

**Thank you to all our faculty, staff, students
and sponsors for a great event!**

Activity Presenters

Dr. Melanie Derby	Dr. Vinod Kumarappan
Dr. Kevin Donnelly	Ms. Stephanie Lee
Dr. Kelly Getty	Dr. Venkatesh Ranganath
Dr. Jessica Heier Stamm	Dr. Callie Rost
Dr. Stacey Kulesza	Dr. Dana Vanlandingham

GROW Staff

Dr. Chardie Baird	Mrs. Tawny Ochs
Ms. Sara Heiman	Ms. Kelsey Robinett

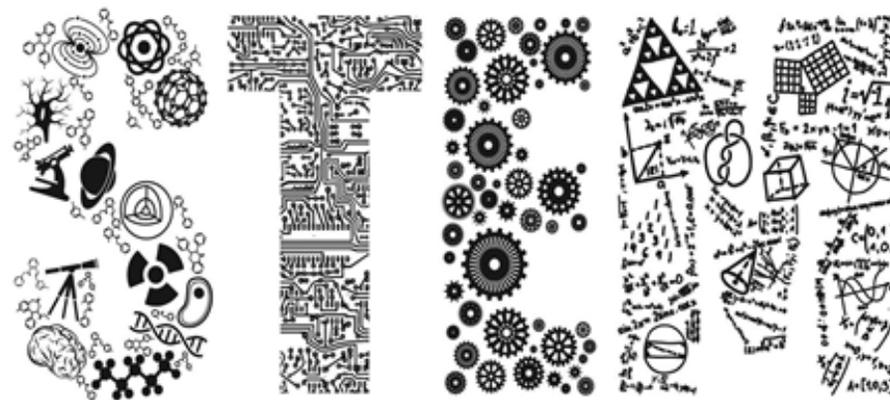
Summer Mentors

Alexis Bieker	Tori Matta
Nicole Doughramaji	Emme Mount
Bernadette Drouhard	Abbey Pentz
Diana El-Koubysi	Gabriella Radina
Andrea Garcia	Catelyn Richards
Ashleigh Kelly	Katherine Smith
Megan Kohman	Regan Wilson
Payton Masoner	

EXCITE

EXPLORING SCIENCE, TECHNOLOGY & ENGINEERING

16th Annual Summer Workshop



June 6-8, 2018



E3: Yellow Turtles



**KANSAS STATE
UNIVERSITY**

Office for the Advancement of
Women in Science and Engineering

WELCOME

Dear EXCITE participant,

We are so honored that you have chosen to spend a part of your summer with us! We have been working on this event all year and we hope that you have a memorable experience.

The activities that you will participate in over the next few days are designed to be enriching, hands-on experiences in various fields in Science, Engineering, Technology, Mathematics and Agriculture. We hope to spark your interest and give you a vision of your next steps in education and your career.

This handbook has important information to help you have a positive and successful experience while on campus. It is also a good keepsake of your time here.

We hope you have a great time at the workshop! Please ask an adult with the program or a mentor if you need anything or have questions. We are here to make sure you have the best experience possible.

GROW & EXCITE Committee

Ms. Sara Heiman

Dr. Chardie Baird

Dr. Beth Montelone

Dr. Jackie Spears

Dr. Ruth Dyer

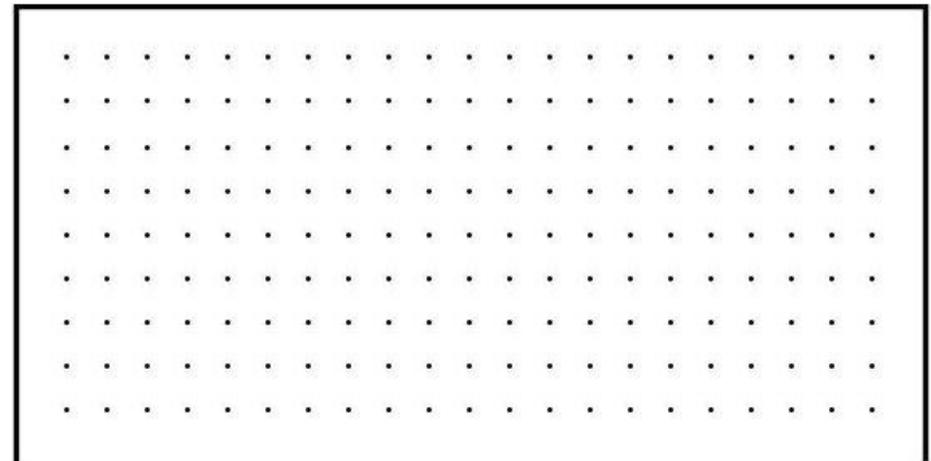
Games

			4				
		2	6	7	1		
8	7	1			6	9	4
	6					4	
2		5	9		6	7	8
	8					2	
6	5	8			4	7	1
		9	4		8	5	
			7				

	5	3				1	7
	2		1		9		6
				4			
1							9
	4	7				8	5
3							2
				5			
	3		7		2		1
	7	6				4	8

Travel Connect-the-Dots Game

This game is best played by two people but can be played by more if you like. The object of the game is to make a box. In turn, each person draws a line connecting two dots either horizontally or vertically. Whoever draws the final line that forms a box, gets to put their initial in that box. You get one point for each box you complete. The winner of the game is the player with the most points when no more lines can be drawn.



Activities

Biology in High Containment

Dr. Dana Vanlandingham

During this session we will explore the types of agents that are researched in a high containment facility. Presentations and Q and A with current researchers about their research and why they work on these agents. We will also have hands on activities in the mock high containment laboratory.

Behind-the-Scenes tour at the College of Veterinary Medicine.

Dr. Callie Rost

We will tour the new library, technology classroom and anatomy lab and view many specimens there. We will also tour through the small and large animal hospitals and conclude the tour in Necropsy to see what abnormalities they found in pathology for the day.

Managing Flowering and Reproduction for Crop Improvement

Dr. Kevin Donnelly

We will examine flowers from different plants to appreciate the diversity of forms and types. Flower structure will also be related to method of pollination (insect, wind or self-pollinated). Ways we must control pollination in plant breeding will also be demonstrated. New tools in molecular biology, genomics, and genetic engineering used to facilitate crop improvement will be discussed.

THE RULES

- Please wear flat, closed-toed shoes to all daytime activities
- Wear your nametag at all times
- Wear your EXCITE t-shirt on Thursday
- If you are going off campus or to a lab, wear long pants
- Be on time and follow the schedule
- Stay with your group and mentors at all times
- Furniture in the rooms can not be moved/rearranged
- Switching of roommates is not allowed
- Extra towels, blankets and soap are available at the front desk of the residence hall
- Male staff members may be on the floor, please dress appropriately when you are not in your room
- Whenever a fire alarm is sounded, everyone must evacuate the residence hall
- If you lose your room key, you will be charged \$50 to replace the key
- Cell phones or other electronic devices may not be used during any workshop activities



Schedule



Wednesday, June 6th		
Time	Activity	Location
9:00	Check In	
10:30	Opening Session	Leadership 114
11:30	Lunch	Derby Dining Center
12:30	Survey	Durland 1116
1:30	Learn you some security for great good!	Durland 1066
3:00	Very Bright & Extremely Short	Cardwell 103
6:00	Pizza Party	
11:00	Lights Out!	
Thursday, June 7th		
7:45	Breakfast	Derby Dining Center
8:30	Make Cake and Eat It Too	Call Hall 156
11:45	Lunch	Derby Dining Center
12:30	Group Photos	
1:00	Biology in High Containment	Pat Roberts Hall
3:30	Behind the Scenes Vet Med Tour	Trotter 103
5:00	Dinner	Derby Dining Center
7:30	Pool Party	
Friday, June 8th		
8:15	Breakfast	Derby Dining Center
9:00	Managing Flowering and Reproduction for Crop Improvement	Throckmorton 2501
11:15	Survey	Durland 1114
12:15	Lunch	Derby Dining Center
1:15	Group Time & Pack	
3:30	Closing Session	Leadership 114
4:00	Check Out	Ford Hall

Mentor: Payton Masoner

Activities

Learn you some security for great good!

Dr. Venkatesh-Prasad Ranganath

We will explore concepts related to security in software as they occur in day-to-day life (even in a high-schooler's life) and try to understand why security is important in today's world. We will also explore why software engineering and human behavior are needed to build a secure world.

Very Bright and Extremely Short

Dr. Vinod Kumarappan

This activity will use hands-on demonstrations on waves, resonances, and spectroscopy to illustrate how scientists use lasers to study molecules. Modern technology makes it possible to generate laser pulses that are only a quadrillionth of a second in duration. Laser pulses can also be very bright – much brighter than sunlight on the surface of the sun. Computer-generated sound waves will be used to demonstrate how such pulses of light can be produced using a laser that generates very many colors at the same time.

Make Cake and Eat It Too

Dr. Kelly Getty

Students will learn how food companies develop new cake flavors by adding different flavors to cake. They then will get to bake and rank the new cake according to sensory scales used by the industry