

**Selected Promising BYU Technologies**

*Spring 2023*

**LIFE SCIENCES** (Mike Alder, 801-422-3049, malder@byu.edu)

* 2022-041: Diamond Growth Processes Polarizers, X-Ray Tubes, and Sputter Targets (Benjamin Lawrence)
* 2022-033: Audio Communications in High Noise Environments (Scott Sommerfeldt, Jon Blotter)
* 2022-012: Large Are Data Collection for Agriculture Optimization (Brian Mazzeo)
* 2022-009: Optimizing Honey Bee Health with Beneficial Bacteria (Julie Grose)
* 2022-008: Polymer for Slow Release of Plant Growth Hormones (Matt Madsen, David Michaelis)
* 2022-006: Liquid Chromatography Multiplexing (Ryan Kelly)
* 2022-005: Advanced Diamond Materials (Matt Linford)
* 2022-003: Anti-Papillomavirus Immunization (Brian Poole)
* 2021-030: Cost-effective RNAase inhibitor Production (Brad Bundy)
* 2021-010: A Method to Inhibit Cancer Metastasis and Eradicate Tumors (Chris Mendoza, Dario Mizrachi)
* 2020-064: New Method for Evaluating Adhesion Proteins as Potential Drug Targets (Dario Mizrachi)
* 2020-017: Process for Electric Power from Organic Waste (Zachary Aanderud)
* 2019-022: Salt Tolerant Microbes that Stimulate Plant Growth in Salty Soils (Brent Nielsen)
* 2019-015: Galactin-1 for Muscular Dystrophy Therapy (Pam Van Ry)
* 2019-006, 2014-098: Blood Biomarker for Dopamine (Scott Steffensen)
* 2018-037: Bystander Phage Therapy; Inactivation of Bacteria Using Phages That Bind to Spores (Sandra Hope)
* 2018-014: Simplified DNA Extraction (Adam Wooley)
* 2018-002: Prosthetic Venous Valve (Anton Bowden)
* 2017-082, 2017-081, 2017-080: Origami-Inspired Spinal Implant Solutions (Larry Howell)
* 2017-072: Potential Drug for Opening Membranes (Dario Mizrachi)

**SOFTWARE** (Dave Brown, 801-422-4866, dave\_brown@byu.edu)

* 2021-060: Real-Time Honeybee Waggle Dance Translator and Analysis Engine (Sean Warnick)
* 2021-055: Toolbox for Understanding the Dynamics of Small Group Discussion (Sean Warnick)
* 2021-042: Jump counter and classifier for sports training (Mike Jones)
* 2020-049: Student Loan Debt Management Tool (Paul Conrad)
* 2018-027: A Three-stage Coding Approach to Physical-layer Security (Willie Harrison)
* 2017-054: Page Image Segmentation and In-place Character Recognition (Bill Barrett)
* 2017-029: Room-sized Scanned-aperture Holographic Video Display with Low Complexity (Daniel Smalley)
* 2015-035: Target Detection and Tracking System for Unmanned Air Vehicle Platforms (Randy Beard)
* 2014-077: Princess Leia Hologram – Full-Color Freespace Volumetric Display with Occlusion (Daniel Smalley)

**ENGINEERING** (Spencer Rogers, 801-422-3676, srogers@byu.edu)

* 2022-044: Process for Separating Uranium and Transuranic Elements from Radioactive Waste (Devin Rappleye)
* 2022-043: Reference Electrode for Molten Salt Electrochemical Measurements (Devin Rappleye)
* 2022-031: Additive Manufacturing with Multiple Extruders (Taylor Sorensen)
* 2022-025, 2022-024, 2019-027, 2019-012: 3D Printing Innovations (Nathan Crane, Scott Thomson)
* 2022-022: A Process for Obtaining Material Sensitivities from a Single Computational Simulation (Douglas Cook)
* 2022-021: Paddle-Based Piezoelectric Energy Harvesting System (John Salmon)
* 2022-011, 2016-046: Inexpensive Thermal Microscope (Troy Munro)
* 2021-053: High-Speed Low-Cost Method for Defining Boundaries in Powder Beds (Nathan Crane)
* 2021-041: Method for Creating Metal Microchannels for Use in High Temperature Microfluidics (Rob Davis)
* 2021-035: Methods for Automating Measurement of Maize Stock Strength (Douglas Cook)
* 2021-031: Modified Apparatus for Measuring Chemical Properties (Vincent Wilding)
* 2020-022: Origami-Inspired Method for Adding Stability to Product Designs (Larry Howell, Spencer Magleby)
* 2020-004, 2020-003, 2017-037, 2017-032: Origami-Inspired Adult Diapers (Larry Howell, Spencer Magleby)
* 2019-004, 2018-031: Origami-Inspired Retractable Arms/Propellers/Structures (Larry Howell, Spencer Magleby)
* 2018-047, 2018-046, 2018-045, 2013-054, 2013-053: Minimally Invasive Surgical Devices (Larry Howell)
* 2016-038: Method for Controlling the Structure of Crystalline Materials (Oliver Johnson)
* 2016-035: Method for Creating a Flexible Circuit Boards (Larry Howell)
* 2016-002, 2014-061, 2013-046: Non-Destructive Method for Detecting Strain in Metals (James Patterson)
* 2013-085: Origami-Inspired Method for Folding Thick Rigid Panels (Larry Howell)

**WORKING WITH BYU TECHNOLOGY TRANSFER**

**Why Work with BYU Technology Transfer**

1. Secure rights to vetted technologies (many of which are leading edge)
2. Immediately create a barrier to entry and establish a unique competitive advantage
3. Acquire rights with minimal cash (we will often take equity in lieu of upfront license fees)
4. Gain access to, and mentoring from, seasoned professionals and commercialization experts

**Why Professors Commercialize**

1. Give the public access to BYU inventions
2. Gain access to industry resources through research funding and strategic collaboration
3. Generate supplementary personal income *(inventors receive up to 45% of licensing revenue received by BYU)*

**What We Do**

1. Protect BYU faculty-led inventions, primarily through patents
2. Commercialize BYU faculty-led inventions through sale or license
3. Support BYU faculty-led research by introducing potential research sponsors

**THE BYU TECHNOLOGY TRANSFER LICENSING PROCESS**

To get details on all our available technologies, visit our website (techtransfer.byu.edu) or contact a member of our staff by calling 801-422-6266. You may also email us directly as follows:

* **Life Sciences**: Mike Alder, 801-422-3049 (malder@byu.edu)
* **Software**: Dave Brown, 801-422-4866 (dave\_brown@byu.edu)
* **Engineering**: Spencer Rogers, 801-422-3676 (srogers@byu.edu)

When you are serious about licensing one of our technologies, we will arrange a meeting with the inventors so you can evaluate the opportunity. Typically, these visits will occur over the phone or at BYU.

We seek to match the right licensee with the right technology. First-time entrepreneurs may be required to include a seasoned entrepreneur on their team. When a licensing match is found, we formalize it with the following:

* **OPTION:** Before licensing, you may want to enter into an exclusive option to permit further research and investigation. The length and other terms of such an option are negotiable. During the option period, BYU owns the technology, but you have exclusive rights to negotiate a license or assignment.
* **TERM SHEET:** Once terms have been negotiated and agreed to, BYU will draft a non-binding, time-sensitive term sheet for your review.
* **LICENSE OR ASSIGNMENT:** Once the term sheet has been reviewed and the parties have agreed, BYU will draft a complete license or assignment for your review and signature.
  + **License:** BYU owns the technology, but you have rights to commercialize or sublicense.
  + **Assignment**: You own the technology.