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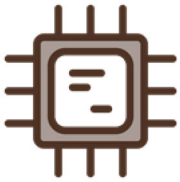
BROWN TECHNOLOGY INNOVATIONS

Quarter in Review | October - December 2022

Spotlight on



Technology

Brown lab develops small molecule inhibitors of the L-1 endonuclease domain

Among the leading causes of death in the elderly are a number of chronic conditions, including heart disease, cancer, diabetes, and Alzheimer's disease. Many of these age-related diseases—as well as aging itself—are associated with low-level chronic inflammation. Expression of the long interspersed nuclear element-1 (L1) retrotransposon promotes this inflammation. John Sedivy's lab has developed a technology, based on administration of an L-1 endonuclease (EN) inhibitor, that sheds light on the regulators that control age-related inflammation, on the causal relationship of these regulators to chronic

degenerative diseases, and on potential methods for preventing and reducing age-associated inflammation. These are the first inhibitors of the L-1 EN domain to be developed and the first of any retrotransposon-encoded EN. To learn more, contact andrew_bond@brown.edu.

For investors, entrepreneurs, and companies interested in seeing other Brown technologies, click here.

Startups

Will Fairbrother, Professor of Biology, Co-founder of Walah Scientific.

BTI Helps Launch Walah Scientific

Testing for respiratory viruses is essential during a pandemic. Nasal swab–based testing has been a mainstay of testing during the COVID pandemic. Not satisfied with the status quo, however, Brown researchers sought to develop a test that provides not only better, but more inclusive information. Focusing on fundamental molecular mechanisms, the Fairbrother lab invented a novel approach to respiratory virus testing. To use their invention, known colloquially as "the Bubbler," a person blows into a straw, making bubbles in a fluid. Chemical reactions take place in this emulsion, and the clinician gets a PCR readout for one or more respiratory viruses. Blowing into a straw is far less invasive and uncomfortable than using a nasal swab. It also provides slightly different information, as it allows a direct look at viral particles in the breath. BTI used this elegant invention to attract an investor and executive to start Walah Scientific, which will commercialize the technology, starting with tests for common respiratory viruses like the coronavirus. To learn more, contact andrew_bond@brown.edu.

Research

Legorreta Cancer Center

A $25 million gift has accelerated the growth of Brown's renamed cancer center and plans to recruit world-class physician-scientists. Recent hires include Sendurai A. Mani, PhD, and Robert W. Sobol, PhD. The Legorreta Cancer Center supports basic science research and interdisciplinary clinical, translational, and population studies, to understand how cancer develops, grows, and metastasizes. The goal is to develop new biomarkers and treatments. The center, led by Wafik El-Deiry, is an outgrowth of the Joint Program in Cancer Biology at Brown and Lifespan. Central to the center's work are investigations of the genetic and environmental causes of cancer, the physical and molecular factors that contribute to cancer progression, and the mechanisms of cancer therapy resistance. Specific research efforts include those on somatic mutations in exposure-related cancers, the biology of blood cancer–initiating stem cells, the effects of epigenetic changes on glioma stem cells, and DNA repair protein complexes. To learn more, contact andrew_bond@brown.edu.

Quarter in Review

The second quarter saw broad increases among our metrics (new invention disclosures, options+licenses, and industry-sponsored research agreements). While the pipeline of new SRAs is challenging, we anticipate a continued uptick in options+licenses for the remainder of the fiscal year.

A notable highlight was the first CEO/Faculty Roundtable, which we put on with collaborators from Bessemer Venture Partners. Moderated by

Bessermer VP Morgan Cheatham and Tech Innovations' Executive Director Neil Veloso, this inaugural event centered on the topic of Computer Vision in Diagnostics and featured CEOs from Cleerly, PathAI (founded by Brown alumnus Andy Beck), and Iterative Health. Brown faculty were represented by George Karniadakis, Thomas Serre, and Jonghwan Lee.

Second Quarter Numbers for FY23

Put Brown Technology First

Disclosures

FY23 | 26

FY22 | 22

Amplify Networking

Confidentiality Agreements

FY23 | 15

FY22 | 11

Steward Brown Inventions

Patents Issued

FY23 | 12

FY22 | 3

Streamline Deal Execution

Options + Licenses

FY23 | 7

FY22 | 5

Streamline Deal Execution

Sponsored research agreements

FY23 | 5

FY22 | 3

Brown Technology in the News

AtomICs is led by Dana Biechele-Speziale GS, Selahaddin Gumus GS, Assistant Professor of Chemistry Brenda Rubenstein '07 and Associate Professor of Engineering Jacob Rosenstein '05.

Brown startup AtomICs takes top honor in Get Started RI

AtomICs, which created a molecule-based data storage system, won the annual Cox Business Get Started RI competition. As winner of the "Shark Tank"-style pitch event, the startup was awarded $50,000 and technical assistance from Cox Business.

Dr. Tejal Desai featured in fall issue of AWIS magazine

Tejal Desai '94 recently sat down with the Association for Women in Science for the fall issue of AWIS Magazine. This interview comes on the cusp of her return to Brown as the next dean of Brown's School of Engineering.

Brown ranked 19th in PitchBook's 2022 startup rankings

PitchBook released its rankings for the top 100 colleges producing the most entrepreneurs who have founded venture capital–backed companies. Brown came in 19th with a total of 511 founders, 476 companies, and a sum total of $34.9B raised.

Visit our website for more detail on these and other stories.

News Stories

Upcoming Opportunities

Save the Date: Innovation@Brown on October 5

The Innovation@Brown Showcase will highlight startup activity in the Brown/Rhode Island technology ecosystem while providing an opportunity to network with like-minded

investors, academic researchers, and entrepreneurs and to celebrate groundbreaking inventions. Stay tuned for more information!

The Engine Blueprint Program

The Engine Blueprint is a nonresident program for graduate students, postdocs, and research scientists to explore the commercial opportunities of their scientific breakthroughs. Interested applicants can learn more about the Blueprint program and apply here by Friday, March 17th.

The 2023 Rhode Island Business Competition

This is the longest-running organization providing Rhode Island entrepreneurs with guidance and structure for their business venture. Applications due March 27.

Melissa Simon teaching a module in the Digital Health Innovation Certificate Program

BTI's Director of Business Development Melissa Simon will be teaching a module in the 4-course online certificate program. Learn more about the program here.

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Meet the Team

Reporting an Invention and other resources for Faculty and Staff.

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