SCIENCE in SEATTLE

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Publications of the Week

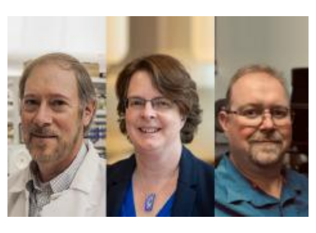
Attenuation of Apoptotic Cell Detection Triggers Thymic Regeneration after Damage

First Author: Sinéad Kinsella *(pictured, third from right)* | Senior Author: Jarrod Dudakov *(fourth from right)*
Cell Reports | Fred Hutch and UW

The thymus, which is the primary site of T cell development, is particularly sensitive to insult but also has a remarkable capacity for repair. However, the mechanisms orchestrating regeneration are poorly understood, and delayed repair is common after cytoreductive therapies. The authors demonstrate a trigger of thymic regeneration, centered on detecting the loss of dying thymocytes that are abundant during steady-state T cell development. **Profile | Abstract**

Adaptations in Hippo-Yap Signaling and Myofibroblast Fate Underlie Scar-Free Ear Appendage Wound Healing in Spiny Mice

First Author: Chris Brewer | Senior Authors: Mark Majesky *(pictured, left)*, Kathleen Millen *(center)*, and Branden Nelson *(right)*
Developmental Cell | UW, Center for Developmental Biology and Regenerative Medicine, Center for Integrative Brain Research, and Howard Hughes Medical Institute



The authors found that following traumatic injury to ear pinnae, myofibroblasts appeared rapidly in both *Acomys* and mouse yet persisted only in mouse. Experiments *in vitro* revealed an accelerated PP2A-dependent dephosphorylation activity that maintained nuclear Yap in *Acomys* dermal fibroblasts and was not detected in mouse or human dermal fibroblasts. **Profile | Abstract**

Anticoagulation Targeting Membrane-Bound Anionic Phospholipids Improved Outcomes of Traumatic Brain Injury in Mice

First Author: Xinlong Dong | Senior Author: Jing-fei Dong *(pictured)*
Blood | UW, Bloodworks Northwest Research Institute, and Fred Hutch

Severe traumatic brain injury (TBI) often causes an acute systemic hypercoagulable state that rapidly develops into consumptive coagulopathy. The authors test the hypothesis that anticoagulation targeting anionic phospholipid-expressing extracellular vesicles prevents TBI-induced coagulopathy and improves the outcomes of mice subjected to severe TBI. **Abstract**

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Awards

Liver Cancer Researcher Dr. Abir Arfaoui Named Latest Brave Fellow

Fred Hutch

Dr. Abir Arfaoui *(pictured)*, a postdoctoral researcher at Fred Hutch, was announced as the second recipient of the Brave Fellowship. The new fellowship will fund Dr. Arfaoui's research in the lab of Dr. Taran Gujral on a rare liver cancer called fibrolamellar carcinoma, or FLC. FLC is resistant to most chemotherapies, even drugs that target other forms of liver cancer. **Read More**

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Local News

Unraveling the Mystery of Why We Overeat

UW Medicine

Eating is one of life's greatest pleasures, and overeating is one of life's growing problems. Researchers from Dr. Garret Stuber's lab at the UW School of Medicine report on the function of glutamatergic neurons in mice in a new study published in the journal *Neuron*. These cells are located in the lateral hypothalamic area of the brain, a hub that regulates motivated behaviors, including feeding. **Read More**

'Blobology' No More

Fred Hutch

As Scientific Director of the newly installed $4 million cryogenic electron microscopy system at Fred Hutch, Dr. Melody Campbell *(pictured)* can call up images of integrins at near-atomic resolution — clear enough to discern in computer-enhanced images the molecular backbones that define the shape and reveal the functions of these important proteins. **Read More**

Living Brain Donors Are Helping Us Better Understand Our Own Neurons — Including Those Potentially Linked to Alzheimer's Disease

Allen Institute

An ongoing research program at the Allen Institute for Brain Science has found an unusual workaround to study live human neurons — they use pieces of live human brain removed during brain surgery and willingly donated to research. Healthy pieces of tissue removed to access a diseased site during neurosurgery are transported to the laboratory for study, where neuroscientists are uncovering new information about human neurons while they are still alive. **Read More**

Phthalates Linked to Changes in Gene Activity in Placenta

UW Medicine

Placentas of infants whose mothers were exposed to higher levels of phthalates during pregnancy had changes in the activity of more than three dozen placental genes, including genes involved in key biochemical pathways, according to researchers from the UW School of Medicine in a new study led by Dr. Alison Paquette *(pictured)*. **Read More**

Science Says: Cracking the Code in Solid Tumors

Fred Hutch

Fred Hutch researchers are using their understanding of cancer and immunity to develop new solid tumor therapies that can be tailored to each patient. Dr. Tom Lynch talked with Dr. Nancy Davidson *(pictured)* and others about the newest advances. Dr. Davidson discussed how the genetic profiling of breast cancers is helping researchers more accurately pinpoint and target the mechanism driving each patient's cancer. **Read More**

Seagen and Astellas Complete Enrollment in EV-103 Trial Cohort K Combining PADCEV® (Enfortumab Vedotin-Ejfv) with Pembrolizumab as First-Line Treatment for Advanced Urothelial Cancer

Seagen

Seagen and Astellas Pharma announced that patient enrollment was completed in Cohort K of the Phase Ib/II EV-103 clinical trial. The cohort is evaluating PADCEV® in combination with Merck's anti-PD-1 therapy KEYTRUDA® (pembrolizumab) as first-line treatment in patients with unresectable locally advanced or metastatic urothelial cancer who are unable to receive cisplatin-based chemotherapy in the first-line setting. **Read More**

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Upcoming Events in Seattle

October 19 10:00 AM	**Open for (Cell) Science: 3D Cell Visualization Tools** Online
October 20 7:00 AM	**Drug Development Immersion** Online
October 21 7:30 AM	**Washington State Life Science Summit** University of Washington and Online
October 21 11:30 AM	**Cascadia 3.0** Online
October 26 7:00 PM	**Forensic Report: Case 1886, Death of Dr. Henry Jekyll** Online

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Science Jobs in Seattle

Scientist, Immune-Oncology
Kineta

Senior Associate Scientist/Scientist, Antibody Discovery
Systimmune

Postdoctoral Research Associate, Inflammation and Autoimmunity
Benaroya Research Institute at Virginia Mason

Clinical Research Coordinator II
Seattle Children's

Postdoctoral Research Fellow, Immunotherapy, Stem Cell Transplantation and GVHD
Fred Hutch

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