

Publications of the Week

A Densely Modified M^{2+} -Independent DNAzyme That Cleaves RNA Efficiently with Multiple Catalytic Turnover

First Author: Yajun Wang | Senior Author: David Perrin (*pictured*)
Chemical Science | UBC

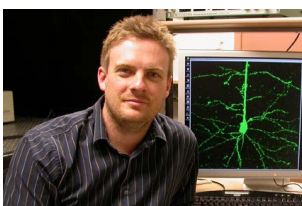


Sequence-specific cleavage of RNA targets in the absence of a divalent metal cation (M^{2+}) has been a long-standing goal in bioorganic chemistry. The authors report the *in vitro* selection of novel RNA cleaving DNAzymes that are selected using 8-histaminyl-deoxyadenosine (dAimTP), 5-guanidinoallyl-deoxyuridine (dUgaTP), and 5-aminoallyl-deoxycytidine (dCaaTP) along with dGTP. [Profile](#) |

[Abstract](#)

VEGF Signaling Regulates the Fate of Obstructed Capillaries in Mouse Cortex

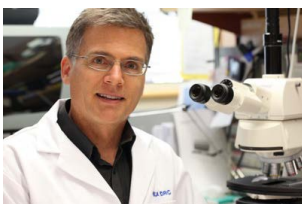
First Author: Patrick Reeson | Senior Author: Craig Brown (*pictured*)
eLife | UBC



Cortical capillaries are prone to obstruction, which over time, could have a major impact on brain angioarchitecture and function. The mechanisms that govern the removal of these obstructions and what long-term fate awaits obstructed capillaries, remains a mystery. The authors reveal the incidence, mechanism and long-term outcome of capillary obstructions which can also explain age-related capillary rarefaction. [Abstract](#)

Oncolytic Viruses as Engineering Platforms for Combination Immunotherapy

First Author: Kwame Twumasi-Boateng | Senior Author: Brad Nelson (*pictured*)
Nature Reviews Cancer | The Trev and Joyce Deeley Research Centre, the BC Cancer Agency, and UBC



The authors argue that the future of immunotherapy will include oncolytic viruses that function as multiplexed immune-modulating platforms expressing factors such as immune checkpoint inhibitors, tumour antigens, cytokines and T cell engagers. They illustrate this concept by following the trials and tribulations of tumour-reactive T cells from their initial priming through to the execution of cytotoxic effector

Awards

MSFHR Health Professional-Investigator Award for Dr. Black

The Vancouver Prostate Centre



Dr. Peter Black (*pictured*) has been awarded a Michael Smith Foundation for Health Research (MSFHR) Health Professional-Investigator award in partnership with Vancouver Coastal Health Research Institute and VGH & UBC Hospital Foundation. The project, "*Unraveling disparate roles of Notch-1 and Notch-2 signaling in bladder cancer*" will further his ongoing work on the Notch signaling pathway in bladder cancer. [Read More](#)

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Local News

Genome BC Invests \$1 Million in Funding to Top Canadian 3D Bioprinting Company Aspect Biosystems

Genome BC



Genome BC has announced \$1 million in funding to Aspect Biosystems, a privately held biotechnology company focused on commercializing cutting-edge 3D bioprinting technologies. Aspect's Lab-on-a-Printer™ 3D bioprinting platform technology enables the rapid creation of functional living tissues. The therapeutic applications are broad and profound and have attracted the attention of global pharmaceutical and biotechnology companies. [Read More](#)

Scent of Death: Honeybees Use Odours to Clean Out Deceased Broods

Scientific American



Dr. Leonard Foster and Alison McAfee at the University of British Columbia are trying to better understand hygienic behaviour in bees. They selected two chemicals naturally produced by honeybees, oleic acid and beta-ocimene, whose odours they thought might act as cleanup signals, and performed a series of tests to determine if they were connected to hygienic behaviour. [Read More](#)

Comparison of Disease Modifying Treatments in MS Finds Increased Risk of Infection in Newer Drugs

Djavad Mowafaghian Centre for Brain Health

Over the past few years, Dr. Helen Tremlett (*pictured*) has been evaluating population health data to establish a greater understanding of the relationship between multiple sclerosis (MS) drug treatments, comorbidities, and associated health outcomes. Most recently, she's developed a first-of-its-kind study to assess



disease modifying treatments for MS and their relationship with infection risk in the 'real world' clinical setting. [Read More](#)

CDRD and Pfizer Canada Partner to Establish the CDRD Life Sciences Executive Institute

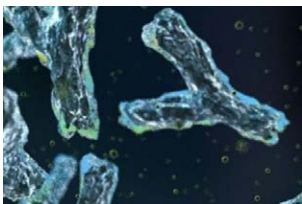
The Centre for Drug Research and Development



The Centre for Drug Research and Development (CDRD) and Pfizer Canada has announced the launch of the CDRD Executive Institute under the umbrella of The CDRD Academy. This launch is made possible by a significant \$1,000,000 contribution by Pfizer Canada. The Institute's aim is to provide ongoing executive development to ensure that the Canadian life sciences sector has the management talent it needs to lead the world. [Read More](#)

Innovative Targeting Solutions Announces Antibody Research Collaboration with Sanofi

Innovative Targeting Solutions



Innovative Targeting Solutions Inc. has announced a research collaboration with Sanofi. The collaboration uses Innovative Targeting Solutions' proprietary HuTARG platform to discover novel first-in-class antibody therapeutic candidates. This novel advancement allows for interrogation of billions of unique drug candidates directly for functional activity, while at the same time not imposing any restrictions on the types of protein scaffolds being screened. [Read More](#)

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Interesting Articles

Good Economics and Good Health: How Canada's Pharmaceutical Companies Make an Impact

The National Post



An Ernst and Young report commissioned by Innovative Medicines Canada pegs the pharmaceutical industry's overall direct and indirect economic value at \$19.2 billion (2016), and that figure only tells part of the story. Through unique work and key partnerships, the sector plays an important role in helping researchers bring new medicines to patients who need them. [Read More](#)

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 [Upcoming Events in Vancouver](#)

May 14 - 16
8:00 AM

BCTECH Summit
Canada Place

May 16
8:30 PM

Collider Cafe: Art. Science. Chronicles.
Cafe Deux Soleils

May 22
9:30 AM

The Non-Academic Job Search for Graduate Students and Postdocs
Life Sciences Institute

May 25
4:00 PM

D.R.I.N.K.S. (Discussions Relevant to Inspiring New Knowledge and Science)
Mahony and Sons, Stamps Landing

June 11 - 15
9:00 AM

Molecular Biology Workshop for Professionals
AMBL Lab at Michael Smith Building

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STEMCELL Jobs in Vancouver

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[STEMCELL Technologies](#)

Research Associate, Neural Research
[STEMCELL Technologies](#)

Scientific Sales Representative, Cell Culture Products
[STEMCELL Technologies](#)

Scientific Marketing Specialist, Pluripotent Biology
[STEMCELL Technologies](#)

Scientific Marketing Specialist, Mesenchymal, Endothelial, and Myogenic
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Science Jobs in Vancouver

Senior Manager, Medical Writing
Xenon Pharmaceuticals

Postdoctoral Research Scientist in Chronic Airway Diseases
The Centre For Heart Lung Innovation

Immunologist / Immuno-Oncology Scientist
Symvivo

Coordinator, Project Search & Evaluation
The Centre For Drug Research And Development

Technician, Biologics
The Centre For Drug Research And Development



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