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NIKITA TELKAR

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EDUCATION

PhD in Medical Genetics

University of British Columbia (UBC), Canada

MSc Genetics of Human Disease: Inherited Diseases 2017 – 2018

University College London (UCL), United Kingdom

BSc Biomedical Genetics (Honours) 2014 – 2017

Newcastle University (NCL), United Kingdom

RESEARCH EXPERIENCE

PhD Candidate August 2019 –

University of British Columbia - Canada

Co-Supervisors: Dr. Wendy Robinson (BC Children's Hospital Research) & Dr. Wan Lam (BC Cancer Research Centre) Project: Characterizing Small Non-Coding RNA (sncRNA) in the human placenta and placental cell types, and investigating the biological (sex, ancestry), clinical (depression status, smoking) and technical variables driving variation *Data*: RNA-seq, DNA methylation; *Software*: R; *Techniques*: RNA extraction, sample processing, and optimization Recent Publications / Awards:

- Small Non-Coding RNAs in the Human Placenta: Regulatory Roles and Clinical Utility Telkar N et al., 2022
- An in vitro chronic damage model impairs inflammatory and regenerative responses in human colonoid monolayers Rees WD, Telkar N et al., 2022
- Functional role of the cancer microbiome in the solid tumour niche Marshall EA, Telkar N, Lam WL, 2021
- RStudio Diversity Scholar 2022
- University of British Columbia 4 Year Doctoral Fellowship (4YF) Award

Master's Student January – August 2018

UCL Genetics Institute and The Wellcome Sanger Institute – England (Supervisor: Dr. Karoline Kuchenbäcker) Master's dissertation project in statistical genetics investigating the heritability, trans-ethic genetic correlation, and association of lipid variants—biomarkers across several diverse populations

Software: UNIX, R, PLINK, GEMMA, Popcorn

Second-author publication in Nature Communications. Polygenic Risk Scores available on EMBL-EBI's PGS Catalog

Final Year Undergraduate Student

January – March 2017

Newcastle University Campus for Ageing and Vitality - Newcastle upon Tyne, England

Undergraduate Honors project validating candidate genes affecting oxygen concentration in *Drosophila melanogaster*. *Techniques*: qPCR, western blot, BN-PAGE, high resolution respirometry.

Summer Undergraduate Researcher

July – September 2016

Institute of Genetic Medicine – Newcastle upon Tyne, England (Supervisor: Professor Susan Lindsay)

Received the UK-wide competitive Genetics Society Summer Studentship Award 2016

Project involved tracking the expression of the WNT5A protein in human embryonic tissue via immunohistochemistry *Software*: Linux, MAPaint, Amira

Expression results available on MRC-Wellcome Trust HDBR database. Report featured, and poster won awards

PROFESSIONAL EXPERIENCE

Biomedical Data Analyst - BenchSci, Toronto, Canada

April 2022 –

BenchSci's AI platform predicts the optimum antibody for a sample type using machine-learning approaches Labelling biomedical data for the platform's ML training model (~20,000 labels till date)

Annotating scientific publication figures for image to text (vision) training

Contributing to the platform's UX design as part of the internal Discovery and Validation team

Biostatistics Expert – BC Children's Hospital Research Institute, Vancouver, Canada January – April 2021 Developed videos and resources teaching statistical concepts and analyses undertaken in health research at various levels (beginner, intermediate and advanced). Videos published online for the Summer Student Research Program 2021

Teaching Assistant – University of British Columbia

September – December 2020

TA for the graduate MEDG 520 Advanced Human Molecular Genetics course in the Department of Medical Genetics. Instrumental in restructuring the course and assignments, assisting course instructors, and holding tutorial sessions.

Named "the best TA he's ever worked with" by the Head of the Medical Genetics Graduate Program.

"Nikita always responded promptly and thoughtfully to requests for advice. Her input and assistance helped guide the learning process. She did everything I think a good teacher should, and went above and beyond the time and effort I would expect from a TA. She was the best part of the course."

Co-Chair – Trainee 'Omics Group, BC Children's Hospital Research Institute

December 2020 -

A graduate trainee-led bioinformatics and data analysis support group

Established intra- and inter-UBC outreach, with a ~200% increase in registrations with monthly workshop collaborations Partnered with Databinge (Digital Alliance of Canada's Data Champions) to provide increased support to our members Have created (coded) and taught genomic analysis workshops, and currently developing a UBC-wide Bootcamp

Visiting Scholar – MIT-ADT School of Bioengineering Sciences and Research, India March – July 2019 Visiting Lecturer in Genetics for first year undergraduate Bachelor of Technology Bioengineering students

Instructional Skills Workshop - University of British Columbia

July 2020

A 24-hour professional development workshop to enhance teaching practices and application. Taught 3 short lessons with feedback from peers. "Nikita, your students will be lucky to have you, you make everything so easy to understand."

PUBLICATIONS (in order of publication)

- Kuchenbaecker K, Telkar N, Reiker T, Walters RG, Lin K, Eriksson A et al (2019). The transferability of lipid loci across African, Asian and European cohorts. Nature Communications, 10: 4330.
- Marshall EA, Telkar N, Lam WL (2021). Functional role of the cancer microbiome in the solid tumour niche. Current Research in Immunology; 2: 1–6
- Cohn DE, Barros-Filho MC, Minatel BC, Pewarchuk ME, Marshall EA, Vucic EA, Sage AP, **Telkar N**, Stewart GL, Jurisica I, Reis PP, Robinson WP, Lam WL (2021). *Reactivation of multiple fetal miRNAs in lung adenocarcinoma*. Cancers; 13, 2686.
- Martinez, VD, Cohn DE, Telkar N, Minatel BC, Pewarchuk ME, Marshall EA, Price ME, Robinson WP, Lam WL (2021). Profiling the Small Non-Coding RNA Transcriptome of the Human Placenta. Sci Data; 8, 166
- Rees WD, Telkar N, Lin D, Peloni C, Fathi A, Kobor M, Zachos NC, Steiner TS (2022). An in vitro chronic damage model impairs inflammatory and regenerative responses in human colonoid monolayers. Cell Reports; 38(3)
- **Telkar N**, Stewart GL, Pewarchuk ME, Cohn DE, Robinson WP, Lam WL (2022). *Small Non-Coding RNAs in the Human Placenta: Regulatory Roles and Clinical Utility*. Frontiers in Genetics; 13.
- Minatel BC, Cohn DE, Pewarchuk ME, Barros-Filho MC, Sage AP, Stewart GL, Marshall EA, Telkar N, Reis PP, Robinson WP, Lam WL (2022). Genetic and Epigenetic Mechanisms Deregulate the CRL2pVHL Complex in Hepatocellular Carcinoma. Frontiers in Genetics: 13.

GRANTS AND AWARDS

4 Year Doctoral Fellowship (4YF) Award (2020-2024) - University of British Columbia

President's Academic Excellence Initiative PhD Award (2020-2024) - University of British Columbia

International Tuition Award (2019-2024) - University of British Columbia

Genes and Development Summer Studentship 2016 - The Genetics Society UK

Commendation Award – Newcastle University Student Research Scholarships and Expeditions Exhibition 2016 RStudio Diversity Scholar 2022 – RStudio PBC

Trainee Travel Grant 2022 – BC Children's Hospital Research Institute

Registration Grant 2022 - Cold Spring Harbor Laboratory

Registration Grant 2021 – EMBO–EMBL

Virtual Knowledge Exchange Grant 2021 – BC Children's Hospital Research Institute

Faculty of Medical Sciences Undergraduate Research Scholarship 2016 - Newcastle University

Second Place Poster Award 2016 - Newcastle University Faculty of Medicine

ncl+ Award - Newcastle University (for extracurricular achievement)

PRESENTATIONS / POSTERS / WORKSHOPS

Regulatory and Non-Coding RNAs 2022 – Cold Spring Harbor Laboratory, New York, USA University of Toronto Health Network (UHN) Seminar Series (*Invited*) – Virtual Medical Genetics Research Day 2021 – Department of Medical Genetics, UBC, Canada EMBO–EMBL Symposium: The Non-Coding Genome – Virtual International Federation of Placental Research (IFPA) 2021 – Virtual Healthy Starts Research Day 2021 – BC Children's Hospital Research Institute, Canada Medical Genetics Research Day 2020 – Department of Medical Genetics, UBC, Canada ONCO548: Knowledge Translation (*Invited*) – Interdisciplinary Oncology Program, UBC, Canada British Columbia Cancer Summit 2019 – Vancouver, Canada

May 2022 January 2022 November 2020

October 2021 August 2021

August 2021 February 2021

November 2020

October 2020 November 2019

LEADERSHIP / VOLUNTEER EXPERIENCE

Advisory Committee Member – Department of Medical Genetics, UBC

2019 -

Recruiting the new Head of Department of Medical Genetics under the Advisory Search Committee
Single-handedly redesigned and updated the department website using WordPress with CSS and HTML coding

Research Mentor – NCL and UBC

2015 - 2016 / 2020 -

Guiding and assisting incoming students, both professionally and personally Currently teaching and overseeing a summer student's data analysis project

Geneskool Volunteer - Genome British Columbia

October 2019 – October 2020

Conducting interactive activities at local schools to educate students about genetics and its applications Committee Member at the Girls and Steam Symposium 2019 hosted by BC Science World

Events Chair – UBC Medical Genetics Graduate Student Association

January 2021 -

Assisting the board with executive decisions for this departmental social and outreach association Varied roles fulfilled - Recruited panelists and moderated the Alumni Panel at the annual welcome event (received public acknowledgment), directed a fundraiser (raised ~\$300), designed the website, and populated all content

EXTRA-CURRICULAR

News Reporter - Health Science Inquiry

2019 - 2020

A News Reporter for the 2019-2020 academic year at this student-run science communication journal for graduate and post-doctoral students within Canada Article published in their 2020 issue

UCL Business Game 2017 – University College London

November 2017

Selected to participate in this exclusive University-wide challenge Competed in 4 different team challenges focused on finance, marketing, strategy, and entrepreneurship set forth by by Bloomberg, Citibank, Gartner, and Lydia

GrasRoots Case Competition - University of British Columbia

August 2021

Won the Judges' Choice Award in this medical case competition focused on solving a real-world problem

FEATURES

The Genetics Society Newsletter Newcastle University Alumni Profile Science in Vancouver The Interview Portal