2012
Technology Innovation Awards

Honoring Students, Faculty, and Staff for their Dedication to Innovation and Entrepreneurship at OHSU

Thursday, October 25, 2012
Macdonald Auditorium
Casey Eye Institute
Portland, Oregon

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2012 Technology Innovation Awards

WELCOME & AWARDS REMARKS
Andrew R.O. Watson, PhD, CLP
Interim Director, Technology Transfer
Technology Transfer and Business Development

Daniel M. Dorsa, PhD
Vice President for Research

Abhijit Banerjee, PhD, MBA
Director, Business Development
Technology Transfer and Business Development

J. Timothy Stout, MD, PhD, MBA
Vice President
Technology Transfer and Business Development

KEYNOTE PRESENTATION
Kenton W. Gregory, MD, FACC
Center Director
Center for Regenerative Medicine

PRESENTATION OF AWARDS
Andrew R.O. Watson, PhD, CLP
Abhijit Banerjee, PhD, MBA
J. Timothy Stout, MD, PhD, MBA
Daniel M. Dorsa, PhD

The Technology Transfer and Business Development Team

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Vice President

TECHNOLOGY TRANSFER

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Interim Director, Technology Transfer

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Senior Technology Dev. Manager

Travis Cook, MS, MBA
Technology Dev. Manager

Robert Copenhaver, MS, MBA
Technology Dev. Manager

Arvin Paranjpe, MS, JD
Technology Dev. Manager

Dennis Hanson, PhD
Technology Dev. Manager

H. Tommy Pham, MBA
Agreements Officer

Ruth Epling
Agreements Officer

Christopher Stoner, PhD
Agreements Officer

Trina L. Voss
Agreements Officer

BUSINESS DEVELOPMENT

Abhijit Banerjee, PhD, MBA
Director, Business Development

Joseph Carroll, PhD
Associate Director, Business Dev.

Brittany E. Sale, MS
Business Dev. Coordinator

Sangeeta Rojanala, PhD
Business Dev. Coordinator

PATENT

Christopher Andon, MS
Patent Associate

Jeffrey Jackson, MS, JD
Patent Associate

Derek Watson
Patent Paralegal

ADMINISTRATION

Nicole D.W. Garrison
Executive Assistant

Erin Hendricks
Marketing & Accounting Coord.

Elaine Soljaga
Exec. Assistant to J. Timothy Stout

Technology Transfer and Business Development at OHSU

The mission of the office of Technology Transfer and Business Development (TTBD) at OHSU is to support the research community by facilitating and managing research collaborations and business partnerships. TTBD promotes a culture of innovation and entrepreneurship that enables the transfer of research from the laboratory to the market for the benefit of the public.

OHSU is breaking new ground in the effort to improve life for Oregon and beyond. As part of that process, TTBD licenses OHSU's intellectual property for commercialization; links business with OHSU technologies and expertise; negotiates sponsored research agreements with industry; and works closely with spin-off companies based on OHSU technology.

Other key measures of OHSU's progress in moving discoveries toward commercialization during the last fiscal year include:

- 117 invention disclosures, involving 209 OHSU inventors, with over 50% being first time OHSU inventors.
- 56 license and option agreements.
- 7 inter-institutional agreements with co-owners of technology.
- 81 industry sponsored research agreements, totaling over $12.8m in awards (highest ever total awards).
- 35 research collaboration agreements. 20 with industry, 15 with other academics.
- 553 material transfer agreements, 401 of these for incoming materials. Highest total ever processed by TTBD.
- 144 non-disclosure agreements, nearly 100% increase since 2007. Highest total ever processed by TTBD, highlighting TTBD's increasing efforts in linking OHSU research and technology to the bioscience community.
- 20 U.S. patents issued, 13 patents issued outside the U.S.
- 119 total patent applications filed, 27 patent applications filed on new technology.
- 1 startup company launched based on OHSU technology.
- Arranged and facilitated nearly 30 industry meetings with over 130 OHSU researchers.

2012 Technology Innovation Awards Keynote Presentation

KEYNOTE PRESENTATION

Kenton Gregory, MD, FACC

A highly accomplished physician-bioengineer, whose landmark research breakthroughs include the development of lifesaving medical products for troops on the battlefield, is the Director of the Center for Regenerative Medicine at Oregon Health & Science University. Gregory's 15-member team, which includes four M.D. and Ph.D. scientists, moved from Providence St. Vincent Medical Center to OHSU's Marquam Hill Campus in January 2012. Gregory also holds a faculty appointment in the Division of Cardiovascular Medicine and Department of Biomedical Engineering in the OHSU School of Medicine. He was the founder of the Oregon Medical Laser Center at Providence St. Vincent Medical Center, where he held an endowed chair in laser medicine and surgery and was a practicing interventional cardiologist.

As center director, Gregory is directing efforts to advance autologous stem cell treatments to safely regenerate hearts damaged by heart attacks and cardiomyopathies that cause heart failure. He has advanced pioneering work to regenerate arms and legs severely damaged from battlefield blast injuries — work that could easily be translated to civilian extremity injuries to accelerate and improve healing. He is also directing efforts to regenerate skin after burn injuries and lung tissue after acute lung injury and prevent paralysis after nerve and spinal cord injuries.

Gregory received his undergraduate degree in engineering and Doctorate in Medicine from the University of Southern California. He completed his internship/residency in internal medicine and a fellowship in cardiology at the Wadsworth Veterans Administration Hospital in Los Angeles; he also completed an additional research fellowship in cardiology at the Irvine Medical Center in Orange, Calif. He has held teaching positions at the University of California, Irvine Medical School, and Harvard University School of Medicine, and served as staff cardiologist at Massachusetts General Hospital.

Gregory holds over 20 domestic and international patents, has served as Principal Investigator on five FDA-sponsored clinical trials, and has received more than $50 million in grants. Among his many accomplishments, Gregory has launched seven spin-off companies since 1991 — three headquartered in Oregon.

Inventors of Technologies Licensed in Fiscal Year 2012

A rhesus macaque rhadinovirus
Inventors Michael Axthelm, DVM, PhD, Robert Searles, PhD, Scott Wong, PhD

Anti-factor XI monoclonal antibody (AXIMAB)
Inventors Andras Gruber, MD, Stephen Hanson, PhD, Erik Tucker, PhD

Anti-factor XI monoclonal antibody 2
Inventors Andras Gruber, MD, Erik Tucker, PhD

Audiofeedback balance training device

Balance evaluation systems test: BESTest
Inventor Fay Horak, PhD

Blood vessel derived stem cells
Inventor William Fleming, MD, PhD

Confocal pathology apparatus
Inventor Dan Gareau, PhD

Speech Corpus: 22 language
Speech Corpus: Foreign accented english
Speech Corpus: Isolet
Speech Corpus: Kids speech v1.1
Speech Corpus: Multilanguage telephone speech v1.2
Speech Corpus: Names v1.3
Speech Corpus: National cellular v2.3
Speech Corpus: Numbers v1.3
Speech Corpus: Speaker recognition v1.1
Speech Corpus: The spoltech brazilian portuguese v1.0
Speech Corpus: Voices v1.0
Inventor Center for Spoken Language Understanding

Business Partnership Achievement Award

Jeffrey Kaye, MD

Dr. Jeff Kaye is the Director of Layton Aging Center at the Department of Neurology and also Co-Director of ORCATECH. For the last 2 years Dr. Kaye has worked very closely with the Business Development group within TTBD to help champion ORCATECH and its capabilities to pharma and biotech companies and also within OHSU leadership. Due to this joint effort ORCATECH is now receiving attention from pharma companies who have expressed their willingness to partner with ORCATECH for conducting clinical trials and research programs.

New Inventor of the Year Award

David Huang, MD, PhD

In 1991, Dr. David Huang co-invented Optical Coherence Tomography (OCT) , an imaging tool that has revolutionized the field of ophthalmology. In recognition of this contribution, he and his colleagues won the António Champalimaud Vision Award this year (considered the Nobel Prize for Vision). TTBD received four invention disclosures during Dr. Huang's first year at OHSU, three of which are subject to patent protection. One such technology is an OCT imaging software that improves the signal-to-noise ratio of flow detection and enables detailed vascular images. TTBD is currently engaged in negotiations to license this technology to an OCT company.

Technology Transfer Achievement Award

Charles Keller, MD

Dr. Charles Keller begins and ends his day corresponding with families that look to him for hope and for an explanation of their child's rare form of cancer. The Keller Laboratory studies the driving mechanisms and therapeutic targets in the childhood muscle and brain cancers; an area of unmet medical need easily overlooked by most drug development companies. Since Dr. Keller's tenure began at OHSU, he has become a prominent leader in the field, exemplified by his inauguration into the National Cancer Institute supported Pediatric Preclinical Testing Program and the Children's Oncology Group. Dr. Keller believes in collaborative research environments and is continually building relationships worldwide.

OHSU Startup Formed in Fiscal Year 2012

Ivey Creek, LLC
Inventors Robert Duvoisin, PhD, Catherine Morgans, PhD

Ivey Creek will develop an immunoassay and a vaccine for the diagnosis and treatment of metastatic cutaneous melanoma. The assay will provide a means for early detection of tumor metastasis and will be used in combination with diagnostic tests that will impact the decision for the best course of treatment for the cancer patient. A vaccine will also be developed to treat mestastic melanoma patients and prolong survival.

Inventors of Technologies Licensed in Fiscal Year 2012

CMV as a vaccine vector for prophylactic and therapeutic treatment of various pathogens and cancer

Inventors Klaus Frueh, PhD, Scott Hansen, PhD, Michael Jarvis, PhD, Jay Nelson, PhD, Louis Picker, MD

Dangerous decibels virtual exhibit CD
Dangerous decibels project
Jolene instruction manual

Inventor William Martin, PhD

Drug-resistant human cytomegalovirus UL97 kinase and UL54 DNA polymerase mutants

Inventor Sunwen Chou, MD

HPa1 monoclonal antibody supernatant from hybridoma DHIC2 2-C12 (alpha cell marker)

HPa2 monoclonal antibody supernatant from hybridoma DHIC2 2B4 (alpha cell marker)

HPi2 monoclonal antibody supernatant from hybridoma HIC12-B4 (endocrine cell marker)

Inventors Craig Dorrell, PhD, Markus Grompe, MD, Kelsea Shoop, MPH, Philip Streeter, PhD

Integrated care coordinated information system

Inventor David Dorr, MD

KIT materials

Inventors Christopher Corless, MD, PhD, Micheal Heinrich, MD

Inventors of Technologies Licensed in Fiscal Year 2012

KIT mutant cell lines with mutations of D816V, D816Y or D816F
Inventor Micheal Heinrich, MD

Mammalian opioid receptor ligand and uses (Orphanin FQ)
Inventors James Bunzow, MS, David Grandy, PhD

Materials from the BioLibrary
Inventors Devon Kelly, MS, Marc Loriaux, MD, PhD

Methods for detecting and treating autoimmune disorders
Inventors Halina Offner, DrMed, Arthur Vandenbark, PhD

Mice with a targeted deletion in the distal FA gene - Fancd2 knockout mice
Inventor Markus Grompe, MD

Mindfulness meditation CD
Inventor Helane Wahbeh, ND

Mutated ABL kinase domains
Inventor Brian Druker, MD

Oral compositions for treating tooth hypersensitivity
Inventors Jack Ferracane, PhD, John Mitchell, PhD

Top Industry Collaboration Awardees in Fiscal Year 2012

Louis Picker, MD

Challenge of vaccinated rhesus macaques with virulent mycobacterium tuberculosis

Ilhem Messaoudi-Powers, PhD

Characterization of VZV infection in rhesus macaques and evaluation of VZV vaccines

Martha Neuringer, PhD

Development of a japanese macaque model of dry age-related macular degeneration

Jan van Santen, PhD

Computer assisted disfluency counts to stuttered speech
Computer-based auditory skill building program for aural (re)habilitation
Computerized system for phonemic awareness intervention

Steven Jacques, PhD

Blood vessel catheter probe
Brain stroke therapy simulations
Skin tone optics

Radko Komers, MD, PhD

Effects on the development and progression of nephropathy in experimental type 2 diabetes

Inventors of US Patents Issued in Fiscal Year 2012

Methods for producing an immune response to tuberculosis
Patent 8,101,192
Inventors David Lewinsohn MD, PhD, Deborah Lewinsohn, PhD

Methods for detecting a mycobacterium tuberculosis infection
Patent 8,053,181
Inventors David Lewinsohn, MD, PhD, Deborah Lewinsohn, PhD

Monoclonal antibodies and their use
Patent 7,981,628
Inventors Craig Dorrell, PhD, Markus Grompe, MD, Kelsea Shoop, MPH, Philip Streeter, PhD

Monoclonal antibodies and their use
Patent 8,097,428
Inventors Craig Dorrell, PhD, Markus Grompe, MD, Kelsea Shoop, MPH, Philip Streeter, PhD

Platelet derived growth factor receptor alpha (PDGFRA) polypeptides comprising activating mutation(s)
Patent 8,202,969
Inventors Christopher Corless, MD, PhD, Michael Heinrich, MD

Primate pluripotent stem cells produced by somatic cell nuclear transfer
Patent 7,972,849
Inventors Shoukhrat Mitalipov, PhD, Don Wolf, PhD

Tandem mass spectrometry for detecting and/or screening for conditions associated with altered strerols
Patent 8,158,435
Inventors Andrea DeBarber, PhD, Robert Steiner, MD

Thin layer substrate coating and method of forming same
Patent 8,124,180
Inventor John Mitchell, PhD

Inventors of Technologies Licensed in Fiscal Year 2012

Rabbit polyclonal antibodies directed against HCMV proteins gH, gL, UL128, UL130 and UL131
Inventor David Johnson, PhD

Real-time non-invasive tracking of moving lung tumors in radiation therapy of lung cancer
Inventors Mark Deffebach, MD, Jeff Eriksen, John Holland, MD, Xubo Song, PhD

ReBEL: recursive bayesian estimation library
Inventor Eric Wan, PhD

Recombinant cytomegalovirus vectors with improved immunogenicity
Inventors Klaus Frueh, PhD, Scott Hansen, PhD, Louis Picker, MD

Rhesus cytomegalovirus isolate
Inventor Scott Wong, PhD

Simian foamy virus isolate
Inventors Michael Axthelm, DVM, PhD, Louis Picker, MD

Software for reduced-dimension data assimilation (RDDA)
Inventors Antonio Baptista, PhD, Todd Leen, PhD

Inventors of Technologies Licensed in Fiscal Year 2012

TRPM1 autoantibody assay and TRPM1 vaccine for the diagnosis and treatment of metastatic cutaneous melanoma

Inventors Robert Duvoisin, PhD, Catherine Morgans, PhD

U87MG cell lines expressing CD4, CD4 and CCR5, or CD4 and CXCR4

Inventors David Kabat, PhD, Emily Platt, PhD

Use of CMV vectors for tuberculosis vaccination

Inventors Scott Hansen, PhD, Michael Jarvis, PhD, Jay Nelson, PhD, Louis Picker, MD

Use of recombinant cytomegalovirus vector Lacking T cell evasion molecules as sensors for CMV-specific CD8 T cells and as inducers of broad spectrum cellular immune responses

Inventors Klaus Frueh, PhD, Scott Hansen, PhD, Louis Picker, MD

Inventors of US Patents Issued in Fiscal Year 2012

Attenuated francisella and methods of use
Patent 7,972,607
Inventors Fred Heffron, PhD, Rebecca Tempel, PhD

Bicycle gutter
Patent D646,043
Inventor Christopher Woo

Cell free screening assay and methods of use
Patent 8,030,004
Inventors Maureen Hoatlin, PhD, Igor Landais, PhD

Flavivirus inhibition by sultams and related compounds
Patent 8,003,674
Inventor Eric Barklis, PhD

Immunomodulatory properties of multipotent adult progenitor cells and uses thereof
Patent 8,147,824
Inventors Richard Maziarz, MD, Philip Streeter, PhD

Inactivating pathogens with oxidizing agents for vaccine production
Patent 8,124,397
Inventors Erika Hammarlund, MS, Mark Slifka, PhD

Method and peptide for regulating cellular activity
Patent 8,071,553
Inventors Steven Hefeneider, PhD, Sharon McCoy, MS

Methods for detecting and treating autoimmune disorders
Patent 8,053,197
Inventors Halina Offner, DrMed, Arthur Vandenbark, PhD

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