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Publications of the Week

T Cells Specific for a Mycobacterial Glycolipid Expand after Intravenous Bacillus Calmette–Guérin Vaccination

First Author: Erik Layton | Senior Author: Chetan Seshadri *(pictured)*
The Journal of Immunology | UW Medicine

The authors developed and validated *Macaca mulatta* CD1b and CD1c tetramers to probe *ex vivo* phenotypes and functions of T cells specific for glucose monomycolate (GMM), an immunodominant mycobacterial lipid Ag. They discovered that CD1b and CD1c present GMM to T cells in both humans and nonhuman primates.
Profile | Abstract

A Curious Case for Development of Kinase Inhibitors as Antigiardiasis Treatments Using Advanced Drug Techniques

First Author: Samantha Michaels *(pictured)* | Senior Author: Kayode Ojo
ACS Infectious Diseases | The Center for Emerging and Reemerging Infectious Diseases and UW

Repurposing known and newly identified kinase inhibitors in drug development programs for novel giardiasis therapeutics could be a cost-effective and time saving approach. Innovative improvements to physiologically-based pharmacokinetic modeling coupled with emerging imaging technologies and a CRISPR-interference method could accelerate progress toward the goal of more effective giardiasis therapeutics based on kinase inhibition. **Profile | Abstract**

BRCA1/BARD1 Site-Specific Ubiquitylation of Nucleosomal H2A Is Directed by BARD1

First Author: Samuel Witus *(pictured)* | Senior Author: Rachel Klevit
Nature Structural and Molecular Biology | Institute for Protein Design and UW

Scientists presented the structure of the BRCA1/BARD1 RING heterodimer with the E2 enzyme UbcH5c bound to its cellular target, the nucleosome, along with biochemical data that explained how the complex selectively ubiquitylates lysines 125, 127 and 129 in the flexible C-terminal tail of H2A in a fully human system. Their findings provide insight into how E3 ligases preferentially target nearby lysine residues in nucleosomes by a steric occlusion and distancing mechanism.
Abstract

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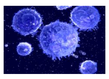
Local News

New Allen Distinguished Investigators Will Tackle Unanswered Questions About Metabolism and the Immune System

Allen Institute



Awards announced by The Paul G. Allen Frontiers Group aim to improve the understanding of immunology and metabolism by supporting four research projects in the emerging field of immunometabolism. New Allen distinguished investigators will explore new avenues of basic biology, health, disease, and technology development, all focused on unanswered questions about how the immune system and metabolism work together. **Read More**

Fred Hutch, University of Washington Biotech Spinout Ensoma Launches with $70M in Funding

GeekWire

Recently launched Boston-based biotech startup Ensoma has announced a $70 million Series A funding round. The company is built on technology developed over two decades by Seattle researchers Dr. Hans-Peter Kiem *(pictured)* of Fred Hutch and Dr. André Lieber of the UW School of Medicine. The company's Engenious vectors are designed to deliver gene therapies to patients without requiring stem cell donation or pre-treatments such as chemotherapy. **Read More**

Fred Hutch Biotech Spinout Ozette Raises $6M from Madrona, AI2, Vulcan

GeekWire

Ozette, a biotech company that last year spun out of Fred Hutch and was incubated at the Allen Institute for Artificial Intelligence (AI2), has raised a $6 million seed round. The Seattle-based company has eight employees with plans to double that number in the next few months with the funding. The Ozette team has created an AI platform — its "Immune Monitoring Platform" — that can analyze massive combinations of proteins being created by individual cells. **Read More**

European Commission Approves Seagen's TUKYSA® for the Treatment of Patients with Locally Advanced or Metastatic HER2-Positive Breast Cancer

Seagen

Seagen has announced that the European Commission has granted marketing authorization for TUKYSA® in combination with trastuzumab and capecitabine for the treatment of adult patients with HER2-positive locally advanced or metastatic breast cancer who have received at least two prior anti-HER2 treatment regimens.
Read More

11 Things to Know About mRNA Vaccines for COVID-19

Benaroya Research Institute at Virginia Mason (BRI)

In the race for a COVID-19 vaccine, mRNA vaccines finished first. This includes those made by Pfizer and Moderna. These vaccines use a new approach to fight off pathogens (germs like viruses and bacteria). BRI's Dr. Adam Lacy-Hulbert, who has long studied viruses and ways to combat them, shared 11 key things to know about mRNA vaccines. **Read More**

Seagen and Astellas Announce Phase 3 Trial Results Demonstrating Survival Advantage of PADCEV® in Patients

Seagen

Urothelial cancer is the most common type of bladder cancer and can also be found in the renal pelvis, ureter and urethra. Seagen and Astellas Pharma announced primary results from the phase 3 EV-301 trial comparing PADCEV® to chemotherapy in adult patients with locally advanced or metastatic urothelial cancer who were previously treated with platinum-based chemotherapy and a PD-1/L1 inhibitor. **Read More**

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Upcoming Events in Seattle

February 23 9:00 AM	**Progress on the Pandemic: A Year of Tackling COVID-19** Online
February 24 10:00 AM	**Open for (Neuro)Science Tutorials: New from the Allen Cell Types Database** Online
February 26 10:00 AM	**Creating a Successful Academic Spin-Out** Online
March 9 3:00 PM	**Screening of "Picture a Scientist"** Online
March 30 8:00 AM	**Life Science Innovation Northwest** Online

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Science Jobs in Seattle

Staff Scientist, Vaccine Development
Fred Hutch

Research Scientist, Tuberculosis
Seattle Children's

Scientist, Single-Cell Bioinformatics
Allen Institute for Brain Science

Clinical Trials Manager, Oncology Clinical Operations
Gilead

Scientist, Toxicology
Bristol Myers Squibb

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