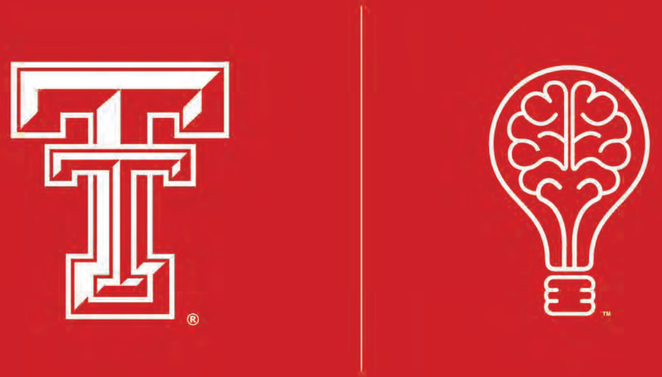
ANNUAL REPORT 2020

The Hub



INNOVATION IS CHANGE THAT UNLOCKS NEW VALUE

THE HUB
is a place to
NURTURE SMART IDEAS AND ENTREPRENEURS
to create social or commercial value
RESULTING IN IMPACT.
The Hub assists in the formation of technology startup companies
CRITICALLY RELEVANT
to today's local and regional economy.

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© TEXAS TECH INNOVATION HUB AT RESEARCH PARK.

Every year we release our annual Innovation Hub impact report, featuring stories of our entrepreneurs and innovators changing our world and making it better! This year we have more good news, Texas Tech leadership and the Innovation Hub team have put our creative caps on and developed the Texas Tech Innovation Ecosystem. We have reimagined how we think about great ideas and developed a Red Raider "COMMERCIALIZATION ROADMAP."

The 2020 edition of our annual report will feature our startup successes and highlight our future vision to create an environment which nourishes the lifeblood of creatives, innovators and entrepreneurs. Our new normal will be helping the underserved and underrepresented as well as make adjustments to help our entrepreneurs to address new markets and new needs as we overcome challenges propelling them to new heights.

Our startups since 2017, have collectively generated $22.6M in impact to our region through attracting capital, and winning grants supporting commercialization activities. In 2020, the impact was $5.8M, Innovation Hub companies employ 155 high tech jobs with an annual salary of $93K. The report highlights our new venture creation programs in three areas 1) Ideation, 2) Commercialization, and 3) Acceleration. This year, we bridged our Innovation Ecosystem to include the Office of Research Commercialization, responsible for protecting and marketing intellectual property and second the Northwest Small Business Development Center responsible for providing growth and support services for companies. In addition, we onboarded a prestigious industry board to help Texas Tech Research Park, Inc. envision the future of our knowledge economy. Finally, we believe the Commercialization Roadmap will help our region's entrepreneurs to catalyze their ideas faster making greater impact.

The innovators featured in the 2020 Innovation Hub Annual Report, are helping rebuild our economy and drive us into the future. It is our good fortune to work with hundreds of entrepreneurs, community partners, industries and the City of Lubbock. We are so proud to support the businesses that serve as the engine for economic growth. Our local entrepreneurs are in the driver's seat and they are headed for great accomplishments. We're proud to support them with programs, seed funding, mentorship and sustainable infrastructure now and always.

Sincerely,

Kimberly Gramm

Kimberly Gramm
AVP of Innovation & Entreprenuership

THE CHALLENGE | Developing the innovation eco-system.

1.5 MILLION
JOBS CREATED
ANNUALLY BY
SMALL COMPANIES

sba.gov

90%
OF THE BUSINESS
POPULATION REPRESENTS
SMALL & MEDIUM
SIZE BUSINESS

sba.gov

3.7 MILLION
MICROBUSINESSES
IN THE U.S
WITH LESS THAN
10 EMPLOYEES

techcrunch.com

How can the **Texas Tech Innovation Hub** help support entrepreneurs and small business?

OUR SOLUTION | Creative collision, the integration of tech transfer, new venture creation, company growth, support, and competitive funding.

Texas Tech is supporting the American Dream beyond education and research, we also support activities to make academic impact in our society.

OUR MISSION | To support and catalyze ideas that impact and benefit our world.

Inspiring Inventorship

The Office of Research Commercialization strives to protect our red raider inventors and helps to market those technologies on behalf of Texas Tech University System.

Entrepreneurship Education

The Innovation Hub provides entrepreneur programing for faculty, students, alumni, and the community. Programs support ideas and the development of company formation and initial funding.

Small Business Development

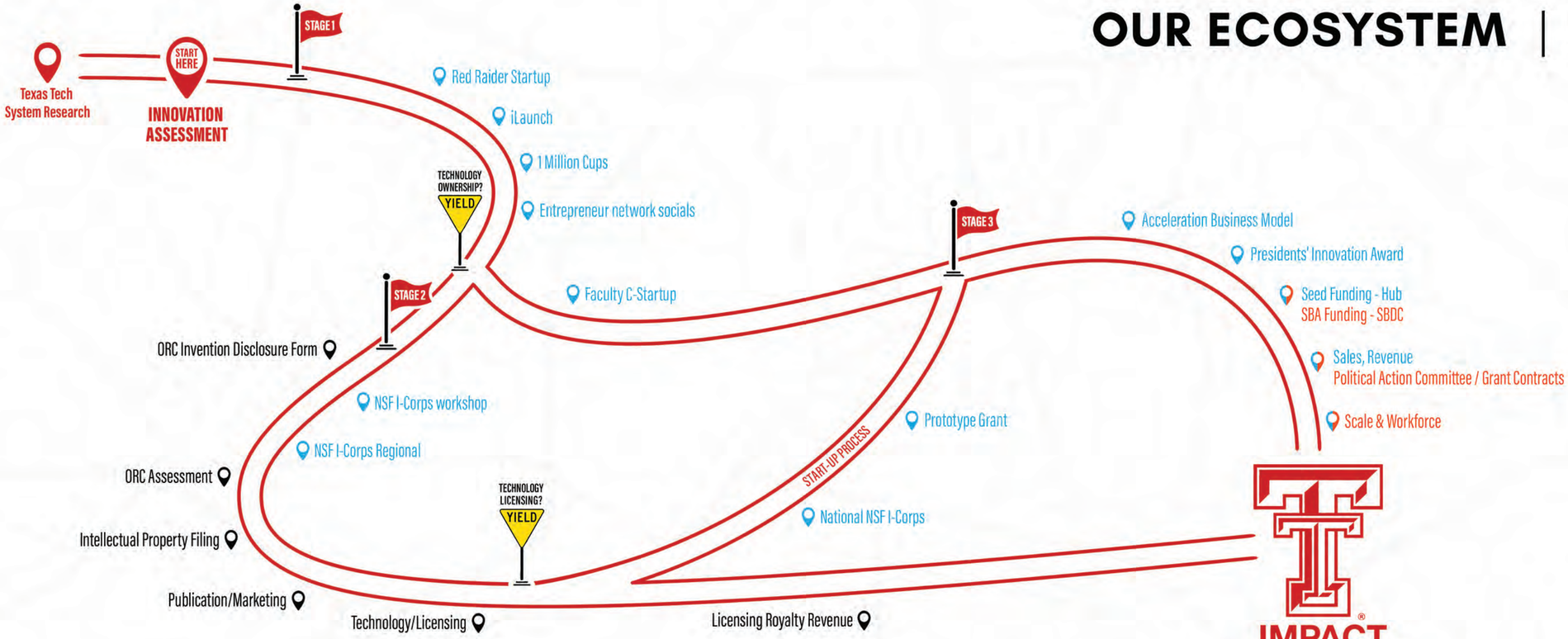
Northwest Texas Small Business Development Center provides consulting, training, and research to small business owners and entrepreneurs.

Research Commercialization

The Hub

AMERICA'S SBDC

OUR ECOSYSTEM | Introducing Texas Tech's Commercialization Roadmap



IMPACT®

Jobs, Technology, Startups, Community, Industry, & Investor Engagement , Revenue

The Commercialization Roadmap is a tool for the entrepreneur to be in the driver's seat of their idea. The tool combined with a brief assessment enables the entrepreneur to be proactive in the development of their idea to direct their next step through the different stops on the map. The map, and all associated stops along the way, are Texas Tech resources. The resources may be programs, competitive grant funding, or one on one mentoring or consulting to help the entrepreneur to achieve their goal.

innovationhub.ttu.edu/ie/

OUR BOARD | Texas Tech Research Park, Inc. Board Members

Introducing the TTRP board charted by TTU President, Lawrence Schovanec, TTUHSC President, Lori Rice-Spearman, and TTUS Chancellor, Tedd Mitchell, to support future strategies in the development of the research and innovation, economic development, and industry engagement initiatives.

Arun Agarwal
Board Member

Billy Breedlove
Board Member

Christy McClendon
Board Member

Curtis Griffith
Board Member

Dan Pope
Board Member

John Griswold
Board Member

Joseph Heppert
Board Member

Kimberly Gramm
Board Member

Noel Sloan
Board Member

Penny Harkey
Board Member

Phil Sizer
Board Member

Randy Hickle
Board Member

Sanjeev Saxena
Board Member

John Esparza
Board Chair

OUR MENTORS | Providing invaluable expertise to nurture a thriving ecosystem.

Priya Gill
Director of Team Mentoring

John Smothers
Director of Recruitment & Retention

5,870 mentor hours since 2017

42 Industry Mentors

$1.5M in volunteer value and mentor investment @ $250/HR

OUR PROGRAMS

12 ideation, commercialization, and acceleration programs to support innovators and entrepreneurs.

Red Raider Idea Competition

The Red Raider Idea Competition is a video competition for the next BIG Idea. Entrepreneurs create 60-second videos on the next BIG idea and vie for public votes. The top voted video is awarded the first-place prize of $2,000.

Red Raider Startup

This exciting 3-day weekend program is the best way for first-time entrepreneurs to get started. Participants will learn how to form a team around an idea, validate their idea through customer discovery, and pitch to a panel of investors.

Hub Camp

A clear roadmap is necessary for any business idea. The Hub Camp business plan workshops are offered 7 times per year and are essential to creating a stellar business plan.

iLaunch Competition

The iLaunch Competition is a high-energy pitch competition. The best of the best pitch their business ideas in Texas Tech's very own Shark Tank ™. A panel of industry experts decide who takes homes the 1st place prize of $10,000.

Faculty C-Startup

The Faculty C-Startup program awards $2,500 grants to Faculty to support commercialization education. Faculty become ambassadors for the Innovation Hub and support entrepreneurship programs and events.

Discoveries to Impact Conference

Discoveries to Impact showcases the best of the best in research, innovation, engagement, and startups. Conference events include dynamic keynote speakers, undergraduate & faculty research presentations, and the TTU Accelerator startup competition.

Prototype Fund

The Prototype Fund awards $80,000 in grants to technology startups to support the creating of a prototype.

NSF I-Corps Program

The National Science Foundation I-Corps program enable scientists, engineers, and inventors to identify product market fit for inventions. Offered 2 times per year, this competitive program focuses on the business model canvas, customer discovery, and team development.

Seraph Hub Fuel Fund

The fund invests in seed-stage companies in high-opportunity technology markets (with a focus on agriculture) that can attract follow-on capital, create high growth companies primarily in West Texas, and generate strong financial returns.

TTU Accelerator

This year-long program is designed to assist faculty, students, and entrepreneurs to lauch startups or discover licensing opportunities based on university research and/patented technology. Accelerator Companies are awarded a $25,000 grant and have access to Hub co-working space and experienced industry mentors.

Presidents' Innovation Award

The Office of the President of Texas Tech University and Texas Tech University Health Sciences Center award a total of $100,000 to startups to assist in equipment and rental office space at the Innovation Hub.

iTTU Mentor Program

Industry mentors are chosen for their expertise, investment and techincal know-how, and network to aid in the launch of new ventures.

2020 IMPACT | Annual and cumulative

INNOVATION HUB STAFF, PICTURED ABOVE LEFT TO RIGHT

Kevin Fehr
Office Support Specialist

Nathan Styles
Business Manager

David Dorsett
Director of Research Facilities

Taysha Williams
Program Director

Kimberly Gramm
Associate Vice President of Innovation & Entrepreneurship

Ganga Baskar
Program Director

The Innovation Hub team works diligently to support entrepreneurs and innovators at Texas Tech and in our community. Our team strives to support them through competition funding, educational programs, mentors, office support, and much more. In 3 short years, we have demonstrated a commitment to impact.

$22.6M
TOTAL STARTUP INVESTMENT SINCE 2017

$5.8M
IN 2020

132
EVENTS IN 2020

2,694
PROGRAM PARTICIPANTS IN 2020

The Hub™

4.2M
MEDIA HITS IN 2020

46,451
ENTREPRENEURS AND INNOVATORS SUPPORTED SINCE 2017

6,230
SUPPORTED IN 2020

$812K
FEDERAL & INTERNAL GRANTS AWARDED TO INNOVATION HUB IN 2020

$718K
AWARDED IN 2020 THROUGH INNOVATION HUB IDEATION, COMMERCIALIZATION, AND ACCELERATION PROGRAMS.

$1.7M
TOTAL FUNDING FOR NSF NATIONAL I-CORPS TEAMS SINCE 2017. 35 TEAMS/$50K PER TEAM.

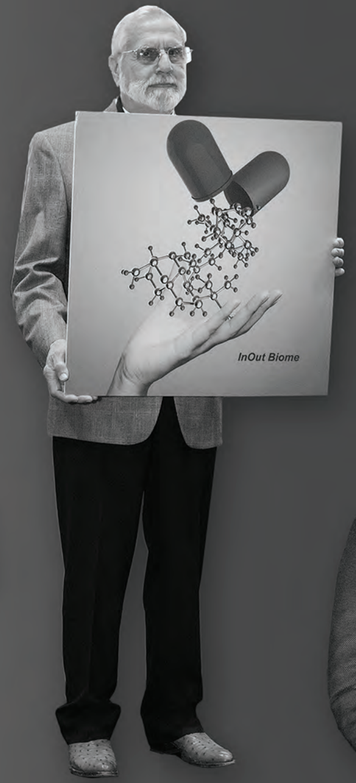
89
TOTAL NSF I-CORPS TEAMS SINCE 2017

OUR TTU ACCELERATOR STARTUPS | TTU Accelerator 2020 Graduates

PomBox

Pombox is a smartphone lockbox that helps you put your phone away and focus on what's important.

Founder: Jared Steele



InOut Biome

A non-invasive, non-digestible capsule that can directly sample the fluid in the digestive track.

Founders: Phillip Jones, Samuel Prien

Performance Fastners

Provides an established legacy line of automotive styling accessories along with a new line of custom-off off parts and accessories for the discriminating automotive enthusiast.

Founder: Toby Brooks

EmGenisys

Assist livestock veterinarians and embryologists increase food sustainability by maximizing the benefits of assisted reproductive technologies in cattle.

Founder: Cara Wells

Envirostatus

Passive sampling products and services for environmental monitoring.

Founders: Magdalena Rakowska, Balaji Rao, Danny Reible, & Alex Smith

VxMed

Center that transforms medical school textbooks and lecture content into a virtual reality training experience for 1st and 2nd year medical students.

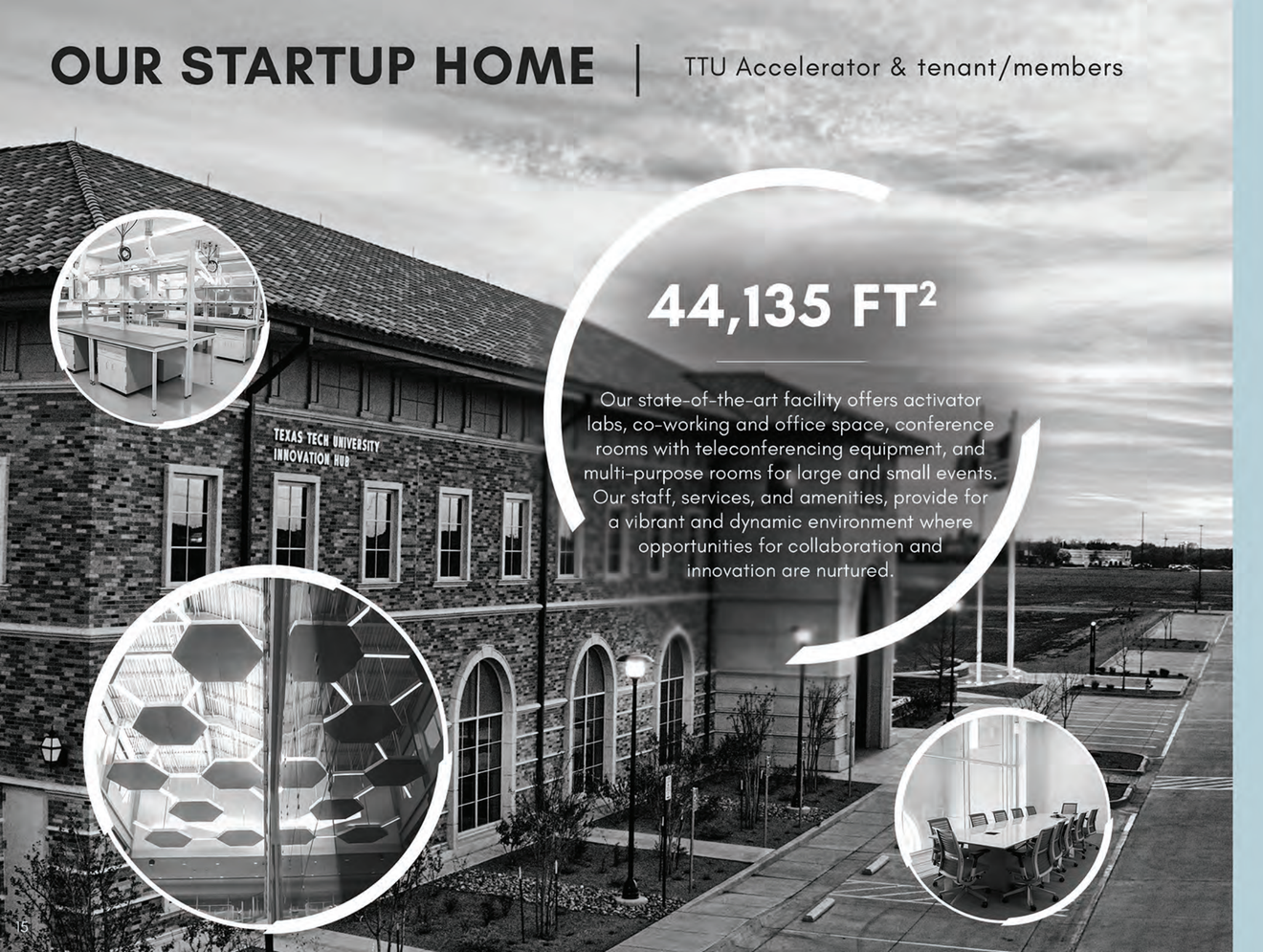
Founders: Anthony Betteridge, Nathan Lloyd

Little Luminary

Monthly Subscription boxes with organic products to baby and mom.

Founder: Richelle Westfall

OUR STARTUP HOME | TTU Accelerator & tenant/members



44,135 FT²

Our state-of-the-art facility offers activator labs, co-working and office space, conference rooms with teleconferencing equipment, and multi-purpose rooms for large and small events. Our staff, services, and amenities, provide for a vibrant and dynamic environment where opportunities for collaboration and innovation are nurtured.

16

NUMBER OF **TTU IP LICENSES** TO HUB TENANTS AND TTU ACCELERATOR COMPANIES IN 2020.

155

NUMBER OF HUB TENANT AND TTU ACCELERATOR **EMPLOYEES** IN 2020.

6

NUMBER OF NEW **TTU ACCELERATOR COMPANIES** IN 2020. 18 TOTAL TTU ACCELERATOR COMPANIES SINCE 2017.

19

TOTAL NUMBER OF **HUB TENANT AND MEMBERS** IN 2020.

CAMPUS LIVE | University Media Company

campus live
LUBBOCK, TX

"I knew one day we could be an engaging media company whose sole mission is to inform campus communities of the fun and exciting thing happening at the schools they love."

CEO & FOUNDER
Marcus Pauda

STORY

From the beginning in his brother's basement in 2017, to a studio at the Innovation Hub, Marcus Pauda's multi-platform media company, Campus Live, is moving up in the world. "It all started in a basement with a laptop, a cell phone, and big crazy dream," says Pauda. "I knew one day we could be an engaging media company whose sole mission is to inform campus communities of the fun and exciting thing happening at the schools they love."

In year one, Campus Live started with 3 advertising sponsors. By year two, they grew to 8 sponsors. In 2020, Campus live has partnered with 19 advertising sponsors, including partnership deals with Texas Tech departments. Campus Live has grown a staff of 19 and have expanded to TCU and UT.

In August 2020, Marcus brought on John English, Founder & CEO of Tailgate Express as a business partner for Campus Live. The synergy of the two companies really works well with both company's missions to engage campus communities.

The two companies now do joint ventures in the community and have plans to grow together to create a dynamic collegiate media and engagement company. John has recently moved his operation to the Innovation Hub where the two companies can strategically work side-by-side.

"Use of the Innovation Hub's state-of-the-art recording studio is part of Campus Live's tenant agreement. Marcus says that's one of many ways the Hub has given him and his company a boost. "It's a real culture here of thriving, grinding, and innovation. Being immersed in that I think helps me excel at hustle- takes it to a different level. Not to mention guidance we get from the leadership at The Hub. Then there are all the other resources, like just being among all the CEOs that you see walking around this building sharing ideas, friendships, tips and tricks.

It really is an innovative hub of people who are proud of Texas Tech and proud to go on and change their industry in whatever creative unique way they can."

CAPTIVIST | Eco-sustainability App

"My hustle is geared toward the positive impact that comes from empowering people to live the best lives they can live through the best knowledge they can have."

CEO & FOUNDER
Joyous Njoku

STORY

Startup entrepreneur Joyous Njoku is combining activism and capitalism to create consumer awareness about the products we buy. She says, "Captivist is an app that will make caring easy. When you use it to scan or search a product you're interested in, you'll get an easy-to-read breakdown of its social, environmental, and health impact."

Njoku is a supply chain management major at the Texas Tech University Rawls College of Business. "I've always wanted to be a CEO since I was a kid," she says. Her experience as a student assistant during her freshman year nurtured her long-time passion for sustainability issues.

The Texas Tech University junior says her eco-sustainability journey began in fifth grade in her hometown of Houston. "I had a science teacher who told us about the world-wide scarcity of clean water. She gave each of us a water-saving showerhead. I took mine home and installed it that same day. I was trying to save water for other people to use and to help the planet. Ever since then, I've tried to do the best research I could about my lifestyle and diet in order to be a responsibly conscientious consumer."

Njoku adds, "In the beginning, I didn't realize that I was doing a lot of negative things to the planet, my body, and other people. I'm much more aware now of my impact and how much value and power I have as a consumer. Through Captivist, I want to show that businesses can be a platform of good and of change and still make a profit."

Njoku first brought her app idea to the Texas Tech Innovation Hub through the Red Raider Startup program in October. "I found out about Red Raider Startup from an announcement on Tech Connect. I pitched Captivist there, and the participants chose to workshop it along with several other ideas. Right after my final pitch, a Hub mentor offered to connect me with other people who would be interested in my idea. Some participants also reached out saying they wanted to do anything they could to help Captivist."

Participating in the Innovation Hub's iLaunch Competition was Njoku's next, and perhaps biggest, step. Nijoku was chosen as a top 10 finalist and received mentoring to pitch to a panel of investors. Since the iLaunch Competition, Njoku has gathered a team of marketing, coding, and finance students to help further develop and launch Captivist. The startup was selected as one of the 6 companies for the Innovation Hub's 2020 Texas Tech Accelerator program.

"Competition is something that is a driving force for innovation," Njoku says. "I don't think I would be this far along with Captivist if I hadn't been involved with the Hub. The hands-on programs, competitions, deadlines, and accountability have been a real kick start for me. There is a bunch of people now vested in Captivists' success."

EVIROTECH | A COVID-19 Technology

EViroTECH, LLC is dedicated to the development of transformational technologies to combat infections, bacteria and viruses. EnviroTECH was founded in July 2020 and through hustle and hard work, they have already impacted the fight against the coronavirus pandemic with its ultra-fast portable sensor.

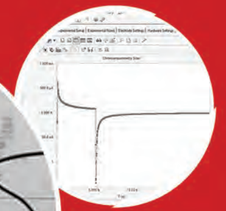
The ultra-fast portable sensor is for COVID-19 diagnostics that will enable continuous monitoring for quantification of the novel coronavirus using saliva or blood plasma samples. EViroTECH was established with the purpose of commercializing the sensor and its applications to other viruses and bacteria.

EViroTECH's approach integrates electrochemical technology and biomedical engineering. The sensor works by detecting electrical current changes that occur in a sample of body fluid when the virus is present. The company estimates the sensor will be one of the cheapest options for at-home testing, and when they say ultra-fast, they mean it; the results take less than a second.

EViroTECH operates in collaboration with laboratories at Texas Tech, Texas Tech University Health Sciences Center, the Innovation Hub, and the Centers for Disease Control Laboratory Response Network in Lubbock.

The founder and Chief Technology Officer of EViroTECH, LLC is Gerardine "Gerri" Botte, associate professor and department chair of chemical engineering at Texas Tech University.

Botte's research group, the Chemical and Electrochemical Technology and Innovation Laboratory, is dedicated to the foundation of applying electrochemical engineering principles for applications in sensors, fuel cells, batteries and sustainable and distributed manufacturing.



EViroTECH
Creating for Safety....

EViroTECH was established with the purpose of commercializing our ultra fast COVID-19 diagnostics sensor and its applications to other viruses and bacteria.

FOUNDER
Gerardine "Gerri" Botte

INTERVIEW WITH GERRI BOTTE, PH.D.

1. Tell me about Eviro Tech in your own words and the history of the company. What is your involvement with EViroTECH?

I am the founder and chief technology officer of EViroTECH. EViroTECH is a start-up company and spin-out of Texas Tech University technology-dedicated to the development of transformational technologies to combat infections, bacteria and viruses.

2. Tell me about your background your education and career. What are some highlights of both?

I am a Professor and entrepreneur with 22 years of experience dedicated to the development and fundamental understanding of electrochemical processes. I have a Bachelor's degree in chemical engineering from Universidad de Carabobo (Venezuela) and a Master and PhD in Chemical Engineering both from the University of South Carolina.

Before joining graduate school, I worked as a process engineering at Petrochemical of Venezuela in the production of fertilizers and plastics. I have been working in academic since 2001. I joined Texas Tech University in the Fall of 2019 and Professor and Whitacre Department Chair of Chemical Engineering.

Previous to Texas Tech, I was University Distinguished Professor and Russ Professor of Chemical and Biomolecular Engineering at Ohio University, the founder and Director of Ohio University's Center for Electrochemical Engineering Research (CEER), and the founder and Director of the Consortium for Electrochemical Processes and Technology (CEProTECH) -an Industry-University Cooperative Research Center.

3. What can you tell me about your research in Chemical Engineering?

My research group (the Chemical and Electrochemical Technology and Innovation Laboratory www.ceti-lab.com) is dedicated to the foundation of applying electrochemical engineering principles for applications in sensors, fuel cells, batteries, and sustainable and distributed manufacturing. We combine multiscale modeling, data analysis, materials synthesis, nanotechnology, in-situ spectroscopy, and electrocatalysis for the understanding and development of electrochemical devices and processes. I have successfully led and executed research projects totaling more than $17 million from a wide variety of private, federal, state sponsors, and non-profit organizations.

Currently, I have 192 publications including peer-reviewed journals, book chapters, and 59 granted patents. I have been involved in the scale-up of several electrochemical technologies, their commercialization, and the spin-off of companies. I am the founder and Chief Technology Officer of EViroTECH, LLC (established in July 2020) dedicated to the development of transformational technologies to combat infections and viral transmitted deceases.

4. How does your research apply or relate to Eviro Tech?

EViroTECH is a spin-out of technology invented in my research laboratory at Texas Tech University in which we integrate electrochemical technology and biomedical engineering.

OUR COMUNITY IMPACT

1 Million Cups

Based on the notion that entrepreneurs discover solutions and engage with their communities over a million cups of coffee, 1 Million Cups (1MC) is hosted at the Hub once a month to educate and inspire entrepreneurs. Two startup companies are invited to present each moth to gain insight and resources from other in the entrepreneurial community.

Red Raider Startup High School Program

The Innovation Hub partnered with area school districts to host the Red Raider Startup High School Program. In 2020, there were 43 students from 11 different West Texas Schools representative. Students progressed through a set of hands-on learning sessions that focused on ideation, team formation, customer discovery, and pitch workshops. The teams presented in front of an investor panel at the end of the 3-day event.

Lubbock Angel Network (LAN)

The Lubbock Angel Network provides angel funding and support capital for innovative startups in West Texas and beyond. LAN is the only form of privately organized capital for venture investing in Lubbock. Partners work closely with the Innovation Hub for access to deal flow. The Innovation Hub is a key community partner for LAN, provides meeting space, and supports LAN's fundraising efforts.

Tech Hub Entrepreneur Alumni Chapter

Tech Hub Entrepreneur Alumni Chapter The Tech Hub Chapter was launched in 2017 in partnership with the Texas Tech Alumni Association to recognize Texas Tech alumni and connect them with the university in a meaningful way to entrepreneurship and innovation initiatives. The Hub Chapter provides opportunities to recognize alumni contributions to the entrepreneurial ecosystem and assist entrepreneurs through scholarships from classroom to the marketplace through networking, mentoring, and activities

Entrepreneur Socials

The Innovation Hub hosts networking socials at fun and unique places in the community. Connections are made with students, mentors, and industry leaders to create a culture of innovation and entrepreneurship in West Texas.

21
Community Impact Events in 2020

1,187
Impact Attendees in 2020

1,486
Volunteer Hours in 2020

OUR PARTNERS

City of Lubbock Texas

AccelerateH2O – innovating US water resiliency

VMS Venture Mentoring Service

AURP

VENTUREWELL

GCEC | Global Consortium of Entrepreneurship Centers

LAN – Lubbock Angel Network

NSF

The CH Foundation – The Legacy of Christine DeVitt

Texas Tech University System

Lubbock Chamber of Commerce – Catalyst • Convener • Champion

Association of Public & Land-Grant Universities

SBA – U.S. Small Business Administration

Texas University Network for Innovation and Entrepreneurship

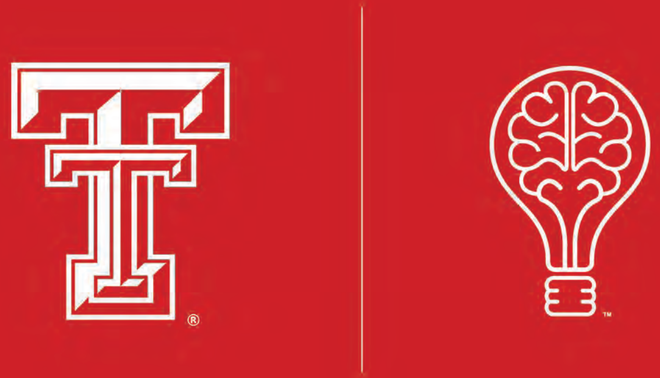
GLEAMM – Global Laboratory for Energy Asset Management and Manufacturing

Southwest I-Corps

Lubbock Economic Development Alliance

Center for Transformative Undergraduate Experiences
Center for Integration of Stem Education and Research
Office of Outreach & Engagement
Office of Research and Innovation
Office of Research Commercialization

Northwest Small Business Development Center
Texas Tech Alumni Association
Texas Tech Collegiate Entrepreneurial Organization
Texas Tech University Health Sciences Center



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