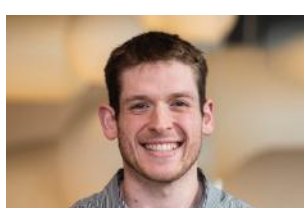


Publications of the Week
Dynamic Rhythmic Network States Drive Differential Opioid Responses in the *In Vitro* Respiratory Network

 First Author: Nicholas Burggraf *(pictured)* | Senior Author: Nathan Baertsch
 The Journal of Neuroscience | The Center for Integrative Brain Research, Seattle Children's, and UW


The PreBötzinger Complex (preBötC) in the ventral medulla is an important site for generating the respiratory rhythm and opioid-induced respiratory depression. Using male and female C57-B16 mice *in vitro*, the authors demonstrate that the preBötC can assume different network states depending on its excitability and the intrinsic membrane properties of preBötC neurons. [Abstract](#)

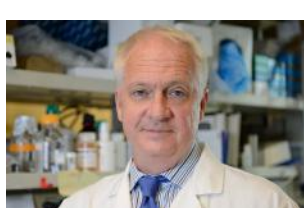
Metabolic Regulation by PD-1 Signaling Promotes Long-Lived Quiescent CD8 T Cell Memory in Mice

 First Author: Vandana Kalia | Senior Author: Surojit Sarkar *(pictured)*


CD8 T cell exhaustion, often characterized by persistent expression of the inhibitory receptor, programmed cell death protein 1 (PD-1), is a feature of cancer and chronic infections. The authors investigated the impact of PD-1 signaling on memory CD8 T cells. Using an acute viral infection model, they showed that, although PD-1 deficiency did not substantially affect initial T cell expansion, loss of T cell-specific PD-1 resulted in depletion of the memory T cell pool. [Abstract](#)

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Awards
Holland Receives NCI Outstanding Investigator Award

Fred Hutch



Fred Hutch neuroscientist Dr. Eric Holland *(pictured)* has received a National Cancer Institute (NCI) Outstanding Investigator Award. The NCI created these grants to provide "extended funding stability for projects of exceptional potential in cancer research." The seven-year, \$7 million grant will support Dr. Holland's investigations into different classes of genetic mutations and how they can cause cancer. [Read More](#)

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Local News
Announcing the Allen Institute for Neural Dynamics, a New Neuroscience Division of the Allen Institute

The Allen Institute



The Allen Institute announced the launch of the Allen Institute for Neural Dynamics, a new neuroscience research division focused on the mammalian brain's computations that give rise to complex behaviors like decision making, learning and memory. The new division will collaborate with and build off foundational work carried out by the Allen Institute's other neuroscience research groups, the Allen Institute for Brain Science and the MindScope Program. [Read More](#)

New Tech Gives Kidney Stone Patients Options

UW Medicine



Patients dealing with small kidney stones that persist after surgery may soon have options to "push" the stones from their body, rather than face another more invasive procedure. A clinical trial at the Kidney Stone Center at UW Medical Center – Northwest is testing the ability of ultrasound waves to dislodge and move small fragments left behind after surgery so they can naturally be expelled. [Read More](#)

Seattle Children's Looks to Become "Center of Excellence" in Gene and Cell Therapy

Seattle Children's



Recent breakthroughs in cell and gene therapy research within Seattle Children's Research Division, which includes both Seattle Children's Research Institute and Seattle Children's Therapeutics, has contributed to the creation of new technologies, new companies and – researchers hope – will lead to a range of new treatments and cures for pediatric diseases down the line. [Read More](#)

Can an Electroceutical Treat Rheumatoid Arthritis?

UW Medicine



UW Medicine physicians are helping conduct a study to see whether nerve stimulation can reduce the inflammation that causes rheumatoid arthritis. This is the first large-scale trial to see if manipulating the nervous system can influence the immune system. The study reflects a growing interest in the use of electrical devices to achieve effects usually requiring drugs. [Read More](#)

BBI Faculty Conversations: Dr. Heather Gustafson

Brotman Baty Institute



The Brotman Baty Institute (BBI) Faculty Conversations catch up with BBI members from their partner institutions to get an inside view of their work and where they think the field of precision medicine is heading. They were recently joined by BBI member Dr. Heather Gustafson *(pictured)*, Assistant Professor in the Ben Towne Center for Childhood Cancer Research at Seattle Children's Hospital. [Read More](#)

New Chair of UW Department of Bioengineering Named

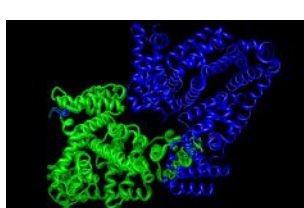
UW Medicine



Dr. Princess Imoukhuede *(pictured)*, a leader in systems biology research, engineering education, and academic diversity initiatives, has been named the new chair of the Department of Bioengineering at UW. "The department has the advantage of being housed in both the School of Medicine and the College of Engineering – so the value for collaboration is embedded within the structure of the department," said Dr. Imoukhuede. [Read More](#)

Nautilus and Abcam Announce Strategic Partnership to Accelerate Exploration of the Proteome

Nautilus Biotechnology



Nautilus Biotechnology, a company pioneering a single-molecule protein analysis platform for quantifying the proteome, and Abcam, a global innovator in life sciences research tools, announced a strategic development and supply partnership. The relationship leverages Abcam's industry-leading recombinant monoclonal antibody development technologies and expertise to enhance Nautilus' reagent research and development. [Read More](#)

OncoResponse Announces Initiation of Phase I Trial of OR2805 — Human Monoclonal Antibody Derived from Elite Responder to Cancer Immunotherapy — in Patients with Advanced Cancer

OncoResponse



OncoResponse, a clinical-stage biotech company advancing immunotherapies derived from the immune systems of elite cancer responders, has announced initiation of a Phase I/II study of OR2805 in patients with advanced cancer. OR2805 is a fully human monoclonal antibody identified from an elite cancer responder using OncoResponse's proprietary B-cell discovery platform. [Read More](#)

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Interesting Articles
CDC Green Lights Pfizer's Vaccine for Younger Kids

The Scientist



On the recommendation of a special advisory panel, Centers for Disease Control (CDC) and Prevention Director Rochelle Walensky yesterday signed off on the use of a pediatric dose of Pfizer/BioNTech's COVID-19 vaccine in children between 5 and 11 years old. The move follows the granting of an emergency use authorization for that age group by the US Food and Drug Administration, and with it, the vaccine clears the final hurdle for use in these children. [Read More](#)

Research Spending Shrinks in President Biden's Scaled-Down Social Welfare Bill

ScienceInsider



The bill detailing the Build Back Better plan unveiled by President Joe Biden is less generous to research than a blueprint announced in the spring that was twice the size. A proposed \$11 billion boost for the National Science Foundation shrank to \$3.5 billion in the updated bill, for example, and a \$10.3 billion increase for the Department of Energy's Office of Science got trimmed to \$985 million. [Read More](#)

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Upcoming Events in Seattle

November 10 12:00 PM	Biostatistics Seminar Series Online
November 10 6:00 PM	Reimagine Your Immune System Online
November 13 6:00 PM	Colton's Army Guild – Path to a Cure Virtual Auction Online
November 15 8:00 AM	Global Oncology Lecture Series Online
November 17 12:00 PM	Biostatistics Seminar Series Online

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Science Jobs in Seattle

- Research Technician I, Microbiota and Colorectal Cancer Research**
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- Postdoctoral Fellow, Research, Molecular Signal Transduction**
Seattle Children's
- Research Associate, Antibody Discovery**
Systimmune
- Principal Scientist, Predictive Sciences**
Bristol Myers Squibb
- Senior Medical Affairs Manager, Publications Lead**
Adaptive Biotechnologies

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