

Publications of the Week
Receptive Field Center-Surround Interactions Mediate Context-Dependent Spatial Contrast Encoding in the Retina

 First Author: Maxwell Turner | Senior Author: Fred Rieke *(pictured)*
 eLife | UW


Antagonistic receptive field surrounds are a near-universal property of early sensory processing. The authors show that in the macaque monkey retina the receptive field architecture has an important consequence for spatial contrast encoding: the surround can control sensitivity to fine spatial structure by changing the way the center integrates visual information over space. [Abstract](#)

Chemical Cross-Linking with Mass Spectrometry: A Tool for Systems Structural Biology

 First Author: Juan Chavez | Senior Author: James Bruce *(fourth from right)*
 Current Opinion in Chemical Biology | UW School of Medicine


Chemical cross-linking with mass spectrometry provides identification of proximal amino acid residues within proteins and protein complexes, yielding low resolution structural information. The authors discuss recent developments in cross-linking and mass spectrometry technologies that are providing large-scale or systems-level interactome data with successful applications to isolated organelles, cell lysates, virus particles, intact bacterial and mammalian cultured cells and tissue samples. [Abstract](#)

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Spotlight
Dr. Lai Hong Wong Talks Cytochrome P450s and Adverse Drug Reactions


Dr. Lai Hong Wong *(pictured)* is a senior research fellow working in the laboratory of Professors Douglas Fowler and Maitreya Dunham in the Department of Genome Sciences at UW. Dr. Wong is interested in leveraging yeast genetics to explore the genetic determinants of drug metabolism that are implicated in adverse drug reactions in humans. [Read More](#)

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Local News
A Prototype of How to Fight the Next Pandemic: A Vaccine without the Shot

The Washington Post



Researchers at the Infectious Disease Research Institute have created an H5N1 vaccine administered through a needle that only penetrates the upper layer of skin. This prototype technology is a platform that could lead to novel vaccine patches that could be distributed rapidly and administered without a nurse. People would simply have to stick a bandage-like strip, lined with microscopic needles, on their skin. [Read More](#)

Fluorescence Activating Protein Made from Scratch for First Time

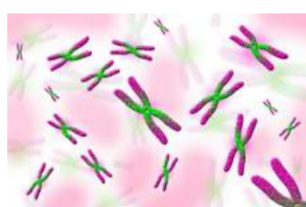
UW Medicine



Researchers in the laboratory of Dr. David Baker *(pictured)* have, for the first time, created a protein from scratch that is capable of binding to a small target molecule. The ability to make such proteins from scratch, or *de novo*, opens the way for scientists to create proteins unlike any found in nature. These proteins can be custom-designed with high precision and affinity to bind to, and act on, specific small molecule targets. [Read More](#)

How Chromosomes Find a Happy Medium

Fred Hutchinson Cancer Research Center



Scientists working under the supervision of molecular biologist Dr. Gerald Smith at Fred Hutchinson Cancer Research Center have worked out the molecular underpinnings of how chromosomes make the right number of crossovers — important links that make it possible for developing sex cells to sort those chromosomes properly. [Read More](#)

New 'Scientific Wellness' Strategy Could Cut Chronic Illnesses and Save Money

The Irish Times



"Scientific wellness" should be widely adopted as a health strategy to avoid chronic illnesses and reduce healthcare costs, according to Dr. Leroy Hood *(pictured)*, founder of the Institute for Systems Biology. This strategy is an entirely new way of doing medicine, described as P4 medicine, in that it is predictive, personalized, preventative and participatory. [Read More](#)

New Life Sciences Building Is a Nexus for Modern-Age Teaching and Research

UW Department of Biology



UW Biology has opened the doors to a new Life Sciences Building that will transform learning, teaching and research for generations. The \$171 million Life Sciences complex includes seven floors and 207,000 square feet that encourages and makes possible team-oriented science. The building has been a long time in the making. [Read More](#)

OncoResponse Raises \$40M to Start Clinical Trials of Antibody-Based Cancer Immunotherapies

Geek Wire



OncoResponse has raised a \$40 million Series B round to advance five new treatments into preclinical and clinical trials. OncoResponse developed its drug candidates by examining the immune systems of cancer patients who responded unusually well to immunotherapy treatments. These treatments use the immune system to fight cancer and are widely seen as an important next step in advancing cancer treatment across the board. [Read More](#)

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Interesting Articles
Documentary Puts Lens on the Open-Access Movement Upending Scientific Publishing

Science Magazine



Jason Schmitt was working at Atlantic Records when the online site Napster disrupted the music industry by making copyrighted songs freely available. Now, the communications and media researcher is pushing for a similar disruption of academic publishing with *Paywall*, a documentary about the open-access movement in science. [Read More](#)

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Upcoming Events in Seattle

- September 24 6:00 PM **Science on Tap: Breast Cancer and CRISPR**
Ravenna Third Place Bookstore
- September 26 8:30 AM **From the Laboratory to Leadership**
Agora Conference Center
- October 6 7:00 PM **In for the Hutch**
Fremont Studios
- October 9 7:00 PM **Science in the City: Tuberculosis Treatment**
Pacific Science Center
- October 10 8:30 AM **From the Laboratory to Leadership**
Agora Conference Center

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Celgene
- Senior Research Associate, Exploratory T Cell Biology**
Juno Therapeutics
- Scientist I, Epigenetics**
Allen Institute for Brain Research
- Scientist, Hematopoietic Cell Differentiation**
Universal Cells
- Principal Medical Writer**
Nohla Therapeutics

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