

**Publications of the Week**

### Fewer LAG-3<sup>+</sup> T Cells in Relapsing-Remitting Multiple Sclerosis and Type 1 Diabetes

First Author: Britta Jones (*pictured, top row, center*) | Senior Author: Jane Buckner (*top row, left*)  
 The Journal of Immunology | Center for Interventional Immunology and Benaroya Research Institute at Virginia Mason



The coinhibitory receptor lymphocyte activation gene 3 (LAG-3) is an immune checkpoint molecule that negatively regulates T cell activation, proliferation, and homeostasis. Blockade or deletion of LAG-3 in autoimmune-prone backgrounds or induced-disease models has been shown to exacerbate disease. The authors observed significantly fewer LAG-3<sup>+</sup> CD4 and CD8 T cells from subjects with relapsing-remitting multiple sclerosis and type 1 diabetes. [Profile](#) | [Abstract](#)

### Preimmunization Correlates of Protection Shared across Malaria Vaccine Trials in Adults

First Author: Maxwell Neal | Senior Author: Kenneth Stuart (*pictured*)  
 npj Vaccines | Center for Global Infectious Disease Research, Seattle Children's Research Institute, UW, and Fred Hutch



In the context of malaria vaccine research, studying preimmunization correlates of protection can help address the need for a widely effective malaria vaccine, which remains elusive. In this study, the authors identified common preimmunization correlates of protection using transcriptomic data from four independent, heterogeneous malaria vaccine trials in adults. [Abstract](#)

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**Awards**

### Harmit Malik Receives Novitski Prize

Fred Hutch

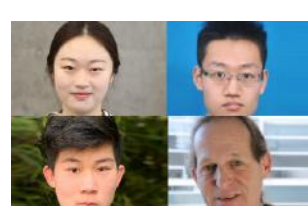


The Genetics Society of America awarded Fred Hutch evolutionary biologist Dr. Harmit Malik (*pictured*) one of the society's top honors, the Edward Novitski Prize, for extraordinary creativity and intellectual ingenuity in genetics research. Established in memory of pioneering geneticist Dr. Edward Novitski, the prize recognizes a single experimental accomplishment or a significant and exceptionally creative body of work that solves a difficult problem in genetics. [Read More](#)

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**Local News**

### Predicting 'Long COVID' at Initial Point of COVID-19 Diagnosis

Institute for Systems Biology



Researchers have identified several factors that can be measured at the initial point of COVID-19 diagnosis that anticipate if a patient is likely to develop long COVID. The study was conducted by members of Dr. Jim Heath's (*pictured, bottom right*) lab, including Dr. Yapeng Su (*top row, right*), Daniel Chen (*bottom row, left*), and Dan Yuan (*top row, left*), and collaborators. [Read More](#)

### Diverse Protein Assemblies by (Negative) Design

Institute for Protein Design (IPD)



Led by Drs. Danny Sahtoe (*pictured, left*) and Florian Praetorius (*right*), scientists in Dr. David Baker's lab at IPD report in *Science* the design of new protein assemblies made from modular parts. These complexes — which adopt linear, branching, or closed-loop architectures — contain up to six unique proteins, each of which remains folded and soluble in the absence of any binding partners. [Read More](#)

### Researchers Link Mutations in Coronavirus' Internal Machinery to Higher Risk of Severe Disease

Fred Hutch



A new study has identified small mutations in genes of early COVID-19 viruses that appeared to have substantially increased the risk of severe disease in patients who contracted them. Led by Dr. Lue Ping Zhao (*pictured*), the researchers carried out extensive, whole-genome sequencing of the viruses taken from patients primarily in the first year of the pandemic and spotted in particular a group of four genetic mutations that were linked to a 5.46-fold increase in hospitalization. [Read More](#)

### Supplement Appears to Boost Muscle, Mitochondria Health

UW Medicine



New research suggests that urolithin A, an oral supplement intended to stimulate a natural body process, appears to promote muscle endurance and mitochondrial health in humans. "This is relevant both to people with chronic diseases and people who want to be more active later in life," said the lead author, David Marcinek (*pictured*), a Professor of Radiology at UW Medicine and senior author of the paper. [Read More](#)

### Athira Pharma Announces Initiation of Patient Dosing in SHAPE, a Phase II Clinical Trial of ATH-1017 for the Treatment of Parkinson's Disease Dementia and Dementia with Lewy Bodies

Athira Pharma



Athira Pharma announced that patient dosing has begun in SHAPE, a Phase II clinical trial of ATH-1017 for the treatment of Parkinson's disease dementia and Dementia with Lewy bodies. ATH-1017 is a small molecule designed to enhance the activity of Hepatocyte Growth Factor and its receptor, MET, to impact neurodegeneration and regenerate brain tissue. [Read More](#)

### Tackling the Unknowns of Long-Haul COVID-19

Fred Hutch



Fred Hutch and UW researchers are working together to better understand and treat long-haul COVID-19. They are building on deep expertise in immunology and infectious diseases like HIV to figure out what causes long COVID-19, who is at risk, and how to treat it. To do so, they're tackling challenges that range from basic questions about how best to measure symptoms to uncovering the complex immunological interplay that may drive symptoms. [Read More](#)

### Study Details Changes in Omicron's Spike Protein

UW Medicine



An international team of scientists, including Drs. Matthew McCallum (*pictured, left*) and David Veesler (*right*) at UW Medicine, has determined the precise structural changes in the spike protein of the omicron variant. "The findings provide a blueprint that researchers can use to design new countermeasures, whether they be vaccines or therapeutics, against omicron and other coronavirus variants that may emerge," said Dr. Veessler. [Read More](#)

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### Upcoming Events in Seattle

- February 1 12:00 PM **Science Says – Renew, Refocus, Reduce Risk**  
Online
- February 1 12:00 PM **Current Biology Seminar – Dr. Yasemin Sancak**  
Online
- February 1 3:00 PM **Variant Effects Seminar Series (VESS)**  
Online
- February 4 4:00 PM **SEP School Year Workshop: Immunotherapy Unit**  
Online
- February 8 12:00 PM **Current Biology Seminar – Dr. Gwendalyn Randolph**  
Online

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### Science Jobs in Seattle

- Research Technician II-III**  
Benaroya Research Institute at Virginia Mason
- Cellular Production Associate I**  
Fred Hutch
- Research Scientist IV**  
Seattle Children's
- Scientist, Antibody Discovery**  
Systimmune
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