NIKITA TELKAR



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EDUCATION

PhD in Medical Genetics 2019 –

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) – 2:1 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:

- An in vitro chronic damage model impairs inflammatory and regenerative responses in human colonoid monolayers –
 W.D. Rees, N Telkar et al., 2022
- Profiling the Small Non-Coding RNA Transcriptome of the Human Placenta V.D. Martinez et al., 2021
- Functional role of the cancer microbiome in the solid tumour niche E. A. Marshall, N Telkar, W.L. Lam, 2021.
- Virtual Knowledge Exchange Grant 2021 BC Children's Hospital Research Institute
- 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 Kuchenbaecker) 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. (Supervisor: Dr. Alberto Sanz Montero) Undergraduate Honors project validating candidate genes affecting oxygen concentration in *Drosophila melanogaster*. *Molecular Techniques*: qPCR, western blot, BN-PAGE, high resolution Respirometry.

Summer Undergraduate Researcher

July – September 2016

Institute of Genetic Medicine, Newcastle upon Tyne. (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.

Intern July – August 2015

Genepath Dx, Pune, India.

Interned and trained in several molecular biology protocols at one of the only genetic diagnostic companies in India.

TEACHING EXPERIENCE

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."

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 <u>Summer Student Research Program 2021</u>.

Co-Chair – <u>Trainee 'Omics Group</u>, BC Children's Hospital Research Institute

A graduate trainee-led bioinformatics and data analysis support group, running workshops, tutorials, and seminars

Have exclusively <u>created (coded) and taught genomic data analysis tutorials</u>

Honoraria awarded

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.

PUBLICATIONS (in order of publication)

- Kuchenbaecker K, **Telkar N**, Reiker T, Walters RG, Lin K, Eriksson A et al (2019). <u>The transferability of lipid loci across African</u>, 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). <u>Reactivation of multiple fetal miRNAs in lung adenocarcinoma</u>. 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). <u>An in vitro chronic damage</u> model impairs inflammatory and regenerative responses in human colonoid monolayers. Cell Reports; 38(3)

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
EMBO–EMBL Symposium: The Non-Coding Genome Registration Grant 2021
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

University of Toronto Health Network (UHN) Seminar Series (Invited) – Virtual	January 2022
Medical Genetics Research Day 2021 – Department of Medical Genetics, UBC	November 2020
EMBO–EMBL Symposium: The Non-Coding Genome – Virtual	October 2021
International Federation of Placental Research (IFPA) 2021 – Virtual	August 2021
Healthy Starts Research Day 2021 – BC Children's Hospital Research Institute	February 2021
Medical Genetics Research Day 2020 – Department of Medical Genetics, UBC	November 2020
ONCO548: Knowledge Translation (Invited) – Interdisciplinary Oncology Program, UBC	October 2020
British Columbia Cancer Summit 2019 – Vancouver, Canada	November 2019
Faculty of Medical Sciences Research Poster Presentation 2016 – Newcastle University	November 2016

Student Research Scholarships and Expeditions Exhibition 2016 - Newcastle University

Instructional Skills Workshop - UBC

November 2016 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."

LEADERSHIP / VOLUNTEER EXPERIENCE

Advisory Committee Member - Department of Medical Genetics, UBC

2019 -

Providing student feedback to department faculty and staff with discussing program development initiatives 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 graduate students, both professionally and personally Aiding in formulating research questions, analysis methodologies, and interpretation of data

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

Marketing and Social Media Lead – UBC Undergraduate 3 Minute Thesis Committee

2020 - 2021

Led executive marketing decisions, along with designing weekly promotional graphics, communications outreach, and website upkeep

Events Chair – <u>UBC Medical Genetics Graduate Student Association</u>

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

Vice President - Newcastle South Asian Society

2016 - 2017

Second-in-charge in this cultural society committee and responsible for delegating and supervising tasks Oversaw event management – Corresponding with services and sponsors, locating venues, recording inventory, maintaining finances. Events arranged for up to 20 to 500 guests

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