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INNOVATION AND COMMERCIALIZATION

OHSU Innovates

Jan. 4, 2023

FEATURED STORY

Autobahn Therapeutics enrolls first patient in Phase 1 clinical trial for the treatment for major depressive disorder

OHSU startup company Autobahn Therapeutics reached a major milestone in November with the initiation of a Phase 1 clinical trial of a treatment for major depressive disorder.

The drug being studied, ABX-002, is a brain-boosting thyroid hormone receptor beta agonist that has the potential to augment antidepressant therapies to improve patient response to these treatments. ABX-002 is based on a compound synthesized by Tom Scanlan, Ph.D., professor of physiology and pharmacology in the OHSU School of Medicine.

The launch of the ABX-002 Phase 1 trial is an important milestone in the process of getting an OHSU-developed compound to market to improve patient care. Many promising academic discoveries fail to reach clinical trials, and the announcement by Autobahn reflects collaborative work by multiple groups in a long process of leading-edge academic research, successful startup formation and fundraising, preclinical testing and regulatory approvals. Read more about the recent news on the OHSU Research News blog and in the Autobahn press release.

FEATURED NEWS

Biomedical Innovation Program awards funding to develop new diagnostics and medical devices



Albert Chi, M.D., FACS, Xiao-Yue Han, M.D., and David Huang, M.D., Ph.D., have been named recipients of the 2022 Biomedical Innovation Program (BIP) funding in the Device, Diagnostic, Software track. The BIP is designed to help advance innovative discoveries and move them closer to market to improve patient care. The award provides funds, as well as project management and mentorship in technology commercialization. Read more about the recent awards on the OHSU Research News blog.

Jeffrey Jensen and OHSU awarded commercialization grant from the Murdock Charitable Trust

Infertility affects between eight and 12 percent of couples trying to conceive. A leading cause is occlusion of the fallopian tubes, which affects an estimated 6 million women in the United States alone. However, current

approaches to identify these tubal occlusions, called tubal patency assessments, have potential risks to the patient and require expensive imaging equipment and specialized expertise. These requirements limit use of the procedure, particularly in in low-resource areas and countries.

Jeffrey Jensen, M.D., M.P.H., a professor of obstetrics and gynecology in the OHSU School of Medicine, was recently awarded a Commercialization Initiation grant from the Murdock Charitable Trust to develop a low-cost and simplified device for the assessment of tubal patency. This novel device could allow clinicians—even those without M.D.s—to perform this assessment, thereby increasing access.

MJ Murdock Charitable Trust Commercial Initiation Grant supports the commercialization of bench discoveries and translating those inventions to the market. Support for the development of the Commercialization Initiation grant application was provided by OHSU Technology Transfer and the OHSU Foundation.

OHSU partners with semiconductor company to develop smartwatch that detects key mental health indicator

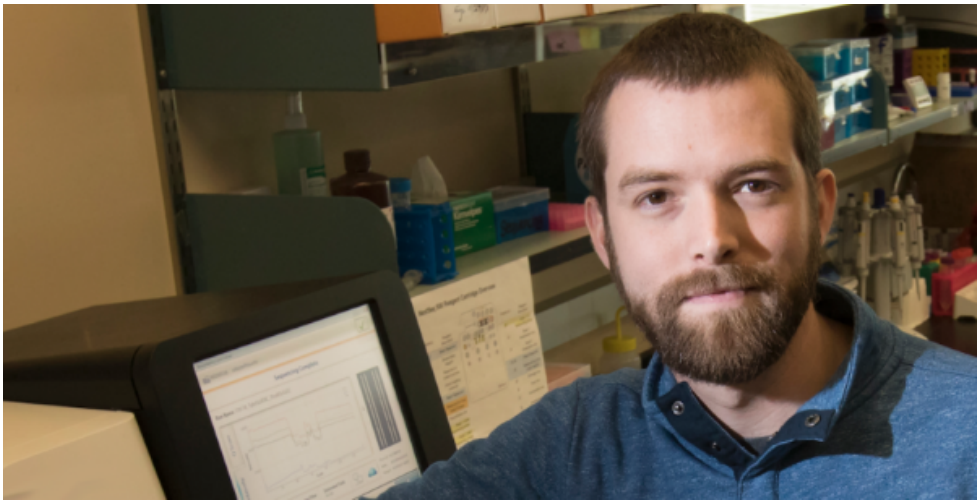
Researchers at OHSU, including Steven Baker, Ph.D., Bonnie Nagel, Ph.D., and David Sheridan, M.D., are partnering with the semiconductor company Analog Devices, Inc., or ADI, to develop wearable smartwatch technology that they hope will provide early detection for individuals with depression and suicidality.

“It’s a great example of one of the excellent collaborations between academia and industry for addressing an urgent and unmet need for a tough and pressing societal issue,” says Shekhar Bakshi, technology development director at ADI. Research at OHSU was supported by the Biomedical Innovation Program, led by the Oregon Translational Research Institute and supported by OHSU Innovates. Learn more about the partnership in the OHSU News post.

PDX Pharmaceuticals receives two corporate philanthropy awards

OHSU startup company PDX Pharmaceuticals, in partnership with OHSU, was among four teams in Oregon awarded the 2022 Innovation in Philanthropy Award. The award recognizes PDX Pharma’s commitment (through donation and volunteer work at OHSU’s Department of Biomedical Engineering) in education and training in cancer research and nanotechnology. PDX Pharmaceuticals was also ranked among Oregon’s top ten most charitable small companies in 2022. Read more about the awards in the press release.

Andrew Adey: Single cell imaging, technology development and creativity



Andrew Adey, Ph.D., recently discussed his leading-edge research and how he works with OHSU Technology Transfer to commercialize his innovations with OHSU Research News. Read the story to learn more about this innovative research and Adey's research plans for his 2022 Faculty Excellence Award.

ANNOUNCEMENTS

Erik Tucker, Ph.D., named National Academy of Inventors Fellow

Congratulations to Erik Tucker, Ph.D., research assistant professor in the Department of Biomedical Engineering, OHSU School of Medicine, on

recently being named a 2022 Fellow of the National Academy of Inventors (NAI). NAI fellows are academic inventors elected by their peers for demonstrating "a prolific spirit of innovation in creating or facilitating outstanding inventions that have made a tangible impact on quality of life, economic development and the welfare of society." Read more about this achievement in OHSU Research News.

Congratulations to Sri Balakrishnan on her registered technology transfer professional certification

Congratulations to Sri Kripa Balakrishnan, Ph.D., senior agreements manager for OHSU technology transfer, on recently receiving her registered technology transfer professional (RTTP) certification! Sri is an important member of the Academic and Industry Agreements team, facilitating industry-academic partnership agreements for a large number of departments across OHSU. Join us in celebrating this achievement and one of our many great OHSU Innovates team members.

Read the recently released Innovate Collaborate Oregon 2022 Impact Brief

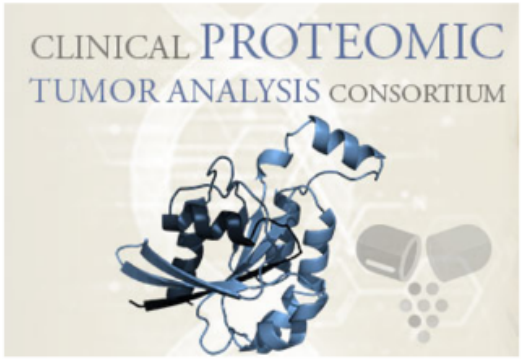
The ICOregon 2022 Impact Brief highlights recent accomplishments within the ICOregon network, many of which were made possible by leveraging state funding programs. Learn more about success from programs established by the Oregon Legislature, including the University Innovation Research Fund and the University Venture Development Fund, including startup milestones and university grants aimed at promoting innovation and economic growth across the state. Read the full 2022 Impact Brief.

OHSU and PNNL partnership “PMedIC”: PMedIC team receives NIH grant to advance knowledge of senescent cells

As humans age, some cells in the body that previously grew and replaced old ones become damaged and lose the ability to multiply—entering an enduring state called senescence. When this occurs, cells can secrete signaling molecules that affect organs, which scientists have linked to diseases such as cancer and diabetes. While we understand the negative impact of senescent cells, there is not enough information to create effective medicine to eliminate them. A team of researchers from Pacific Northwest National Laboratory and OHSU is out to change that. Read about the NIH grant and details of the project here.

OHSU and PNNL partnership “PMedIC”: PNNL to provide

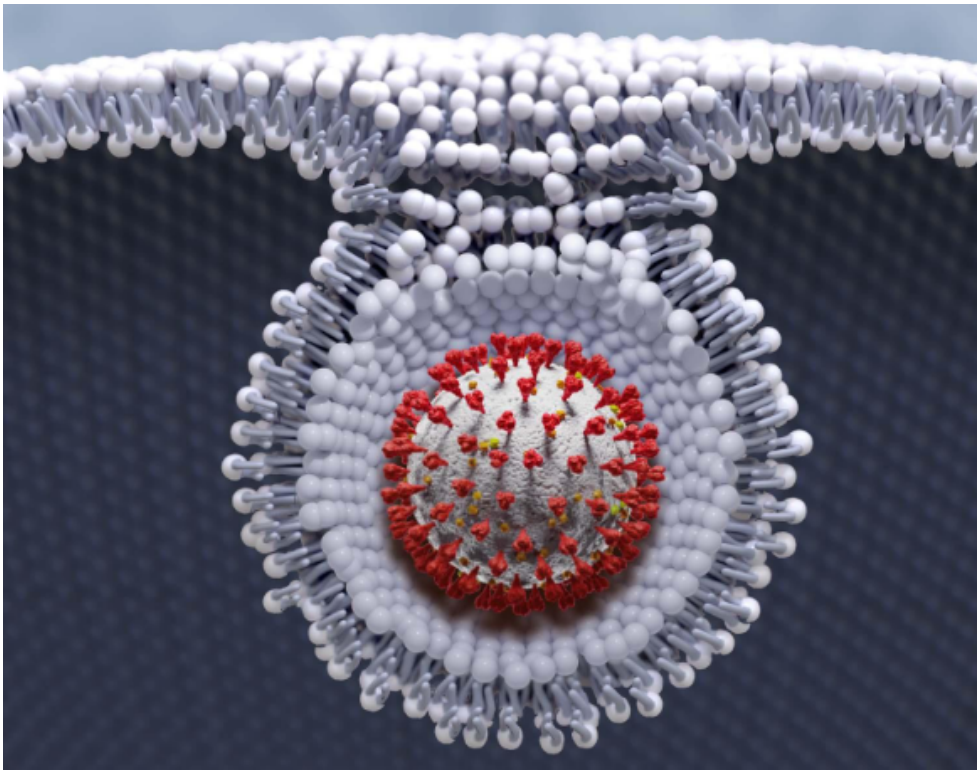
another five years of tumor characterization and translational research for cancers



The Office of Cancer Clinical Proteomics Research at the National Cancer Institute, part of the National Institutes of Health, announced in June that PNNL is one of three Proteome Characterization Centers, and it will also partner with OHSU as a Proteogenomic Translational Research Center. PCCs, PTRCs, and Proteogenomic Data Analysis Centers form NCI's Clinical Proteomic Tumor Analysis Consortium , which PNNL has been involved in since 2011.

Learn more about the work being done.

COVID-19 fattens up our body's cells to fuel its viral takeover



Scientists from OHSU and the Department of Energy's Pacific Northwest National Laboratory authored a recent paper in Nature Communications based on observations that people with a high body-mass index and conditions such as cardiovascular disease and diabetes are more sensitive to the disease.

Learn more about their paper and findings.

OHSU Innovation and Commercialization internship program, applications due Jan. 18

The OHSU Innovation and Commercialization internship program is accepting applications through Jan. 18 for its next iteration scheduled to start April 2023. This fully remote program provides interns with real-world experience with innovation development and the transition of technology from laboratory to market. Former interns have successfully transitioned to careers related to technology transfer, business development and patent law. Volunteer interns may be eligible for a monthly stipend or academic credit, depending on their role and affiliation. Apply today.

FUNDING OPPORTUNITY

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. A pdf of the current list is also available here.

FEATURED EVENT

Save the date for the OHSU Innovation Awards, to be held March 22, 2023. This in-person event will celebrate innovators within the OHSU community and include a networking happy hour to mingle with fellow OHSU inventors and the OHSU Innovates team. More event details and registration information will be provided in the March issue of the OHSU Innovates newsletter and on the OHSU Innovates website. We hope to see you there!

UPCOMING EVENTS

JAN. 12	EO Talks: Experience, Shared
JAN. 12	Using the EPP and SciLeads to Grow Your Oregon Biotech Business
JAN. 18	OBI/OTRADI Virtual Lunch & Learn: Diversity in Clinical Trials

FEB. 9	2023 Pitch Oregon - SAVE THE DATE!
FEB. 13-14	Life Science Washington VIP Forum with BMS
FEB. 27	The Women's Summit featuring Mentoring Monday
FEB. 27-28	2023 UW Medical Data Science Symposium
MAR. 1, 15 and 29	Women's Entrepreneurship Symposium 2023
APR. 20	APIS Health Angel Program - Final Event

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 3142 - Improved removal of projection artifacts in optical coherence tomographic angiography

OHSU 3048 - Spatially-resolved transcriptomics with enhanced capture and versatility

OHSU 2584 - High-throughput precision medicine screening for solid tumors

OHSU 2630 - Software for deep learning-based inference of biomarker distribution in cancer samples

Newly licensed or optioned OHSU technologies

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

OHSU 1771- Materials from the BioLibrary

OHSU 1873-A - HPa3 Monoclonal Antibody Supernatant from Hybridoma HIC3-2D12 (alpha/delta/gamma/epsilon cell marker) (Craig Dorrell, Ph.D., Markus Grompe, M.D.)

OHSU 2241 - My Pregnancy Plate (Christie Naze, R.D., CDE)

OHSU 2528 - Use of GPR39 probes and ligands for the diagnosis and treatment of cardiovascular disease (Nabil Alkayed, M.D., Ph.D., and Sanjiv Kaul, M.D.)

OHSU 2700 - A strong micro-promoter for AAV (Sunghee Chai, Ph.D., and Markus Grompe, M.D.)

OHSU 2756 - Allosteric Modulation of PARP1-DNA Binding with Small Molecule Inhibitors (Moriah Arnold and Michael Cohen, Ph.D.)

OHSU 2965 - Visual molecular barcoding and de-convolution (Corey Dambacher, Ph.D.)

OHSU 2994 - A Strong mini-promoter for AAV delivered gene expression (Sunghee Chai, Ph.D., and Markus Grompe, M.D.)

OHSU 3034 - Hub Software v4.0.0 (Zachary Beattie, Ph.D., Jeffrey Kaye, M.D., and Thomas Riley)

OHSU 3035 - Study Management Console Software v4.0.0 (C4) (Zachary Beattie, Ph.D., Jeffrey Kaye, M.D., Jonathan Lee, and Thomas Riley)

OHSU 3061 - A mouse monoclonal antibody against the mammalian protocadherin-15 (PCDH15). (Sarah Clark, Ph.D., and Eric Gouaux, Ph.D.)

OHSU 3094 - COMPASS (COMmunity of Practice And Safety Support) Personal Support Worker Revision (Ryan Olson, Ph.D., and Helen Schuckers, M.P.H.)

OHSU 3187 - CART Data set (Zachary Beattie, Ph.D., and Jeffrey Kaye, M.D.)

U.S. patents issued

Congratulations to the OHSU inventors of the following recently issued

U.S. patents.

Patent 11,530,235 - Compounds and methods used in assessing mono-PARP activity

Patent 11,535,883 - Single cell whole genome libraries and combinatorial indexing methods of making thereof

Patent D972,336 - Infant feeding positioning cushion

Patent 11,510,887 - Sobetirome in the treatment of myelination diseases

Patent 11,492,359 - Near-infrared nerve-sparing fluorophores

Patent 11,471,045 - Diagnostic classification of corneal shape abnormalities

Patent 11,464,639 - Methods for creating sinus-matched aortic valves

Patent 11,464,499 - Device for anatomical sensing system-guided endorectal prostate biopsy

Patent 11,459,558 - Methods for using transcription-dependent directed evolution of AAV capsids

Patent 11,452,442 - Systems and methods for automated widefield optical coherence tomography angiography

Patent 11,432,719 - Visual field simulation using optical coherence tomography and optical coherence tomographic angiography

Researchers in new industry funded research projects

Congratulations to the following OHSU PIs for entering into new industry sponsored research projects.

- Theodore (Ted) Braun, M.D., Ph.D., Brian Druker, M.D., Evan Lind, Ph.D., Cristina Tognon, Ph.D., Elie Traer, Ph.D., and Jeffrey Tyner, Ph.D.
- Fergus Coakley, M.B. B.Ch
- Michael Cohen, Ph.D.
- Guang Fan, M.D., Ph.D.
- Summer Gibbs, Ph.D.

- Michael Heinrich, M.D.
- Jon D. Hennebold, Ph.D.
- Monica Hinds, Ph.D.
- Yan Li
- Mark Slifka, Ph.D.
- Lydie Trautmann, Eng.D., Ph.D.
- Marina Wolf, Ph.D.

SPONSORS

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

Questions? Contact us at innovates@ohsu.edu.

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