Volume 4.32: August 23, 2021

Publications of the Week

Endomembrane Targeting of Human OAS1 p46 Augments Antiviral Activity

First Author: Frank Soveg *(pictured, bottom row, center)* | Senior Author: Ram Savan *(top row, third from left)*
eLife | UW, Center for Innate Immunity and Immune Disease, Benaroya Research Institute, and Seattle Children's Research Institute

The authors reveal that an isoform of oligoadenylate synthetase 1, OAS1 p46, is prenylated and targeted to the endomembrane system. Membrane localization of OAS1 p46 confers enhanced access to viral replication sites and results in increased antiviral activity against a subset of RNA viruses including flaviviruses, picornaviruses, and SARS-CoV-2. **Profile | Abstract**

The Redox-Responsive Transcriptional Regulator Rex Represses Fermentative Metabolism and Is Required for *Listeria monocytogenes* Pathogenesis

First Author: Cortney Halsey *(pictured, third from right)* | Senior Author: Michelle Reniere
PLOS Pathogens | UW

The authors demonstrated that *L. monocytogenes* Rex represses fermentative metabolism and is therefore required for optimal growth in the presence of oxygen. They also show that *in vitro*, Rex represses the production of virulence factors required for survival and invasion of the gastrointestinal tract, as a strain lacking *rex* was more resistant to acidified bile and invaded host cells better than wild-type. **Profile | Abstract**

Massively Parallel Characterization of CYP2C9 Variant Enzyme Activity and Abundance

First Author: Clara Amosi *(pictured, right)* | Senior Authors: Maitreya Dunham *(center)* and Douglas Fowler *(left)*
American Journal of Human Genetics | UW

The anti-coagulant warfarin is prescribed to over 15 million people annually and polymorphisms in *CYP2C9* can affect individual drug response and lead to an increased risk of hemorrhage. The authors developed click-seq, a pooled yeast-based activity assay, to test thousands of variants and measured activity scores for 319 previously unannotated human variants, many of which may have clinical relevance. **Profile | Abstract**

A Subpopulation of Microglia Generated in the Adult Mouse Brain Originate from Prominin-1 Expressing Progenitors

First Author: Katherine Prater | Senior Author: Gwenn Garden *(pictured)*
The Journal of Neuroscience | UW and The Center on Human Development and Disability

Despite the known ability of microglia to proliferate, the precise nature of the population(s) capable of generating new microglia in the adult brain remains controversial. The authors identified Prominin-1 (Prom1) as a putative cell surface marker of committed brain myeloid progenitor cells and demonstrate that Prom1 expressing cells isolated from mixed cortical cultures will generate new microglia *in vitro*. **Abstract**

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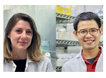
Awards

Two Fred Hutch Postdocs Named 2021 Damon Runyon Fellows

Fred Hutch



Two postdoctoral researchers at Fred Hutchinson Cancer Research Center are among the 17 early career scientists announced this week as fellows of the Damon Runyon Cancer Research Foundation. Drs. Edie Crosse *(pictured, left)*, Ching-Ho Chang *(right)* and their fellow honorees across the US will receive $231,000 of independent funding to support continued training in their mentors' labs as they develop their scientific careers. **Read More**

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Local News

Aptevo Therapeutics Announces APVO436 Monotherapy Is Active in Patients Who Have Relapsed Acute Myeloid Leukemia or Myelodysplastic Syndrome

Aptevo Therapeutics

Aptevo Therapeutics, a clinical-stage biotechnology company focused on developing novel immuno-oncology therapeutics, announced the results of a multi-institutional Phase I clinical study of Aptevo's lead leukemia drug candidate APVO436 in 46 adult patients with relapsed or refractory acute myeloid leukemia or myelodysplastic syndrome. Promising clinical activity was observed in 27.5% of patients evaluable for efficacy. **Read More**

Just – Evotec Biologics Opens J.POD® 1 US in Redmond, Washington

Life Science Washington

Evotec Biologics announced the opening of the company's late-stage clinical and commercial biologics cGMP manufacturing facility in Redmond, Washington. The innovative cGMP biomanufacturing facility is the final step in Just – Evotec Biologics' J.DESIGN platform that integrates data analytics and machine learning through all activities involved with the discovery, development, and manufacture of biologics. **Read More**

HDT Bio Announces Agreement with Korea's Quratis to Co-develop Innovative COVID-19 Vaccine in Asia

HDT Bio

HDT Bio, a developer of immunotherapies for oncology and infectious diseases, announced an agreement with Korean biotech Quratis, Inc. to co-develop HDT's next generation mRNA COVID-19 vaccine for distribution in South Korea and neighboring countries. HDT Bio's COVID-19 vaccine uses a proprietary Lipid InOrganic Nanoparticle formulation to deliver immune-stimulating RNA fragments to targeted cells. **Read More**

GentiBio Nets $157 Million to Restore Immune Tolerance with Tregs

BioSpace

GentiBio is developing engineered regulatory T cells (Tregs) to build a better immune system and functionally cure autoimmune and autoinflammatory diseases – and it now has $157 million more dollars of ammunition to do it. GentiBio, led by CEO Dr. Adel Nada *(pictured)* is combining Tregs biology and antigen receptor engineering to create potently engineered Tregs that it hopes will prevent and cure autoimmune, alloimmune, autoinflammatory, and allergic diseases. **Read More**

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Upcoming Events in Seattle

September 7 3:00 PM	**VIDD Scientific Seminar Series** Online
September 9 7:30 AM	**East West Life Science Summit** Online
September 16 10:30 AM	**Distinguished Seminar: Kay Tye** Online
September 21 10:00 AM	**Open for (Cell) Science: Allen Cell and Structure Segmenter** Online
September 21 3:30 PM	**Research Roundtable with Dr. Andrew Magis** Online

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Science Jobs in Seattle

Postdoctoral Research Fellow, Viral Vector Engineering and Gene Delivery
Seattle Children's Research Institute

Faculty Position, Infectious Disease Phylodynamics/Genomic Epidemiology
Fred Hutch

Principal Scientist (Director), Drug Metabolism
Gilead Sciences

Senior Specialist, Quality Assurance, Cell Therapy
Bristol Myers Squibb

Senior Clinical Laboratory Technologist
Adaptive Biotechnologies

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