# **Maksim Parfyonov**

Pediatric Neurology Resident, Division of Neurology BC Children's Hospital · 4480 Oak Street · Vancouver, Canada · V6H 3N1

### **Post Doctoral Training**

British Columbia Children's Hospital Pediatric Neurology Residency Expected July 2022

### **Education**

*University of British Columbia* M.D.

2013-2017

Simon Fraser University

2006-2013

B.Sc. with Distinction in Molecular Biology & Neuroscience (Double Major)

### **Publications**

MANUSCRIPTS IN PREPARATION

- (1) **Parfyonov M**, Friedlander R, Banno B, Elbe D, Horvath G. 2020. "Psychiatric manifestations in patients with biopterin defects"
- (2) Parfyonov M, Webb P, Datta A. 2020. "Pediatric RCVS in a patient with sickle cell disease"

PEER-REVIEWED JOURNAL ARTICLES

- (1) Mick P, **Parfyonov M**, Wittich W, Phillips N, Guthrie D, Pichora-Fuller M. 2018. "Associations between sensory loss and social networks, participation, support, and loneliness: Analysis of the Canadian Longitudinal Study on Aging." *Canadian Family Physician*, 64(1), e33-e41.
- (2) Petersen CC, Patton DF, **Parfyonov M**, Mistlberger RE. 2014. "Circadian food anticipatory activity: Entrainment limits and scalar properties re-examined." *Behavioral Neuroscience*, 128(6), 689-702.
- (3) Patton DF, Katsuyama AM, Pavlovski I, Michalik M, Patterson Z, **Parfyonov M**, Smit AN, Marchant EG, Chung J, Abizaid A, Storch KF, de la Iglesia, H, Mistlberger RE. 2014. "Circadian mechanisms of food anticipatory rhythms in rats fed once or twice daily: clock gene and endocrine correlates." *PLoS ONE* 10(3): e0120223.
- (4) Gallardo CM, Hsu CT, Gunapala KM, **Parfyonov M**, Chang CH, Mistlberger RE, Steele AD. 2014. "Behavioral and neural correlates of acute and scheduled hunger in C57BL/6 mice." *PLoS ONE* 9(5): e95990.
- (5) Patton DF, **Parfyonov M**, Gourmelen S, Opiol H, Pavlovski I, Marchant EG, Challet E, Mistlberger RE. 2013. "Photic and pineal modulation of food anticipatory circadian activity rhythms in rodents." *PLoS ONE* 8(12): e81588
- (6) Mueller AD, **Parfyonov M**, Pavlovski I, Marchant EG, Mistlberger, RE. 2013. "The inhibitory effect of sleep deprivation on cell proliferation in the hippocampus of adult mice is eliminated by corticosterone clamp combined with interleukin-1 receptor 1 knockout." *Brain, Behavior, and Immunity*, 35, 102-108.

(7) Mistlberger RE, Kent BA, Chan S, Patton DF, Weinberg A, **Parfyonov M**. 2012. "Circadian clocks for all meal times: anticipation of 2 daily meals in rats." *PLoS ONE* 7(2): e31772.

### **BOOK CHAPTERS & REVIEWS:**

(8) Howard AK, Zurowski M, Parfyonov M, Wong V. 2016. *Neuroleptics and movement disorders*. In: Kompoliti K, Metman LV. (eds.) Encyclopedia of Movement Disorders. Academic Press.

#### Abstracts & Presentations

**Parfyonov M**, Horvath G. Psychiatric manifestations of BH4 deficiency. Annual Symposium of the Society for the Study of Inborn Errors of Metabolism (SSIEM). Rotterdam, Netherlands. September 3-4, 2019.

**Parfyonov M**, Mick P, Pichora-Fuller K, Wittich W. (2016) Association between sensory loss and social outcomes: A preliminary report. Canadian Acoustics, 44(3), 124-125.

**Parfyonov M**, Wittich W, Pichora-Fuller K, Mick P. Hearing loss and social engagement in older Canadians. 70th Annual Meeting of the Canadian Society of Otolaryngology - Head & Neck Surgery. Charlottetown, PEI. June 11-14, 2016.

**Parfyonov M**, Wittich W, Pichora-Fuller K, Mick P. The association between sensory loss and social networks, social participation, social support and loneliness in older Canadians. The Canadian Geriatrics Society. Vancouver, BC. April 14-16, 2016.

Gulzar N, Klaric KA, **Parfyonov M**, Montero M, Wang S, Huarte N, Appellaniz B, Nieva J, Lu S, Scott JK. Optimizing DNA vaccines that target the 2F5 epitope of the membrane proximal external region of HIV-1 gp41. AIDS Vaccine, Barcelona, Spain. October 7-10, 2013.

Gulzar N, McCully M, **Parfyonov M**, Klaric KA, Hannigan B, Ulas G, DeGrado W, Scott JK. Engineering DNA vaccines expressing the membrane proximal external region of HIV-1 gp41 to optimize exposure of neutralizing epitopes. AIDS Vaccine, Barcelona, Spain. October 7-10, 2013.

Gulzar N, Klaric KA, **Parfyonov M**, Montero M, Hannigan B, Ulas G, McCully M, Wang S, Huarte N, Appellaniz B, Nieva J, Lu S, DeGrado W, Scott JK. DNA Vaccines that optimally present neutralizing epitopes within the membrane proximal external region of HIV-1 gp41. 22nd Annual Canadian Conference on HIV/AIDS Research, Vancouver, BC. April 10-14, 2013.

Peterson C, Patton DF, **Parfyonov M**, Opiol H, Pavlovski I, Dattolo T, Mistlberger RE. (2013). Another look at circadian limits to entrainment of food anticipatory activity rhythms in rats. 1st Annual Canadian Society for Chronobiology. Toronto, ON. May 24-26, 2013.

**Parfyonov M**, Patton DF, Opiol H, Pavlovski I, Marchant EG, Mistlberger RE. Food anticipatory circadian rhythms: role of non-circadian factors. Society for Research on Biological Rhythms, Destin, Florida. May 19-23, 2012.

Patton DF, Marchant EG, **Parfyonov M**, Smit A, Opiol H, Patterson Z, Abizaid A, Storch F, Mistlberger RE. Multiple daily meals: effects on behaviour, peripheral oscillators and associated hormones. Society for Research on Biological Rhythms, Destin, Florida. May 19-23, 2012.

Mistlberger RE, Patton DF, Luby M, Hsu CT, Kent BA, Chan S, **Parfyonov M**, Marchant EG, Steele AD. New insights into the circadian mechanisms regulating food anticipation. Symposium of circadian rhythms research in Canada, Douglas Mental Health University Institute, Montreal, QC. June 2-3, 2011.

**Parfyonov M**, Patton DF, Jaholkowsi M, Mistlberger RE. The role of stress in circadian rhythms. North American Undergraduate Psychology Research Conference, Kwantlen Polytechnic University, Richmond, BC, June 3-4, 2010.

### Teaching & Talks

BC Children's Hospital, Pediatric Neuroscience Rounds

Pediatric RCVS. Apr 22, 2020
Introduction to Metagenomics: Overview and Clinical Applications Nov 6, 2019
Pediatric cardiac myxoma causing acute ischemic stroke. Jan 21, 2019
Neurologic manifestations of systemic lupus erythematosus. May 1, 2019

BC Children's Hospital, Student Supervision

Supervised medical student Sofia Zhang for summer research internship. Directed data collection, and patient recruitment CSF metagenomics study.

Case-based teaching for Pediatric Residents: Transverse Myelitis

Oncology Teaching for Pediatric Residents. Opsoclonus-Myoclonus Syndrome.

Mar 1, 2019

University of British Columbia, Faculty of Medicine

Clinical Skills Teaching for Medical Students.

Sep 2019

Sep-Dec 2011

Simon Fraser University

Teaching Assistant, Introduction to Genetics (BISC 202)

In this large-class undergraduate course, students are introduced to principles and concepts of the transmission of genetic information.

### **Research Projects**

BC Children's Hospital

2020 - present

Advisor: Katherine Selby

**Project**: Respiratory and motor outcomes in children with 5q Spinal Muscular Atrophy types 1 and 2 treated with nusinersen.

BC Children's Hospital

2020 - present

**Advisors**: Mary Connolly, Judy Iles **Project**: Whole exome sequencing, pediatric epilepsy and choice: Ethics of parental decision making around genetic testing in pediatric epilepsy.

BC Children's Hospital

2019 - present

Advisor: Linda Huh Project: Leveraging the gut microbiota in treatment resistant epilepsy.

BC Children's Hospital

2018 - present

**Advisor**: Millan Patel **Project**: Cerebrospinal fluid metagenomics and cytokine profiling in children with CNS inflammation.

BC Children's Hospital

2018 - 2019

**Advisor**: Gabriella Horvath **Project**: Psychiatric manifestations of BH4 deficiency: A retrospective chart-based review.

2015-2016Research Analyst, University of British Columbia. Statistical analysis of large cross-sectional data set from the Canadian Longitudinal Study on Aging. Advisor: Paul Mick 2012-2013Research Technician, Simon Fraser University. Developing panel of DNA vaccines for induction of neutralizing antibodies against HIV. Advisor: Jamie Scott Jan-Apr 2011Research Assistant, Simon Fraser University. Cross-modal attention studies using event-related potentials.

Advisor: John McDonald 2009-2011Research Assistant, Simon Fraser University. Effects of sleep deprivation on neurogenesis, circadian rhythms of food anticipation. Advisor: Ralph Mistlberger 2008-2009Research Assistant, Simon Fraser University. Validity and utility of a broad-band measure of personality and psychopathology. Advisor: Kevin Douglas

### Honours, Awards & Funding

2020 BC Children's Hospital Pediatric Subspecialty Fellow, "Research Champion of the Year" BC Children's Hospital Research Institute

2019-2021 Weston Family Microbiome Initiative, Proof-of-Principle Grant (\$150,000) BC Children's Hospital

2014Rachel Bagnall Arts in Medicine Grant (\$1,000) University of British Columbia 2012Vice-President, Research Undergraduate Student Research Award (\$4,500) Simon Fraser University 2011Open Scholarship (\$4,000) Simon Fraser University 2011NSERC Undergraduate Student Research Award (\$4,500) Simon Fraser University 2011Evelyn & Leigh Palmer Scholarship (\$3,200) Simon Fraser University 2010NSERC Undergraduate Student Research Award (\$4,500) Simon Fraser University

### **Employment**

Firecracker (online study platform for the USMLE)

2014-2015

Subject Editor, Neurology

Created study materials and cases for students studying for Step 1 and 2 USMLE exams.

ABLE Developmental Clinic

2008-2013

Behavioural Interventionist

One-on-one instruction for children with autism using ABA methodology.

### **Other Contributions**

Professional & Service Activities

Resident Representative, BC Children's Pediatric Neurology Residency Program Committee 2020-present

Residency Selection Subcommittee Member, BC Children's Pediatric Neurology Residency Program

Voting Member of the UBC Faculty of Medicine, Resident Representative

Reviewer: Resident & Fellows Section, Neurology journal

Year 4 Class President, Southern Medical Program

Reviewer: University of British Columbia Medical Journal

Reviewer: Very Selection Subcommittee Member, BC Children's Pediatric Neurology Residency Program

2019-present
2018-present
2016-2017
2014-2017

#### Outreach

Connect Communities (Acquired Brain Injury Centre), Art Instructor, Lake Country, BO	C 2014-2015
Let's Talk Science, Educator, Vancouver, BC	2013-2014
SkinSafe Melanoma Prevention Program, Educator, Vancouver	2011-2012
Annual Vancouver Brain Bee, Panel Speaker & Exam Reviewer, UBC	2010-2013

#### EXTRACURRICULAR ACTIVITIES

Recreational Member, Kelowna Rowing Club	2015-2017
Junior Varsity Rowing, SFU	2007-2010
Actor/Director's Assistant, Palme's Performing Society	2002-2010

## **Professional Memberships**

American Epilepsy Society	2019-present
Child Neurology Society	2018-present
Canadian Neurological Sciences Federation	2018-present
Canadian Association of Child Neurology	2018-present
American Academy of Neurology	2014-present
Student Interest Group Neurology, UBC Chapter	2013-2017
Society for Research on Biological Rhythms	2012-2015