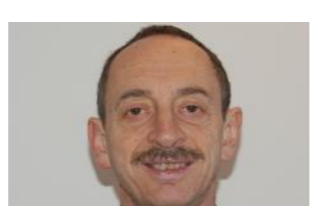


Publications of the Week

An Ultra-High Affinity Ligand of HIV-1 TAR Reveals the RNA Structure Recognized by P-TEFb

First Author: Matthew Shortridge | Senior Author: Gabriele Varani *(pictured)*
Nucleic Acids Research | UW



The HIV-1 trans-activator protein Tat binds the trans-activation response element (TAR) to facilitate recruitment of the super elongation complex to enhance transcription of the integrated pro-viral genome. The authors report the rational design of a macrocyclic peptide mimic of the arginine rich motif of Tat, which binds to TAR with low pM affinity and 100-fold selectivity against closely homologous RNAs. [Abstract](#)

Clinical Potential of Mass Spectrometry-Based Proteogenomics

First Author: Bing Zhang | Senior Author: Amanda Paulovich *(pictured)*
Nature Reviews Clinical Oncology | Fred Hutchinson Cancer Research Center and UW



Cancer genomics research aims to advance personalized oncology by finding and targeting specific genetic alterations associated with cancers. The authors discuss the added value of proteogenomics over the current genome-driven approach to the clinical characterization of cancers and summarize current efforts to incorporate targeted proteomic measurements to facilitate clinical proteogenomics. [Abstract](#)

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Local News

Science in Seattle Will Return after the Holidays!

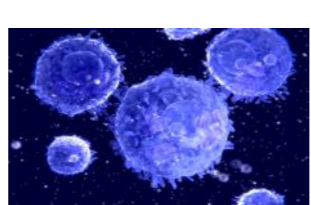
Science in Seattle



The holiday season is upon us, and as research begins to slow towards the end of the year, we too will be taking a short break to prepare for the new year ahead. Science in Seattle will be closing down operations for the remainder of the holiday season, but will return as your source for local life science news on January 2nd, 2019! [Read More](#)

Two Years of Glowing Cells for Science

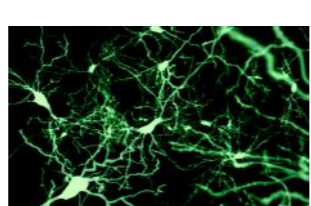
Allen Institute for Cell Science



The Allen Cell Collection, a suite of engineered stem cells built for discovery and translation, turns two years old this month, and the cells are now, for the first time, available to scientists doing research in industry. They've been available for non-profit and academic use since the collection's inception in 2016. "Our team is all about foundational cell biology," said Rick Horwitz, Executive Director of the Allen Institute for Cell Science. [Read More](#)

This Human Neuron Is on a Different Wavelength than Its Mouse Counterpart

Allen Institute for Brain Science



Researchers at the Allen Institute have uncovered subtle but intriguing differences between a mouse and human neuron of the same kind. The differences they found could have implications for studying human brain disorders or brain therapies in laboratory mice. The researchers found that the human neurons are studded with groups of proteins known as h-channels, while the mouse cells of this class are largely devoid of h-channels. [Read More](#)

Hope for Athletes in the Face of Head Trauma

The Daily



Chronic traumatic encephalopathy (CTE) is a brain disease which results in the progressive degeneration of brain tissue and is suspected to result from repeated neurotrauma, which is often linked to football. The feeling of hopelessness that accompanies the news of such athletes' deaths is something that Dr. Dirk Keene, a neuropathologist and CTE researcher at Harborview Medical Center, is looking to replace with hope. [Read More](#)

Exploring Why People with HIV Have a Higher Risk of Lung Cancer

Fred Hutchinson Cancer Research Center



Although antiviral drugs can spare most HIV-positive Americans from the specter of AIDS, a generation of survivors finds itself at a heightened risk of cancer. Lung cancer is emerging as a leading cause of cancer death for people with HIV, particularly among those who smoke. Researchers at Fred Hutch have announced the start of a new study with a goal to understand why this occurs. [Read More](#)

Researchers Classify Alzheimer's Patients into Six Subgroups

UW Medicine



Researchers studying Alzheimer's disease have created an approach to classify patients with Alzheimer's disease, a finding that may open the door for personalized treatments. The researchers put 4,050 people with late-onset Alzheimer's disease into six groups based on their cognitive functioning at the time of diagnosis. They then used genetic data to find biological differences across these groups. [Read More](#)

Hutch Holiday Gala Raises \$10.4M to Fuel Cancer Research at Intersection of Innovation

Fred Hutchinson Cancer Research Institute



Last week, over 800 people came together at the 2018 Hutch Holiday Gala to celebrate the intersection of data science, technology and life sciences — and its potential to transform cancer prevention, diagnosis and treatment. Led by a \$4 million challenge gift from Microsoft, the black-tie event raised more than \$10.4 million for research at Fred Hutch. [Read More](#)

BRI Celebrates Peter Linsley, Trailblazer in Immune Regulation

Benaroya Research Institute (BRI) at Virginia Mason



Peter Linsley *(pictured)*, Director of Systems Immunology at BRI, is a trailblazer in the field of immune response regulation. His identification of B7 (now CD80) as a co-stimulator of T cell activation, and CTLA-4 as another T-cell activation signal, contributed significantly to the body of knowledge about immune system regulation that ultimately led to the 2018 Nobel Prize in Medicine or Physiology. [Read More](#)

Seattle Biotech Scores \$67.5M to Treat Migraines and Parkinson's with Drugs Delivered Deep into the Nasal Cavity

GeekWire



Seattle-based biotech firm Impel NeuroPharma closed its latest round of funding, bringing in \$67.5 million to develop treatments for central nervous system disorders, such as migraines and Parkinson's. Impel is known for its Precision Olfactory Delivery platform, which sends drugs into the nasal cavity with the goal of penetrating the blood-brain barrier and targeting the organ more directly than is possible with pills or injected drugs. [Read More](#)

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Interesting Articles

NIH Director Says There's Work to Do on Regulating Genome Editing Globally

STAT News



The apparent birth this month of the first genetically modified babies is "a lesson in the potential for human hubris to overtake us," said Dr. Francis Collins *(pictured)*, the Director of the National Institutes of Health (NIH), but he said there is little U.S. officials can do to influence how China sanctions the rogue scientist who claims to have led the ethically dubious scientific breakthrough. [Read More](#)

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Upcoming Events in Seattle

- January 17**
 5:00 PM **Life Science Industry Networking Event**
 Agora Conference Center
- December 18**
 6:30 PM **Nerd Nite Seattle: Mistletoe and Do-Si-Do**
 High Dive
- December 19**
 6:00 PM **Association for Women in Science Holiday Happy Hour**
 Dexter Brewhouse
- December 27**
 7:00 PM **Science in the City: Are Designer Babies a Reality?**
 Pacific Science Center
- January 9**
 3:30 PM **Repairing the Failing Brain**
 Orin Smith Auditorium

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Science Jobs in Seattle

- Scientist I, Optical Physiology**
 Allen Institute for Brain Science
- Scientist/Research Associate, Nanotechnology/Molecular Biology**
 Stratos Genomics
- Senior Scientist, In Vivo Pharmacology**
 Silverback Therapeutics
- Research Associate, Immuno-Oncology**
 OncoResponse
- Postdoctoral Research Associate**
 Benaroya Research Institute at Virginia Mason

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