



**University of Akron - STEM Entrepreneurship & Innovation Forum**  
**Quaker Station Conference Center at the University of Akron, 135 S. Broadway St, Akron, Ohio 44308**  
**Thursday, April 2, 2020, 9:40am – 1:00pm**

***Timetable of Student Activities***

<b>Time</b>	<b>Location</b>	<b>Program</b>
9:00	Quaker Station Lobby	Check-in begins
9:15	Quaker Station Ballroom	Pre-program video program begins for students waiting for other schools and their students to arrive.
9:35	Quaker Station Ballroom	Before the Forum begins, each student introduces himself/herself to their tablemates and tells a little about their interests, future plans and career interests.
9:40	Quaker Station Ballroom	Program begins – Introduction and Opening Session <ul style="list-style-type: none"> <li>• Opening video – “Are you ready for the future?” (6 min)</li> <li>• Introduction – Why students are here, review agenda – <b>John Klipfell</b>, Believe in Ohio (6 min)</li> <li>• Welcome to the University of Akron – <b>University President, Dr. Gary L. Miller</b> (7 min)</li> </ul>
10:00	Quaker Station Ballroom	Student “Team Building” Activity – <b>Dr. Heather Braun</b>
10:10	Quaker Station Ballroom	<b>Dr. Ali Dhinojwala – “Garnering Knowledge from Geckos and Hummingbirds to Develop New Materials”</b> <ul style="list-style-type: none"> <li>• Speaker presentation (12 min) Q &amp; A (3 min)</li> </ul>
10:25	Quaker Station Ballroom	<b>Dr. Emily Kennedy – “How Hedgehogs Are Inspiring the Next Generation of Football Helmets”</b> <ul style="list-style-type: none"> <li>• Speaker presentation (12 min) Q &amp; A (3 min)</li> </ul>
10:40	Quaker Station Ballroom	<b>Brenton Wilmoth - “Zips Precious Plastics: Combating Plastic Pollution in Akron”</b> <ul style="list-style-type: none"> <li>• Speaker presentation (8 min) Q &amp; A (2 min)</li> </ul>
10:50	Quaker Station Ballroom	<b>Renee Timberlake will discuss Scholarship Opportunities at UA and the College of Engineering</b>
10:55	Quaker Station Ballroom	Ten-minute break
11:05	Quaker Station Ballroom	<b>Dr. Heather Braun – “Design Thinking for Solving Everyday Problems”</b> <ul style="list-style-type: none"> <li>• Speaker presentation and design thinking activity for students (30 min)</li> </ul>
11:35	Quaker Station Ballroom	Working pizza & soft drink lunch/Brainstorm session (College student mentors join students at tables) <ul style="list-style-type: none"> <li>• Social lunch &amp; break (10 min)</li> <li>• College student mentors lead student brainstorm sessions to develop new products, services or problem solutions or opportunities using <i>Believe in Ohio</i> Roadmap (25 min)</li> </ul>
12:10	Quaker Station Ballroom	Student groups “pitch” their ideas to their peers using the <i>Believe in Ohio Roadmap</i> (1 min each)
12:55-1:00	Quaker Station Ballroom	Closing program – recap the program and review follow up activities in which participating teachers and students may participate.

***Timetable of Teacher Activities***

11:35-12:10	Location TBD	Teacher Meeting – Review how teachers can have their students compete for cash awards as part of a <i>Believe in Ohio</i> STEM Commercialization Plan or STEM Business Plan competition at their high school.
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***Funding for this event has been provided by Burton D. Morgan Foundation***

## University of Akron – Spring 2020 STEM Forum Speaker Bios and Talk Titles – April 2, 2020



### **Dr. Ali Dhinojwala “*Garnering Knowledge from Geckos and Hummingbirds to Develop New Materials*”**

Dr. Ali Dhinojwala is the Interim Dean of College of Polymer Science and Polymer Engineering (CPSPE) and H.A. Morton Professor of Polymer Science. He has served the CPSPE from last twenty-two years as Professor, Department Chair from 2008-2012, and Interim Dean from 2018. He has served as the co-Principal Investigator of the Biomimicry Research Innovation Center (BRIC) since its inception in 2011, and during his time at the University has helped to hire several faculty members who teach here still today. Professor Dhinojwala’s expertise is in the areas of adhesion, friction, and wetting. His group has developed light-based spectroscopic techniques to understand the physical properties of molecules at surfaces and interfaces. Inspired by geckos, spiders and mussels, his team has designed new synthetic adhesives. His work on bird feathers has resulted in designing melanin-based structural colors that have remarkable color tunability and resistance to chemical and UV radiation. He has also served as the Director of District 5 Science Fair for the last twenty-two years.



### **Dr. Emily Kennedy – “*How Hedgehogs Are Inspiring the Next Generation of Football Helmets*”**

Dr. Emily Kennedy is the Director of External Relations for the Biomimicry Research and Innovation Center (BRIC) at The University of Akron. In this role, she broadens and sustains BRIC’s engagement with diverse organizations in Northeast Ohio and beyond. Emily also collaborates with Great Lakes Biomimicry, co-designing, developing, and delivering professional education and innovation services. Finally, Emily is technology co-inventor, CEO, and co-founder of Hedgemon, a startup seeking to commercialize hedgehog-inspired impact protection technology with initial focus on a football helmet safety liner application to reduce risk of concussion.



### **UA Student Brenton Wilmoth - “*Zips Precious Plastics: Combating Plastic Pollution in Akron*”**

Brenton Wilmoth is a fifth-year mechanical engineering student at The University of Akron. He maintains a 3.61 GPA along with a leadership level 1 designation certificate. Brenton is a member of Engineers for a Sustainable World and is the project leader for Zips Precious Plastics. He is passionate to help create a sustainability focus to the campus and the community. After graduation, he hopes to apply his engineering skills to environmentally focused projects. In his free time, Brenton loves to pick a board game from his collection to play with friends and family



### **Dr. Heather Braun– “*Design Thinking for Solving Everyday Problems*”**

Heather Braun is an Associate Professor of English at the University of Akron. As a 2018-19 EX[L] Faculty Fellow and JSK Affiliate, Heather studied design thinking at Stanford University's Hasso Plattner Institute of Design and led workshops at Stanford’s Bechtel International Center. She has worked alongside young writers in Summit Lake through Akron’s Reimagining the Civic Commons, a national initiative supporting urban equity, environmental sustainability, and economic development. She also moderates sessions for Books@Work, a non-profit that fosters inclusive work spaces through empathy and open discussion. Heather currently facilitates design thinking workshops at universities and organizations in Northeast Ohio.