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The Texas A&M University System is committed to making its workplaces and services accessible to all, without regard to race, color, religion, sex, national origin, disability, age or veteran status.
Matchmaking Made Easy: The Open Worldwide Innovation Network

Since 2006, Texas A&M, the Wallonia Foreign Trade and Export Agency (AWEX) of Belgium, and the Research Valley Partnership (RVP) — which grows, expands and attracts business to the Brazos Valley — have worked together to create a best-practices model for developing international economic relationships. In 2013, TTC and our partners formed the Open Worldwide Innovation Network (OWIN), a non-profit partnership dedicated to advancing new international partnership initiatives. Through OWIN we’ve connected Aggie researchers to communities abroad that can benefit from their discoveries. We’ve also matched A&M research initiatives with domestic and foreign sources of private investment to help fund them.

Thanks to OWIN, TTC is taking Aggie discoveries where they’re most needed, to the farthest corners of the globe (including Europe and China). We’re commercializing Texas A&M inventions in markets abroad and introducing Texas A&M University to entirely new groups of stakeholders. These potential private- and public-sector partners are excited about how the best and brightest minds at Texas A&M can benefit their local constituencies. They’re sending research dollars back to Aggieland to fund new research initiatives. As you can see, TTC is expanding the Aggie family to include new partners who, like us, believe the pursuit of the public good is a noble endeavor.

How Technology Commercialization Impacts Research

Generally, universities license research projects, not products. This typically means that the first step toward commercialization that a company must make is more research or more development. And quite often, this is done in collaboration with the university. A license to a company can be the beginning of a long research relationship funding faculty and students to do real-world problem solving.

Many large companies are working with lean research and development budgets, and they look to universities to help do the basic research needed for their next breakthrough. Smaller companies do not have the scientific capabilities or facilities and can access world-class problem solvers in universities through sponsored research. It is commonplace for our licensees to fund research at the university, and for some technologies the amount of funded research will far exceed the amount of royalties paid. Signing the license agreement is not the end. It is simply the end of the beginning.

Connecting Aggie Innovations to a World of Opportunity

The world is a big place but becoming smaller every day. As the global economy becomes ever-more interconnected, old barriers are breaking down. In many cases, companies and countries alike are finding it more profitable to work together than compete across national borders.

The mission of Texas A&M System Technology Commercialization (TTC) goes beyond simply licensing technologies developed by Texas A&M University faculty. We see commercialization as a means rather than an end unto itself. Ultimately, it’s a path to accomplishing two of the A&M System’s core goals: to fund research and to make a significant contribution to the world we live in.
Matching Great Ideas with the Public Good

“Licensing is about making the right connection between research results and commercial viability,” says Janie Hurley, TTC senior licensing manager. “It’s about fulfilling the vision of our researchers. It’s about making sure great ideas from the laboratory make a positive impact on the public good.”

All research is valuable in some way, but some research can only improve our quality of life when commercialized. The team comprising the Licensing and Intellectual Property Management (LIPM) group within the TTC takes its direction from the A&M System’s mission, which makes commercialization of research results a priority. LIPM staff members help protect the intellectual property rights of A&M System researchers while connecting them with outside parties willing to invest in the innovations.

Many new discoveries will never benefit the public unless the right steps to get them implemented are taken. LIPM staff members are good stewards of A&M System intellectual property, identifying appropriate commercial partners to help fulfill the vision that inspired the research in the first place.

“One way we involve researchers early on is to engage them at the earliest stage as they perform their research, to better plan for commercialization. As part of that process, LIPM looks at prospective licensing opportunities in terms of their potential return and their likelihood of being adopted by industry. For TTC, “return” includes achieving a positive impact for the A&M System in terms of financial benefit (e.g., licensing revenue and/or research funding returned to the university). For example, externally funded research expenditures exceeded $820 million for the A&M System last year, and TTC played a part in making that happen. But “return” goes beyond the financial — it also means creating societal benefits for Texas and beyond. So, when approaching prospective licensing opportunities, TTC asks the following question: “How can we make the most of this opportunity for the researcher, our partners, the A&M System and the public as a whole?”

“Licensing is about capturing commercial opportunities for research results that might not otherwise be possible. It’s about making sure great ideas from the laboratory make a positive impact on the public good.”

Janie Hurley,
Senior Licensing Manager

LIPM maintains a level of transparency within the A&M System by holding regular meetings with key system members to review the current portfolio of licensable discoveries and update stakeholders on the outlook for these innovations and their commercialization strategies. When possible, the LIPM staff engages researchers at the earliest stage as they perform their research, to better plan for commercialization. As part of that process, LIPM looks at prospective licensing opportunities in terms of their potential return and their likelihood of being adopted by industry. For TTC, “return” includes achieving a positive impact for the A&M System in terms of financial benefit (e.g., licensing revenue and/or research funding returned to the university). For example, externally funded research expenditures exceeded $820 million for the A&M System last year, and TTC played a part in making that happen. But “return” goes beyond the financial — it also means creating societal benefits for Texas and beyond. So, when approaching prospective licensing opportunities, TTC asks the following question: “How can we make the most of this opportunity for the researcher, our partners, the A&M System and the public as a whole?”

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Janie Hurley,
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“Licensing is about capturing commercial opportunities for research results that might not otherwise be possible. It’s about making sure great ideas from the laboratory make a positive impact on the public good.”

Janie Hurley,
Senior Licensing Manager

TTC strives to build long-term relationships between A&M System researchers, licensees and potential sponsors for their research. We provide the opportunity for A&M System member innovators to see their ideas and discoveries benefit the public in ways they might never have dreamed of. That’s why we’re here. ▲
Licensing of A&M System intellectual property is the way TTC enables private companies to leverage the inventions of A&M System researchers. It’s the core function of TTC. Licensing generates cash returns for A&M System members and researchers, but most importantly it impacts all taxpayers by turning research projects into products that improve citizens’ lives.

“Licensing is the beginning of commercialization and, hopefully, the beginning of a long-term collaboration between the researcher and the company.”

Brett Cornwell, Associate Vice Chancellor for Commercialization

Biotronics 3D, Ltd.

Established to innovate medical imaging, Biotronics 3D, Ltd., empowers health-care professionals to work with an alternative to traditional picture archiving and communication system (PACS) methods used in the industry. The Biotronics solution, 3Dnet, is the first cloud-based software as a service medical imaging option physicians can use to share, analyze, and visualize medical images with colleagues online anytime, anyplace. 3Dnet uses a zero footprint client — which makes access less intrusive and more flexible for users — to allow complete and full access to all PACS images across a cloud or Internet connection. Invented by Mark Lenox and Robin Terry, Thermal Measurement MRI Evaluation Software converts magnetic resonance and echo-planar images into temperature maps. This software can be used for veterinary, human health care and biomedical research applications to measure differential temperatures inside living organisms while performing a therapy. For example, some therapies for cancer, particularly melanoma, simply use targeted heat to ablate the tumor and kill the cells. This software enables the technician to properly heat the cells to facilitate optimal results. Moreover, this software can produce images at full native resolution, independent of scanner type.

Location: London, England
System Member: Texas A&M University

m2s3 Holdings, Inc.

m2s3 Holdings, Inc., is commercializing a novel mobile application called eduSafe developed by the Texas A&M Health Science Center’s Applied Technology and Efficiencies Initiative. Available on both iOS and Android devices, the app provides rapid access to all emergency procedures (normally located in bulky flipcharts) without requiring an Internet connection. In addition, eduSafe incorporates relevant campus safety and security information into the app. This ensures faculty, staff, students and visitors have access to campus-specific safety and security procedures. This enhanced access to information can enable users to address safety and security situations in which they might find themselves, regardless of a data connection. There are several current products under development that focus on safety and security to be commercialized in multiple industry verticals within m2s3 Holdings, Inc.

Location: College Station, Texas
System Member: Texas A&M Health Science Center
LifeBot, LLC

LifeBot, LLC, a telemedicine solutions company, provides exclusive patented and military-developed technologies for health care. These systems are used to send and receive live video — voice and patient vital-sign data transmissions primarily in support of heart, trauma and stroke victims. LifeBot innovators have developed a suite of telemedicine software and technologies for use in ambulances and hand carried via backpack. LifeBot’s Disaster Relief and Emergency Medical Services (DREAMS™) Digital EMS, a first-of-its kind, unique system, provides interactive, simultaneous live transmissions of critical patient data, audio and video. The DREAMS Digital EMS technology suite of products includes self-contained, mobile equipment, as well as terrestrial ambulance and helicopter telemedicine equipment, technology, software and protocols to meet EMS personnel needs. Using equipment mounted on the emergency vehicle and at the hospital site, this software allows a physician to achieve a virtual presence at the mobile unit when needed. DREAMS Digital EMS’s many form factors ensure that the capabilities required for triage and medical treatment are available to emergency personnel and can be deployed in virtually any location, including field hospitals and community centers. The system also enables the rapid transformation of any non-medical location into a state-of-the-art medical facility.

Location: Phoenix, Arizona
System Member: Texas A&M University

Positive Motion, LLC

The academic environment can encourage drowsiness and distractions in students. Dr. Mark Benden has developed and commercialized a new desk design, called Stand2Learn™ desks, to minimize the effects of these common disruptions and improve students’ mental and physical health while performing normal classroom tasks. Schools use Stand2Learn desks to help increase student alertness and attentiveness, improve classroom dynamics, and empower teachers to stay focused on teaching. Research shows clear health, ergonomic, productivity and learning benefits as a direct result of standing versus sitting in a classroom.

According to the U.S. Centers for Disease Control and Prevention (CDC), childhood obesity has tripled in the past 30 years, putting more children at risk for bone and joint problems, heart disease and diabetes later in life.

“Students in classrooms with standing-height desks stand more than two-thirds of the time and are burning an average of 17 percent more calories overall than their classmates in traditional seated classrooms,” Benden says. “More importantly, overweight and obese students are burning 32 percent more calories while working at standing desks than their peers who work in traditional seated classrooms.”

In 2013, the CDC awarded PositiveMotion, LLC (DBA Stand2Learn) $1 million in a two-year grant for research and development. PositiveMotion began sending regular quarterly royalties to the Texas A&M System in 2012 — a milestone for the company.

Location: College Station, Texas
System Member: Texas A&M Health Science Center
Featured Alliances: Texas A&M AgriLife Research and Evoqua Water Technologies

Texas A&M AgriLife Research
and Evoqua Water Technologies

“A Texas A&M University System is a leader in water technology in our agriculture and engineering programs. We are excited to partner with Evoqua, a worldwide leader in technology, to commercialize and advance this technology that could have significant benefits to water and wastewater treatment.”

John Sharp, A&M System Chancellor

An AgriLife-developed technology removes selenium, mercury, and other heavy metals and metalloids from power utility, mining, refinery, and other industrial water and wastewater to meet National Pollutant Discharge Elimination System (NPDES) limits. Texas A&M AgriLife Research and Evoqua Water Technologies are developing and commercializing chemical-based technology to more efficiently and cost-effectively remove heavy metals from water and wastewater. In 2013, the two organizations signed an exclusive license agreement and a research and development agreement to work toward this goal.

The technology is based on an Activated Iron Process™ for the removal of contaminants from water and wastewater developed by Dr. Yongheng Huang, associate professor of biological and agricultural engineering at Texas A&M University and Texas A&M AgriLife Research scientist.

“The Texas A&M University System is a leader in water technology in our agriculture and engineering programs,” states A&M System Chancellor John Sharp. “We are excited to partner with Evoqua, a worldwide leader in technology, to commercialize and advance this technology that could have significant benefits to water and wastewater treatment.”

Making Connections
Lone Star UAS Center: Coordinating Research, Resources for Texas

Texas A&M University–Corpus Christi’s RS-16 in flight during the UAS test flights in Port Mansfield, Texas.

In 2013, Texas A&M University-Corpus Christi (TAMU-CC) founded the Lone Star UAS Center of Excellence & Innovation (LSUASC) in response to the Federal Aviation Administration’s (FAA) decision to integrate unmanned aircraft systems (UASs) into the U.S. national airspace. UASs are technologies used to operate unmanned aerial vehicles, like delivery drones. UASs can come in handy when manning an aerial vehicle isn’t necessary or safe. Any number of uses are possible, but a few include:

- detecting wildfire hotspots and ocean oil spills;
- providing images to emergency management officials after disasters or extreme weather;
- monitoring pipelines;
- mapping coastlines and habitats;
- conducting livestock inventory;
- locating lost or stranded people;
- providing cell phone relay transmission services; and
- surveying missions over large areas.

LSUASC is composed of a team of highly engaged researchers, entrepreneurs and aviation industry professionals dedicated to testing UAS technologies to meet these needs.

Academia and Corporations Team Up for Texas

As a test-site operator for FAA, Texas offers services to the UAS industry and research institutions that increase the state’s UAS capacity and create educational opportunities for TAMU-CC students. A private-public partnership, LSUASC marries the innovation of industry with academic resources to leverage the best of both worlds. The bottom line: LSUASC offers technology-development services at every recognized stage of readiness, from incubation to commercialization success.

TAMU-CC provides essential resources and research talent to the team. In exchange, real-world experience gained at the center provides a superior educational experience, as well as opportunities for students to find employment in the multi-sector UAS industry.

LSUASC research focuses on UAS integration technologies but also offers diverse applications research across a wide range of industries. The center’s research goals and objectives align with FAA focal areas:

- **System safety**: LSUASC supports the FAA by reporting test-site data supporting FAA rule-making and establishing procedures to integrate UAS safely into the national airspace.
- **Airworthiness**: LSUASC develops and implements airworthiness processes and standards to ensure safe operations in UAS research activity.
- **Command and control link issues**: LSUASC develops command and control-link solutions to operate UAS systems safely.
- **Control station layout and certification (human factors)**: LSUASC develops human-factors solutions for UAS control-station layout and certification.
- **Ground and airborne detect-and-avoid technologies**: LSUASC develops UAS ground and airborne detect-and-avoid technologies.
- **Environmental impacts of UAS operations**: LSUASC assesses environmental impacts of UAS operations at launch and recovery sites and within the volume of authorized airspace.

The center also maintains a community-outreach plan that identifies stakeholders and develops strategies for reaching constituent groups with accurate information about UAS and Texas’ plans for research and economic development in the aviation sector. LSUASC has been responsive to inquiries as well as proactive in providing information to the public (e.g., when concerns arise after the public notices experimental aircraft) to allay public concern about, and generate public interest in, the program.

“The Lone Star UAS Center of Excellence and Innovation, a partnership with TEES and private industry partner Camber Corporation, will put Texas and the Texas A&M University System at the forefront of this emerging, multi-billion dollar industry,” says Dr. Luis A. Cifuentes, vice president of the LSUASC Division of Research and Commercialization and outreach director. ▲
licensing is the transaction that moves intellectual property from the A&M System to private companies. However, TTC and A&M System members strive for more than a single transaction with a company. We strive for ongoing alliances to help drive the next great invention and provide market insight for researchers across the A&M System. The following examples show the power of long-term relationships that stem from a desire to commercialize A&M System technology.

**Featured Alliances: Engineering**

Drs. David Hagen and Jaime Grunlan analyze a gas barrier film produced in the Polymer NanoComposites Lab. The film was prepared on a pilot coater, shown in the foreground.

**Polymer NanoComposites Laboratory**

The Polymer NanoComposites (PNC) Laboratory at Texas A&M University researches the nanostructure and microstructure of particle polymer systems, focusing on three main areas: layer-by-layer (LbL) assembly of multifunctional thin films, thermoelectric polymer composites, and nanoparticle stabilization. From the platform LbL technology, researchers are studying and improving the gas barrier and flame retardant properties that these nanocoatings exhibit when deposited onto a given surface (plastic film, flexible polyurethane foam, cotton fabric, etc.). The PNC Laboratory works with a wide range of corporate sponsors to accelerate the development of this novel technology and introduce it into the market.

**DxUpClose, Inc.**

DxUpClose, Inc., is developing a point-of-care bacterial diagnostic that will perform a faster antibiotic sensitivity test. The product is designed to screen for specific bacteria. Whether or not the sample has a particular bacteria, it will count the bacteria present and perform antibiotic sensitivity tests against them — all within 60 minutes. The bacterial-identification technology is based on a Texas A&M University patent: Sensing Phage-Triggered Ion Cascade (SEPTIC) technology. SEPTIC uses bacteriophages, microbes that are natural enemies of bacteria. When attacked, bacteria release a signal electronically detectable using SEPTIC. Bacteriophages can be isolated and cultivated to attack a single bacteria, and these specialized bacteriophages can then be used, along with SEPTIC, to identify other bacteria.

DxUpClose has an ongoing collaboration with Texas A&M researchers, who isolate bacteriophages of interest to DxUpClose.

**Prairie View A&M University: High Performance Computing**

The Computer Science Department at Prairie View A&M University has recently participated in the NSF I-CORPS Program to explore the commercialization opportunities for a domain-specific big data analytics cloud software stack based on Hadoop and Spark. The cloud will provide a user-friendly web interface to deliver Platform-as-a-Service (PaaS) that specifically meets the big data analysis needs for different domains. Initially targeting the oil and gas industry, an intensive process of market validation and customer discovery made the team realize that other potential applications, such as energy-power distribution and genomics, exist for industries.

The cloud software stack will be customized to fulfill the requirements for storing, processing and analyzing big domain data, with scalable performance and fault-tolerance features. The technology delivers big data storage and scalable processing performance, and also provides an easy-to-use interface to simplify data analysts’ daily work. The team plans to keep working toward the commercialization of the big analytics cloud platform within the next couple of years.
TTI and Freight Shuttle International: Cargo Transportation

The Texas A&M Transportation Institute and Freight Shuttle International have developed a means to transport containerized freight in a clean and more efficient manner. The Freight Shuttle System (FSS) is composed of individual automated transport vehicles propelled by linear induction motors that move containerized freight along a dedicated, elevated guideway. Current efforts are focused on building a prototype of the system, scheduled to be completed in the summer of 2015. The prototype test facility in Brazos County will demonstrate to stakeholders a better way for shippers and manufacturers to move goods and materials.

Claridge-Culp, Inc.

Claridge-Culp, Inc., is a company developing a new method for air conditioning and dehumidiﬁying air. This technology utilizes a water-permeable membrane, allowing the water to be extracted from the humid atmospheric air. Through this technology, Claridge-Culp is dedicated to optimizing energy consumption for both residential and commercial HVAC systems. The novel molecular-membrane air conditioner will:

• improve indoor health;
• use no refrigerants (and, thus, is environmentally friendly);
• use approximately half the energy of existing code-compliant air conditioners;
• generate pure water; and
• cost less to install and maintain once the production levels are high volume.

Claridge-Culp, Inc., was formed to bring an operational prototype for licensure to industry and to support and fund the current and ongoing patent efforts for both domestic and international patents on the molecular-membrane air conditioner.

TEES and Synfuels International, Inc.

Using a process conceived by Dr. Kenneth R. Hall of Texas A&M Engineering Experiment Station (TEES), Synfuels International, Inc., of Dallas, Texas, has developed what it calls the industry’s first commercially viable process for converting stranded natural gas into easily transportable liquid fuels. Cooperation between TEES and Synfuels has produced an efficient, environmentally friendly process that could create millions of barrels of new petroleum products — including a clean-burning pipeline or tanker-ready liquid — from existing natural gas deposits.

The process could make use of currently untapped deposits of natural gas and prevent “flaring,” inefficiently burning natural gas into the atmosphere during the refining process — something that is both wasteful and bad for the environment.

Chemical engineering professor Dr. Ken Hall has patented a method for refining natural gas that will take advantage of existing natural gas deposits.
AgriLife and Licensees: Small Grains

Texas A&M AgriLife Research developed TAM 401, the latest of a long line of successful wheat varieties. TAM 401 is an early maturing, semi-dwarf, hard red winter wheat variety. Syngenta Cereals, formerly known as AgriPro Wheat, has licensed this wheat variety, which has good stress tolerance and is adapted to all wheat-growing areas in Texas and other areas. TAM 401 has excellent grain yield potential, good resistance to foliar diseases and acceptable hard red winter wheat end-use quality. This variety is also an awnless wheat, which means it does not have the bristle-like awns found on most wheat, making it better for multipurpose production uses such as cattle grazing, grain production and hay production. It’s estimated that over 100,000 acres are grown annually.

AgriLife and Licensees: Small Grains

AgriLife and Licensees: Turfgrass

Not only does green grass appeal to us visually, but it serves an important environmental role, such as in soil stabilization, water conservation and pollutant filtration. The turfgrass programs at Texas A&M AgriLife Research have developed many varieties and types of both warm- and cool-season grasses. Warm-season grasses include vegetatively propagated zoysiagrasses and St. Augustine varieties used throughout the southern United States in home lawns, commercial properties, golf courses and sports fields. Commercial production for resale of A&M System warm-season grasses is grown on over 2,500 acres across the southern United States and internationally. Cool-season grasses include Texas x Kentucky bluegrass hybrids, creeping bentgrasses and turf-type annual ryegrasses. The scientists of Texas A&M AgriLife Research and Texas A&M AgriLife Extension have helped solve turfgrass-related problems for years, using reliable research, extensive outreach educational programs, and statewide and county extension activities. Producers like King Ranch Turf and New Life Turf are working to bring these grasses to consumers.
AgriLife and Licensees: Winter-Hardy Hibiscus Lines

The winter-hardy hibiscus breeding program was initiated in 2009 at the Texas A&M AgriLife Research and Extension Center in Vernon. The research is conducted under the AgriLife Research program’s strategic plan covering non-traditional and under-utilized crops. Through research overseen by Dr. Dariusz Malinowski, Texas A&M AgriLife Research plant physiologist and forage agronomist, the program has developed more than 150 lines of hibiscus with very unique flower color, shape and leaf color. The program is the first to create a blue winter-hardy hibiscus, and now has lines with various shades of blue in numerous shapes.

Ten or more of these hibiscus lines from the Texas A&M AgriLife Research breeding program could see commercialization via licensing in the United States and Europe in 2015. Texas A&M System Technology Commercialization, the hibiscus breeders and Texas A&M AgriLife Research continue to work together to promote these and additional new lines for future licensing opportunities as well.

Blue, winter-hardy hibiscus.

AgriLife and Licensees: Potatoes

Robert Campbell, president of Cal-Ore Seed, Inc., and manager of Discovery Gardens, joined forces with Texas A&M potato breeder Dr. J. Creighton Miller to produce a superior russet potato for the American table. In 2001, they chose the variety TX1523-1Ru/Y, an early-emerging potato with improved consistency, color and taste. The potato is now marketed in the United States and Canada under the name Sierra Gold.

AgriLife and Licensees: Disease-Resistant Citrus

In early 2007, Texas A&M AgriLife Research tested potential canker- and greening-disease-resistant citrus trees. Because the plants show promising results, Southern Gardens has begun a field trial of these trees in its Hendry County, Fla., citrus groves to see if they are commercially viable. Citrus greening disease is possibly the most serious disease of the citrus tree. Strains resistant to it could make a huge impact on the U.S. citrus industry. Texas citrus growers alone produce approximately 27,000 acres of citrus every year.

National Center for Election Beam Research at Texas A&M University

The National Center for Electron Beam Research (NCEBR) is the leading organization in the world focused on the research, development and commercialization of Electron Beam (eBeam) technology. The International Atomic Energy Agency (IAEA) has designated NCEBR as the IAEA Collaborating Centre for Electron Beam Technology for Food, Health, and Environmental Applications. NCEBR’s primary focus of research and commercialization activities are targeted at expanding eBeam technology for new businesses and jobs created around this technology and its varied applications.

NCEBR works closely with private investors and corporations to enable them to utilize eBeam technology for commercial applications in the food, environmental remediation, plastics, aerospace, medical devices and medical therapeutics industries. This platform technology has multiple applications that can significantly improve food safety, enhance the quality of therapeutics such as vaccines, ensure the phytosanitary quality of imported fruits and vegetables, eliminate environmental pollution by decontaminating municipal and industrial wastes, improve the durability and quality of medical implants, and improve biofuel and petroleum production efficiencies.
Featured Alliances
TEES and CorInnova

TEES and CorInnova are working together to develop and market innovative devices to treat congestive heart failure. Dr. John C. Criscione, associate professor at Texas A&M, develops heart-assist technologies in the laboratory, and CorInnova transfers those important innovations to the marketplace. In 2009, Dr. Criscione received the Bryan Rotary Club/Research Valley Commercialization Rising Star Award for his work in accelerating the commercialization of Texas A&M heart technologies.

AVF Nano Alloys, LLC

Bacteria and microbial organisms are a major source of disease and corrosion across a range of industries — oil and gas, water treatment, healthcare, and food and beverage. Antimicrobial Nano Alloy (ANA) is a new technology alloy that eliminates or kills bacteria and microbial organisms on the materials where applied.

Emily Hunt, Ph.D., at West Texas A&M University designed an ANA to combat and kill the organisms before they can cause harm. AVF Nano Alloys, LLC, is a newly formed company working to commercialize the technology.

The patent-pending material can be applied to multiple types of surfaces, including steel, ceramics, plastics and even sand. AVF Nano Alloys’ commercialization plan for the research will focus on infectious diseases and industrial corrosion in a permanent, cost-effective approach that eliminates the use of cleaning solutions and chemicals. ANA also has the potential to aid in water purification.

Kelly Jones, managing partner of AVF Nano Alloys and Texas A&M Class of 1983, says, “This technology represents a major breakthrough in antimicrobial materials and has a very wide range of uses in industries including oil and gas, water treatment, marine coatings, health care, and food and beverage, just to name a few. Basically any industry with corrosion or bacterial issues could benefit from our technology.”
The Research Valley’s Biocorridor

Protecting Texans, Serving the Public Good

Texas A&M University System has mustered resources, talent and opportunity to create the Research Valley Biocorridor. Texas A&M System Chancellor John Sharp equated establishing this partnership with creating “a third coast of biopharmaceuticals” when announcing the Biocorridor alongside Gov. Rick Perry and others on March 26, 2013. The Biocorridor represents a collection of A&M System, Brazos Valley, and corporate partners working together toward a single goal: discovering breakthroughs in plant, animal and human science and commercializing those innovations to protect Texans and serve the public good.

As Chancellor Sharp noted, the Biocorridor is a “unique public-private formula to assure a strong biosecurity product-development and manufacturing base on U.S. soil for the first time. [Its creation] ensures that the nation will have rapid access to vaccines and therapeutics in the event of influence of pandemic, or chemical, biological, radiological or nuclear attacks.”

When Texas experienced its first cases of Ebola in 2014, Gov. Perry appointed Brett Giroir, CEO of the Texas A&M Health Science Center, to head a state task force on infectious diseases. Giroir’s appointment reflects a renewed commitment by the Governor’s Office and the A&M System to use all resources available in protecting Texans. The Biocorridor will be instrumental in that effort.

Innovation, Industry, Opportunity

The Biocorridor is fast becoming the epicenter of Texas’ emerging biotech industry by combining breakthroughs in all aspects of biological health and providing a speed-to-market connection between research, commercialization, and business success. With $820 million invested in research for science and nonscience fields, Texas A&M ranks among the top 20 research universities nationwide, and its world-class facilities and staff make up the Biocorridor team.

- **Research** — Texas A&M Institute for Genomic Medicine
- **Preclinical** — Texas A&M Institute for Preclinical Studies
- **Manufacturing** — National Center for Therapeutic Manufacturing
- **Clinical** — Texas A&M Health Science Center

Texas A&M’s other thought leaders on the Biocorridor team include Texas A&M’s College of Veterinary Medicine and Biomedical Sciences, Texas A&M’s Bioscience Business Accelerator, Caliber Biotherapeutics, and G-Con, LLC. These partners form a critical FDA pipeline to discover new therapies in plant, animal and human health; perform preclinical evaluations; and utilize flexible, scalable biopharmaceutical manufacturing.

The Biocorridor brings great minds together in a one-stop shop of innovation and opportunity. Local resources like the College Station Medical Center, The Physicians Centre Hospital, St. Joseph Health System, and Scott & White Clinic — coupled with Blinn College’s Allied Health Program — provide a vibrant developmental environment for life-science companies. And the university’s close proximity to Houston’s clinical base and medical center, including the renowned MD Anderson Cancer Center, provides a convenient opportunity to work with some of the most respected physicians in the world.

Are you ready to plug into our global biotech network? From idea to impact — bioengineering to bioproducts — access to the unparalleled resources of the Texas A&M University System’s world-class research centers, institutes and agencies make us your perfect corporate partner.
The Texas A&M Center for Innovation in Advanced Development and Manufacturing (CIADM) is a public-private partnership with the U.S. Department of Health and Human Services. Awarded in 2012 with an initial investment of $285.6 million, CIADM is designed to enhance the nation’s emergency preparedness against emerging infectious diseases, including pandemic influenza, as well as chemical, biological, radiological and nuclear threats. The center’s innovative design uses rapid, nimble and flexible approaches to:

- develop and manufacture vaccines to protect against pandemic influenza;
- provide therapies in the event of chemical, biological, radiological, and nuclear threats;
- perform advanced development, accelerating vaccines and therapeutics products through pre-clinical and clinical development, leading to licensure; and
- train the next generation of professionals in areas required to sustain this national capability, including process engineering, pharmaceutical manufacturing, quality, and regulatory affairs.

“This center is important for our nation, but also evidences a new paradigm for how academic health science centers must transform health by forging novel partnerships with the federal government and leveraging the expertise of world-leading commercial partners, such as GSK,” said Dr. Brett Giroir, CEO of the Texas A&M Health Science Center, at the center’s dedication in 2014. CIADM is part of the Health Science Center, which includes three facilities, one of which is the Pandemic Influenza Vaccine Facility developed in collaboration with GlaxoSmithKline plc (GSK). The principal mission is to help protect Americans against future pandemic influenza outbreaks. “Texas A&M Health Science Center will continue to pioneer new pathways forward,” continued Giroir. “This is the only way that unmet medical needs, locally and globally, will be addressed, and access to quality care can be achieved for all.”

GSK and the A&M System have partnered to establish a $91 million influenza vaccine manufacturing facility as the anchor of CIADM. GSK’s operations hub in Marietta, Pa. will package, inspect and distribute influenza vaccines manufactured at the Texas A&M Center.

The Pandemic Influenza Vaccine Facility, scheduled for completion in 2015, is the anchor of CIADM. The venture is part of GSK’s existing influenza vaccine operations, based in Quebec, Canada, and Dresden, Germany. The purpose of the facility is to develop seasonal vaccines, as well as rapidly produce vaccines in response to any pandemic influenza strains. Once up and running, the facility will have the capacity to produce as many as 50 million doses of the influenza vaccine within a four-month period.

“GSK is privileged to deepen our commitment to U.S. public health, as part of this unprecedented public-private collaboration to protect against pandemics and bio-threats,” noted Antoon Loomans in a March 26, 2013, press release. Loomans is senior vice president for GSK Vaccines. “In Texas A&M we have found a partner with a rich tradition of service, and with pioneering technologies that will benefit the entire pharmaceutical industry in making vaccines available and accessible to all in need.”
Creating New Ventures —

Matching Innovation with Opportunity

Unlike most universities, where start-up is defined as bridging a license to an early-stage company, New Ventures at TTC takes a more proactive role in fostering commercialization and entrepreneurship across the A&M System. We create new companies with strategic seed investment to recruit management and provide corporate oversight. This approach better defines the product-development path, builds a robust intellectual property strategy, defines market potential, and accesses dilutive and non-dilutive funding. Start-up companies help TTC add value to early-stage ideas and prepare them for the next stage of commercialization.

New venture opportunities arise for two reasons: the technology might offer a chance for a large return in the marketplace or it might not be ready for licensing. Using start-up companies to attract funding that transitions an invention into a product offers the opportunity for long-term return and brings short-term research opportunities to A&M System members. In fact, a start-up company might be the only way forward for a critical innovation. In rare but significant cases, some innovations bring something totally new to the table. Often, what makes them valuable also makes them a challenge to commercialize. TTC’s New Ventures Division can make a difference in these cases.

“A researcher within the A&M System can only take his or her discovery so far in the laboratory,” explains Dr. Saurabh Biswas, director of TTC’s New Ventures Division. “But that may not be far enough for a corporation to license it because it may not yet be ready for the market.”

Sometimes called the “valley of death,” the phase between discovery and commercialization can prove the most dangerous for discoveries with real market potential. Innovations without funding to further develop them can wither and die on the vine.

TTC’s New Ventures Division works with A&M System researchers to create (or spin out) companies around new ideas or technologies. The new company then seeks funding from private investors to help build the bridge between the researcher’s laboratory and a corporation’s willingness to adopt a product for the marketplace.

“In a way, that new idea or technology is very much like a child put up for adoption,” explains Biswas. “New Ventures can become the foster-care provider that nurtures the child until we find the right home for it.”

New Ventures fosters ideas across all business sectors, from biotechnology to agriculture to the oil industry. Fortunately, these “foster children” enter the private sector with a little help. Also, the A&M System might provide a modest amount of start-up capital to help a new spin-out company secure more substantial private funding. This frequently generates immediate returns to the A&M System in the form of research dollars aimed at further developing the discovery.

The spin-out company becomes a sponsor for new research and development within the A&M System. And the company and its private investors enjoy the benefits of further developing the technology within a world-class research institution, typically by the very research team that created it in the first place. Work by New Ventures can also positively impact the Bryan/College Station community when private-sector partners choose to locate near the birthplace of the innovation.

“The most important aspect of the companies we create is their ability to secure private funding to further develop these discoveries into commercially viable and valuable technologies,” Biswas says. “More to the point, with the help of New Ventures, our researchers can make their mark on the world.”

Benefits of Working with TTC’s New Ventures:

• Extensive expertise in building companies around innovative technologies and engaging with a global network of investors and commercialization partners.

• Experience identifying commercialization routes, meeting due diligence requirements and discovering value inflection points for securing non-dilutive and equity funding.

• Access to A&M System faculty and researchers who can help explore the market and competitive landscapes, define IP strategies, become part of your early management team, and identify product development milestones and investment options for each stage of your company.

• Advice on system wide conflict management and compliance matters for inventors participating in new ventures as officers or at the board level.

• Availability of mentors and board members to build a sustainable new venture that creates value around great ideas that can make a global difference.
**New Ventures Division**

**Taktik USA, Inc.**

We do two things extremely well. We manage your media assets and synergistically stream your video — including TV content — to your end-user devices. They are fast, secure and highly scalable solutions that will meet your schedule and budget.

Taktik USA, Inc., is a privately owned and operated software development C-corporation that was founded in the state of Texas as a subsidiary of Taktik Belgium. The Texas A&M University System is an equity holder in Taktik USA and is licensing complimentary technology to Taktik USA. Taktik USA specializes in a new generation of enterprise-class, media asset management software and Internet Protocol Television (IPTV) middle-ware that are designed to combat the challenges and complexities presented by big data. Taktik USA will concentrate its sales efforts in North America in specific industries that are generating and using massive amounts of video and image data — healthcare IT, universities and their allied organizations, hospitality, studios, and federal and state governmental agencies. Taktik USA will initially launch two applications that were developed and perfected by Taktik Belgium, FlowR and Ozone.

FlowR is a tool that helps corporations tackle video-streaming by routing satellite, DTT, or live broadcast video streams from their sources through a secure IP-based or coax network to any end-user BYoD device (TV, monitor, notebook computer, tablet or smartphone). Ozone is a media asset management software solution that was created for professional users who are faced with large volumes of media and the need to store, sort and intelligently retrieve those media assets. With a primary focus on the business-to-business market, Ozone is based on a hybrid cloud technology model that is deployable from both the cloud and on premise.

**Lisam America, Inc.**

Founded in 2010, Lisam America, Inc., is jointly owned by the Lisam Systems Group of Belgium, Mr. Andrew Nelson, and the Texas A&M University System. Lisam Systems currently offers safety-related software solutions and consulting for environmental health and safety management, serving a broad range of clients in the chemical industry (over 700 customers worldwide). Lisam America licenses and provides services and support for ExESS®, a global EH&S software solution that allows clients in the chemical, energy, and other process industries to author GHS-compliant safety data sheets in all major commercial markets worldwide (and in nearly 50 languages), as well as to obtain data about incidents related to hazardous materials. Texas A&M’s Mary K. O’Connor Process Safety Center, part of the Texas A&M Engineering Experiment Station, developed its Incident Database and licensed this database to Lisam America so Lisam could make the data commercially available to the marketplace. The database brings together data from many sources and presents them in a consistent and accessible format. ExESS will provide the principal method for commercializing data and process safety research from the center.
framergy: Clean Energy Solutions
Inspired by Nature, Designed by Science

It’s not that the world doesn’t have energy resources. Though diminishing fossil fuels are still available in large quantities, converting them cleanly into useful fuel products — now there’s the challenge.

Current methods for generating energy from fossil fuels require expensive pressurization for gases and release pollutants when combustion occurs. In an era concerned with energy security, greenhouse gases and cost, traditional gas-storage and energy-generation solutions are just too expensive given the energy actually produced.

Enter framergy and its revolutionary approach to creating cleaner energy.

“Take coal, for example,” explains Dr. Hon-Cai Zhou of Texas A&M University’s Department of Chemistry. “Burning coal produces carbon and blankets the atmosphere with it. If carbon is the fly, we’ve created a kind of flypaper to catch it and remove it cleanly from the burning process.”

The flypaper is really an innovation by Dr. Zhou called a metal organic framework (MOF). (The name framergy comes from conjoining “framework” and “energy” together.) MOFs are porous, crystalline structures that can be programmed to safely bind with carbon or methane. Because MOFs possess the highest surface area known to science, you can bind a large amount of waste molecules to a single framework.

What does that mean to you and me? Put simply, if you were to unfold one sugar cube sample size of MOFs, it would expand to the size of Kyle Field. Once bound, the MOF/elemental molecules can be stored or repurposed. Just one example: carbon captured from coal could be extracted from the MOF it was bound to and used to create algae-based biofuels.

“Just a few years ago, if you’d mentioned MOFs and markets in the same sentence, you would’ve been laughed out of the room. No one’s laughing now.”

Dr. Zhou took the inspiration for his research from the most natural of sources: nature itself. By designing his Single Molecule Trap to work at the molecular level, he’s created an infinitely flexible tool for facilitating processes across energy-related industries. Examples of how industry can use MOFs to optimize extraction processes include:

• sponges in the abatement of greenhouse gases;
• storage devices for hydrogen, or natural-gas-fueled vehicles;
• vessels for carefully controlled catalysts; and
• enhancements to electromagnetic materials.

“Often, the challenge of making alternative fuels commercially viable involves proving the economics behind the efficiencies,” explains Ornstein. “Obviously, anything we can do to make those products safer, more efficient and cheaper to use will expedite their adoption.”

In 2013, framergy announced its Series A financing from Alternative Fuel Containers, LLC, an affiliate of KSR International, a billion-dollar auto original equipment manufacturer. Together, the companies are taking Dr. Zhou’s most recent ARPA-E award to market by creating the world’s first low-pressure natural-gas tank for vehicles.

The opportunities for applying Dr. Zhou’s discoveries, like the vastness of space itself, are limitless.
for nearly a decade, Texas A&M System Technology Commercialization and the Wallonia Export and Investment Agency (AWEX) — a public agency of the Walloon region of Belgium — have partnered to promote the exchange of ideas, innovations and commercialization opportunities between Texas and Belgium. Through the Open Worldwide Innovation Network (OWIN) — co-founded by TTC, AWEX, and Coway International TechTrans Co., Ltd. — the organizations encourage a global culture of innovation and entrepreneurship among network members and via member markets by coordinating, monitoring and facilitating technology transfer and commercialization in the global marketplace.

But this recent partnership isn’t the first time Texas A&M and Belgium worked together. That happened 70 years ago in the twilight of World War II, when Texas Aggies played a pivotal role in liberating Belgium from Nazi occupation. Those ties have only grown stronger since those desperate days in the frozen forest of the Ardennes.

Honoring Aggie Sacrifice, Belgian Freedom
On December 12, 2014 — to mark the 70th anniversary of the Battle of the Bulge and honor the sacrifice of the Texas Aggies involved in its liberation — a 5,000 square foot, museum exhibit was unveiled in Bastogne, Belgium. To bring home the impact of war, “Texas Aggies Go to War” recreates life before, during and after the war, and honors the lives of all who fought by focusing on five Texas Aggies who fought in and around Belgium during the Battle of the Bulge: Lt. Col. James Earl Rudder ’32, Capt. Joe E. Routt ’37, Maj. James F. Hollingsworth ’40, Lt. Turney W. Leonard ’42, and Lt. William M. Peña ’42.

Texas A&M University System Chancellor John Sharp ’72 was the first person to step forward with financial support from the U.S. side for this museum project. Chancellor Sharp’s backing was then followed by support from the Cities of Bryan and College Station, as well as The Research Valley Partnership. The U.S. commitment was matched by Belgian partners.

A crowd of approximately 1,000 attended the grand opening to show their appreciation to the Texas Aggie family. The museum features multiple rooms that trace the life of an Aggie in the 1930s and 1940s, from Texas A&M College to the soldiers’ barracks to D-Day and the Ardennes Forest. On the museum tour, you get to feel what life was like for the Aggies that fought during World War II. The exhibit will be in Bastogne, Belgium, through December 31, 2016, and then will open in College Station at a to-be-determined location in 2017. You can learn more about the exhibit and its status at aggiesgotowar.tamus.edu.

The exhibit shows what is possible when business partners in commercialization become friends. Commercialization is about building relationships, and strong relationships can lead to great things. Visit aggiesgotowar.tamus.edu for more information.
Applied Research

The Southwest Regional Dairy Center includes a free-stall barn with the capacity to house 300 cows.

A 24-cow rotary milking parlor. Each milking session lasts for approximately nine minutes while the cow makes one full rotation on the parlor. This type of parlor can help improve efficiency by keeping workers on a timed pace as well as provide a stress-free environment for cows.

A key advantage that companies have when they work with A&M System members is that they can not only access some of the best scientists and research capabilities in the world, but can also access real-world testing facilities operated by A&M System members.

Southwest Regional Dairy Center

The Southwest Regional Dairy Center at Tarleton State University is a state-of-the-art facility serving the Texas A&M University System and the southwest region of the United States.

Cows at the center are milked three times daily on a 24-cow rotary milking parlor. Each milking session lasts for approximately nine minutes while the cow makes one full rotation on the parlor. This type of parlor can help improve efficiency by keeping workers on a timed pace as well as provide a stress-free environment for cows.

Cows spend the remainder of their time in barns called free-stall barns. This type of barn provides an individual bed for each of the 300 cows. The bed is filled with either clean sand or specially designed cow mattresses. An additional benefit of free-stall housing is the ability to cool cows during the warmer months of the year using fans and water sprinklers.

Southwest Regional Dairy Center Facts

- Cows are milked 3 times daily on a 24-cow rotary milking parlor.
- Each milking session lasts for approximately 9 minutes while the cow makes one full rotation on the parlor.
- Dairy cows consume more than 50 pounds of feed per day in order to support milk production.
Mixed with paint, microscopic glass beads like those seen here help enhance the retroreflective property of pavement markings.

TTI’s Visibility Research Laboratory

In 2009, the Texas A&M Transportation Institute (TTI) added a one-of-a-kind Visibility Research Laboratory to its collection of world-class research facilities. The laboratory features a 125-foot-long corridor for testing retroreflective materials and coatings, lights and other technologies designed to provide nighttime visibility for highway drivers and facilitate communication between vehicles and the roadside.

The laboratory is used to measure the visibility of traffic control devices, retroreflective and luminescent materials, as well as light sources such as work zone lighting, light-emitting diodes (LEDs) and vehicle headlamps. Human factors studies performed in the laboratory can help researchers to better understand how drivers interpret various traffic control devices, particularly new and innovative devices such as those enhanced with special visibility coatings or LEDs.

Thanks to the lab, TTI researchers now have the ability to build and calibrate unique data collection equipment to use in the field to evaluate in-situ nighttime visibility, using measures such as retroreflectivity, illuminance, luminance and glare. Private- and public-sector sponsors alike use the lab for a variety of testing, and the Federal Highway Administration (FHWA) has used research findings from TTI to support new regulations on minimum maintenance levels of retroreflectivity for traffic signs.

Protecting the Public Through Research

One way the Visibility Research Laboratory has helped protect the public is by examining microscopic glass beads used as an additive to pavement markings. Typically dropped on the wet pavement marking paint, the beads enhance the pavement marking’s retroreflective property, or how well light is reflected back toward the driver. The better the retroreflectivity, the better drivers can see at night. But the beads — which come from recycled glass feedstock — can have high levels of arsenic and heavy metals in them. Arsenic at one time was used to purify glass.

“I estimate about 80 million pounds of glass beads are used each year on U.S. highways,” says Paul Carlson, head of TTI’s Operations and Roadway Safety Division. With such a large quantity in use, private producers and public officials began to wonder if the beads could leach heavy metals into the ground or affect human health.

FHWA tasked TTI with determining heavy-metal concentrations in the beads. Researchers collected samples from around the country and participating vendors, ground them down to measure the metal contents, and determined what chemical forms could leach out. They also observed how workers handle the beads to evaluate health risks to the workers. The findings were incorporated into a risk assessment model used by decision makers at all levels of transportation.

Current research is looking into the visibility properties of road markings used with autonomous vehicle technologies. As vehicles move toward the self-driving ideal, how they interact with the transportation infrastructure becomes all the more important. TTI’s Visibility Research Laboratory is playing a key role in evaluating road marking design and performance to make the autonomous vehicles of the future safer and more reliable.
I’ve created a number of wheat varieties, including TAM 401 — an early maturing, semi-dwarf hard red winter wheat — ideal for cattle grazing and as grain and hay products. TTC helped me match my development with the right corporate partner, Syngenta Cereals, and now over 100,000 acres are grown annually.

Jackie C. Rudd, Professor
Texas A&M AgriLife Research
Texas A&M University
The Texas A&M Engineering Extension Service’s (TEEX’s) Disaster City often serves as a test bed for new technology. Since 2005, the National Institute of Standards and Technology has conducted annual robot evaluation exercises at Disaster City to evaluate emerging robotic capabilities for use by emergency responders. Ground-, air- and sea-based robots are provided realistic disaster scenarios and situations allowing evaluation of their real-world capabilities. Photo courtesy of TEEX.

TEEX Product Development Center (PDC)

The Texas A&M Engineering Extension Service PDC brings researchers and subject-matter experts together with inventors, entrepreneurs, businesses and manufacturers to move ideas into the market. The center has developed partnerships to design, prototype, test and evaluate products for emergency response, critical infrastructure, and bio-technologies. Center projects include environmentally friendly fire chemicals, hydro-electric energy systems, high-wind residential housing technologies and confined space monitoring systems. ▲
Texas, in general, and the region around Texas A&M University specifically have grown faster and with more strength than the U.S. economy. In fact, our local region continues to grow exponentially in its ability to attract venture capital and entrepreneurs. This makes Texas A&M and the local community ideal for fostering global alliances that can successfully commercialize Texas A&M innovations in the world marketplace.

With the A&M System’s vision guiding it, TTC has begun exploring these international opportunities. Below, we describe how GBDbio might make a difference in your small part of the globe. As you read about that, ask yourself if there’s a way you can partner with the A&M System to help shape a better future for yourself and your world.

GBDbio: Diagnosing TB Earlier Saves Lives

The World Health Organization (WHO) reports that tuberculosis (TB) is second only to HIV/AIDS as the greatest killer worldwide due to a single infectious agent. WHO estimates that 1.3 million deaths occurred in 2012 because of TB. Yet, TB is a preventable disease.

GBDbio is an early-stage biotechnology company whose mission is to develop, manufacture and distribute diagnostics that address huge needs in the global infectious disease market. GBDbio believes that global health is not just about statistics — every precious human life lost was someone’s grandparent, parent, child or sibling.

“We are making great progress toward our goal of reaching the market with our TB REaD™ POC product by 2016. It is exciting to see validation of the potential of our technology by groups like Frost & Sullivan, the Stop TB New Diagnostics Working Group and Fondation Merieux”

Michael T. Norman, CEO of GBDbio

The company’s first product in development for tuberculosis, called the TB REaD™ Point-of-Care (POC) assay, utilizes a ground-breaking biophotonic detection platform called Reporter Enzyme Fluorescence developed by researchers at Texas A&M Health Science Center College of Medicine and Stanford University. This technology and the TB REaD POC assay have been developed with support from the Bill & Melinda Gates Foundation, the Wellcome Trust, and the Foundation for Innovative New Diagnostics. This new diagnostic tool has the potential to make a huge impact in the $1 billion global TB diagnostic market. At the same time, it will help save millions of lives by more quickly diagnosing TB, leading to better TB treatment and less disease spread.

GBDbio’s dedication to improving the quality of the world’s healthcare is being noticed. In February 2014, GBDbio was awarded Frost & Sullivan’s 2014 Visionary Innovation Award for Improving Global Healthcare Access. In the report accompanying the award, Frost & Sullivan stated, “GBDbio’s TB REaD™ POC diagnostic is a truly groundbreaking product that has the potential to revolutionize TB diagnostics and disrupt the devastating effect of TB in the developing world.”

In March 2015, GBDbio announced that it raised $1.25 million in a Series A round of funding led by Truestone Impact Fund (London, UK), with follow-up investments from Sovereign’s Capital, LP (Durham, N.C.) and Research Valley Funds (College Station, Texas), bringing the company’s total funding to approximately $6.5 million. GBDbio will leverage the new round of funding to complete an ongoing feasibility trial in Cape Town, South Africa, as well as continue development of its TB REaD POC diagnostic kit and reader platform. Dr. Kim Tan, Truestone Impact Fund trustee, has joined GBDbio as a special advisor to management.

“We are making great progress toward our goal of reaching the market with our TB REaD POC product by 2016,” says Norman. “It is exciting to see validation of the potential of our technology by groups like Frost & Sullivan, the Stop TB New Diagnostics Working Group and Fondation Merieux.”
“The world is a big place but becoming smaller every day. At Texas A&M System Technology Commercialization, our mission supports two of the A&M System’s core goals: to fund A&M research and to make a significant contribution to the world we live in.”

Brett Cornwell
Associate Vice Chancellor for Commercialization