

### Publications of the Week

#### Acute Skin Exposure to Ultraviolet Light Triggers Neutrophil-Mediated Kidney Inflammation

First Author: Sladjana Skopelja-Gardner | Senior Author: Keith Elkon *(pictured)*  
PNAS | UW



The authors demonstrated that neutrophils not only migrate to ultraviolet (UV) light-exposed skin, but also disseminate systemically. In the kidney, neutrophils mediate inflammatory and injury responses triggered by skin exposure to UV. They had a proinflammatory phenotype: increased production of reactive oxygen species and a subpopulation of neutrophils in the kidney extravasated from UV light-exposed skin tissue. [Abstract](#) | [Press Release](#)

#### Distinct Populations of Cortical Pyramidal Neurons Mediate Drug Reward and Aversion

First Author: Aaron Garcia | Senior Author: Susan Ferguson *(pictured)*  
Nature Communications | Seattle Children's Research Institute



Cortical pyramidal projection neurons can be subdivided into two major types (intratelencephalic (IT) and pyramidal tract (PT)), with distinct inputs and projection targets. The authors demonstrated that PT neurons regulate the positive features of a drug experience whereas IT neurons regulate the negative features. These findings support a revised theory of cortical function in addiction, with distinct cells and circuits mediating reward and aversion. [Abstract](#)

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### Awards

#### Dr. Alec Smith Receives Early Investigator Award

UW Institute for Stem Cell & Regenerative Medicine (ISCRM)



Dr. Alec Smith *(pictured)* is an Instructor in the UW Department of Physiology and Biophysics. He has received funds as an Early Stage Investigator to use 3D models and stem cell-derived tissues to better understand how mutations in a protein known as myosin heavy chain 3 impact skeletal muscle development. Alec expects studying human cells in a 3D structure that closely recreates a cell's natural environment will yield much more information than investigations based on 2D cell culture studies. [Read More](#)

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### Local News

#### Leroy Hood: Reflections on a Legendary Career

Genetic Engineering & Biotechnology News (GEN)



Leroy Hood *(pictured)* has written the lead article in the first issue celebrating the 40<sup>th</sup> anniversary of GEN. Lee's career essentially parallels that of the biotech industry, and he is hugely responsible for many of the essential tools and technologies that have driven much life sciences research and clinical product development over the past 40 years. [Read More](#)

#### Small, Persistent Increase in the Expression of NOD1 May Promote Cancer Risk

Institute for Systems Biology (ISB)



Drs. Naeha Subramanian, Leah Rommereim Gilmore, and Ajay Suresh Akhade *(pictured left to right)* in ISB's Subramanian lab have found that a small, persistent increase in the expression of NOD1 could be responsible for higher cancer risks. NOD1 is an innate immune sensor within our cells that detects pathogens and cell-state disturbances and mounts an inflammatory response. [Read More](#)

#### Study Offers Good News on COVID-19 Immunity

Seattle Children's



For close to a decade, the labs of Dr. David Rawlings at Seattle Children's Research Institute and Dr. Marion Pepper at UW have collaborated on a project studying the immune response in malaria infections. Rawlings, the Director of the Center for Immunity and Immunotherapies at Seattle Children's and a Professor of Pediatrics at UW, discusses their encouraging new findings, published in *Cell*. [Read More](#)

#### Washington Research Foundation Pledges \$100,000 to Support Early-Career Researchers at the Institute for Systems Biology

Washington Research Foundation via EIN Presswire



Washington Research Foundation has pledged \$100,000 to the Institute for Systems Biology (ISB) to support early-career scientists working on high-risk, high-reward healthcare innovations with a path to commercialization and public benefit. In keeping with ISB's vision, the goal is the advancement of research that addresses pressing issues in human health. [Read More](#)

#### 2021 Predictions: Why These Tech, Science and Startup Leaders are Upbeat about the Year Ahead

GeekWire



An "incredibly dynamic year of change," a "new hope," and a "gangbusters" year in which the tech sector will come "roaring back." Those are some of the phrases used by Pacific Northwest tech, science and business leaders including Magdalena Balazinska, Leslie Alexandre and Leen Kawas *(pictured)* to describe their outlook for 2021 — offering a sense of optimism as we emerge from an extraordinarily challenging year. [Read More](#)

#### COVID-19 Vaccines are 'Remarkable Achievement,' but Soothing Mistrust Is Necessary to End Pandemic

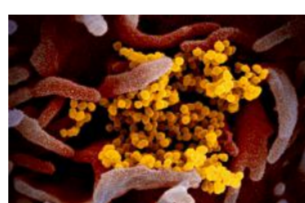
UW



While development of vaccines now being distributed to combat COVID-19 are a "remarkable achievement" that demonstrate the power of science to save lives, mistrust and fear continue to cause nearly 40% of Americans to say they would be unlikely to get vaccinated. UW's Dr. Larry Corey *(pictured)* wrote a recent COVID-19 Vaccine Matters blog on the topic. [Read More](#)

#### Mild COVID-19 Elicits Persistent Immune Memory

UW Medicine



A longitudinal study of mild adult cases of COVID-19 showed that a multi-layered immune memory response, specific to the pandemic coronavirus SARS-CoV-2, could be detected in the study blood for at least three months after illness was over. In the project's laboratory experiments at UW Medicine, several of these immune-memory defenses displayed powerful attributes associated with antiviral immunity. [Read More](#)

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### Upcoming Events in Seattle

- January 22**  
6:00 PM  
**Dr. Jim Heath and Dr. Rod Hochman: How Will Healthcare Be Different after COVID?**  
Online
- January 25**  
8:00 AM  
**Global Oncology Lecture Series**  
Online
- January 25 - 27**  
8:00 AM  
**PMWC Virtual: 21st Century Precision Medicine in the Age of COVID-19**  
Online
- January 26**  
8:00 AM  
**Expanding Minds: The Allen Institute Conference on Human Brain Evolution**  
Online
- January 26**  
12:00 PM  
**Dr. Rusty Gage: Using Induced Human Neurons and Glia to Model Aging and Age Related Disease**  
Online

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### Science Jobs in Seattle

- Senior Scientist**  
A-Alpha Bio
- Research Scientist II**  
Seattle Children's
- Product Manager, Immunology**  
STEMCELL Technologies
- Sr. Manager, Biostatistics**  
Bristol Myers Squibb
- Clinical Trials Manager, Clinical Operations, Oncology**  
Gilead

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