

**Publications of the Week**
***In Vitro* Generation of Self-Renewing Human Intestinal Epithelia Over Planar and Shaped Collagen Hydrogels**

 First Author: Samuel Hinman (*pictured*) | Senior Author: Nancy Allbritton  
 Nature Protocols | UW


*In vitro* crypts formed from primary human intestinal epithelial stem cells on a 3D shaped hydrogel scaffold replicate the functional and architectural features of *in vivo* crypts. The authors provided collagen scaffolding assembly methods, along with the microfabrication and soft lithography protocols necessary to shape these hydrogels to match the dimensions and density of *in vivo* crypts. [Abstract](#)

**Characterizing Viral Infection by Electron Microscopy**

 First Author: Shreeram Aklesh (*pictured*) | Senior Author: Kelly Smith  
 The American Journal of Pathology | UW


With the emergence of SARS-CoV-2, we are witnessing a renaissance in the use of electron microscopy to help identify virally infected cells and uncover the pathogenesis of this disease. The authors discuss what is known about coronavirus infection and some of the basic ultrastructural cell biology that has been confused for coronavirus infection of cells (namely, the machinery that controls endocytosis and exocytosis and membrane transport within cells). [Abstract](#)

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**Awards**
**BRI's Dr. Jessica Hamerman Named on LRA's 2020 LMTA Grantees List**

Lupus Research Alliance (LRA)



The LRA has announced the 2020 recipients of its Lupus Mechanisms and Targets Award (LMTA). Benaroya Research Institute (BRI) at Virginia Mason's Dr. Jessica Hamerman (*pictured*) is one of the five recipients, receiving up to \$200,000 a year for up to three years. She will explore how IgA autoantibodies contribute to lupus and define the mechanisms that are involved. [Read More](#)

**UW Medicine Faculty Listed as Highly Cited Researchers**

UW Medicine



More than three dozen UW Medicine scientists have been named to the Highly Cited Researchers 2020 list from Clarivate. The annual list identifies researchers who have significantly influenced their field by publishing many highly cited papers during the past decade. Their names are taken from the publications that rank in the top 1% by citations for their field and publication year in the Web of Science citation index. [Read More](#)

**RADx Grant Awarded to UW ITHS for COVID-19 Research**

Institute of Translational Health Sciences



In collaboration with Montana State University (MSU), UW's Institute of Translational Health Sciences (ITHS) has been selected to receive a RADx grant from the National Institutes of Health. The project is led out of the COBRE-funded Center for American Indian and Rural Health Equity at MSU. The total grant award is \$1.8 million with a UW subaward of \$425,872. [Read More](#)

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**Local News**
**ISCRM Researchers Pursue Personalized Medicine for Heart Failure**

Institute for Stem Cell &amp; Regenerative Medicine (ISCRM)



Doctors are already using precision medicine strategies to extend the lives of cancer patients. Now, a Collaborative Science Award from the American Heart Association will allow a research team from UW, led by Drs. Jen Davis, Farid Moussavi-Harami and Tom Daniel (*pictured*), to develop new tools to help cardiologists personalize treatments for certain heart diseases. [Read More](#)

**Can CUT&RUN and CUT&Tag Replace ChIP-Seq?**

Genetic Engineering &amp; Biotechnology News



CUT&RUN and CUT&Tag assays (developed at Fred Hutch and the University of Geneva) are dramatically changing how scientists perform chromatin mapping experiments by providing high-quality data using low cell inputs and sequencing depths. Some have speculated that these novel strategies will render the standard ChIP-seq assay obsolete in the next decade. But how do CUT&RUN and CUT&Tag assays work, and what makes them better than existing methods? [Read More](#)

**Fearless Science Is...**

Fred Hutch



Fearless science has been the cornerstone of Fred Hutch since Dr. Bill Hutchinson's original vision to create a new type of cancer center and his collaboration with Dr. E. Donnall Thomas, who pioneered bone marrow transplantation and launched the world's first BMT program. That breakthrough redefined scientists' fundamental understanding of how to cure cancer — and earned Dr. Thomas a Nobel prize. It also launched Fred Hutch's decades-long trajectory as a global leader in immunotherapy. [Read More](#)

**Repair of Key Immune Organ Triggered by Change in How Immune Cells Die**

Fred Hutch



A fiery form of cell death helps trigger regeneration of a critical immune organ after damage, according to preliminary work in mice, presented by Dr. Jarrod Dudakov (*pictured*) and Fred Hutch scientists at the 2020 virtual annual meeting of the American Society of Hematology. The findings could help researchers develop therapies to enhance repair of the thymus after damage from cancer treatment, infection or aging. [Read More](#)

**Athira Pharma Wins \$15M Grant from National Institute on Aging for Trial of Alzheimer's Drug**

GeekWire



Athira Pharma has announced a three-year grant totaling \$15 million from the National Institute on Aging to support an upcoming clinical trial of a treatment that seeks to stop the deterioration of neurons and restore healthy brain activity in people with mild to moderate cases of Alzheimer's disease. The grant "underscores the significant impact of these diseases and the need for effective prevention and treatment options," said Athira CEO Leen Kawas (*pictured*). [Read More](#)

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**Upcoming Events in Seattle**

 December 15 - 16  
 8:00 AM

**Allen Institute Showcase Symposium 2020**  
 Online

 December 16  
 10:00 AM

**Lessons Learned from Global Life Sciences Ecosystems in the COVID-19 Pandemic**  
 Online

 January 14 - 15  
 9:00 AM

**Neuropixels Workshop**  
 Online

 January 25 - 27  
 8:00 AM

**PMWC Virtual – 21<sup>st</sup> Century Precision Medicine in the Age of COVID-19**  
 Online

 March 30 - 31  
 8:00 AM

**Life Science Innovation Northwest**  
 Online

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**Science Jobs in Seattle**
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Fred Hutch

**Stem Cells and Gene Editing Scientist**

Allen Institute for Cell Science

**Scientist II, Protein Sciences**

bluebird bio

**Scientist, Gene Delivery Sciences & Analytics**

Bristol Myers Squibb

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