

*Nomination of Delaware Innovation Fellows  
at University of Delaware for the*

# 2020 GCEC EXCEPTIONAL ACTIVITIES IN ENTREPRENEURSHIP ACROSS DISCIPLINES



UNIVERSITY OF DELAWARE  
**HORN ENTREPRENEURSHIP**



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# ABOUT DELAWARE INNOVATION FELLOWS

Horn Entrepreneurship serves as the creative engine for entrepreneurship education and advancement at the University of Delaware (UD). Two of Horn Entrepreneurship's strategic goals are: (1) to provide relevant, accessible and empowering entrepreneurship education opportunities to all students, and (2) be a catalyst for the propagation of a vibrant, equitable culture of innovation and entrepreneurship across campus and into the broader community. The Delaware Innovation Fellows (henceforth referred to as DIF) was launched in 2016 in pursuit of these goals. DIF is best described as an affinity program for creative, innovative and entrepreneurial students from any undergraduate major. DIF can also be viewed as an honors-like program for students who excel in challenging the status quo (rather than those who excel at academics).

## PURPOSE, GOALS, OBJECTIVES & AUDIENCE

Students seeking to attend UD apply to one of 150+ specific majors as entering freshmen. As a result, many innovative students are immediately tracked into silo-ed academic programs housed within one of UD's seven colleges when they matriculate into the University. Since it is well established that diversity – of thoughts, experiences, backgrounds, interests, skillsets and more – promotes creativity and innovation, this immediate tracking erects a significant barrier to successful entrepreneurship because it severely limits cross-pollination among students from different majors. DIF was created to break down this barrier.

The purpose of the Delaware Innovation Fellows program is to empower students who want to change the world by giving them the knowledge, skills, connections and access to resources needed to successfully manifest innovation and thrive in our rapidly changing world.

DIF serves three goals:

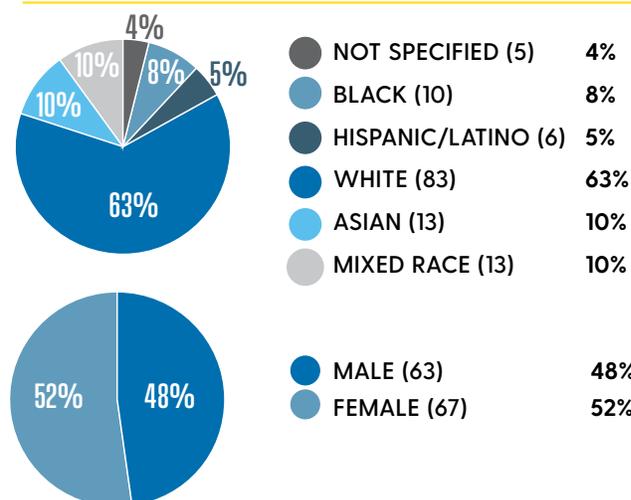
1. Help UD to attract high quality prospective students to matriculate into all undergraduate majors.
2. Bring together and support like-minded creative, innovative and entrepreneurial students from all majors who might not otherwise connect with each other during their time at UD.
3. Serve as a platform for advancing student success and positive impact.

The program achieves these goals with actionable objectives:

1. Create programming and experiences that foster connections and community, engagement with the entrepreneurial ecosystem and hands-on projects related to innovation and entrepreneurship.
2. Develop and implement relevant curricular coursework.
3. Increase access to (or create) programming that develops an entrepreneurial mindset, personal capacities and sense of agency

DIF is open to undergraduate students from any major who have an innovative and entrepreneurial mindset and are compelled to challenge the status quo. DIF is ideal for a broad spectrum of makers, innovators, designers and entrepreneurs.

Students apply to participate in DIF by completing a secondary application as part of UD's undergraduate admission process – i.e., they apply to DIF after being offered admission, but before making a decision about whether to accept UD's offer of admission. DIF applications are reviewed by an inter-disciplinary Faculty Review Committee, which selects students based on an overall assessment of three criteria: (1) demonstrated record of interest and participation in activities pertinent to creativity, innovation, leadership and entrepreneurship (for example, startup activities and evidence of bringing people together to make something consequential happen that would not have happened otherwise); (2) notable accomplishments to date, including academic performance (for example standardized test scores and GPA), and (3) general diversity (including factors such as major area of interest, gender, ethnicity, nationality and any other factors that can be determined from a candidate's application materials). New this year is the opportunity for matriculated UD students to apply to DIF during the spring of their first year on campus by completing an online application.



THE PROGRAM CURRENTLY CONSISTS OF  
**130 UNDERGRADUATE STUDENTS FROM 6 COLLEGES AND 47 MAJORS**  
THROUGHOUT THE UNIVERSITY OF DELAWARE

# STRATEGIC PARTNERS

The DIF programming model utilizes cross-disciplinary connections and extensive external engagement with the entrepreneurial ecosystem. Each student has the opportunity to directly engage with more than 35 experienced change makers annually.

Within UD, the DIF Faculty Review Committee is composed of representatives from each of the seven colleges who set guiding principles for DIF, support program activities and lead student development offerings (see appendix 1 for organization chart). In addition, students engage with a wide variety of innovation centers and initiatives throughout the university. Examples include the following:

**FIRST STEP:** housed in the College of Health Sciences, First Step is an extracurricular program during the fall and spring semesters for students to do research and help solve a health related problem.

**MAKERGYM:** a 5,000 square foot interdisciplinary design and fabrication space with state-of-the-art technologies including 3D printing, laser and water jet cutting, CNC routing, industrial sewing machines, electronics and a modern wood shop.

**BLUE HEN LEADERSHIP PROGRAM:** a nationally recognized, experiential leadership development program.

**DESIGN FOR HEALTH INNOVATION LAB:** a state-of-the-art design center and hub for design thinking and learning.

DIF participants also interact with the University of Delaware leadership team through an annual breakfast with college deans and senior administrators such as the Provost, EVP, VP for Diversity and Director of Intercollegiate Athletics & Recreation Services.

Externally, students engage with key players in the entrepreneurial ecosystem including successful entrepreneurs, inventors, social activists, community leaders and business executives. Formats of involvement vary from broader to more personalized sessions: guest speakers, professional development and skills workshops, project presentations, roundtable discussions, and mentorship. Notable external guests have included:

- **DONALD BAKER**, CEO, FAME Inc.
- **STUART COMSTOCK-GAY**, President & CEO, Delaware Community Foundation
- **CHRIS COONS**, U.S. Senator for Delaware
- **JEFF LANG**, President, Lang Development Group
- **MAC MACLEOD**, Cofounder, Carvertise
- **TAMARA MORRIS**, Director of Economic Development, New Castle County, DE
- **TATIANA POLADKO**, Founder, TeenSHARP
- **JOE WESTCOTT**, Market President, Capital One
- **KIM WILLIAMS**, DE State Representative

# DIF PROGRAM DESCRIPTION

Participating DIF students spend their four years at the University of Delaware immersed in the design and development of new solutions to important societal, environmental and business problems and engaged with a community of like-minded others within the university and in the broader entrepreneurial ecosystem.

DIF utilizes a phased-based approach to developing each student.

- Phase I focuses on community building and immersion within the innovation & entrepreneurship ecosystem. Programming positions students to maximize their acquisition of means (knowledge, skills, connections) for manifesting their ideas during their time at the university.
- Phase II centers on self-exploration and interest discovery. Programming challenges students to consider what innovation means to him/her and how it fits within his/her professional interests. Each self-guided exploration activity is intended to enhance awareness of personal strengths/weaknesses, interests/passions, personal capacities (resilience, creativity) and/or professional opportunities in a meaningful way.
- Phase III culminates the student experience and provides students with first-hand experience with creative problem solving and value creation from new ideas. Students complete a capstone innovation project, independently or as part of a venture support program, and exhibit their startups at a DIF Showcase event. Funding and mentorship are provided to support student efforts.

Each of these phases has distinct goals and associated programming. Please see appendix 2 for a high level overview of phase-specific goals and programming.

## ACHIEVEMENTS AND OUTCOMES

Through DIF, students learn how to develop and leverage their means (knowledge, skills, connections); enhance awareness of personal strengths/weaknesses, interests/passions, personal capacities (resilience, creativity); and take action on an innovative project or initiative that they value. Through these outcomes and experiences, DIF students become positioned to realize their full potential as innovative leaders in any context, including startups, social ventures and established companies.

In terms of project-related achievements, DIF students have utilized funding and other resources provided by the DIF program to manifest their ideas and innovations, including:



### DANIELLE FISHER

Danielle's project explored bringing accessible and clean water systems to communities in need to address health concerns and social ramifications.



### ARIEL HANNUM

Ariel's work focuses on understanding what causes lower quality images in an MRI technique in order to ultimately implement it in a clinical setting.



### JAMES MASSAQUOI

James co-founded 360VR Technology, a company that utilizes virtual reality technology as an information and mapping system for buildings.

As these examples illustrate, each DIF student follows a unique path. Some are drawn to startups and entrepreneurship, while others will be intrapreneurs. However, all are equipped with an entrepreneurial mindset and skillset.

Within the University of Delaware, DIF's success has spurred the replication of the program design to four other special interest/learning areas. UD's affinity program offerings now include Access: Ability Scholars, Cybersecurity Scholars, Community Engagement Scholars and Grand Challenges Scholars.

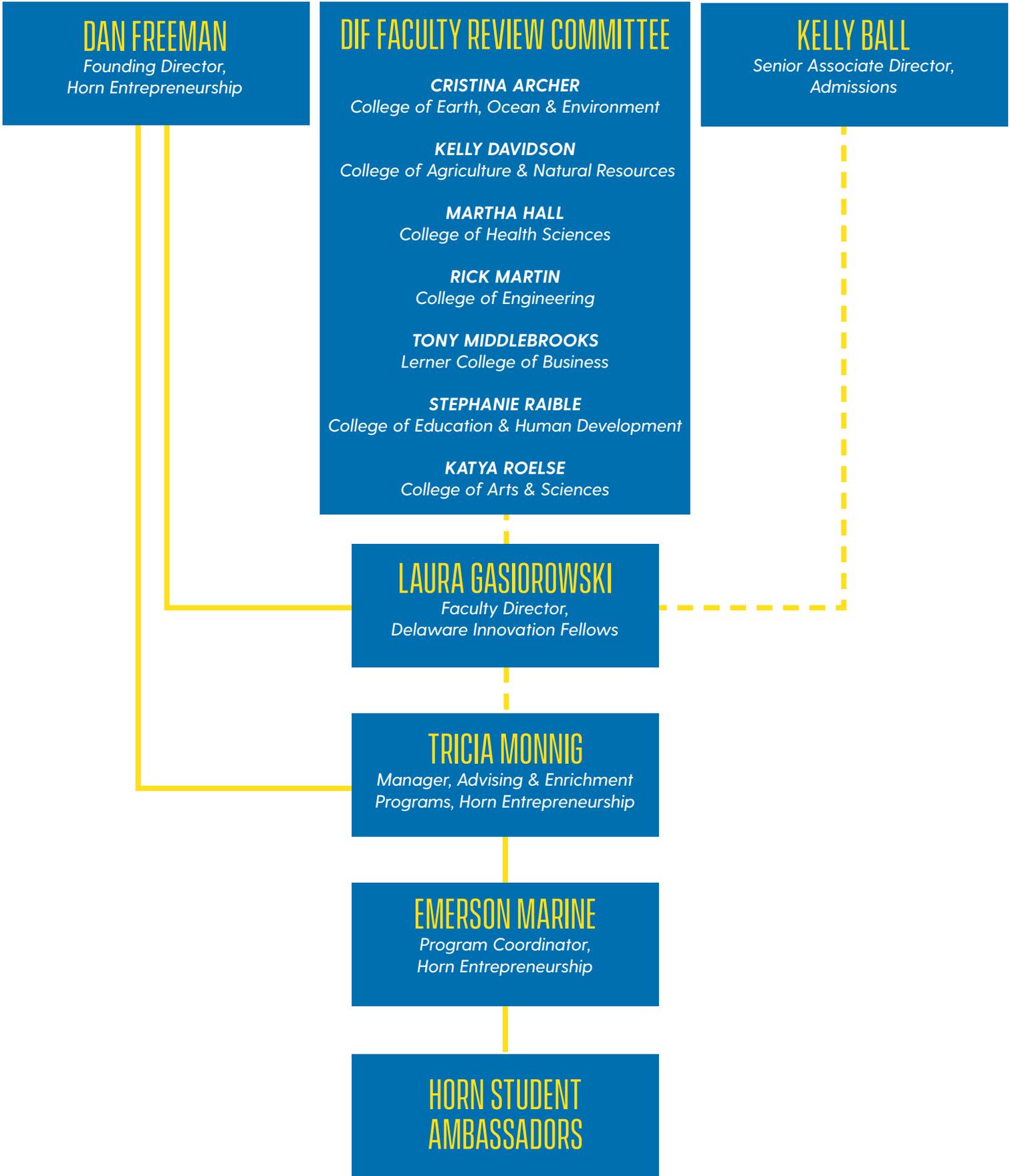
DIF blends curricular learning with enrichment activities. Participation in DIF provides students with the opportunity to earn a transcript credential by fulfilling the requirements in each phase. Many students also graduate with an entrepreneurship certificate from one of the seven colleges at University of Delaware. Available certificates include Design & Creative Making (College of Arts & Sciences), Eco-Entrepreneurship (College of Earth, Ocean & Environment), Entrepreneurial Leadership (Lerner College of Business & Economics), Innovation & Entrepreneurship for Health (College of Health Sciences), Social Innovation & Entrepreneurship (College of Education & Human Development) and Technology Innovation & Entrepreneurship (College of Engineering). Each certificate requires completion of 9-10 credits in entrepreneurship related to the college.

## UNIQUE & IMPACTFUL CHARACTERISTICS

DIF provides students with a meaningful college experience and cultivates in students the skillsets needed to lead an impactful life. Students build a professional network of innovators within the University of Delaware and the broader entrepreneurial ecosystem. They identify their passions and areas of interest. DIF students have a hands-on innovation experience to culminate their work. Currently, students from 47 different majors benefit from the transformative entrepreneurship education delivered through DIF.

DIF exemplifies the essence of entrepreneurship education. It cuts across disciplines and extends beyond university borders into the entrepreneurial ecosystem. DIF blends curricular learning, experiential learning and, perhaps most importantly, capacity and agency development. In doing this, DIF strengthens the University of Delaware community and serves to propagate a vibrant, equitable culture of innovation and entrepreneurship across campus and into the broader community.

# STAFF ORGANIZATIONAL CHART



# PHASED PROGRAM DETAILS

## PHASE I: COMMUNITY BUILDING & IMMERSION

**Goals.** Phase I is designed to build close connections and a sense of community among program participants. It is also intended to position students to maximize their acquisition of means (knowledge, skills and connections) for successfully putting their ideas into action during their four years at the University of Delaware.

### **Programming. Phase I programming includes:**

- (1) the Ignite! early move in program, a 3-day, student-led early move in program consisting of a series of social, team building, mindfulness, general wellness and creativity enhancing activities
- (2) the World Changers living learning community, a program in which students live in the same residence hall and participate in a variety of enrichment activities centered around innovation
- (3) a year-long sequence of two special sections of 1-credit courses (ENTR160: Professional Development for Innovators I and ENTR161: Professional Development for Innovators II) intending to increase students' acquisition of means through activities such as roundtable meet-ups with accomplished innovators and leaders or innovative company and spaces tours
- (4) optional innovation-oriented activities and events

### **Requirements**

- Participate in the Ignite! early move in program
- Reside in the World Changers living learning community (or an LLC required by the student's academic program)\*
- Earn a passing grade in special sections of ENTR160: Professional Development for Innovators I and ENTR161: Professional Development for Innovators II

*Note: enhance program descriptions are in Appendix 3.*

## PHASE II: EXPLORATION

**Goals.** Phase II is designed to promote self-exploration and interest discovery. Who am I? What do I care about? What don't I know? What does innovation mean to me? How are innovation and entrepreneurship related to my professional interests?

### **Programming. Phase II programming includes:**

- (1) mandatory community enhancing, self-discovery events (a start-of-the-year retreat, mid-year meetup and end of year celebration/showcase)
- (2) self-guided participation in innovation-oriented activities
- (3) declaration of planned innovation and entrepreneurship coursework, which will typically involve the selection of one of seven innovation and entrepreneurship-related certificates (Design & Creative Making; Eco-Entrepreneurship; Entrepreneurial Leadership; Technology Innovation & Entrepreneurship; New Product Development; Innovation & Entrepreneurship for Health; Social Entrepreneurship)

### **Requirements**

- Attend 3 mandatory self-discovery events, including a start-of-the-year retreat, mid-year meet up and end of year celebration/showcase
- Engage in a minimum of 5 self-guided exploration activities
- Declare an entrepreneurship-related academic certificate to pursue

## PHASE III: INNOVATION IN ACTION

**Goals.** Phase III is designed to provide first-hand experience with creative problem solving and value creation from new ideas.

### **Programming. Phase III programming includes:**

- (1) activities pertaining to the pursuit of an innovative new idea (either within the context of existing programs like VentureOn and First Step or independently)
- (2) funding and mentorship support from the DIF Innovation Fund
- (3) the DIF end of year showcase
- (4) completion of innovation and entrepreneurship coursework, typically via a certificate

### **Requirements**

- Pursue an innovative new idea individually or with a team of no more than 5
- Present work related to the pursuit of the new idea at an end of year celebration/showcase
- Complete an entrepreneurship-related certificate (or a set of DIF faculty director approved innovation & entrepreneurship coursework totaling a minimum of 9 credits, not including the courses required for phase I)

## DIF PROGRAMMING EXAMPLES

To meet the requirements for maintaining their status as active participants, students will participate in community building and DIF-related offerings, including:

**IGNITE!** – a 3-day, student-led early move in program. Ignite! consists of a series of social, team building, mindfulness, general wellness and creativity enhancing activities. Ignite! is open to DIF students and ENTR majors only.

**WORLD CHANGERS LIVING LEARNING COMMUNITY** – required for all Phase I DIF students, World Changers provides the unique opportunity to live, learn and interact with like-minded students from a wide variety of majors who are passionate, creative, innovative and entrepreneurial. In addition to living in the same residence hall, students will participate in a variety of enrichment programming to build community among DIF students and experience the many facets of innovation. DIF Students living in an LLC required by their academic program will be required to participate in World Changers programming.

**ENTR160/161 PROGRAMMING** – through ENTR160 and ENTR161, DIF students will participate in a variety of programs and experiences intended to increase their acquisition of means (knowledge, skills, and connections). These opportunities and experiences may include: (1) breakfasts with academic, business, social entrepreneurship and government leaders, (2) roundtable meet ups with accomplished innovators, leaders and entrepreneurs, (3) innovative company/spaces tours, (4) and special MakerGym access, training & support (forthcoming for Fall 2019).

**START-OF-THE-YEAR RETREATS** – offered once at the start of each year for Phase II DIF students only. Each retreat involves a 3-6 hour weekend program focused on the purpose of DIF, team building activities, self-discovery, problem solving and creativity enhancement.

**MID-YEAR MEET UP** – typically taking place early Spring semester, this event helps students reconnect with their fellow DIF students, refresh their understanding of program requirements, and provide learning opportunities related to team building, self-discovery, problem solving and creativity enhancement.

**DIF ANNUAL CELEBRATION/SHOWCASE** – a May event that focuses on celebrating projects and other activities pursued by Phase III DIF students. All DIF students who have successfully maintained their status for the year are expected to attend and Phase III students are provided with an opportunity to exhibit/present.

**SELF-GUIDED EXPLORATION ACTIVITIES** – enhance awareness of personal strengths/weaknesses, interests/passions, personal capacities (resilience, creativity) and/or professional opportunities in a meaningful way. Only activities that are at least 60 minutes in length, fall outside of other DIF requirements and regular classroom activities, and prompt meaningful self-discovery (as described in the student's reflection) will be counted toward the fulfillment of this requirement.

**INNOVATIVE PROJECT** – to be completed individually or with a team of no more than 5 total members, students are required to pursue an innovative new idea and present work related to the pursuit of the new idea at an end of year celebration/showcase during Phase III. An innovative project could include the creation of a new, value-adding startup, invention, product, policy, program, process or organization. A successful innovative project will demonstrate problem identification, topic exploration and research, customer/constituent/beneficiary discovery, development of an MVP (minimum viable version of the innovation) and significant steps taken toward implementation.

**INNOVATIVE PROJECT SUPPORT** – DIF students also have the opportunity to participate in a wide variety of general programming that will support their pursuit of an innovative project. Specific offerings typically include: (1) First Step for Health, (2) Horn Entrepreneurship's venture support pathway offerings (e.g., in-take sessions, pitch parties, startup village business service provider sessions, Hen Hatch), and (3) funding awards of up to \$5,000 from the DIF Innovation Fund.

