

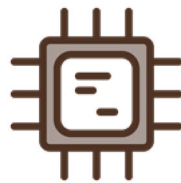
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BROWN TECHNOLOGY INNOVATIONS

Quarter in Review | October - December
2023

Spotlight on



Technology

Innovation of the Year Finalist: piRNA- Therapeutics for Human Malignancies

Piwi interacting RNAs (piRNAs) are small non-coding RNA molecules that modulate key signaling pathways at the transcriptional or post-transcriptional level. Glioblastoma (GBM) is the most malignant and aggressive primary brain tumor, with a survival rate of 14–15 months after diagnosis. Nikos Tapinos (Bio Med Neurosurgery) has demonstrated that treatment of human glioma stem cells (GSCs) with piRNA-mimics causes cytotoxic death of the GSCs, whereas treatment of non-GSCs human astrocytes with piRNA-mimics does not affect astrocyte survival. Please contact

[Andrew Bond](#) if you are interested in learning more.

For investors, entrepreneurs, and companies interested in seeing other Brown technologies, click [here](#).



Startups

Exclusive License signed with Startup AtomICs

[AtomICs, Inc.](#), a data storage and processing startup founded by former graduate students Dana Biechele-Speziale and Selahaddin Gumus, Brenda Rubenstein (Chemistry), and Jacob Rosenstein (Engineering), uses a novel patented technique to harness small molecule mixtures to store digital information. The technology is able to store data more densely, more sustainably, and for longer periods of time than existing devices.

Brown and AtomICs have executed an exclusive license agreement. The company has won numerous awards, including the 2022 Brown Venture Prize.

“Our technology can be applied across many industries,” says Biechele-Speziale. “We’re particularly excited about molecular QR codes,

which can be placed on objects of any size and shape to secure supply chains. We're also working on low-power, high-density data storage to keep up with the zettabyte era, as well as molecular computing architectures that will usher in a new era of computation."

Please contact [Victoria Campbell](#) if you are interested in learning more.



Research

Brown Joins Ocean Tech Hub

[Ocean Tech Hub](#) is a consortium of 16 community partners across Rhode Island and Massachusetts, including 401 Tech Bridge, IBM, R.I. Marine Trades Association, and numerous research universities, including Brown. Led by the Rhode Island Commerce Corporation, Ocean Tech Hub focuses on the region's coastal assets—including seven commercial ports and shallow and deep ocean access—to advance ocean technologies such as undersea robotics and advanced materials and to become a global leader in the growing ocean economy. Ocean Tech Hub was designated by the Economic Development Administration (EDA) as one of 31 inaugural Tech Hubs across the country that show potential for rapid growth in key technology sectors. As a member of the consortium, Brown provides strategic advice,

recommends research programs, and offers overall guidance.

Please contact [Victoria Campbell](#) if you are interested in learning more.

Quarter in Review

The second quarter ended with a flurry of license activity in the high-tech space. AtomICS, a new faculty startup based on Chemistry research by Brenda Rubenstein and Jacob Rosenstein, was launched, as were multiple deals from Brown's Computer Science department. We added four new industry-sponsored research agreements, which puts Brown on a pace to exceed last year's totals.

A special call out to AtomICS! This startup is led by two former Brown PhD students, who had won the [2022 Brown Venture Prize](#), and exemplifies the growing trend of graduate students and postdocs who are choosing to pursue entrepreneurship and startups after completing their studies.

As Brown Tech Innovations barrels into the new year, we have some exciting plans ahead. The Innovation@Brown Showcase will return in the fall, anchoring Rhode Island StartUp Week. Nearer term, our Faculty Entrepreneur Connect series of discussions brings entrepreneurs, investors, and others involved in startups and innovation to Brown to speak about their work and engage with faculty.

Second Quarter Numbers for FY24



Put Brown Technology First

Disclosures

FY24 | 21

FY23 | 26



Amplify Networking

Confidentiality Agreements

FY24 | 16

FY23 | 15



Steward Brown Inventions

Patents Issued

FY24 | 6

FY23 | 12



Streamline Deal Execution

Options + Licenses

FY24 | 5

FY23 | 7

Streamline Deal Execution

Sponsored research agreements

FY24 | 4

FY23 | 5

Brown Technology in the News



From left to right: Derek Stein, Founder and CEO of Adept Materials, Frank Ahman, Co-Founder President & CEO of XM Therapeutics, and Thorne Sparkman, Managing Director of Slater Technology Fund at Innovation@Brown Showcase on October 5, 2023.

Slater Receives \$12 Million for Venture Development

Rhode Island Commerce has allocated [\\$12 million dollars in State Small Business Credit Initiative](#) (SSBCI) funding to the Slater Technology Fund, an evergreen not-for-profit seed fund that supports new venture development in Rhode Island. Slater, which has invested in hundreds of technology ventures in the region, is the most active seed-stage investor in Rhode Island. In 2012, Slater received a contract from RI Commerce to manage up to \$9 million in SSBCI capital.

Slater has invested \$375,000 in XM Therapeutics, a Rhode Island-based biotech company that spun out of Brown University in 2022 to harness the healing power of the human body's extracellular matrix (ECM) to treat chronic diseases.

Subra Suresh Awarded National Medal of Science

Subra Suresh, a professor at large at Brown's School of Engineering, received the [National Medal of Science](#) in a ceremony at the White House on October 24, 2023. The medal, which is conferred directly by the president, is the highest recognition the nation bestows on scientists and engineers. Suresh was on the Brown faculty from 1983 to 1993 and returned to Brown in 2023. He has been a faculty member of MIT and president of Carnegie Mellon University and of Singapore's Nanyang Technological University. He is a former director of the National Science Foundation.

Brown joins ARPA-H Inventor Catalyst Hub

In an effort led by [Dr. Mukesh K. Jain](#), dean of medicine and biological sciences, and Brown Technology Innovations, Brown has joined the [ARPA-H Investor Catalyst Hub](#) (Advanced Research Projects Agency for Health) consortium of universities, companies, investors, foundations, and agencies, which will collaborate with ARPA-H to catalyze breakthroughs in science and medicine. Contact [Neil Veloso](#) for information.



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

News Stories

Upcoming Opportunities

Have an invention? Tell BTI!

BTI has updated its invention disclosure [form](#). When a report is received, BTI works with faculty to evaluate the novelty, patentability, and commercial utility of the invention and if filed,

will help to negotiate licensing deals. Learn more [here](#).

Faculty: Are you curious about start-ups?

Join us for Faculty Entrepreneur Connect to meet entrepreneurially minded faculty. Our next session features Jason Harry, professor of the practice of technology and entrepreneurship, speaking on faculty roles in spinout companies. Feb. 9 at 9 a.m. at the Nelson Center. [Register here](#).

Save the Date: Innovation@Brown on September 26

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!

Investors, entrepreneurs, and companies interested in seeing other [Brown technologies](#).

Meet the Team

[Reporting an Invention and other resources for Faculty and Staff.](#)

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