

# NIKITA TELKAR

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## EDUCATION

<b>PhD in Medical Genetics</b> University of British Columbia (UBC), Canada	2019 –
<b>MSc Genetics of Human Disease: Inherited Diseases</b> University College London (UCL), United Kingdom	2017 – 2018
<b>BSc Biomedical Genetics (Honours)</b> Newcastle University (NCL), United Kingdom	2014 – 2017

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## RESEARCH EXPERIENCE

<b>PhD Candidate</b> <i>University of British Columbia – Canada</i> Co-Supervisors: Dr. Wendy Robinson (BC Children's Hospital Research) & Dr. Wan Lam (BC Cancer Research Centre) <b>Project:</b> Characterizing Small Non-Coding RNAs (sncRNA) in the human placenta and placental cell types, and investigating the biological (sex, ancestry), clinical (depression status, smoking) and technical variables driving variation. <b>Data:</b> RNA-seq, DNA methylation; <b>Software:</b> R/Shiny; <b>Techniques:</b> RNA extraction, sample processing, and optimization Recent Publications / Awards: <ul style="list-style-type: none"><li>• <a href="#">Small Non-Coding RNAs in the Human Placenta: Regulatory Roles and Clinical Utility</a> – Telkar N et al., 2022</li><li>• <a href="#">An in vitro chronic damage model impairs inflammatory and regenerative responses in human colonoid monolayers</a> – Rees WD, Telkar N et al., 2022</li><li>• <a href="#">Functional role of the cancer microbiome in the solid tumour niche</a> – Marshall EA, Telkar N, Lam WL, 2021</li><li>• RStudio <a href="#">Diversity Scholarship</a> 2022</li><li>• University of British Columbia <a href="#">4 Year Doctoral Fellowship</a> (4YF) Award</li></ul>	August 2019 –
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<b>Master's Student</b> <i>UCL Genetics Institute and The Wellcome Sanger Institute – United Kingdom (Supervisor: Dr. Karoline Kuchenbäcker)</i> Master's dissertation project in statistical genetics investigating the heritability, trans-ethnic genetic correlation, and association of lipid variants–biomarkers across several diverse populations <b>Software:</b> UNIX, R, PLINK, GEMMA, Popcorn Second-author publication in <a href="#">Nature Communications</a> . Polygenic Risk Scores available on EMBL-EBI's <a href="#">PGS Catalog</a>	January – August 2018
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<b>Final Year Undergraduate Student</b> <i>Newcastle University Campus for Ageing and Vitality – Newcastle upon Tyne, United Kingdom</i> Undergraduate Honors project validating candidate genes affecting oxygen concentration in <i>Drosophila melanogaster</i> . <b>Techniques:</b> qPCR, western blot, BN-PAGE, high resolution respirometry.	January – March 2017
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<b>Summer Undergraduate Researcher</b> <i>Institute of Genetic Medicine – Newcastle upon Tyne, United Kingdom (Supervisor: Professor Susan Lindsay)</i> Received the UK-wide competitive <a href="#">Genetics Society Summer Studentship Award</a> 2016 Project involved tracking the expression of the WNT5A protein in human embryonic tissue via immunohistochemistry <b>Software:</b> Linux, MAPaint, Amira Expression results available on the MRC-Wellcome Trust HDBR <a href="#">database</a> . <a href="#">Report</a> featured, and <a href="#">poster</a> won awards	July – September 2016
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## PROFESSIONAL EXPERIENCE

<b>Biomedical Data Analyst</b> – <a href="#">BenchSci</a> , Toronto, Canada Labelling biomedical data for the platform's machine learning 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	April 2022 –
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<b>Biostatistics Expert</b> – <i>BC Children's Hospital Research Institute, Vancouver, Canada</i> Created beginner-to-intermediate biostatistics videos with a hands-on R tutorial for the <a href="#">Summer Student Research Program</a>	January – April 2021
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<b>Teaching Assistant</b> – <i>University of British Columbia</i> 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.”	September – December 2020
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## COMMUNITY SERVICE

### 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

Developed the [UBC-wide Precision Health Bootcamp](#), and have [created and taught genomic analysis workshops](#)

Numerous one-on-one project consultations UBC-wide, with 2 (and counting) full collaborations

### 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 –

BCCHR Summer Student (1<sup>st</sup> Year undergraduate) – placental epigenetics

3<sup>rd</sup> Year undergraduate – oncofetal microRNAs in renal cancer

Masters' student – nasopharyngeal carcinoma

### 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

## COLLABORATIONS

- British Columbia Cancer Research Centre – [Tumour immune microenvironment of nasopharyngeal carcinoma](#)  
– The effect of Telmisartan on cancer-associated fibroblasts
- British Columbia Children's Hospital Research Institute – [Inflammation and regeneration in human colon organoids](#)
- Centre for Heart Lung Innovation / St. Paul's Hospital, Vancouver – The role of NFAT5 in myocarditis
- Institut national de la recherche scientifique (INRS), Québec – Human placental transcriptomics
- IWK Health Centre / Dalhousie University, Halifax – [Small non-coding RNAs in the human placenta](#)
- São Paulo State University / Faculty of Medicine of Botucatu, Brazil – [Reactivation of fetal microRNAs in lung cancer](#)

## 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 Deregate the CRL2pVHL Complex in Hepatocellular Carcinoma](#). Frontiers in Genetics; 13.
- Forder A, Stewart GL, **Telkar N**, Lam WL, Garnis C (2022). [New insights into the tumour immune microenvironment of nasopharyngeal carcinoma](#). Current Research in Immunology; 3: 222–227.
- Zhao G, Zhang HM, Nasser AR, Yip F, **Telkar N**, Chen YT, Aghakeshmiri S, Küper C, Zhao J, Lam WL, Yang W, McManus BM, Yang D (2022). [Conditional Heart-specific NFAT5 Knockout Suppresses Type I Interferon Signaling and Aggravates Coxsackievirus B3-induced Myocarditis](#). [Submitted – Circulation Research]

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## GRANTS AND AWARDS

4 Year Doctoral Fellowship (4YF) Award (2020-2024) – University of British Columbia; CAD \$113,000  
President's Academic Excellence Initiative PhD Award (2020-2024) – University of British Columbia; CAD \$6,000  
International Tuition Award (2019-2024) – University of British Columbia; CAD \$16,000  
4YF Stipend Award (2020-2024) – Department of Medical Genetics, University of British Columbia; CAD \$6,000  
Genes and Development Summer Studentship 2016 – The Genetics Society UK; £2,350 / CAD \$4,700  
Commendation Award – Newcastle University Research Scholarships and Expeditions Exhibition 2016; £200 / CAD \$400  
RStudio Diversity Scholarship 2022 – RStudio PBC; USD \$2,500 / CAD \$3,370  
Trainee Travel Grant 2022 – BC Children's Hospital Research Institute; CAD \$1,200  
Registration Grant 2022 – Cold Spring Harbor Laboratory; CAD \$650  
Registration Grant 2021 – EMBO-EMBL; CAD \$210  
Virtual Knowledge Exchange Grant 2021 – BC Children's Hospital Research Institute; CAD \$250  
Second Place Poster Award 2016 – Newcastle University Faculty of Medicine; £50 / CAD \$100  
ncl+ Award – Newcastle University  
Declined: Faculty of Medical Sciences Undergraduate Research Scholarship – Newcastle University; £2,000 / CAD \$4,000

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## POSTERS

Developmental Origins of Health and Disease (DOHaD) World Congress 2022 – Vancouver, Canada	August 2022
rstudio::conf(2022) – Washington D.C., USA	July 2022
Regulatory and Non-Coding RNAs 2022 – Cold Spring Harbor Laboratory, New York, USA	May 2022
Medical Genetics Research Day 2021 – Department of Medical Genetics, UBC, Canada	November 2021
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, Canada	February 2021
Medical Genetics Research Day 2020 – Department of Medical Genetics, UBC, Canada	November 2020
British Columbia Cancer Summit 2019 – Vancouver, Canada	November 2019
Faculty of Medical Sciences Research Poster Presentation 2016 – Newcastle University, United Kingdom	November 2016
Student Research Scholarships and Expeditions Exhibition 2016 – Newcastle University, United Kingdom	November 2016

## INVITED PRESENTATIONS

University of Toronto Health Network (UHN) Seminar Series – Virtual	January 2022
ONCO548: Knowledge Translation – Interdisciplinary Oncology Program, UBC, Canada	October 2020

## WORKSHOPS

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.”	
Building Production-Quality Shiny Applications – rstudio::conf(2022), Washington D.C., USA	July 2022
Chose this complimentary workshop awarded under <a href="#">RStudio's Diversity Scholarship</a>	
Learnt best-practices to write user interface (UI) and server-side code for Shiny for R web application development	

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## EXTRA-CURRICULAR

**Founder** April 2019 – Present  
Started two small, separate enterprises in Canada and India  
[SPIRITFUL](#) – Selling original artwork, independently handling: procuring raw material, assembly, marketing, and shipping  
– 60% profit margin, 25% of profits directed to the HelpAge India NGO (a non-profit focused on the elderly)  
[ScribblezbyNiki](#) – Received multiple 5-star reviews on my custom-made genetics/science-themed merchandise on Etsy

**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  
Competed in 4 different team challenges in this UCL-wide competition focused on finance, marketing, strategy, and entrepreneurship set forth 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

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## FEATURES

[The Genetics Society Newsletter](#)   [Newcastle University Alumni Profile](#)   [Science in Vancouver](#)   [The Interview Portal](#)