

#### Publications of the Week

# Single-Cell Analysis Identifies a CD33<sup>+</sup> Subset of Human Cord Blood Cells with High Regenerative Potential

First Authors: David Knapp and Colin Hammond | Senior Author: Connie Eaves (*pictured*) Nature Cell Biology | The Terry Fox Laboratory, The BC Cancer Agency, the Michael Smith Laboratories, and UBC



From a multi-parameter analysis of the molecular features of very primitive human cord blood cells that display long-term cell outputs *in vitro* and in immunodeficient mice, the authors identified a prospectively separable CD33<sup>+</sup>CD34<sup>+</sup>CD38<sup>-</sup>CD45RA<sup>-</sup> CD90<sup>+</sup>CD49f<sup>+</sup> phenotype with serially transplantable, but diverse, cell output profiles. **Profile | Abstract** 

# A Molecular Network of the Aging Human Brain Provides Insights into the Pathology and Cognitive Decline of Alzheimer's Disease

First Author: Sara Mostafavi (pictured) | Senior Author: Philip De Jager



There is a need for new therapeutic targets with which to prevent Alzheimer's disease (AD), a major contributor to aging-related cognitive decline. The authors report the construction and validation of a molecular network of the aging human frontal cortex. Using RNA sequence data from 478 individuals, they first built a molecular network using modules of coexpressed genes and then related these modules to AD and its neuropathologic and cognitive endophenotypes. Abstract

# Phase 1 Trials of Anti-ENPP3 Antibody Drug Conjugates in Advanced Refractory Renal Cell Carcinomas

First Author: John Thompson | Senior Author: Christian Kollmannsberger (*pictured*) Clinical Cancer Research | The BC Cancer Agency and the Vancouver Prostate Centre



The authors determined the safety, pharmacokinetics, and recommended phase 2 dose of an antibody drug conjugate targeting ectonucleotide phosphodiesterasespyrophosphatase 3 (ENPP3) conjugated to monomethyl auristatin F in subjects with advanced metastatic renal cell carcinoma. The drug was tolerated and had durable antitumour activity at 1.8 mg/kg every 3 weeks. Abstract

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#### Awards

# Three Top Canadian Research Teams Receive \$13 Million to Solve Key Cancer Challenges

Terry Fox Research Institute



Three outstanding cancer research teams, including one led by Dr. David Huntsman *(pictured)* at the BC Cancer Agency, will receive nearly \$13 million to continue their investigations into cancer. The teams will receive the funding from the Terry Fox Research Institute as winners of its 2018 Terry Fox New Frontiers Program Project Grant competition. **Read More** 

#### Local News

# BC Research Improves Ability to Detect and Predict Avian Flu Outbreaks

Genome BC



In 2014/2015, an outbreak of highly pathogenic avian influenza (AI) struck BC. In 2015, the BC Ministry of Agriculture, BC Centre for Disease Control Public Health Laboratory, and University of British Columbia joined forces to develop a new approach to surveilling highly pathogenic AI in wild birds – a genomics-based test that identifies and characterizes AI viruses in wetland sediments. **Read More** 

# MSFHR-Funded Researcher Discovers a New Drug That Could Stop Prostate Cancer in Its Tracks

Michael Smith Foundation for Health Research (MSFHR)



Prostate cancer is the most common cancer among Canadian men – 1 in 7 will be diagnosed with the disease in their lifetime, and 1 in 29 will die from it. Dr. Christopher Ong *(pictured)* and fellow researchers at the Vancouver Prostate Centre are in the early stages of development of a new drug that could have wide-reaching impacts on the future of the treatment of prostate cancer. **Read More** 

# Examining Dr. Paul Zehr's Superpower

International Collaboration on Repair Discoveries (ICORD)



What do science and comic book superheroes have in common? Quite a lot, says ICORD Principal Investigator Dr. Paul Zehr. Dr. Zehr has been using comic book superheroes as a platform for discussing science since the release of his first book. Dr. Zehr completed a trilogy on the subject, exploring whether a combination of current technologies could be used to turn an ordinary person into a superhero. **Read More** 

## Neuroscience through the Ages Makes Neurohistory Fun for Everyone

Djavad Mowafaghian Centre for Brain Health



A group of neuroscience graduate students at the University of British Columbia have found a novel way to detail the history of brain research. By merging art and science in comic form, they're making complicated ideas in neuroscience accessible to everyone; by making it fun, they're hoping to entice a younger generation into the sciences. **Read More** 

BC Children's Hospital Joins International Collaborative to Further the Development of Innovative Immunotherapy Treatments for Kids with Hardto-Treat Cancer

BC Children's Hospital Research Institute



BC Children's Hospital has joined CureWorks, an international collaborative of leading academic children's hospitals focused on improving care for children with hard-to-treat cancers by expanding clinical trials and accelerating the development of leading-edge immunotherapy treatments. Researchers at BC Children's will further the science of a promising type of immunotherapy called chimeric antigen receptor T-cell therapy. **Read More** 

Interesting Articles

### Minister Looks for Signs of Gender Bias in Federal Science Departments

CBC News



Federal Science Minister Kirsty Duncan has made it clear that gender equity in science is a big priority for her. And now she's looking beyond universities to scientists employed by the federal government. Duncan said in an interview in Toronto last week that she has asked science-based departments in the federal government to collect demographic data about their staff following a union survey. **Read More** 

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#### 觉 Upcoming Events in Vancouver

June 8 - 22	Interstitial: Science Innovations by Canadian Women
10:00 AM	Beaumont Studios
June 17 - 20 8:00 AM	Protein Engineering Canada Conference
June 18	Ocean Matters: Return of the Sea Otter
7:00 PM	Vancouver Aquarium
June 20	LifeSciences BC Salmon BBQ
6:00 PM	Cecil Green Park House
<b>July 20</b>	D.R.I.N.K.S. (Discussions Relevant to Inspiring New Knowledge and Science)
4:00 PM	Mahony and Sons, Stamps Landing

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#### STEMCELL Jobs in Vancouver

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Senior Quality Control Specialist, Analytics STEMCELL Technologies

Research Associate, Neural Research STEMCELL Technologies

Research Technologist STEMCELL Technologies

Program Associate STEMCELL Technologies

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#### Other Science Jobs in Vancouver

Assistant Professor Department of Cellular and Physiological Sciences, UBC

Research Coordinator UBC Sexual Health Lab

Technician or Senior Technician Precision NanoSystems

**Scientific Director** 

Michael Smith Foundation for Health Research

### Postdoctoral Fellow, Chronic Airway Disease Genetics

Providence Airway Centre

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