pasture techniques on botanical composition and forage availability</i>

### Food Sciences for Graduate Students (5 entries)

Place	Winner	Advisor	Title
1	Joshua Cassar	Ed Mills	<i>Pulsed ultraviolet light decontamination of the surface of table eggs</i>
2	Stiphany Tieu	John Gershenson	<i>Effect of heat-induced, pH-dependent micellar changes on the sol-gel transition in skim milk</i>
3	Attia Iram	Ali Demirci	<i>Enhanced production of cellulase and hemicellulase in DDGS-based media by optimizing nitrogen source and salts</i>





## Microbiology/Microbiomes for Graduate Students (7 entries)

Place	Winner	Advisor	Title
1	Tara Pickens	Darrell Cockburn	<i>Characterization of resistant starch degrading machinery expressed by microbes in the human gut</i>
2	Morgan Roggenbaum	Howard Salis	<i>Transcriptional control of bacterial genes using modular CRISPRi circuit arrays</i>
3	Taejung Chung	Jasna Kovac	<i>Comparing the Performance of Multiple Machine Learning Methods for Prediction of Salmonella Contamination in Surface Water Based on Water Microbiome Data</i>

## Physical and Engineering Sciences for Graduate Students (3 entries)

Place	Winner	Advisor, Department	Title
1	Marlene Carla Ndoun	Heather Preisendanz	<i>Adsorption of pharmaceuticals from aqueous solutions using biochar derived from cotton gin waste and guayule bagasse</i>

## Social Sciences & Human Behavior (group 1) for Graduate Students (6 entries)

Place	Winner	Advisor, Department	Title
1	Kendra Flood	Kevin Curry	<i>Extended Contract Beliefs of Pennsylvania Agriculture Teachers</i>
2	Carolyn Henzi	Matt Kaplan	<i>An Exploratory Study of Government-Sponsored Intergenerational Programs and Practices in Chile</i>
3	Jana Russell	Daniel Foster	<i>Faculty Perceptions of High Impact Practices: Trends in a College of Agriculture</i>

## Social Sciences & Human Behavior (group 2) for Graduate Students (5 entries)

Place	Winner	Advisor, Department	Title
1	Arun Regmi	Melissa Kreye	<i>Forest Owner Values Towards Prescribed Fire in Pennsylvania</i>
2	Hannah Whitley	Kathryn Brasier	<i>Growing food and growing minds: Urban agriculture as a method of community development, social activism, and liberatory education</i>
3	Sadikshya Sharma		<i>Social Value of Bird Conservation on Private Lands in Pennsylvania</i>



## Gamma Sigma Delta Faculty Awards

Congratulations to three faculty members receiving 2021 GSD Faculty Awards in teaching, research, and extension.

### TEACHING:

**Dr. Timothy McNellis**, Associate Professor,  
Department of Plant Pathology and Environmental Microbiology

### RESEARCH:

**Dr. Majid R. Foolad**, Professor,  
Department of Plant Science

### EXTENSION:

**Dr. Kari Peter**, Associate Research Professor  
Department of Plant Pathology and Environmental Microbiology

## Outstanding Undergraduate Awards

Congratulations go to three undergraduate students who were selected in 2021 for their scholarly performance.

### SOPHOMORES:

**Katherine Chu**, Environ. Resource Manag., Advisor: Dr. Rob Shannon  
**Gabriella Gormas**, Ag Sciences, Advisor: Ms. Pamela Giblin

### JUNIOR:

**Madeline Musser**, Ag. Bus. Manag., Advisor: Ms. Chrystal Wheeler

### SENIOR:

**Andrew Keane, II**, Immun. and Infect. Disease, NOW GRADUATED



## New Gamma Sigma Delta Members in 2021

In 2021, 26 undergraduates, 13 graduate students and post-docs, and 5 faculty and academic staff members were initiated into the Penn State Chapter of Gamma Sigma Delta at the 2021 Celebration of Excellence Ceremony. Nomination forms for 2022 membership and criteria for membership are shown on the GSD web site at <https://agsci.psu.edu/gsd/forms/gsd-new-member-nominations>

<b>Faculty and Academic Staff (5)</b>			
John Boney	Paul Esker	Gino Lorenzoni	Danielle Smarsh
Jonathan Seaman			
<b>Graduate Students and Post-doctoral Associates (13)</b>			
Nina Camillone	Joseph Cho	Kendra Flood	Rita Graef
Jasmine Harris	Md Islam	Elisa Lauritzen	Abigail Loucks
Karen Luong	Devyn McPheeters	Tanya Muratori	Divya Pant
Jana Russell			
<b>Undergraduate Students (26)</b>			
Mikara Anderson	Nisha Bhatt	Leah Bodinger	Marie Bryant
Kylie Calloway	Thomas Gabel	Taylor Halbleib	Michaela Hendricks
Michael Huggins	Andrew Keane	Olivia Kranefuss	Jasmine Morgan
Madeline Musser	Donald Opp	Anna Pauletta	Emily Rademacher
Hailey Reiss	Stuart Rinehart	LuzKarla Rodriguez	Jessica Shi
Taylor Slusser	Olivia Sparkman	Matthew Stocker	Jonathan Suchy
Gillian Warner	Leah Welk		

## 2021 Active members/Donors

<b>2021 Renewing Members (28)</b>			
Bailey Basiel	Allison Brown	Kathleen Brown	Lori Connelly
Kevin Curry	Catherine Cutter	Ali Demicri	Sjoerd Duiker
Tara Felix	Daniel Foster	Christina Grozinger	Helene Hopfer
Gretchen Kuldau	Melanie Miller-Foster	Dennis Murphy	Robert Shannon
Robert Van Saun	Ginger Fenton	Andy Hirneisen	Lauren Faust
Audra Fisher	Kelan Fogarty	Elise Laudenslager	Alia Mazzatosta
Chole Roberts	Taran Rowles	Kaylee Simon	Tom Richard



## 2022 Critical Information

**Nominations for Faculty Awards** – Our Extension, Research, and Teaching Awards recognize excellent faculty for their contributions. Please nominate outstanding faculty **January 28<sup>th</sup>**. Nominations can be entered online through the GSD website at <http://agsci.psu.edu/gsd/forms> or by contacting Kevin Curry, Vice President, ([kevincurry@psu.edu](mailto:kevincurry@psu.edu); 814.863.7069).

**Chapter Roster:** If you know of chapter members who passed away recently or have moved away from the University, please contact Paul Esker, Secretary-Treasurer, ([pde6@psu.edu](mailto:pde6@psu.edu)) so that we can continue to update our roster. Also, please contact Paul if you know of faculty or other individuals at Penn State who were inducted into GSD at another university, whether as a student, staff, or as a faculty member, so we can invite them to participate in our Penn State chapter activities.

**Department Representatives:** The following individuals are serving as GSD department/unit representatives during the 2021-2022 academic year. Contact them to get more information about Chapter activities.

<b><u>Department/Unit</u></b>	<b><u>GSD Rep</u></b>	<b><u>Address</u></b>	<b><u>Email</u></b>
Ag & Bio Engineering	Rob Shannon	233 Ag Eng Bldg.	rshannon@psu.edu
Ag Econ, Soc, & Ed	Nicole Webster	204B Ferguson Bldg.	nsw10@psu.edu
Animal Science	Ann Macrina	322 ASI Bldg.	alm106@psu.edu
College Admin	Deanna Behring	106 Ag Admin Bldg.	dmb37@psu.edu
Ecosystem Science	Mary Ann Bruns	206 ASI Bldg.	mvp10@psu.edu
Entomology	Fang (Rose) Zhu	121A Chem Ecology Lab	fuz59@psu.edu
Food Science	Cathy Cutter	433 Food Sci Bldg.	cnc3@psu.edu
Plant Path & Environ Microbiology	Gretchen Kuldau	308 Buckhout Bldg	kuldau@psu.edu
Plant Science	Sjoerd Duiker	408 ASI Bldg.	sduiker@psu.edu
Vet & Biomed Science	Bob Van Saun	108J AVBS Bldg.	rjv10@psu.edu

**2022 Officers** – With your active participation, we'll have another great year! Please contact the officers if you have questions about our activities or any other aspects of Gamma Sigma Delta.

**President:** Tara Felix, 351 ASI Building, 814.865.0065, [tfelix@psu.edu](mailto:tfelix@psu.edu)

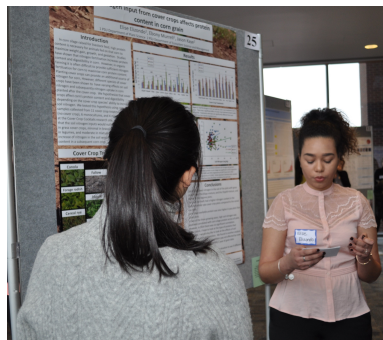
**Vice President:** Kevin Curry, Ferguson Building, 814.863.7069, [kevincurry@psu.edu](mailto:kevincurry@psu.edu)

**Secretary-Treasurer:** Helene Hopfer, 218 Food Sci Bldg., 814.863.5572, [hxx83@psu.edu](mailto:hxx83@psu.edu)

**Historian:** Paul Esker, 219 Buckhout Lab, 814.865.0680, [pde6@psu.edu](mailto:pde6@psu.edu)

**Past-President:** Jonathan Campbell, 350 ASI Building, 814.867.2880, [meatscience@psu.edu](mailto:meatscience@psu.edu)

# AG RESEARCH EXPO



March 24, 2022  
3rd & 4th Floor Life Sciences Gateway Bridge\*

**\*In-Person Event (no virtual or hybrid option)**

Graduate Division: 3:30 - 4:30 p.m.

Undergraduate Division: 5:00 - 6:00 p.m.

**Sponsored by:**  
Gamma Sigma Delta, Honor Society for Agricultural Sciences

## PRESENTATION CATEGORIES

Final Categories are dependent upon accepted submissions as determined by the Gamma Sigma Delta Executive Team

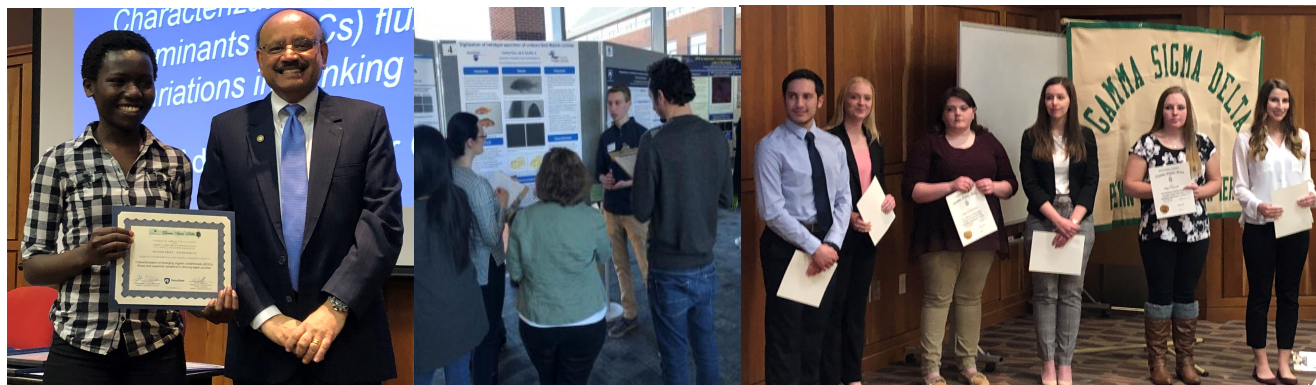
### Graduate

- ✓ Biological Science
- ✓ Food Science
- ✓ Physical and Engineering Sciences
- ✓ Microbiology / Microbiome
- ✓ Physical and Engineering
- ✓ Social Science & Human Behavior

### Undergraduate

- ✓ Environmental & Natural Resources Systems
- ✓ Plant Systems
- ✓ Animal Systems
- ✓ Human Behavior & Social Systems

**All Penn State undergraduate and graduate students advised in research by a faculty member in the College of Agricultural Sciences are eligible to participate.**



Entry forms and poster guidelines are available at  
<https://agsci.psu.edu/gsd/research-expo>  
Abstracts submissions period February 1 - 25, 2022  
For more information contact Dr. Jonathan Campbell  
([meatscience@psu.edu](mailto:meatscience@psu.edu)), Past President-GSD