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INNOVATION AND COMMERCIALIZATION

November 8, 2023

OHSU Innovates



LEADERSHIP MESSAGE

As we approach the end of the year, we would like to thank our OHSU Innovates community of innovators, entrepreneurs, investors, administrators, and partners who have supported us and enabled us to advance OHSU research programs, technologies, and startup companies.

In this newsletter, we share exciting accomplishments of our innovators. In addition, we are pleased to share with you the [OHSU Innovates 2023 Impact Report](#), which celebrates another successful year of progressing innovative healthcare solutions for community benefit. It is such a pleasure

to be a part of our growing innovation community and to witness the inspiring impact of your work.

With gratitude,

Travis Cook, M.S., M.B.A, CLP

Senior Director, Technology Transfer

Aditi Martin, Ph.D.

Senior Director, Collaborations and Entrepreneurship

INNOVATION SPOTLIGHT

Highlights on a year of innovation and entrepreneurship at OHSU

The newly released [OHSU Innovates 2023 Impact Report](#) highlights real-world healthcare solutions being developed at OHSU and the driven scientists and clinicians behind them. Readers will learn about new OHSU technologies, collaborations and startups in five focus areas, including oncology, mental health and artificial intelligence in healthcare. The report also contains a look back at 10 years of the Biomedical Innovation Program, which provides project funding and management to early-stage OHSU technologies. Read the full report to learn more about the inspiring work being done at OHSU to improve lives in Oregon and around the world.

Are you interested in supporting innovation at OHSU? Visit [OHSU Innovates](#) to learn more.

NEWS



David Huang, M.D., Ph.D., receives prestigious accolades for transformative imaging technology

Congratulations to [David Huang, M.D., Ph.D.](#), who recently received two of the nation's highest scientific awards for his work as a co-inventor of the imaging technology called optical coherence tomography, or OCT.

In September, Huang and his OCT co-inventors were awarded the 2023 Lasker-DeBakey Clinical Medical Research Award, sometimes referred to as the 'US Nobel'.

In October, Huang and his colleagues were awarded the National Medal of Technology and Innovation by President Biden. OCT routinely helps prevent blindness and is increasingly used to diagnose and treat conditions of the heart, brain, skin and more.

Read more about Huang's award-winning research in the [OHSU News article](#), and read the Q&A with all three co-inventors of OCT in the [Proceedings of the National Academy of Science](#).

OHSU included in the National Academy of Inventors Top 100 U.S. Universities list

OHSU was recently included in the National Academy of Inventors' list of the Top 100 U.S. universities granted U.S. utility patents. OHSU earned a spot on the list after being granted 24 utility patents from the US Patent and Trademark Office, or USPTO, in 2022. These OHSU patents cover a variety of health care solutions, including new medical devices, diagnostic imaging techniques, and therapeutic compounds.

Read more about how OHSU Innovates assists OHSU members with patent applications in the [OHSU Research News blog](#).

Oregon granted Tech Hub award for microfluidics technologies

OHSU is part of a consortium led by Oregon State University that was awarded Tech Hub status and a Strategy Development Grant from the U.S. Economic Development Administration (EDA). The consortium's name is the [Corvallis Microfluidics Technology Hub](#) (CorMic Tech Hub). EDA Tech Hub Designation unlocks the opportunity to apply to Phase 2 of the program, which will award implementation grants totaling \$50-75 million to each of 5-10 Hubs. Preparation of the Phase 2 application is aided by the Strategy Development Grant which consists of \$400K with a \$100K match provided by HP, another consortium member.

OHSU researchers now can predict severity of a rare genetic disease in children

Oregon Health & Science University researchers, including [Ruth Napier, Ph.D.](#), and [Jonathan Pruneda, Ph.D.](#), have established a framework to predict the severity and symptoms of a rare and deadly genetic disease that affects about 40 children worldwide. The research team received funding from the Biomedical Innovation Program, or BIP, in 2022 to significantly advance understanding of the disease and open new therapeutic pathways. Read more about the research and recent publication in the [OHSU News article](#).

Luciole Pharmaceuticals awarded phase I SBIR grant from the National Institute on Aging

OHSU startup company [Luciole Pharmaceuticals](#) received a Small Business Innovation Research, or SBIR, grant in September to fund the discovery and development of small molecule activators of OGG1 (8-oxoguanine DNA glycosylase) for the treatment of Alzheimer's and other neurodegenerative diseases. Luciole Pharmaceuticals was co-founded by OHSU professors [Stephen Lloyd, Ph.D.](#), and [Amanda McCullough, Ph.D.](#)

Read more about the grant in the [press release](#).

Siloam Vision enters strategic partnership to save sight of premature infants

OHSU startup company [Siloam Vision](#) has entered into a new partnership with eye care nonprofit Orbis International to expand access to eye care and prevent blindness in premature infants living in hard-to-reach communities. Siloam Vision was co-founded by OHSU associate professor [Peter Campbell, M.D., M.P.H.](#), and is developing an artificial intelligence (AI) platform that helps diagnose retinopathy of prematurity (ROP) – the leading cause of childhood blindness globally.

Read more about the partnership in the [press release](#).

Aronora secures investment from New York Blood Center Ventures

OHSU startup company [Aronora](#) recently received an investment from the New York Blood Center's venture fund to further the development and manufacturing of the company's anti-coagulation drug candidates. Aronora was co-founded by OHSU adjunct research associate professor [Erik Tucker, Ph.D.](#), who also serves as Aronora's president and CEO.

Read more about Aronora and the recent investment in the [Portland Business Journal article](#).

Trace Bioscience awarded \$4M grant for development of nerve-specific fluorescent agents

The Advanced Research Projects Agency for Health (ARPA-H) awarded OHSU startup company [Trace Biosciences](#) a \$4M grant in September to synthesize and characterize novel nerve-specific fluorescence guided surgery (FGS) contrast agents. Trace Bioscience also recently took home the judges award for later stage startup at the Oregon Bioscience Associations Innovation Showcase. Trace Bioscience was co-founded by OHSU professor [Summer Gibbs, Ph.D.](#), research assistant professor [Lei Wang, Ph.D.](#), and senior research associate Connor Barth, Ph.D.

The Innovative Journey of Auxetics

OHSU startup company [Auxetics](#) was recently featured in the publication Endovascular Today. The article highlights the scientific conception of the company's novel venous stent technology developed at OHSU and features a Q&A with three Auxetics' team members. Read the [full article](#).

ANNOUNCEMENTS

SBIR/STTR Application Support and Matching Grants

Business Oregon and the Oregon Innovation Council (Oregon InC) are accepting applications for two programs to help Oregon businesses. The Phase 0/00 program provides application support for Oregon businesses that are applying for federal Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) grants. The second program provides matching grants for Oregon companies who have been awarded a federal SBIR or STTR grant. Find out more about the [Phase 0/00](#) and [matching grant programs](#).

Applications are open for the Equalize women's pitch competition

Equalize is now accepting applications for its 2024 pitch competition. Equalize is a pitch competition and symposium intended to empower academic women entrepreneurs. Equalize participants receive education, a field-specific mentor, and access to networks that drive new entrepreneurial connections. Equalize candidates can include faculty,

postdocs, and grad students in STEM disciplines. Applications are due November 17, 2023.

Find more details and information on how to apply on the [Equalize webpage](#).

FUNDING OPPORTUNITIES

Regulatory Consultation and Assistance Program

OCTRI will soon be accepting applications for funding regulatory consultation services for eligible OHSU investigators. The Regulatory Consultation and Assistance Program (RCAP) will provide a one-time award, up to \$7000, which can be used to support efforts to understand and navigate the regulatory environment for medical devices, diagnostics, drugs, and software. The RCAP can help create a roadmap to guide teams in the transition from the ideation phase of their project to proof-of-concept. Recipients may hire regulatory consultants to provide an overview of FDA rules and procedures specific to moving your technology or project towards commercialization. For more information [read the program information](#) or contact Claudia Nakama at nakama@ohsu.edu.

Each week, OHSU Research Development compiles a list of funding opportunities from internal sources, the government and private foundations. [The list is published every Thursday](#).

FEATURED EVENT

Navigating FDA Interactions for Early-Stage Biotechs: A Guide to Successful Regulatory Engagements

Gain invaluable insights into the FDA interaction process for early-stage biotechs developing therapeutic or medicinal products. This webinar will cover crucial topics such as when to approach the FDA, available meeting types, expected responses, data package requirements for an FDA IND request, and the significance of a well-crafted regulatory strategy.

Webinar attendees will leave with a deeper understanding of FDA interactions, equipped with the knowledge needed to navigate the regulatory landscape and enhance the likelihood of a successful product development journey.

Learn more about [this upcoming webinar](#) and register [using this link](#).

WHEN	Wednesday, Dec. 6 11 a.m. – 12:30 p.m. PDT
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WHERE	Virtual
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UPCOMING EVENTS

NOV. 9	Women in Science PDX x Biophysical Society Mixer
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NOV. 9	OBI Accelerate Happy Hour Networking
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NOV. 14	Virtual Lunch & Learn: Startup Project Management Basics
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NOV. 14	PDXWIT Presents: November Happy Hour
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NOV. 16	2023 OEN Entrepreneurship Awards
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JAN. 8-10

Biotech Showcase: The Investor
Conference for Innovators

JAN. 25

ITHS Biomedical Innovation Fireside
Chat Series

TECHNOLOGIES

Featured technologies available for licensing

A selection of OHSU-developed technologies available for licensing to industry partners. For more technologies visit the [OHSU Technology Portal](#).

[OHSU 2270](#) - Versatile interacting peptide tags for high resolution microscopy

[OHSU 2956](#) - Cell-permeant and water-soluble rhodamine dyes for quantitative imaging applications

[OHSU 2579](#) - Adipose-specific fluorescent dyes for in vivo imaging

[OHSU 2765](#) - Collaborative workstation on wheels

Newly Licensed or Optioned OHSU Technologies

Congratulations to the inventors of these technologies, which were recently licensed or optioned to outside partners.

[OHSU 1771](#) - Materials from the BioLibrary

[OHSU 2730](#) - Application of Dentin matrix proteins encapsulated in

printed microgels for clinical dental pulp regeneration procedures ([Luiz Bertassoni, D.D.S., Ph.D.](#), [Jack Ferracane, Ph.D.](#), [Cristiane Miranda Franca, Ph.D.](#), [Anthony Tahayeri](#))

OHSU 3082 - Degradable freeze-dried tooth-derived microparticulate biomaterial for dental pulp therapy (Luiz Bertassoni, Jack Ferracane, Cristiane Miranda Franca, Anthony Tahayeri)

OHSU 3231 - Pelizaeus Merzbacher disease (PMD) RNA transcript data ([Larry Sherman, Ph.D.](#))

U.S. Patents Issued

Congratulations to the OHSU inventors of these recently issued U.S. patents.

[Patent 11,789,011](#) - Engineered Three-dimensional Breast Tissue, Adipose Tissue, And Tumor Disease Model

[Patent 11,774,536](#) - Imaging Biomarkers Based On Ratio Between Diffusion And Perfusion

[Patent 11,771,692](#) - N-hydroxyethyl Didehydroazapodophyllotoxins As GBP1 Inhibitors And Methods Of Overcoming Treatment Resistance In Cancer

[Patent 11,746,386](#) - Assays And Methods For Selecting A Treatment Regimen For A Subject With Leukemia

Researchers in New Industry Funded Research Projects

Congratulations to the principal investigators of new non-clinical industry sponsored research.

[John Brigande, Ph.D.](#) - Evaluation a potential gene therapy for Otoferlin deficiency

[Brian Druker, M.D.](#) - In vitro characterization of potential molecules for treatment of CML

[Brian Frank, M.D.](#) - Employer sponsored community health workers: A cost-effective benefit to improve equity, employee wellbeing, and productivity

[Summer Gibbs, Ph.D.](#) - fluorescence guided surgical tools for head and neck squamous cell carcinoma resection

[Cary Harding, M.D.](#) - Liver-directed human PAH study

[Jeffrey Marbach, MBBS, FRCPC](#) - Long-Term Outcome and Quality Indicator (LOQI) Impella registry

[Lisa Marriott, Ph.D.](#) - Using epigenetic science to teach environmental health literacy

[Daniel Marks, M.D., Ph.D.](#) - Drug synergy study

[Rosie Sears, Ph.D.](#) - AI morphology prediction of treated pancreatic cancers

[Show-Ling Shyng, Ph.D.](#) - Drug screening for treatment of Hyperinsulinism

[Daniel Streblow, Ph.D.](#) - Performance of alphavirus breadth neutralization assays

[Brandon Wilder, Ph.D.](#) - Biological equivalence of in vitro plasmodium falciparum culture for practical malaria vaccine development

[David Wilson, M.D.](#) - Prospective observational phase 3 study of X linked retinitis pigmentosa

[Wassana Yantasee, Ph.D.](#) - Dual targeting nanoconstruct as a monotherapy and a radiation sensitizer for lung cancer

SPONSORS

Thank you to our current sponsors for their support of OHSU Innovates!



Questions? Contact us at innovates@ohsu.edu

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