

OHSU RESEARCH

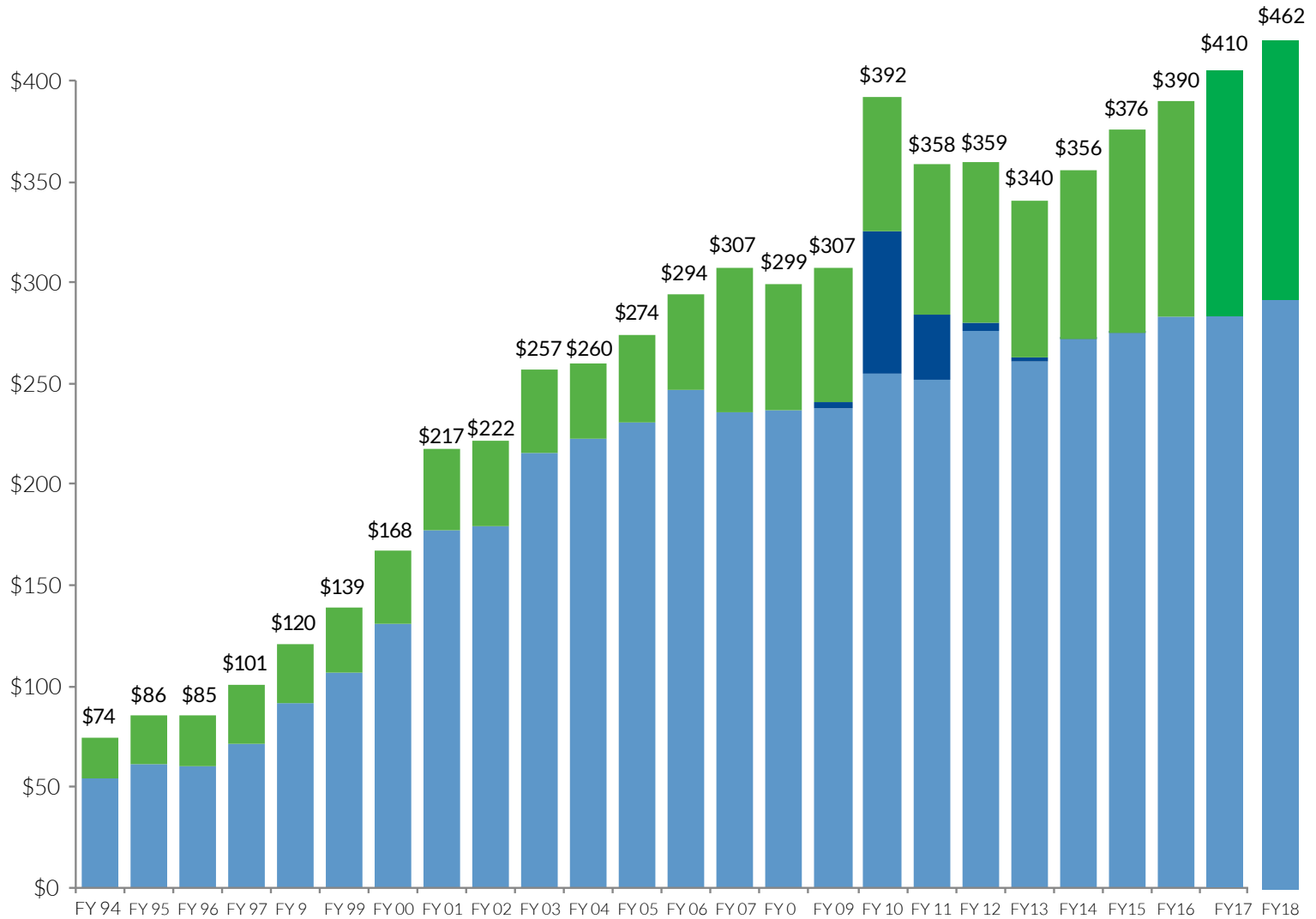
Research Funding and Awards 2018



FY 1994–2018 research awards



In fiscal year 2018, OHSU investigators were awarded \$462 million in grants and contracts, a \$50 million increase over 2017.



Sources of research funding

Discovery at OHSU is funded by a broad range of sources, creating a strong, sustainable funding portfolio.

NIH funding of research at OHSU in FY 2018 increased by \$51 million and investments from private and industry sources now constitute almost a quarter of overall research funding.

BY SPONSOR (FY 2018)

NIH	279.9 million
Other federal	\$61.2 million
Non-federal government	\$4 million
Industry	\$61.7 million
Private	\$51.3 million

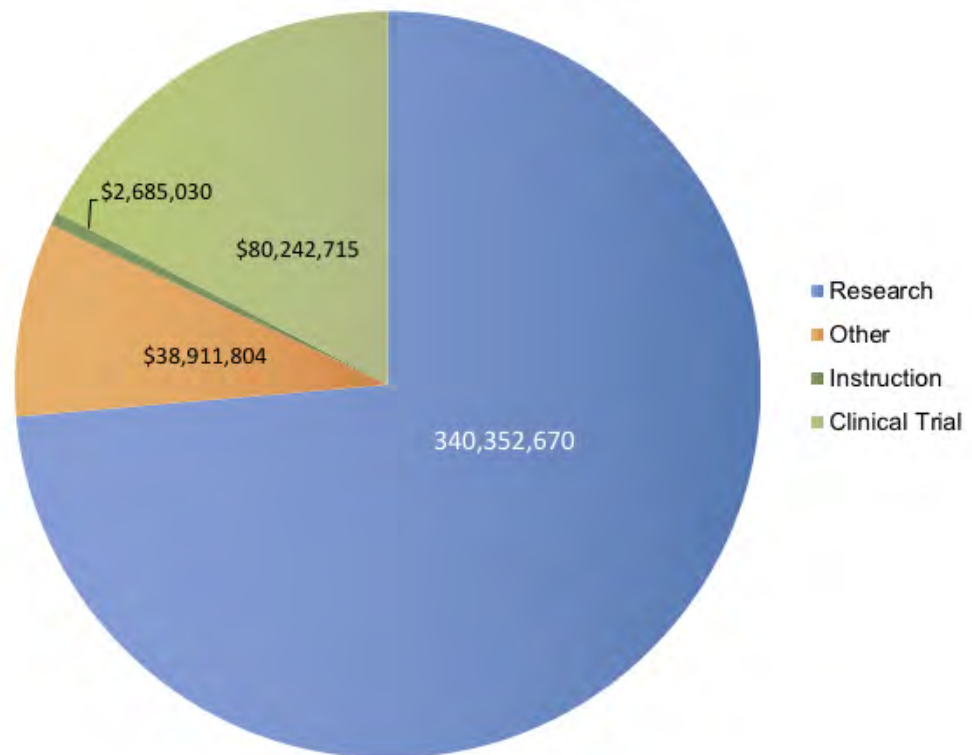
BY ACTIVITY (FY 2018)

Research	\$340.4 million
Clinical trials	\$80.2 million
Instruction	\$2.7 million
Other	\$38.9 million

BY SPONSOR (FY 2018)

U.S. Department of Defense	\$22.2 million
Agency for Healthcare Research and Quality	\$13 million
Health Resources & Services Admin	\$11 million
Centers for Disease Control and Prevention	\$4 million
DHHS Substance Abuse & Mental Hlth Service Admin	\$2.5 million
Other	\$8.5 million

Mission Area (FY 2018)



Total funds per National Institutes of Health agencies

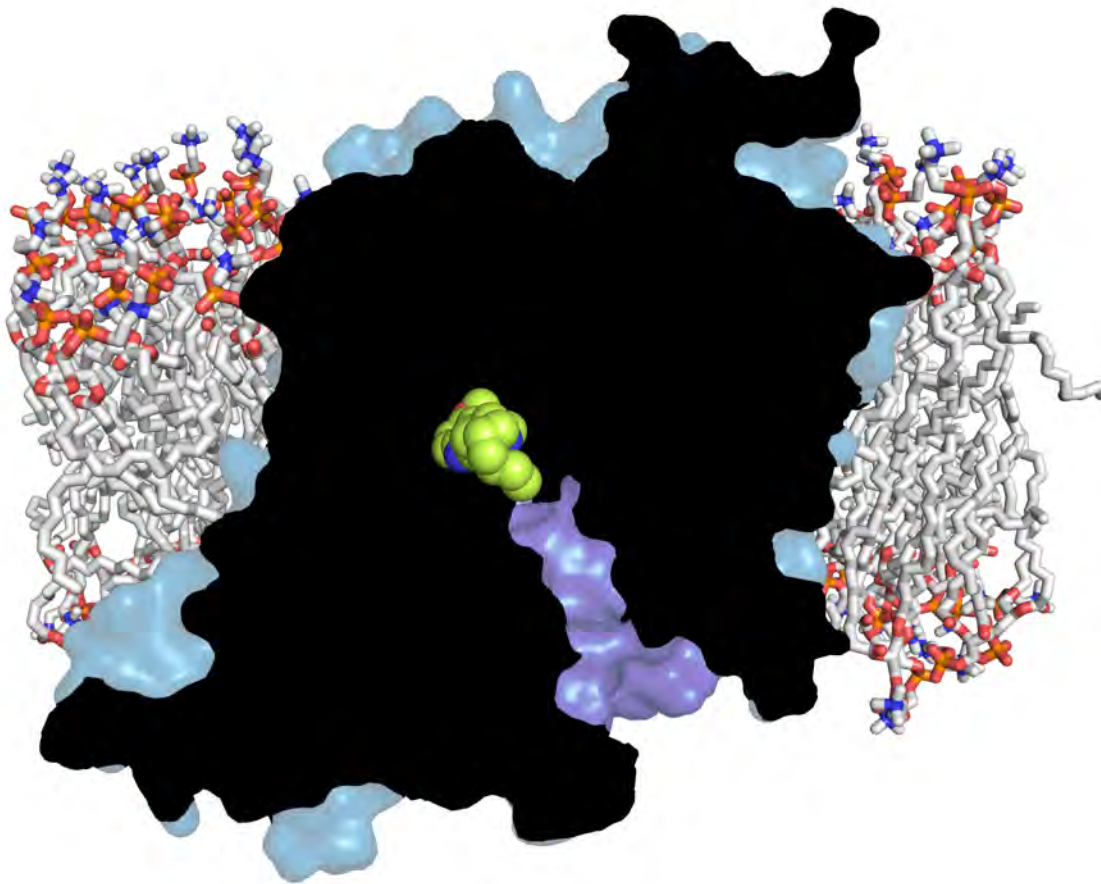
TOTAL PER NATIONAL INSTITUTES OF HEALTH AGENCY (FY 2018)

National Cancer Institute	\$45 million
National Institute of Allergy and Infectious Disease	\$27.6 million
National Heart, Lung, and Blood Institute	\$25.8 million
National Center for Advancing Translational Sciences	\$20 million
National Institute of Neurological Disorders and Stroke	\$19.9 million
National Institute of General Medical Science	\$18.2 million
Office of the Director	\$17.9 million
National Institute on Aging	\$15.3 million
National Institute of Child Health and Human Development	\$13.4 million
National Institute on Deafness and Other Communication Disorders	\$11.8 million
National Eye Institute	\$10.7 million
National Institute of Diabetes and Digestive and Kidney Diseases	\$9.9 million
National Institute on Drug Abuse	\$9.4 million
National Institute on Alcohol Abuse and Alcoholism	\$9.3 million
National Institute of Mental Health	\$6.1 million

National Human Genome Research Institute	\$3.9 million
National Institute of Dental and Craniofacial Research	\$3 million
National Institute of Arthritis and Musculoskeletal and Skin Diseases	\$3 million
National Institute on Minority Health and Health Disparities	\$2.3 million
National Library of Medicine	\$1.8 million
National Center for Complementary and Integrative Health	\$1.7 million
National Institute of Environmental Health	\$1 million
National Institute of Biomedical Imaging and Bioengineering	\$733,105
National Institute of Nursing Research	\$652,523
Fogarty International Center	\$308,687
National Center for Research Resources	\$159,784
TOTAL	\$228 million

\$128 million NIH grant brings state-of-the-art electron microscopy technology and training through three centers.

OHSU, in partnership with the Pacific Northwest National Laboratory, is one of three national centers established by the National Institutes of Health in cryo-electron microscopy, or cryo-EM.

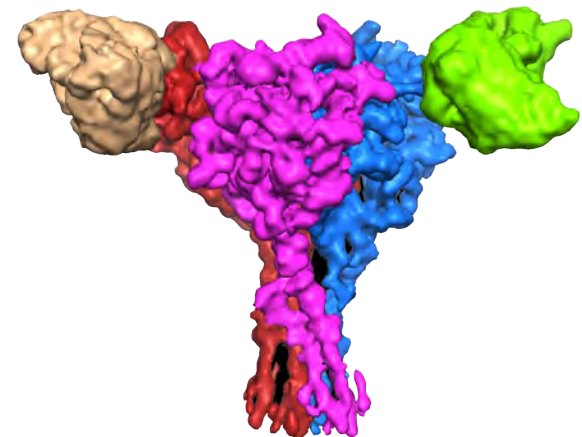


Above: Using cryo-electron microscopy, the three major shapes of a protein linked to anxiety and depression were revealed for the first time by Eric Gouaux, Ph.D., OHSU Vollum scientist and his team.

Cryo-EM, a Nobel Prize-winning method of imaging, can provide three-dimensional structural information on biological molecules with near atomic-level resolution detail.

The imaging technology has opened the doors for researchers to visualize many new types of biomolecules, such as membrane proteins, which represent 50 percent of the market currently targeted by drug developers, and will be an area of specialization at the Pacific Northwest Center for Cryo-EM Center.

Below: A team led by Vollum scientist Isabelle Baconguis, Ph.D., used cryo-EM to generate the first three-dimensional model of a sodium channel critical to controlling blood pressure.



BY SCHOOL OF MEDICINE DEPARTMENT (FY2018)

Administration (SOM)	\$2.2 million
Anesthesiology	\$4.2 million
Behavioral Neuroscience	\$12 million
Biochemistry/Molecular Biology	\$2.8 million
Biomedical Engineering	\$4.5 million
Cell, Developmental and Cancer Biology	\$6 million
Center for Developmental Health	\$9 million
Center for Evidence-based Policy	\$949,910
Computational Biology	\$4.8 million
Dermatology	\$4.1 million
Diagnostic Radiology	\$835,525
Dotter Department of Interventional Radiology	\$485,504
Emergency Medicine	\$6.2 million
Family Medicine	\$14.3 million
Institute on Development and Disability	\$9.8 million
Medical Informatics and Clinical Epidemiology	\$11.2 million
Medicine	\$15.7 million

DEPARTMENT
FY 2018 AWARD AMOUNT

Molecular and Medical Genetics	\$8 million
Molecular Microbiology and Immunology	\$9.1 million
Neurological Surgery	\$4.8 million
Neurology	\$25 million
Obstetrics and Gynecology	\$7.6 million
OCSSB	\$6.8 million
OHSU Knight Cancer Institute	\$63.4 million
OHSU Knight Cardiovascular Institute	\$8.9 million
Ophthalmology	\$10.8 million
Orthopaedics and Rehabilitation	\$1.2 million
Otolaryngology and Head/Neck Surgery	\$12.1 million
Pathology	\$543,344
Pediatrics	\$16.9 million
Physiology and Pharmacology	\$6.1 million
Psychiatry	\$8.5 million
Radiation Oncology	\$288,739
Surgery	\$11.7 million

BY SCHOOL/UNIT (FY 2018)

Administration	\$2.9 million
Hospital	\$1 million
Provost areas	\$4.2 million
School of Dentistry	\$4.5 million
School of Medicine	\$304.7 million
School of Nursing	\$5 million
School of Public Health	\$7 million
Office of the Senior Vice President for Research	\$133 million

Technology Transfer and Business Development

Fiscal year 2018 brought 131 new invention disclosures, six new companies based on OHSU technology and a 32% increase in license income over FY 2017

New companies based on OHSU technology

OHSU research discoveries, translated into commercially viable products and services, resulted in six new startups in FY 2018.

This brings to 69 the cumulative number of OHSU startups formed since 1998.

- CytolImage Dx – developing imaging diagnostics for drug screening and personalized detection of disease.
- Llama Therapeutics – developing thymomimetics drugs for the treatment of multiple sclerosis and other diseases.
- NervGen Pharma Corp. – advancing into the clinic a drug candidate for the treatment of spinal cord injury.
- OmnEcoil Instruments, Inc. – developing a novel device that utilizes the benefits of MRI for prostate cancer detection and tissue sampling in one integrated procedure for a more efficient and accurate diagnosis.
- The Spoonbill Foundation – developing a medical food to treat pantothenate kinase-associated neurodegeneration.

131 new inventions disclosed

522 material transfer agreements completed (up from 510 in FY17)

40 U.S patent applications filed on new technology

122 license and option agreements on OHSU technology— up from 93 in FY17

68 total U.S. patents filed

\$2.3 in license income, a 32% increase over the \$1.77 income in FY 2017

\$18.4 awarded under 94 agreements for nonclinical industry-sponsored research



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