

Publications of the Week

Discovery of a Transferrin Receptor 1-Binding Aptamer and Its Application in Cancer Cell Depletion for Adoptive T Cell Therapy Manufacturing

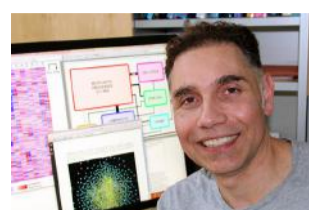
First Author: Emmeline Cheng (*pictured, third from left*) | Senior Author: Suzie Pun (*right*)
Journal of the American Chemical Society | UW and Seattle Children's



The clinical manufacturing of chimeric antigen receptor (CAR) T cells includes cell selection, activation, gene transduction, and expansion. While the method of T-cell selection varies across companies, current methods do not actively eliminate the cancer cells in the patient's apheresis product from the healthy immune cells. The authors report the identification of a novel high-affinity DNA aptamer, termed tJBA8.1, that binds transferrin receptor 1, a receptor broadly upregulated by cancer cells. [Profile](#) | [Abstract](#)

Breath of Fresh Air: Towards Unraveling the Molecular Underpinnings of Sleep Apnea

First Author: Brian Cade | Senior Author: Sina Gharib (*pictured*)
American Journal of Respiratory and Critical Care Medicine | UW



Obstructive sleep apnea (OSA) is an important risk factor for multiple diseases. The authors describe the first significant associations with OSA and related traits in a large Han Chinese sample comprised of over 5,000 cases and 15,000 controls. Highlights of this work include the use of polysomnography to allow deeper phenotypic assessment of cases in this first large study of an under-examined population, and importantly, efforts to functionally validate key findings. [Abstract](#)

[View All Publications](#)

Awards

Meet The 2022–2023 ISCRM Fellows

UW Institute for Stem Cell & Regenerative Medicine (ISCRM)



The 2022–2023 ISCRM Fellows were selected from a deep pool of undergraduate students, PhD students, and postdocs making critical contributions to medical research. Graduate student Mark Andrade (*pictured*) will explore the feasibility of activating Sonic Hedgehog and/or Wnt signaling in pancreatic beta-cells after they have differentiated into endocrine cells and will test whether the competency of beta-cells to replicate as a result of cE-catenin downregulation may change as a function of age, and/or in response to injury and metabolic stressors. [Read More](#)

BioE PhD student Julien Bloch, receives the 2022 Center for Neurotechnology Best Paper Award

UW Department of Bioengineering (BioE)



UW BioE PhD student Julien Bloch (*pictured*) was named the 2022 recipient of the Center for Neurotechnology (CNT) Best Paper Award for Neurotechnology Advancement. The award acknowledges and promotes technical papers written by students affiliated with CNT that make identifiable contributions in neurotechnology or human-machine interaction. [Read More](#)

[View All Awards](#)

Local News

BBI Interns Committed to Using Science to Improving People's Lives as Future Researchers or Physicians — or Both

Brotman Baty Institute (BBI)



Ada Okereke (*pictured, left*) was the valedictorian of her high school class, in a Los Angeles County public school that did not have a college counselor. Asa Laskie (*center*) is a member of the Chickasaw Nation. And Danielle Ansong (*right*) is fluent in Akan, the most widely spoken indigenous language in Ghana, West Africa. So, what do these three young adults have in common? They are summer interns sponsored by BBI at Fred Hutch, UW Medicine, and Seattle Children's. [Read More](#)

DNA's Molecular Wrinkles: Why You Might Be Older or Younger Than You Think

Allen Institute



The number of birthdays you've had may not be the most accurate way to determine how old your body is. Instead, scientists are looking to measure biological age. With biological factors considered, biological age may not only be a better predictor of how old an individual is — what if you are actually older or younger than you think you are? — but it also may be a better predictor of lifespan and health. [Read More](#)

Search On for Better Way to Diagnose and Treat Lung Cancer

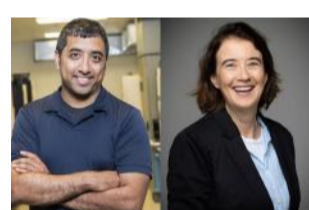
UW Medicine



The goal: Improve survival rates for lung cancer patients. The question researchers want to answer: Are there new ways to determine the best treatment for these patients? This is what UW Medicine researchers hope to discover through a five-year, \$2.7 million grant from the National Cancer Institute. "Diagnostic tests have known error rates," said Dr. Farhood Farjah (*pictured*), Associate Professor of Surgery at UW Medicine. [Read More](#)

Researchers Gain Insights on Developmental Defects by Mapping Stages of Fruit Fly Embryo Growth

Brotman Baty Institute (BBI)



Scientists have constructed the most complete and detailed single-cell map of embryo development in any animal to date, using the fruit fly as a model organism. Published in *Science*, the study, co-led by BBI Scientific Director Dr. Jay Shendure (*pictured, left*) and Dr. Eileen Furlong (*right*) of the European Molecular Biology Laboratory, harnesses data from over one million embryonic cells spanning all stages of embryo development and represents a significant advance at multiple levels. [Read More](#)

Meet the Researcher: Ayokunle Olanrewaju

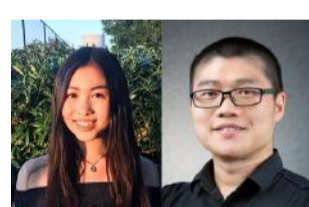
UW Department of Bioengineering



Dr. Ayokunle (Ayo) Olanrewaju (*pictured*) is Assistant Professor of Mechanical Engineering and of Bioengineering. His research applies 3D microfabrication, autonomous microfluidics, and molecular assays to address medical challenges in treating infectious and chronic diseases, such as HIV, tuberculosis, and cancer. He develops technologies for rapid and user-friendly monitoring of medications on an ongoing basis to help patients adhere to drug dosing schedules, prevent treatment failure, and improve health outcomes. [Read More](#)

31 UW Bioengineering Students Presented Their Work at the Undergraduate Research Symposium

UW Department of Bioengineering



The 25th UW Undergraduate Research Symposium took place in May and featured hundreds of UW students from all academic disciplines who presented their research topics. Thirty-one of the presenters are bioengineering students. Rachel Shi (*pictured, left*), mentored by Dr. Runbang Tang (*right*), gave a presentation titled "Developing a Polymeric Membrane for Selective Nanofiltration of Toxins in Dialysis". [Read More](#)

Dr. Anthony Fauci Stops in Seattle for Fred Hutch Q&A, Throws First Pitch at Mariners Game

GeekWire



Dr. Anthony Fauci (*pictured*), President Biden's Chief Medical Advisor and a leader of the country's COVID-19 response, made a pit stop in Seattle for a fireside chat at Fred Hutch and to throw the first pitch at a Mariners game. Dr. Fauci sat down with Dr. Larry Corey, the former Fred Hutch president, for a conversation that covered everything from the country's COVID-19 response to what keeps the 81-year-old up at night. [Read More](#)

[View All Articles](#) | [Submit an Article](#)

Upcoming Events in Seattle

- August 18
4:30 PM

Life Science Washington Annual Summer Social
Rooftop Deck Seattle
- August 21 -
September 4
9:00 AM

Summer Workshop on the Dynamic Brain
Allen Institute
- September 7
8:30 AM

2022 From the Laboratory to Leadership – Virtual Fall Program
Online
- September 9 -
10
9:00 AM

5th Symposium on Cancer Survivorship for Clinicians
Bell Harbor International Conference Center
- September 10
10:30 AM

Sickle Cell 5K Walk
Seward Park

[View All Events](#) | [Submit an Event](#)

Science Jobs in Seattle

- Biologics Associate II/III**
Fred Hutch
- Postdoctoral Fellow, Research**
Seattle Children's
- Clinical Research Coordinator II**
Benaroya Research Institute at Virginia Mason
- Supervisor, Research & Innovation**
Adaptive Biotechnologies
- Senior Medical Scientist, Oncology**
Gilead Sciences

[View 42 Other Science Jobs](#) | [Submit a Job](#)

Win a personalized lab coat.
Subscribe to our immunology newsletters for a chance to win.

[SUBSCRIBE NOW](#)

Submit your articles and events by reaching out to us at info@scienceinseattle.com.

BROUGHT TO YOU BY

