



UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

Testimony Presented to the
House Committee on Lower & Higher Education
Friday, January 31, 2020 at 2:00 p.m.

By
Vassilis L. Syrmos
Vice President, Research and Innovation
University of Hawai'i System

HB 2090 – RELATING TO THE UNIVERSITY OF HAWAII

Chair Woodson, Vice Chairs Hashem and Quinlan, and Members of the Committee:

The University of Hawai'i (UH) supports this bill.

This measure would remove the sunset provision of Act 39, Session Laws of Hawai'i 2017, and thereby allow UH to sustain its Innovation and Commercialization Program. Act 39 provides the University of Hawai'i express statutory authority to sponsor and directly participate in the transformation of innovations created by UH researchers into viable commercial enterprises. Pursuant to Act 39, the program is now codified as Subpart P, of Part IV of Chapter 304A, Sections 1951 through 1959.

Universities across the country increasingly recognize that they can play an active role to support the transformation of inventions and discoveries generated on their campuses and to transfer these technologies to the commercial realm. The University of Hawai'i needs to match its peers to remain competitive to attract sponsored research, enterprising faculty, and talented students.

Commercial innovation is inherently risky and takes time to develop. The path leading from an idea, through its development and refinement, through protection of intellectual property, through formally organizing a corporate structure and hiring managers and staff, through locating a facility to physically incubate the venture, through obtaining external financing, and ultimately leading to a successful and sustainable commercial operation is fraught with uncertainty.

Act 39 recognizes that UH is uniquely positioned to assist a home-grown fledgling venture navigate these uncertainties. The University of Hawai'i has established and manages an incubator program that identifies promising start-ups built around innovations created by its faculty, students and alumni. This accelerator program provides focused training and networking opportunities to those ventures selected to participate in a cohort with other start-ups. Through this program, UH may provide initial seed funding if the venture reaches certain performance milestones. In return for the financial investment, UH may obtain equity shares in the venture. The University of Hawai'i may also provide temporary space to the startup at reasonable rents at its Mānoa Innovation Center.

Active participation in technology transfer is a comparatively new responsibility for a public university, but it has its parallels with a university's traditional mission of instruction. The University of Hawai'i selects incoming freshmen, instructs these students via multiple curricular offerings and pathways, provides career guidance and development, may grant financial scholarships or loans and may also provide temporary housing, all of which are subsidized with public funds. The goal is to transform students into engaged and contributing members of society once they graduate. The University of Hawai'i's Innovation and Commercialization program does the same for promising start-up enterprises.

To sustain the Innovation and Commercialization Program, the University of Hawai'i respectfully requests that the sunset provision of Act 39, Session Laws of Hawai'i 2017, be deleted.



Testimony to the House Committee on Lower and Higher Education

Friday, January 31, 2020

2:00 P.M.

Conference Room 309

HB 2090: RELATING TO THE UNIVERSITY OF HAWAII

Chair Woodson, Vice Chair Hashem and Members of the Committee:

My name is Gary Kai and I am the Executive Director of the Hawaii Business Roundtable. The Hawaii Business Roundtable supports House Bill 2090 to allow the University to continue its work in research commercialization and economic development by removing the sunset provision in Act 39.

The Hawaii Business Roundtable strongly believes that a strong research and innovation sector led by the University of Hawaii will be a large and important magnet for new money and new fields of job growth in Hawai'i. We supported the Legislature in the creation of Act 39. We agree with the Legislature that the commercialization of the intellectual property created by basic and applied research conducted at the University of Hawaii, holds great promise to contribute to the creation of jobs and economic growth. It is a vital component of the creation of jobs in the local economies of many universities across the country and although it is in its early stages, it is being done here in Hawaii.

Commercialization of research is a long-term investment in Hawaii's future. As we have all seen it is not an overnight venture but develops slowly. We continue to support this activity and recently held our Future Focus V Conference in October, 2019. As we look forward to Future Focus VI, it is with the belief that long term and sustained efforts are vital to the development of our Innovation Sector. We, therefore, fully support the request to delete the sunset provision of Act 39.

Thank you very much for the opportunity to testify.

Gary K. Kai, Executive Director
Hawaii Business Roundtable



Written Statement of
Len Higashi
Acting Executive Director
Hawaii Technology Development Corporation
before the
House Committee on Lower & Higher Education
Friday, January 31, 2020
2:00 p.m.
State Capitol, Conference Room 309

In consideration of
HB2090
RELATING TO UNIVERSITY OF HAWAII.

Chair Woodson, Vice Chairs Hashem and Quinlan, and Members of the Committee.

The Hawaii Technology Development Corporation (HTDC) **supports** HB2090 that removes the sunset provision of Act 39, Session Laws of Hawaii 2017, making permanent the innovation and commercialization initiative program.

As part of HTDC's vision to create 80,000 new innovation jobs in Hawaii earning \$80,000 or more by 2030, HTDC supports initiatives aimed at growing tech and innovation jobs. The University of Hawaii has done an outstanding job establishing a suite of programs that nurture the talent and startup business pipeline out of the University and has been working with HTDC to align these programs with all of the resources in the State. HTDC believes that these type of programs play an important role for Hawaii and supports the continuation of these programs. HTDC defers to the University on the specifics of the measure.

Thank you for the opportunity to offer these comments.

Legislative Testimony

Written Testimony Presented to the
House Committee on Lower & Higher Education
Friday, January 31, 2020 at 2:00 p.m.

By Olga Boric-Lubecke
President/Founder
Adnoviv, Inc.

HB 2090 – RELATING TO THE UNIVERSITY OF HAWAII

Chair Woodson, Vice Chair Hashem and Members of the Committee:

Andoviv, Inc., supports this bill.

I am a professor of Electrical Engineering at the University of Hawai‘i at Manoa, and I founded Andoviv, Inc., in 2013. My company would not be here today if not for the help and support provided by the University of Hawai‘i, including participation in two rounds of UH accelerator program, and subsequent UH investment in Andoviv. In the last three years Andoviv has provided two federally funded subawards to UH, employed three UH graduates full time (two PhD and one MS), and two UH PhD graduates as consultants. Adnoviv has provided support for two UH undergraduate students and one UC Berkley summer intern (Kalaheo HS graduate), and is currently supporting three UH military veteran graduate students, and two UH community college faculty, through NSF educational supplements for engagement in commercialization.



Adnoviv, Inc.
2800 Woodlawn Dr. Suite 297
Honolulu, HI 96822
info@adnoviv.com
www.adnoviv.com

I believe that the relationship between the University of Hawai‘i and Adnoviv is mutually beneficial, and ultimately beneficial for Hawai‘i economy. Through this relationship UH students have access to hands-on training and employment opportunities in a start-up environment, and Andoviv has an opportunity to recruit UH graduates. Through Andoviv funded research agreements, UH students participate in research and development efforts to help commercialize new technology. The University of Hawai‘i’s Innovation and Commercialization program is crucial for success of such relationships.

On behalf of Andoviv, Inc., I respectfully request that the sunset provision of Act 39, Session Laws of Hawai‘i, 2017 be deleted.



1012 Piikoi St.
Honolulu HI 96814
www.spectrum-photonics.com

Statement of
Edward Knobbe
President
Spectrum Photonics
before the
House Committee on Lower & Higher Education
Friday, January 31, 2020 at 2:00 p.m.

In consideration of:

HB 2090
RELATING TO THE UNIVERSITY OF HAWAII

Chair Woodson, Vice Chair Hashem and Members of the Committee

Spectrum Photonics **supports** HB 2090, a measure that would remove the sunset provision of Act 39, Session Laws of Hawai'i, 2017 and thereby allow the University of Hawaii (UH) to sustain its existing Innovation and Commercialization Program.

Spectrum Photonics is a small, high technology company whose core business is largely based on intellectual property licensed from UH. Since our startup in 2008, we have brought approximately \$30,000,000 to the State in the form of federal SBIR contracts and competitively-awarded Broad Agency Announcement (BAA) programs. Today we support 18 employees, many of whom are UH graduates. We consider Spectrum Photonics to be a terrific example of how intellectual property invented at UH can ultimately lead to significant economic development and expansion of the State's high tech sector through the University's licensing and commercialization programs.

Technology transfer and commercial innovation are inherently difficult processes, with many difficult barriers to overcome. We have had the opportunity to work with several university technology transition offices, and Spectrum Photonics has passed up opportunities to license intellectual property from other universities as a result of onerous licensing terms or processes. UH's Innovation and Commercialization Program is an exemplary example of striking a difficult balance, with fair and reasonable treatment of commercial licensing partners while also maintaining the highest internal standards of ethics and compliance policies. UH is best suited to establish and maintain an Innovation and Commercialization compliance program, using a model that has been specifically adapted to the unique features of University-generated innovations. I urge the Committee to delete the sunset provision of Act 39, Session Laws of Hawaii, 2017.

Thank you for the opportunity to offer these comments.

To Chair Woodson, Vice-Chair Hashem and Members of the Committee,

My name is Jesse D Thompson, Co-founder, and CEO of UH startup Radial3D Inc and technical staff at the John A Burns School of Medicine Department of Anatomy and I support HB 2090 and HB 2256.

I had the unique pleasure of entering into Honolulu's startup paradise at an amazing time as both a two-time co-founder who has attended both Blue-Startups and XLR8UH. I've spent many hours in both coworking spaces freelancing in video games and offices in Manoa Innovation Center (MIC) as a board member at HICapacity Makerspace. I've come to learn that one of the most critical parts of a startup is responding to change, and I don't mean lack of focus but using data to make the right pivots and changes as they arise. In short, it's learning, research, and education.

The digital information age has genuinely been a paradigm shift in society. Ideas are not as valuable as they once were. You can find them in bulk online, some good, some fake, with an ever-increasing difficulty to defend them. Society now views use patent protections for personal gain while contributing nothing to those ideas coming to fruition negatively. (aka "Patent Trolling"). In today's economy, execution and traction are just not, if not more important than the original idea. It's here where you'll find agile fast-moving startups making leaps past large companies, and that's what makes them valuable for acquisition. It's more important than ever that the University of Hawaii pivot its business model to not just selling ideas but selling ones that have substantial evidence of traction.

In my eyes, the most successful parts of the State's efforts to assist technological development were spaces and policies like the Entrepreneurs Sandbox. A safe space for startups to learn and grow with time. Not a date and time that success must be achieved along with a set of policies that moves for no-one. What we need from the State is to expand projects that allow for exponential growth and not rigid demands that expect linear progression year after year and don't make exceptions for exceptional cases. My recommendation is to for the State to foster growth by leaving research and mentorship to the ones who excel as providing it. For the University of Hawai'i to continue to evolve its tech transfer and seed capabilities.

The University of Hawai'i' is playing a vital role in the State in learning to adapt to a new digital economy, and the University itself needs to change how it monetizes research and development to suit. To these ends, I request that the sunset provision of Act 38 & 39, Session Laws of Hawaii, 2017 be deleted.

Sincerely,
Jesse Thompson, CEO Radial3D Inc.

A handwritten signature in black ink that reads "Jesse Thompson". The signature is written in a cursive, slightly slanted style.

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Payment Events

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Written Statement of
Brittany Heyd
Partner
Mana Up
before the
House Committee on Lower & Higher Education
Friday January 31, 2020
2:00 PM
State Capitol, Conference Room 309

In consideration of
HB 2090 and HB 2256
RELATING TO THE UNIVERSITY OF HAWAI'I AND ITS TECHNOLOGY TRANSFER

Chair Woodson, Vice Chair Hashem, Vice Chair Quinlan, and Members of the
Committee on Lower & Higher Education,

Mana Up **supports** HB 2090 and HB 2256, which provide an appropriation for the
University of Hawai'i to continue promoting the economic health and diversification of workforce
opportunities in the State through the commercialization of inventions and discoveries
generated by or at the university.

Technology transfer is the central and crucial step in connecting scientific discoveries
with real-life applications. It is the tried-and-true, assured way for researchers to turn their
groundbreaking ideas into actual tangible products— through establishing copyrights, patents,
and partnerships with companies—therefore greatly stimulating the economy and vastly
improving the quality of life for citizens in our islands and around the world. As an accelerator
focused on Consumer-Packaged-Goods, both we and our entrepreneurs know all too well that
research discoveries are great - but if the discovery is not applied to a successful product, and
is not made available for consumers, it ceases to exist; it ceases to become anything beyond an
idea.

With the existing Technology Transfer protocols at University of Hawai'i, the state
institution's discoveries can continue to be transferred to different companies to perpetuate the
progress started here. Companies can turn these research discoveries into products,
distributable and scalable for a wide consumer base. These protocols ultimately allow the
university to improve lives, create additional jobs, and transform our homegrown ideas into
global commercial opportunities. By supporting this bill, you continue to help the University of
Hawai'i support local-born innovation.

The University of Hawai'i, along with Mana Up and other accelerators, is playing a
crucial role in the development of a thriving entrepreneurial ecosystem in Hawai'i. Without its
authority to implement technology transfer, the most promising locally developed technologies

and technology companies would face barriers to commercialization, and therefore leave for opportunities outside of the state. Hawai'i-based technologies and technology companies strengthen the tech and business networks between Hawai'i and the rest of the world.

Thank you for the opportunity to offer these comments.

HVCA

HAWAII VENTURE CAPITAL ASSOCIATION

Written Statement of
Meli James
President
Hawaii Venture Capital Association
before the
House Committee on Lower & Higher Education
Friday January 31, 2020
2:00 PM
State Capitol, Conference Room 309

In consideration of
HB 2090
RELATING TO THE UNIVERSITY OF HAWAI'I AND ITS TECHNOLOGY TRANSFER

Chair Woodson, Vice Chair Hashem, Vice Chair Quinlan, and Members of the
Committee on Lower & Higher Education,

HVCA **supports** HB 2090 and HB 2256, which provide an appropriation for the
University of Hawai'i to continue promoting the economic health and diversification of
workforce opportunities in the State through the commercialization of inventions and
discoveries generated by or at the university.

Technology transfer is the central step in connecting scientific discoveries with
real-life applications. It is the assured way for researchers to turn their ideas into actual
tangible products— through establishing copyrights, patents, and partnerships with
companies—therefore stimulating the economy and vastly improving quality of life for
citizens in our islands and around the world. As President of HVCA, I am made keenly
aware of the barriers our investors and business owners face. One that comes up
continuously is the lack of support for medium and large businesses. We have ideas, but
we lack commercialization power, which leads us to also lack the wages to lure high-
quality talent to our islands to take those ideas to the next level.

With the existing Technology Transfer protocols at University of Hawai'i, the state
institution's discoveries can continue to be transferred to different companies to
perpetuate the progress started here. Companies can continue to have the ability to turn
UH-grown research discoveries into products, distributable and scalable for a wide
consumer base. Without UH's authority to implement its technology transfer protocols,
investors and companies would turn away from our state at a higher rate than they
already do due to the high cost of doing business here, and the most promising locally
developed companies would leave for opportunities elsewhere.



HVCA

HAWAII VENTURE CAPITAL ASSOCIATION

By supporting this bill, you continue to help the University of Hawai'i mitigate brain drain and job loss, and support local-born innovation. These protocols ultimately allow the university to improve lives, create additional jobs, and transform our homegrown ideas into global commercial opportunities.

Thank you for the opportunity to offer these comments.





Chamber of Commerce HAWAII

The Voice of Business

Testimony to the House Committee on Lower & Higher Education

Friday, January 31, 2020 at 2:00 P.M.

Conference Room 309, State Capitol

LATE

RE: HB 2090, RELATING TO THE UNIVERSITY OF HAWAII

Chair Woodson, Vice Chairs Hashem and Quinlan, and Members of the Committee:

The Chamber of Commerce Hawaii ("The Chamber") **supports** HB 2090, which removes the sunset provisions of Act 39, Sessions Laws of Hawaii 2017, making permanent the innovation and commercialization initiative programs. Act 39 provides the University of Hawaii express statutory authority to sponsor and directly participate in the transformation of innovations created by UH researchers into viable commercial enterprises.

The Chamber is Hawaii's leading statewide business advocacy organization, representing about 2,000+ businesses. Approximately 80% of our members are small businesses with less than 20 employees. As the "Voice of Business" in Hawaii, the organization works on behalf of members and the entire business community to improve the state's economic climate and to foster positive action on issues of common concern.

The Chamber continues to support the State's efforts to promote and foster innovation research and development in Hawaii. Through the innovation and commercialization initiative, the university is working with the private-sector and government to help to build a thriving innovation, research, education and training enterprise in Hawaii. By removing the sunset provision in of Act 39, the university can continue to play an active role in supporting the transformation of inventions and discoveries generated on their campus and transfer them into the commercial field to help grow Hawaii's economy.

Thank you for the opportunity to testify.



ELEMENTAL
EXCELERATOR

**Written Statement of Elemental Excelerator
before the House Committee on Lower and Higher Education
January 31, 2020**

**In consideration of [HB 2090](#)
RELATING TO THE UNIVERSITY OF HAWAII.**

Aloha Chair Woodson, Vice-Chairs Hashem and Quinlan, and Members of the House Committee on Lower and Higher Education:

Elemental Excelerator **submits support of HB 2090** which removes the sunset provision of Act 39, Session Laws of Hawaii 2017, making permanent the innovation and commercialization initiative program.

Elemental Excelerator is a Honolulu-based non-profit organization that supports climate positive startup companies that are helping solve Hawai'i's most urgent environmental problems. Our role is to accelerate cleantech startups by bringing forward important commercial inflection points through real-world demonstration projects and tailored business model impact. Each year, we select 15-20 companies annually that best fit our mission and fund each company up to \$1 million. To date, we have awarded \$36 million to 99 companies resulting in over fifty demonstration projects in Hawai'i & the Asia Pacific.

We support HB 2090 because it will contribute to our state's efforts to diversify our economy and provide our next generation of Hawai'i residents with career opportunities in science, technology, engineering, and mathematics right at home. In our work, we have seen three widely recognized gaps in funding that test the survival of startups with capital-intensive solutions; technology, commercialization valleys of death, and market expansion. By passing HB 2090, the university can continue to attract outside investments in innovation from entities like the federal government, private, and philanthropic sponsors and solidifies the state's commitment to the long-term development of our entrepreneurial ecosystem.

Diversifying our economy requires collaborative efforts between the private, government, and educational sectors. We urge you to pass this bill and look forward to continuing working with the University of Hawai'i in realizing our innovation economy.

Sincerely,

A handwritten signature in black ink, appearing to read "Aki Marceau".

Aki Marceau
Managing Director, Policy & Community