

INNOVATION AWARDS





OHSU's research community remained strong and innovative during 2020. Through loss, uncertainty and unrest, this community has come forward with existing and newfound skills to create solutions and find ways to make things better and brighter. These efforts have been a bright note and counterpoint to the turmoil and disruption that we've experienced.

Together, we have celebrated new startup companies, collaborated with new and existing industry partners, continued to innovate as a community and have continued to push technology advancements forward through new and challenging working environments. Your teamwork, resilience and determination make it a pleasure to do our part in the success of OHSU's

mission and vision.

Technology Transfer and Collaborations and Entrepreneurship are proud to recognize and honor many individuals involved in innovation, entrepreneurship, industry partnership and technology commercialization at OHSU during the past year. Thank you for being a part of OHSU and making us who we are.

Andrew Watson, Ph.D. SENIOR DIRECTOR, TECHNOLOGY TRANSFER

Aditi Martin, Ph.D.

SENIOR DIRECTOR, COLLABORATIONS AND ENTREPRENEURSHIP

CREATORS OF LICENSED TECHNOLOGY

Kei Adachi Andrew Adey Ramsey Al-Hakim **Tom Barbara Connor Barth Christie Binder** Peter Campbell Jessica Castle **David Castro** Xiao Lan Chang Yiyi Chen Albert Chi Aaron Coyner Craig Dorrell Brian Druker Joseph El Youssef Diane Elliot Khashayar Farsad Sky Ferrara **Evan Fontaine** Lina Gao Summer Gibbs Drew Gingerich Eric Gouaux

Joe Gray Markus Grompe Matthew Hansen Samuel Huang Wei Huang Thomas Jacob **Peter Jacobs** Yali Jia John Kaufman **Knight Cancer Biolibrary Dave Lawrence** Joseph Leitschuh David Lewinsohn Xin Li R. Stephen Lloyd Amanda McCullough Whitney Menzel William Messer Irina Minko Brendan Moloney Ryan Mulqueen Hiroyuki Nakai Scott Naugler Christie Naze

Thuy Ngo

Aaron Nilsen

Oregon Hearing Research Center

Susan Ostmo

Arvin Paranjpe

Ashok Reddy

Michael Riscoe

Bill Rooney

Tom Scanlan

David Sheridan

Travis Smith

Charles Springer, Jr.

Philip Streeter

Charles Thomas

Henryk Urbanski

Tania Vu Richard Wampler Lei Wang Xiang Wei Richard Weleber Randy Woltjer Glenn Woodworth



PRINCIPAL INVESTIGATORS OF NON-CLINICAL INDUSTRY SPONSORED RESEARCH

Ted Acott John Brigande Kim Burchiel Benjamin Burwitz Jessica Castle Michael Cohen Verginia Cuzon Carlson Brian Druker Jacob Estes Khashayar Farsad Betsy Ferguson William Fleming Jeff Gold Joe Gray Markus Grompe Paul Kievit Jodi Lapidus Nicola Long Daniel Marks Owen McCarty Matthias Merkel Justin Merritt Gordon Mills Amy Moran Hiroyuki Nakai Craig Okada Alex Ortega Loayza Cristina Puy Garcia Phil Raess Brian Scottoline Tom Shearer Heather Sidener Ov Slayden Mark Slifka Daniel Streblow Cristina Tognon Elie Traer Mitchell Turker Jeffrey Tyner Arthur Vandenbark David Wilson Xiangshu Xiao Wassana Yantasee Craig Yoshioka

Donna Hansel Jon Hennebold Ann Hessell Monica Hinds

Maria Rodriguez James Ross

Renee Ryals

Tom Scanlan

Mary Zelinski David Zonies

NEW COMPANIES BASED ON OHSU TECHNOLOGY

Boston Al Labs, Inc.

Capsigen, Inc.

eLoomix, LLC

Luciole Pharmaceuticals, Inc.

Promedix, Inc.

United in Heart

INVENTORS OF ISSUED US PATENTS

Kei Adachi	Deborah Lewinsohn
Prakash Ambady	Yan Li
Tapasree Banerji	Daniel Malouli
Jordan Devereaux	Nancy Meyer
Brian Druker	Rob Meza-Romero
Jack Ferracane	Hiroyuki Nakai
Sky Ferrara	Jay Nelson
Antonio Frias	Edward Neuwelt
Klaus Frueh	Aaron Nilsen
Joe Gray	Carmem Pfeifer
Markus Grompe	Louis Picker
Andras Gruber	Ana Paula Piovezan Fugolin
Beth Habecker	Michael Riscoe
Meaghan Hancock	Jonah Sacha
Scott Hansen	Tom Scanlan
Melanie Harriff	Matthias Schabel

David Huang Thomas Jacob Yali Jia Chris Kroenke David Lewinsohn Justina Sileikyte Erik Tucker Arthur Vandenbark Tania Vu Jeffrey Wu



EARLY CAREER INNOVATOR



Connor Barth, Ph.D.

CO-FOUNDER AND CEO, <u>INHERENT TARGETING, LLC</u> RESEARCH SCIENTIST, <u>GIBBS LAB</u>

The Early Career Innovator Award is presented to an OHSU employee such as a student, post-doctoral fellow, medical resident or someone else early in their professional career who possesses a passion for innovation and developing technologies to solve real-world problems. They work closely with the innovation ecosystems within and outside of OHSU to prepare their innovations for commercial success.

As a doctoral student in the lab of Summer Gibbs, Ph.D., Barth worked on the development of a new class of nerve-specific fluorescent dyes used to detect tumor margins during fluorescence-guided surgery. These near-infrared dyes were the foundation of Inherent Targeting LLC, a start-up co-founded by Barth, Gibbs and Lei Wang, Ph.D. They will be used to improve a surgeon's ability to visualize nerves during surgery, therefore reducing the risk of nerve damage.

Since his graduation in 2018, Barth has continued in the Gibbs lab as a research scientist while, as CEO of Inherent Targeting, he focuses on the commercialization and clinical translation of the nerve-specific dyes. Barth, Gibbs and Wang have worked extensively with OHSU Technology Transfer, OHSU Collaborations and Entrepreneurship and the Oregon Clinical Translational Research Institute—as well as with external mentors—to move the technology forward. Through these efforts, Barth and his cofounders are guiding Inherent Targeting to successfully bring the nerve-specific near-infrared dyes to the clinic.

CAREER INNOVATION EXCELLENCE



Markus Grompe, M.D.

PROFESSOR, PEDIATRICS, SCHOOL OF MEDICINE DIRECTOR, OREGON STEM CELL CENTER RAY HICKEY CHAIR OF PEDIATRIC RESEARCH AND DIRECTOR OF THE PAPÉ FAMILY PEDIATRIC RESEARCH INSTITUTE, 2008–2018

The Career Innovation Excellence Award is presented to an OHSU employee who over the course of their career has demonstrated to be an accomplished inventor and entrepreneur, has shown a true passion for innovation, has been successful in engaging and cultivating partnerships with industry, and has worked tirelessly to translate their discoveries into solutions for real-world problems and the benefit of society.

In his thirty years with OHSU, Markus Grompe's research has advanced the clinical care of patients in significant ways. A prolific innovator, he has made major advancements in the development of platforms for treating single gene disorders through cell selection and gene transfer techniques. Grompe and his collaborators have conceived and developed ninety new innovations over the years, of which twenty-eight have been licensed by OHSU to industry partners such as LogicBio, Inc. (NASDAQ: LOGC), Cytotheryx, Inc., and Yecuris, Inc.

Among many key scientific achievements, Grompe showed therapeutic stem cells can be derived from adult bone marrow, developed effective screening and treatments for the rare liver disorder tyrosinemia type 1, identified and cloned a key gene linked to Fanconi anemia, and much more. He created a method of using mice to generate human liver cells—a capability useful in testing the effects of new drugs or diseases that led to the formation of Yecuris. Grompe is a scientific founder of Yecuris and Ambys Medicines, Inc., a portfolio company of Third Rock Ventures that is developing innovative treatments for liver disease.

In 2020, Grompe was inducted into the OHSU Chapter of the National Academy

of Inventors for his innovative ideas and contributions to the scientific community.

NEW INNOVATORS OF THE YEAR



Albert Chi, M.D. Associate professor of surgery, school of medicine Evan Fontaine, M.S. Lead engineer, chi lab Whitney Menzel senior research assistant, chi lab

The New Innovators of the Year Award is presented to an employee, or team, relatively new to the innovation development process at OHSU, but who demonstrates true passion for advancing technology development and has made great strides and efforts in collaborating with various innovator ecosystems within and outside of OHSU. They demonstrate an eagerness to see their discoveries translate into tangible solutions for societal benefit.

As the COVID-19 pandemic spread across the globe in early 2020, health care professionals anticipated a serious shortage of the ventilators needed to keep the sickest patients alive. In response, Albert Chi, Evan Fontaine and Whitney Menzel designed a ventilator that can be widely produced for \$10 USD in 3-10 hours with a 3D-printer. The device was designed to be used when clinicians must make life-or-death decisions about which patients are intubated with ventilators to improve their chances of survival.

In addition to collaborations within OHSU, this work was funded by OCTRI's Biomedical Innovation Program. The team worked closely with 3D-printing technology firms and had some assistance from engineers at Oregon-based Nike. The group filed for emergency use authorization from the US Food and Drug Administration to deploy the design across the country. In addition to its low price and rapid producibility, the device requires no electricity—only a standard oxygen tank. The future may see it used in austere environments such as military

operations or sites of natural disasters.

NATIONAL ACADEMY OF INVENTORS HONORARY MEMBERS

Sudarshan Anand

Thomas Barrett

Summer Gibbs

Jessica Grant

Joe Gray

Michael Hutchens

Carmem Pfeifer

David Sheridan

INDUCTEES IN THE OHSU CHAPTER OF THE NATIONAL ACADEMY OF INVENTORS

Tapasree Banerji

Tom Scanlan

Sky Ferrara

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