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CANCER PREVENTION & RESEARCH  
INSTITUTE OF TEXAS

**FY 2021 Product Development Milestones**

- On September 20, 2020, Bristol Myers Squibb agreed to buy immune checkpoint inhibitors TGF-beta 1 and 3 from **Formation Biologics Corp.** With this purchase, Bristol Myers will control the drugs as they progress through clinical trial stages. The Austin-based biopharmaceutical company Formation Biologics Corp., formerly known as Armada Pharmaceuticals, received two CPRIT Product Development Research awards—one \$12.8 million award in February of 2015 (DP150039) and one \$18.9 million award in August of 2018 (DP180040)—to develop its lead therapeutic AVID100.
- CPRIT award recipient **Curtana Pharmaceuticals Inc.** announced on October 6, 2020, that the United States Food and Drug Administration granted a Rare Pediatric Disease Designation for CT-179, the company's leading inhibitor therapeutic, which targets Olig2 gene expressions to treat medulloblastoma—the most common form of pediatric brain cancer. Curtana, an Austin-based biopharmaceutical company, received a \$7.5 million CPRIT Product Development Research award (DP140034) in 2014 to develop small molecule precision targeting drugs to treat brain cancers like medulloblastoma and glioblastoma.
- **Allterum Therapeutics Inc.**, a Houston-based biopharmaceutical company, received a \$2.9 million CPRIT Product Development SEED award (DP190025) in February of 2019 to develop a novel immunotherapy to treat IL7R-expressing cancers, including pediatric acute lymphoblastic leukemia—a common form of pediatric cancer. On October 6, 2020, the FDA granted Allterum an Orphan Drug Designation and a Rare Pediatric Disease Designation for 4A10, a monoclonal antibody therapy that treats pediatric T-cell acute lymphoblastic leukemia and other solid-tumor cancers. On December 17, 2020, the company completed a \$1.8 million series seed offering to members of the FanninDirect investor group. Allterum also named Philip Breinfeld, M.D., as its chief medical officer.
- **Medicenna Therapeutics Corp.** announced October 15, 2020, that the FDA permitted the company to proceed with a hybrid control design for Phase 3 clinical trials to test its novel drug MDNA55 as a treatment for recurrent glioblastoma tumors without 1DH1/1DH2 gene mutations. Medicenna, a Houston-based immunotherapy company, received a \$14.1 million CPRIT New Company Product Development award (DP150031) in February of 2015 to develop novel precision targeting therapies for aggressive cancers.
- The FDA approved **AlloVir Inc.**'s Investigational New Drug application for ALVR109, an allogeneic, off-the-shelf virus-specific T cell therapy candidate designed to target SARS-CoV-2, the virus that causes COVID-19. The company, formerly known as ViraCyte, received a \$9 million CPRIT Product Development Research award (DP170043) in August of 2017 to develop a T-cell therapy designed to safely treat severe viral infections in patients after stem cell transplants.

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- On December 9, 2020, **ImmunoGenesis Inc.** announced it acquired the rights to a drug known as evofosfamide, a hypoxia-reducing agent. The company plans to initiate a Phase 2 clinical trial in 2021 investigating evofosfamide in combination with both CTLA-4 and PD-1 blockade in patients with castration-resistant prostate cancer, pancreatic ductal adenocarcinoma, and HPV-negative head and neck cancer. Houston-based ImmunoGenesis, received a \$15.4 million CPRIT Product Development award (DP200094) in August of 2020 to fund the development of a novel immunotherapy drug active across immune “hot” and “cold” cancers.
- **Hummingbird Bioscience Inc.** announced December 14, 2020, a collaboration with Tempus Inc. to harness AI-driven precision medicine to accelerate clinical development of Hummingbird’s lead clinical program, HMBD-001 in HER3 driven cancers including NRG1-fusions. NRG1 fusions are a rare genetic mutation that are increasingly recognized as a driver of multiple tumor malignancies, and an actionable target for HER3 targeted therapy. NRG1 fusions cause the overproduction of NRG1 ligands, resulting in increased HER3 activation and tumor growth. Up to 1% of all solid tumors harbor NRG1 fusions, therefore, it is important to identify this patient population and develop therapies that can treat them. In February of 2019, Hummingbird received a \$13 million CPRIT Product Development Research award (DP190027) to develop a new cancer therapy to treat patients who are resistant to immuno-oncology drugs.

On May 17, 2021, Hummingbird announced that the company completed its \$125 million Series C financing round. The company, based in Houston, San Francisco, and Singapore, received a \$13.1 million CPRIT Product Development Research award (DP1900027) in 2019 to develop a first-in-class anti-VISTA monoclonal antibody for the treatment of anti-tumor immunity in solid tumors and lymphomas.

- On February 10, 2021, **Iterion Therapeutics Inc.** entered an exclusive collaboration and license agreement with Apollomics Inc. for the development and commercialization of Tegavivint in China, Hong Kong, Macau, and Taiwan. Later in February, Iterion disclosed that the company raised \$17 million in a funding round to support the development of its lead drug candidate, Tegavivint, for a Phase 1/2a clinical trial in patients with desmoid tumors. Houston-based Iterion received a \$15.9 million CPRIT Product Development Research award (CP130058) in 2014 to fund the development of Tegavivint for desmoid tumors and acute myeloid leukemia.
- **Perimeter Medical Imaging AI Inc.** received United States Food and Drug Administration 510(k) clearance for its optical coherence tomography (OCT) imaging system on **March 1, 2021**. Perimeter’s OCT imaging system uses real-time, ultra-high resolution imaging software that allow doctors to evaluate tiny samples of excised human tissue and identify regions of interest within those samples.

On April 15, 2021, the FDA granted a Breakthrough Device Designation for Perimeter’s OCT imaging system coupled with ImgAssist AI, helping the company advance its next-gen artificial intelligence technology through clinical development under its CPRIT-funded project ATLAS AI.

On June 8, 2021, Perimeter reported that it successfully completed the technology transfer of its manufacturing process with Minnetronix Medical for production of its OCT imaging systems.

The company, based in Dallas and Ontario, received a \$7.4 million CPRIT Product Development Research award (DP190087) in 2019 to develop the OCT optical tissue imaging system for breast conserving surgery.

- Global life sciences company Bio-Techne Corporation acquired Austin-based **Asuragen Inc.** on March 3, 2021, for \$215 million in cash. In addition to the upfront payment, Bio-Techne will pay additional consideration of up to \$105 million contingent upon the achievement of certain future milestones. Asuragen is a leader in the development, manufacturing and commercialization of genetic carrier screening and oncology testing kits currently on market. Asuragen received a \$6.8 million CPRIT Product Development Research award (CP120017) in 2012 to support the development of next generation sequencing assays to enable detection of clinically relevant cancer-related gene mutations.
- On March 22, 2021, Austin-based **Aeglea Biotherapeutics Inc.** announced a commercialization agreement with Immedica Pharma AB for pegzilarginase for the treatment of arginase 1 deficiency in Europe and the Middle East. Aeglea appointed Marcio Souza to its board of directors on June 22, 2021. Mr. Souza serves as the president and chief executive officer of Praxis Precision Medicines Inc. The company received a \$19.8 million CPRIT Product Development Research award (DP140031) in 2014 to develop an engineered human arginase targeting multiple cancer types.
- **Molecular Templates Inc.** reported April 5, 2021, that it will discontinue development of drug candidate MT-3724 to focus its resources on developing next-generation Engineered Toxin Bodies (ETBs.) The Austin-based company also announced that following discussion with its co-development partner Takeda, Molecular Templates will assume full rights to TAK-169, including taking control of clinical development. Molecular Templates received two CPRIT Product Development awards to date: a \$10.6 million award (CC121020) in 2011 to develop novel targeted ETBs to treat lymphoma and a \$15.2 million award (DP160071) in 2016 to develop a novel compound to treat multiple myeloma.
- **Medicenna Therapeutics Corp.**, a Houston-based, clinical stage immuno-oncology company, announced on April 21, 2021, that it appointed Kevin Moulder, Ph.D., as its chief scientific officer. Dr. Moulder has more than 30 years' experience developing treatments using protein design, antibody technology, immuno-oncology, anti-inflammation agents, and other translational methods for treating autoimmune disease. "The opportunity to serve as Medicenna's CSO is truly exciting, said Dr. Moulder. "The Company's Superkine and BiSKITs platforms are powerful tools that have generated potentially first and best-in-class assets designed to overcome the limitations of currently available immunotherapies." Medicenna received a \$ 14.1 million CPRIT Product Development

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Research award (DP150031) in February of 2015 to develop a multi-targeted approach for treating recurrent glioblastoma and other aggressive cancers.

- **Invectys Inc.** appointed Praveen Tyle, Ph.D., as president and chief executive officer on May 4, 2021, and elected him to its board of directors. Invectys, based in Houston and Paris, France, received a \$14.2 million CPRIT Product Development Research award (DP200034) in 2020 to develop a CAR-T cell program targeting HLA-G - a novel immune checkpoint and tumor specific antigen for advanced clear cell renal and ovarian carcinomas.
- On May 24, 2021, **Myriad Genetics Inc.** reported that it will sell Myriad RBM to IQVIA, one of the largest providers of contract services to biopharmaceutical companies, for nearly \$200 million. Myriad Genetics bought Rules Based Medicine, renamed Myriad-RBM, for \$80 million in 2011. Austin-based Myriad RBM supplies contract research services for the pharmaceutical industry, including screening clinical samples against the company's menu of biomarkers. CPRIT awarded Rules Based Medicine one of its first product development research grants—a \$3 million award (RP101287) in 2010 to develop the company's Oncology MAP program.
- **Asyilia Therapeutics Inc.** closed its \$14.5 million series A financing round on May 25, 2021. The Houston-based company received a \$3 million CPRIT Product Development Research award (DP200033) in 2020 to develop its lead compound, ASY-77A.
- **OncoNano** announced in June 2021, that it raised \$50 million to support clinical trials for its one-of-a-kind cancer fighting technology. With this funding, the Southlake-based company plans to initiate clinical trials for its new imaging agent pegsitacianine, which allows surgeons to see the exact location of cancerous tissue. OncoNano will also use this funding to accelerate its first therapeutic development program for its novel immune-therapy ONM-501, which is currently in pre-clinical trials. CPRIT granted OncoNano Product Development Research awards in August of 2020 (DP200081), 2019 (DP190066), and 2014 (DP140072) for developing novel technologies that treat and detect cancer.
- **Bellicum Pharmaceuticals Inc.** entered into a licensing agreement with the University of North Carolina Lineberger Comprehensive Cancer Center and Massachusetts General Hospital on June 28, 2021. The agreement governs the institutions' intellectual property and ownership rights in co-developed technologies which use CaspaCIDE (inducible caspase-9 or iC9), Bellicum's safety-switch technology, and rimiducid, the drug that triggers the iC9 technology, to reduce severe side effects of T cell immunotherapy. With the help of a \$5.7 million CPRIT Product Development Research award (RP110508), granted in 2011, Bellicum developed the T cell therapy safety switch CaspaCIDE.
- The biopharmaceutical company **Immatics N.V.** announced on June 29, 2021, its agreement to use KBI Biopharma's and Selexis SA's technologies to develop T cell receptor immunotherapies.

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Houston-based Immatics US Inc. received a \$19.6 million CPRIT Product Development Research award (DP150029) in February of 2015 to develop novel personalized cancer immunotherapies.

- The Houston-based, clinical stage biotech company **Pulmotect Inc.** appointed William J. Noss III, CPA, as its new chief financial officer on June 30, 2021. With more than 15 years of experience in the life sciences industry, Mr. Noss will steer the company through Phase II clinical trials to test PUL-042, a novel immune-stimulating drug, as a treatment for COVID-19. Prior to his appointment as the CEO of Pulmotect, Mr. Noss was the executive director of Harmony Biosciences, and before Harmony, he was the head of finance at Aevi Genomic Medicine. “I am very excited to join this outstanding team as the company grows,” said Mr. Noss. “PUL-042 has the potential to protect patients from a broad range of viral and other pulmonary infections by activating the innate immune system. I look forward to playing a key role in the drug development program by working hard for the future benefit of patients and creating long-term value for the company and our stakeholders.” Pulmotect Inc. received a \$7 million CPRIT Product Development Research award (CP120014) in March of 2012 to develop PUL-021.
- CPRIT award recipient **Curtana Pharmaceuticals Inc.** sponsored the 2021 Glioblastoma Awareness Day, hosted by the National Brain Tumor Society on July 21, 2021. The program raises awareness for glioblastoma—the most common type of treatment-resistant brain cancer—and the researchers, caregivers, and patients devoted to fighting the disease. Curtana, an Austin-based preclinical stage biopharmaceutical company, received a \$7.5 million CPRIT Product Development Research award (DP140034) in August of 2014 to develop small molecule targeting therapies for glioblastoma.
- According to the Brazos Valley Economic Development Corporation’s 2020 annual report, since 2019, CPRIT award recipient **Fujifilm Diosynth Biotechnologies Inc.** has created 261 new jobs in Brazos County. During this time, Fujifilm paid nearly double in wages and salaries to employees at its College Station facilities, where payroll rose from \$21 million in 2019 to more than \$40 million in 2020. CPRIT granted a \$7.9 million CPRIT Product Development Research award (CP120038) in March of 2012 to advance drug discovery to clinical trial scale at Fujifilm’s College Station labs (formerly known as Kalon Biotherapeutics.) These foundational funds have made the company’s recent research and development plans possible. In January of 2021, Fujifilm began producing two new COVID-19 vaccine candidates in College Station, and the company is considering expanding its manufacturing facility in College Station, which would create 150 additional jobs in Brazos County.
- Heat Biologics Inc., a clinical-stage biopharmaceutical company based in North Carolina and the parent company of **Pelican Therapeutics**, announced plans to open a new biomanufacturing facility in San Antonio in the first quarter of 2022. The company plans to invest more than \$24 million in the new facility, which is expected to create at least 41 jobs with base salaries of \$50,000 in Bexar County over the next three years. In May of 2016, Pelican Therapeutics received a \$15.2 million CPRIT Product Development Research award (DP160012) to create immunotherapies for various cancers.