

Publications of the Week
The 6–4 Photoproduct Is the Trigger of UV-Induced Replication Blockage and ATR Activation

 First Author: Kai-Feng Hung | Senior Author: Masaaki Kawasumi (pictured, far right)
 PNAS | UW and Fred Hutch


The authors coupled multiparameter flow cytometry with lesion-specific photolyases that eliminate either cyclobutane pyrimidine dimers (CPDs) or 6-4 photoproducts (6-4PPs) and determined their respective contributions to DNA damage responses. Only 6-4PP lesions activated the ATR-Chk1 DNA damage response pathway. 6-4PPs, but not CPDs, impeded DNA replication across the genome. [Profile](#) | [Abstract](#) | [Press Release](#)

Long-Read Human Genome Sequencing and Its Applications

First Author: Glennis Logsdon | Senior Author: Evan Eichler (pictured)



Long-read sequencing technologies will soon permit the routine assembly of diploid genomes, which will revolutionize genomics by revealing the full spectrum of human genetic variation, resolving some of the missing heritability and leading to the discovery of novel mechanisms of disease. The authors review these DNA sequencing technologies and their use in human genomics.

[Abstract](#)
[View All Publications](#)
Local News
Athira Reels in \$85M for Phase 2/3 Alzheimer's Study

Fierce Biotech



Athira Pharma changed its name last year to reflect its focus on regenerative medicine. Now, it's snagged \$85 million to advance those medicines, which includes bankrolling a phase 2/3 trial in Alzheimer's for its lead asset. With its lead drug, it aims to restore lost neural connections in the brain — or spur the growth of new ones — to treat Parkinson's disease as well as Alzheimer's. [Read More](#)

Researchers Discuss Vaccine Development, Continued Efforts on Novel Coronavirus

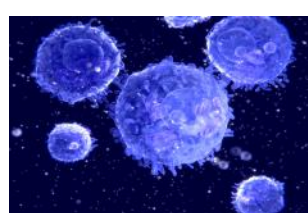
MPR News



A vaccine candidate for the novel coronavirus has hit a new milestone and entered the second phase of clinical trials. What does that mean in terms of how soon this vaccine — or others — might be ready for public use? Deborah Fuller (pictured), vaccine expert and Professor of Microbiology at the UW School of Medicine, outlines how the vaccine development process works. [Read More](#)

Engineering T Cells to Prevent Type 1 Diabetes Takes Next Step Towards Human Clinical Trial

Benaroya Research Institute at Virginia Mason



With a newly awarded \$4 million grant from the Leona M. and Harry B. Helmsley Charitable Trust, Benaroya Research Institute at Virginia Mason and Seattle Children's Research Institute will now focus on using their novel approach to generate an engineered T cell product that can be used in a future first-in-human clinical trial. [Read More](#)

It's 'Either/Or' for Two Common Gut Microbiome Genera, and Switching Teams Is Tougher Than Expected

Institute for Systems Biology



Institute for Systems Biology researchers have highlighted the dichotomy between two common gut microbiome bacterial genera — *Bacteroides* and *Prevotella*. The study, co-led by Dr. Nathan Price (pictured), found that humans who have a lot of one in their gut tend to have very little of the other, with barriers preventing easy transition between gut communities. [Read More](#)

Gene-Edited T Cells to Treat Diabetes Inch Closer to Clinical Trials

Fierce Biotech



Scientists from Seattle Children's Research Institute and Benaroya Research Institute have found a potential way to turn off the destructive autoimmune response in Type 1 diabetes — and it involves editing the genes of patients' own T cells. The team showed that by gene-editing CD4⁺ T cells to express a protein called FOXP3, they could stimulate immunosuppressive properties. [Read More](#)

Frozen Cells and Empty Cages: Researchers Struggle to Revive Stalled Experiments after the Lockdown

Nature



Ru Gunawardane (pictured) and her team at the Allen Institute are having to do some very rigorous post-shutdown testing. Her team froze hundreds of cell lines when the pandemic shut Seattle down in March. Two months later, a few lab members have begun thawing the lines and resuming experiments.

[Read More](#)
Adaptive Biotechnologies and Microsoft Launch Groundbreaking ImmuneCODE Database to Share Populationwide Immune Response to the COVID-19 Virus

Adaptive Biotechnologies



Adaptive Biotechnologies has launched ImmuneCODE with Microsoft to begin sharing one of the largest, most detailed views of the immune response to COVID-19 in real time based on de-identified data generated from thousands of blood samples from patients around the globe. Data from ImmuneCODE will accelerate ongoing global efforts to develop better diagnostics, vaccines and therapeutics.

[Read More](#)
[View All Articles](#) | [Submit an Article](#)
Upcoming Events in Seattle

June 15-18 9:00 AM	Career Development Workshop Online
June 24 10:00 AM	STAT Webinar: Targeted Cancer Drugs: What's on the Market? What's in the Pipeline? Online
June 26 3:00 PM	UWPA Virtual Postdoc Research Symposium Online
June 24-27 8:00 AM	ISSCR 2020 Online
July 16-17 8:00AM	2020 Life Science Innovation Northwest Online

[View All Events](#) | [Submit an Event](#)
Science Jobs in Seattle

- Scientist II, Anatomist**
Allen Institute
- Faculty: Assistant/Associate Member**
Benaroya Research Institute
- Senior Scientist, Assay Development, Molecular Product Development**
Adaptive Biotechnologies
- Early Stage CMC Lead**
Celgene
- Team Lead, *In Vivo* Pharmacology**
Chinook Therapeutics

[View 55 Other Science Jobs](#) | [Submit a Job](#)


Five Tips for Returning to the Lab After Time Off [READ NOW](#)

BROUGHT TO YOU BY


STEMCELL Technologies
[Products](#) | [Services](#)
STEMCELL's Science Newsletters
[Free Weekly Updates on Your Field](#)
The Stem Cell Podcast
[Interviews and Updates on Stem Cell Science](#)