

Publications of the Week

**Inter- and Intra-Tumor Heterogeneity of Metastatic Prostate Cancer Determined by Digital Spatial Gene Expression Profiling**

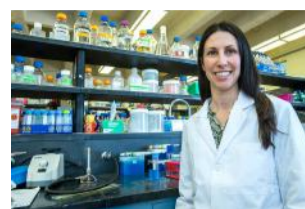
First Author: Lauren Brady (*pictured*) | Senior Author: Peter Nelson  
Nature Communications | Fred Hutch, NanoString Technologies, and UW



Metastatic prostate cancer (mPC) comprises a spectrum of diverse phenotypes. However, the extent of inter- and intra-tumor heterogeneity is not established. The authors use digital spatial profiling technology to quantitate transcript and protein abundance in spatially-distinct regions of mPCs. By assessing multiple discrete areas across multiple metastases, they find a high level of intra-patient homogeneity with respect to tumor phenotype. [Profile](#) | [Abstract](#)

***Pseudomonas aeruginosa* Aggregates in Cystic Fibrosis Sputum Produce Exopolysaccharides That Likely Impede Current Therapies**

First Author: Laura Jennings (*pictured*) | Senior Author: Matthew Parsek  
Cell Reports | UW



To form aggregates, *Pseudomonas aeruginosa* can use different mechanisms, each with its own pathogenic implications. One mechanism involves a bacterially produced extracellular matrix that holds the aggregates together. Pel and Psl exopolysaccharides are structural and protective components of this matrix. The authors develop an immunohistochemical method to visualize Pel and Psl in cystic fibrosis sputum. [Abstract](#) | [Press Release](#)

**Mechanical Competition Triggered by Innate Immune Signaling Drives the Collective Extrusion of Bacterially Infected Epithelial Cells**

First Author: Effie Bastounis | Senior Author: Julie Theriot (*pictured*)  
Developmental Cell | UW



Intracellular pathogens alter their host cells' mechanics to promote dissemination through tissues. Conversely, host cells may respond to the presence of pathogens by altering their mechanics to limit infection. The authors monitored epithelial cell monolayers infected with intracellular bacterial pathogens, *Listeria monocytogenes* or *Rickettsia parkeri*, over days. [Abstract](#)

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Awards

**Dr. Taran Gujral's NSF CAREER Award to Study the Molecular Networks**

Fred Hutch



Dr. Taran Gujral (*pictured*) has received a National Science Foundation CAREER Award to study the molecular networks that govern cells' ability to make transitions, with an eye toward designing new ways to intervene in the future. "The knowledge that we can learn from here hopefully will also help us to understand how we can block some of these changes that happen in disease states" says Dr. Gujral. [Read More](#)

**Seattle's Infectious Disease Research Institute Receives Federal Grant for Innovation to Enhance RNA Vaccine Efficacy**

Infectious Disease Research Institute



Seattle's Infectious Disease Research Institute announced that its RNA vaccine team manager, Dr. Emily Voigt (*pictured*), has received a federal grant to support her team's innovative development of better, stronger RNA-based vaccines. Dr. Voigt and her team are exploring methods of engineering RNA vaccines to make them stronger and longer-lasting. [Read More](#)

**UW Is a Fulbright Top Producer**

UW



Twenty-four UW students, including Danielle Marangoni-Simonsen (*pictured*), received Fulbright awards for academic year 2020-2021— that makes the UW the top research institution in Washington and among the top universities nationwide. Additionally, three UW scholars were awarded Fulbrights. The Fulbright Program was created to increase mutual understanding between the people of the United States and the people of other countries. [Read More](#)

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Local News

**NanoString Appoints Dr. Dana Rollison and Janet George to Board of Directors**

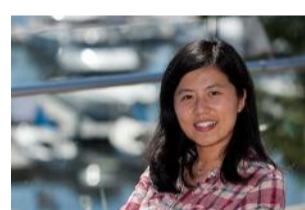
NanoString Technologies



NanoString Technologies announced the appointment of two new board members, Dr. Dana Rollison (*pictured, right*) and Janet George (*pictured, left*). Dr. Rollison is Vice President, Chief Data Officer and Associate Center Director of Data Science for the Moffitt Cancer Center. Janet George is Group Vice President of Autonomous Enterprise, Advanced Analytics with Machine Learning, and Artificial Intelligence at Oracle. [Read More](#)

**Engineering Microvasculature in Full 3D Complexity**

UW



Maximizing the potential of tissue engineering requires mastery of a micro-scale art form: replicating the elaborate connectivity, cellularity, and 3D curvature of microvasculature using human ingenuity and innovation. Dr. Ying Zheng (*pictured*) is responsible for several recent advances in tissue engineering, including a breakthrough in the ability to engineer capillaries and new models to study how cells that line blood vessel respond to curvature. [Read More](#)

**Allen Institute Launches Fellowship for Data Scientists to Study the Brain**

Allen Institute for Brain Science



The Allen Institute and UW's eScience Institute and Computational Neuroscience Center are launching a new fellowship program in data science and neuroscience and are seeking interested applicants. The three-year fellowship is open for applications and positions will start in fall 2021. The goal of the fellowship is to attract early-career data scientists to work on problems related to neuroscience. [Read More](#)

**UW Faculty Spotlight: Dr. Christine Chung**

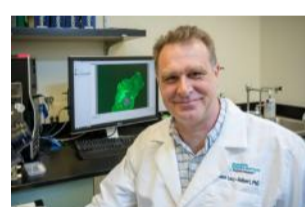
UW



The February faculty spotlight is Dr. Christine Chung (*pictured*), an Assistant Professor in the Division of Cardiology. Dr. Chung joined the Department of Medicine in 2020 as an interventional cardiologist in the Heart Institute at UW Medical Center. She finished her residency training at Brigham and Women's Hospital and completed fellowships at New York Presbyterian Hospital. [Read More](#)

**What COVID-19 Is Teaching Us About the Immune System**

Benaroya Research Institute at Virginia Mason (BRI)



BRI President Dr. Jane Buckner and principal investigator Dr. Adam Lacy-Hulbert (*pictured*) presented their work in a Town Hall Seattle program called "What COVID-19 is Teaching Us About the Immune System". In addition to examining how the immune system is implicated in both autoimmune disease and complications from COVID, they discussed how vaccines work. [Read More](#)

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 **Upcoming Events in Seattle**



- March 18 5:00 PM **GU Oncology Seminar Series**  
Online
- March 22 8:00 AM **Global Oncology Lecture Series**  
Online
- March 22 10:00 AM **CFAR Qualitative Research Workshop Series: Grant Writing**  
Online
- March 23 12:00 PM **Science Says**  
Online
- March 24 12:00 PM **What Really Happens in an NIH Study Review**  
Online

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 **Science Jobs in Seattle**

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Bristol Myers Squibb
- Scientist, Synthetic Biology**  
A-Alpha Bio
- Postdoctoral Research Associate, Mucosal Immunology**  
Benaroya Research Institute at Virginia Mason
- Associate Director, Strategy Breast Cancer**  
Seagen
- Research Associate**  
Seattle Children's

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