

UNIVERSITY OF HAWAI‘I SYSTEM REPORT



REPORT TO THE 2024 LEGISLATURE

Report on Technology Transfer Activities

HRS 304A-121

December 2023

REPORT TO THE LEGISLATURE ON TECHNOLOGY TRANSFER ACTIVITIES PURSUANT TO §304A-121, HAWAII REVISED STATUTES

Technology Transfer Activities of the University of Hawai'i through October 2023.

The University of Hawai'i (UH) is the primary public institution in the state conducting basic, academic, or sponsored research. Where appropriate to its mission and to the larger strategic initiatives of the State, UH commercializes inventions and discoveries produced by its faculty and staff by obtaining patents or other forms of protection for the intellectual property, licensing the intellectual property to commercial business, and providing administrative support to faculty who wish to start up their own companies to commercialize the discoveries, with UH retaining an equity interest in the private enterprise.

The pursuit of commercialization is designed to strengthen local economies by getting new ideas, inventions, and processes developed in a university to the private sector as effectively as possible. This technology transfer and commercialization effort occurs throughout the nation at other universities.

Many states have general conflict of interest laws that could potentially hinder timely and efficient commercialization. These laws, for example, may forbid equity participation in startup companies by state institutions, limit direct involvement by faculty in new business ventures, or may broadly and strictly prohibit use of public property--such as university equipment, facilities or support personnel--for private business purposes. In order to remain competitive for research funding and to strengthen their local economy, several other states have enacted specific exemptions to their ethics laws, or have created some form of "safe harbor" from specific sections of their respective ethics code, or have established parallel, but exempt institutions for their university researchers or research activities.

Act 38, Session Laws of Hawai'i (SLH) 2017, as amended by Act 8, Special SLH 2021, provides this purpose for UH-sponsored technology transfer activities. Significantly, Act 38 does not exempt technology transfer activities from all ethical oversight; it shifts the responsibility from the State Ethics Commission to UH. The University of Hawai'i continues its work developing and implementing its own set of policies, procedures and guidelines to apply to technology transfer activities it sponsors, drawing from its existing compliance infrastructure, the State Ethics Code, and relevant federal conflict of interest and organizational conflict regulations.

Progress on Implementation of Regulatory and Compliance Framework

To fulfill the responsibilities conferred to the University of Hawai'i by Act 8, titled *Ethical Guidelines in the Conduct of Technology Transfer Activities*, the University of Hawai'i continues to update and revise its review processes to assure that technology transfer

activities are conducted ethically and in a manner that promotes public purposes and supports UH's core missions.

The University continues to provide guidance and information on Act 8 and the University's related policies and procedures to employees throughout the UH campuses. UH continues to consult with the State Ethics Commission to provide training to UH faculty and staff on the State Ethics Code and ethical issues in technology transfer activities.

The University's webpage addressing ethics and technology transfer activities contains a form for employees to request review of technology transfer activities that may be subject to Act 8, and resources and responses to frequently asked questions. Updates to the webpage are completed as new information and resources become available.

Technology Transfer and Commercialization Activities at the University of Hawai'i

Through the Office of the Vice President for Research and Innovation, the Office of Innovation and Commercialization (OIC), and the Office of Technology Transfer (OTT), UH supported and engaged in the following activities as part of its technology transfer program:

Ongoing Initiatives

- OIC/OTT continued its partnership with the Hawai'i Technology Development Corporation Innovate Hawai'i to build the next generation of Small Business Innovation Research (SBIR) companies. OIC is increasing awareness of SBIR/Small Business Technology Transfer (STTR) programs and opportunities with UH faculty/researchers, identifying UH startups and researchers interested in pursuing SBIR/STTR opportunities, identifying resources gaps for current UH startups and researchers seeking SBIR/STTR opportunities, and information sessions on SBIR/STTR programs. OIC is actively participating and supporting the Hawai'i SBIR Program (HSBIR) which is administered by HTDC and provides matching grants to help Hawai'i companies further the development of new products to solve critical issues.

Ongoing OIC/OTT activities

- OTT received 45 invention disclosures, filed 11 U.S. non-provisional patent applications, received 4 U.S. patents, and executed 10 new license and option agreements. The inventions were generated by different units at UH: College of Engineering, John A. Burns School of Medicine, UH Cancer Center, College of Natural Sciences, College of Tropical Agriculture and Human Resources, School of Ocean and Earth Sciences and Technology, Pacific Disaster Center, Institute for Astronomy, the Daniel K. Inouye College of Pharmacy, and Kapi'olani Community College.

OIC/OTT continues educational outreach on UH's technology transfer program and entrepreneurial resources and to faculty, researchers and students through meetings with UH Mānoa, UH Hilo, UH Maui College, and Leeward Community College.

- OIC/OTT continues to expand its licensing program with biological materials and developing new partnerships in the area; and its Hi-Touch marketing of UH technologies through a contract with IN-PART to market and facilitate introductions between UH and industry professionals.
- Collaborative workspaces and the UH FabLab are available to UH faculty, staff and students to exchange ideas, work on projects and create prototypes. OIC also partners with HTDC for space at HTDC's Entrepreneurs Sandbox.
- HITIDE (Hawai'i Technology Innovation Development Ecosystem), the UH incubator program continues to provide tailored services and support for academic entrepreneurs in each cohort. The third cohort is scheduled to start.
- PACE (Pacific Asian Center for Entrepreneurship) sponsors innovation and entrepreneurship competitions for students, as well as workshops and mentorships to encourage innovation and entrepreneur activities.
- MIND Hawai'i (Medical Innovation and Design) at UH Mānoa brings students and faculty from various fields to develop solutions to medical challenges and is supported by UH faculty and the community
- *Advancing a Circular Economy in Hawai'i* conference brought together UH and community partners to advance contemporary applications of ancestral innovation and resource management sciences to help develop sustainable and just solutions for healthy communities in Hawai'i and around the world.
- OIC/OTT continues its Innovation Impact Challenge initiative. Programs and activities under this initiative include an innovation program series Pathways to Innovation (formerly Hacking for Defense and Hacking for Oceans), HITIDE, and technology transfer services. The programs engage UH faculty, staff and students to enter the innovation and entrepreneurship ecosystem by providing opportunities to develop new technologies and turn them into commercial products; learn entrepreneurial skills, such as teamwork, communicating and problem solving; and create new businesses and jobs. In addition, a new partnership between UH, National Security Innovation Network (NSIN) and the Naval Facilities Engineering and Expeditionary Warfare Center (EXWC) initiated a new challenge for UH researchers to develop new technologies to address water resiliency.
- Faculty Fellows, launched in summer 2023, provides UH faculty members the opportunity to learn to incorporate innovation and entrepreneurial skills into curriculum, and build a community of practice at UH.

- Patents2Products provides UH graduate students and postdocs to develop entrepreneurial skills while advancing the development and commercial potential of UH technologies. The first cohort includes seven fellows from the School of Ocean and Earth Science and Technology, the UH Cancer Center, College of Engineering and the John A. Burns School of Medicine.
- National Science Foundation (NSF) Innovation Corps (I-Corps™) provides faculty, staff and students experiential training to advance research-based innovations by testing the market and developing a business strategy. UH is part of the [NSF I-Corps Hub: Desert and Pacific Region](#), which includes six other universities: Arizona State University, The University of Arizona, Northern Arizona University, University of California San Diego, University of Idaho, Boise State University and University of Nevada Las Vegas.
- National Security Innovation Network's [Hacking for Defense](#)®, [Capstone](#) and [X-Force Fellowship](#) programs rapidly address and solve national emerging threats and national security challenges. UH Mānoa and UH Maui College students from various majors participated in the Hacking for Defense and Capstone courses. Eight UH students were selected as X-Force Summer 2023 Fellows. In addition, NSIN coordinated three UH Mānoa students to participate in the U.S. Air Force Institute of Technology's Joint Hypersonic Transition Office 2023 summer internship.