

Publications of the Week
Conserved Cell Types with Divergent Features in Human Versus Mouse Cortex

 First Authors: Rebecca Hodge & Trygve Bakken | Senior Author: Ed Lein *(pictured)*
 Nature | Allen Institute for Brain Science


The authors performed a comprehensive study of cell types in the middle temporal gyrus of the human cortex. Comparison to similar mouse cortex single-cell RNA-sequencing datasets revealed a surprisingly well-conserved cellular architecture that enabled matching of homologous types and predictions of properties of human cell types. Despite this general conservation, they also found extensive differences between homologous human and mouse cell types. [Profile](#) | [Abstract](#)

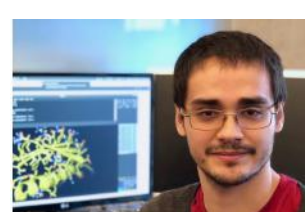
RIPK3 Activation Leads to Cytokine Synthesis that Continues after Loss of Cell Membrane Integrity

 First Author: Susana Orozco | Senior Author: Andrew Oberst *(pictured)*
 Cell Reports | UW


How active cytokine production is coordinated with the terminal process of necroptosis is unclear. The authors reported that cytokine production continued within necrotic cells even after they had lost cell membrane integrity and irreversibly committed to death. This continued cytokine production was dependent on mRNA translation and required maintenance of endoplasmic reticulum integrity that remained after plasma membrane integrity was lost. [Profile](#) | [Abstract](#)

[View All Publications](#)
Awards
Howard Hughes Medical Institute Awards \$1.4 Million Each to 15 Hanna Gray Fellows to Support Diversity in Science

Howard Hughes Medical Institute



The Howard Hughes Medical Institute has announced the selection of 15 exceptional early career scientists as 2019 Hanna Gray Fellows to support diversity in biomedical research. Among them is Dr. Neville Bethel *(pictured)* in David Baker's lab at UW, whose research focuses on how microscopic molecules combine to take on diverse roles. [Read More](#)

[View All Awards](#)
Local News
The Link Between Baby's Cells and Mom's Disease Risk

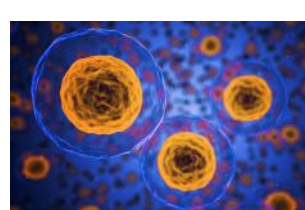
Fred Hutch



Why does mom's risk for rheumatoid arthritis skyrocket when her baby has a gene that protects against it? For the first time, scientists at Fred Hutch have identified how the two-way traffic between mom and fetus known as "microchimerism" can sometimes harm mom years later. It turns out that some alien cells from the child can trigger mom's immune system to go on the offensive, much like a transplant recipient's body might reject a donor organ. [Read More](#)

New Method to Detect, Analyze Rare T Cells Another Step toward Personalized Cancer Vaccines

Institute for Systems Biology



The immune system's T cells monitor diseased cells by recognizing and attacking foreign antigens which are presented on major histocompatibility complexes. Members of the Institute for Systems Biology's Health Lab and their collaborators have developed a way to sensitively detect and analyze neoantigen-specific T-cell populations from tumors and blood. This promising development may have implications for creating targeted, individual-specific cancer vaccines. [Read More](#)

A Molecular 'Atlas' of Animal Development

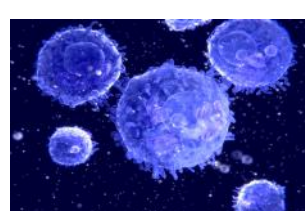
Penn Today



Dr. Robert Waterston *(pictured)* at UW has co-led a study reporting the first detailed molecular characterization of how every cell changes during animal embryonic development. The work used the latest technology in the emergent field of single cell biology to profile more than 80,000 cells in the embryo of the nematode *Caenorhabditis elegans*. [Read More](#)

Nanotech Turns Pro-Tumor Immune Cells into Cancer-Killing Triple Agents

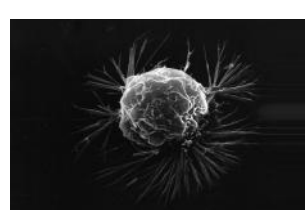
Fred Hutch



Scientists at Fred Hutch have shown in mice that miniscule, dissolving polymer particles can ferry genetic instructions that temporarily rewire certain immune-suppressing cells into cancer fighters without causing bodywide toxicities. They demonstrated that once reprogrammed, these cells, called macrophages, could help orchestrate an anti-cancer immune response that can shrink, and even clear, tumors in mice with ovarian, brain and skin cancers. [Read More](#)

Atomwise Inks Two Joint Ventures in AI-Based Cancer Drug Development

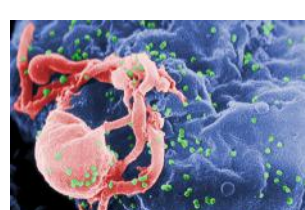
Fierce Biotech



Artificial intelligence-based drug designer Atomwise has launched two new joint venture projects—one to test its bespoke molecules in living tumor organoids, and another to develop targeted inhibitors of a protein linked to triple-negative breast cancer. Atomwise will work with SEngine Precision Medicine to create targeted cancer therapies, and OncoStatyx to develop small molecule compounds against KDM5B. [Read More](#)

Scientists Establish Link between Prenatal HIV Exposure and Decreased Infant Immunity Despite HIV-Negative Status at Birth

University of Rhode Island



Investigators at UW have provided concrete evidence linking the specific immune responses in HIV-negative babies to the HIV-positive status of their mothers. To arrive at their conclusions, the researchers compared the T-cell receptor beta-chain repertoire of cord blood samples from HIV-exposed uninfected infants to samples collected from mother-child pairs unaffected by HIV, but who were living in the same communities. [Read More](#)

[View All Local News](#) | [Submit an Article](#)
Interesting Articles
New Memo Offers First Glimpse of How Trump's Science Adviser Would Like to Shape Spending Priorities

Science Insider



A new White House directive laying out next year's spending priorities for federal research agencies describes a U.S. science enterprise imperiled by internal problems and foreign governments. It's the first time this annual exercise has addressed the perceived threat to research posed by Chinese government entities. The memo is meant to influence what agency heads submit as their budget request for the next fiscal year. [Read More](#)

[View All Interesting Articles](#) | [Submit an Article](#)
Upcoming Events in Seattle

- September 16, 2019 5:30 PM **UW Postdoctoral Association Happy Hour**
Shultz's Bar and Grill
- September 17 7:00 PM **Science in the City: News You Can Snooze - New Studies on Sleep**
PACCAR Theater
- September 19 7:00 PM **Let's Get in Formation: Empowering Girls and Women in STEM**
Pacific Science Center
- September 20 12:00 PM **UW Postdoctoral Association Research Symposium 2019**
UW South Campus Center
- September 23 1:00 PM **Genome Startup Day**
Foegen Hall

[View All Events](#) | [Submit an Event](#)
Science Jobs in Seattle
Staff Scientist, Process Development - Cell Therapy

Fred Hutchinson Cancer Research Center

Research Scientist, HIV Cure, Biomarker Sciences

Gilead

Scientist, Therapeutic Discovery

Allen Institute for Brain Science

Senior Director, Quality Assurance

Adaptive Biotechnologies

Postdoctoral Research Associate

Benaroya Research Institute at Virginia Mason

[View 39 Other Science Jobs](#) | [Submit a Job](#)
STEMCELL Jobs
Manager, Brand and Corporate Marketing (Vancouver, BC)

STEMCELL Technologies

Scientist, B Cell Immunology (Vancouver, BC)

STEMCELL Technologies

Associate Product Manager, Pluripotent Stem Cell Biology (Vancouver, BC)

STEMCELL Technologies

Scientist, Particle Chemistry (Vancouver, BC)

STEMCELL Technologies

Scientific Sales Representative, Cell Separation Products (San Francisco, CA)

STEMCELL Technologies

[View 101 Other STEMCELL Jobs](#) | [Submit a Job](#)

WILEY E-BOOK:
ORGANOID RESEARCH TECHNIQUES
Evolution and Applications

DOWNLOAD NOW >

 Submit your articles and events by reaching out to us at info@scienceinseattle.com.

BROUGHT TO YOU BY


STEMCELL Technologies
 Products | Services

STEMCELL's Science Newsletters
 Free Weekly Updates on Your Field

The Stem Cell Podcast
 Interviews and Updates on Stem Cell Science