

# Kieran O'Neill

koneill@bcgsc.ca | oneillkza.net | LinkedIn | ORCID | GitHub

## Current Position

Postdoctoral Fellow (Karsan Lab, Michael Smith Genome Sciences Centre, Vancouver, Canada)

## Education

- |      |   |
|------|---|
| 2014 | <b>Ph.D. (Bioinformatics) University of British Columbia, Vancouver, Canada</b><br>Thesis: Automated analysis of single cell leukemia data<br>Supervisor: Dr Ryan Brinkman<br>Research undertaken at the BC Cancer Agency   |
| 2008 | <b>M.Sc. (Computer Science) University of KwaZulu-Natal, Pietermaritzburg, South Africa</b><br>Dissertation: Relieving the Cognitive Load of Constructing Molecular Biological Ontology Based Queries by means of Visual Aids<br>Research undertaken at National Bioinformatics Institute, Cape Town<br>Internship at European Bioinformatics Institute, Hinxton, UK        |
| 2004 | <b>B.Sc.(Hons), University of KwaZulu-Natal, Pietermaritzburg, South Africa</b><br>Dissertation: Creation of an Extensible Environment for the Investigation of Genetic Algorithmic Solutions to 3D Cubic Lattice Protein Folding<br><i>Cum Laude</i><br>Dean's commendations for 7/10 semesters attended.<br>Certificates of Merit (top in class) 14/43 modules completed. |

## Awards

- |      |   |
|------|---|
| 2017 | Postdoctoral Fellowship, Canadian Institutes of Health Research   |
| 2015 | Postdoctoral Fellowship, Michael Smith Foundation for Health Research<br><br>Poster Prize, <i>ISMB 2015</i> |
| 2012 | Student Travel Award, <i>CYTO 2012</i>  |
| 2005 | Prestigious Masters Award, <i>National Research Foundation</i> (South Africa)                               |
| 2004 | Special Honours Award, <i>National Research Foundation</i> (South Africa)                                   |

## First Author Publications

### Research Articles

- |      |  |
|------|--|
| 2017 | K O'Neill, M Hills, M Gottlieb, M Borkowski, A Karsan and P Lansdorp: <i>Assembling draft genomes using contiBAIT</i> , Bioinformatics   |
| 2015 | K O'Neill, N Aghaeepour, J Parker, D Hogge, A Karsan, B Dalal R Brinkman: <i>Deep profiling of multitube flow cytometry data</i> , Bioinformatics  |
| 2014 | K O'Neill, A Jalali, N Aghaeepour, H Hoos, R Brinkman: <i>Enhanced flowType/RchyOptimyx: a Bioconductor pipeline for discovery in high-dimensional cytometry data</i> , Bioinformatics           |
| 2008 | K O'Neill, A Garcia, A Schwegmann, R Jimenez, D Jacobson and H Hermjakob: <i>OntoDas - a tool for facilitating the construction of complex queries to the Gene Ontology</i> , BMC Bioinformatics |

### Commentary/Reviews

- |      |   |
|------|---|
| 2017 | K O'Neill, V Rai and A Kilpatrick: <i>The International Society for Computational Biology and WikiProject Computational Biology: celebrating 10 years of collaboration towards open access</i> , Bioinformatics |
| 2016 | K O'Neill and R Brinkman: <i>Publishing code is essential for reproducible flow cytometry bioinformatics</i> , Cytometry A  |
| 2013 | K O'Neill, N Aghaeepour, J Špidlen, R Brinkman: <i>Flow Cytometry Bioinformatics</i> , PLoS Computational Biology   |

## Co-authored Publications

- |      |  |
|------|--|
| 2016 | K Krowiorz, J Ruschmann, C Lai, M Ngom, T Maetzig, V Martins, A Scheffold, E Schneider, N Pochert, C Miller, L Palmqvist, A Staffas, M Mulaw, S R Bohl, C Buske, M Heuser, J Kraus, K O'Neill, C L Hansen, O I Petriv, H Kestler, H Döhner, L Bullinger, K Döhner, R K Humphries, A Rouhi and F Kuchenbauer: <i>MiR-139-5p is a potent tumor suppressor in adult acute myeloid leukemia</i> , Blood Cancer Journal |
| 2013 | N Aghaeepour, G Finak, <b>The FlowCAP Consortium</b> , The DREAM Consortium, H Hoos, T Mosmann, R Brinkman, R Gottardo and R Scheuermann: <i>Critical assessment of automated flow cytometry data analysis techniques</i> , Nature Methods   |

		M Hills, <b>K O'Neill</b> , E Falconer, R Brinkman and P Lansdorp: <i>BAIT: Organizing genomes and mapping rearrangements in single cells</i> , Genome Medicine
2012		N Aghaeepour, A Jalali, <b>K O'Neill</b> , P Chattopadhyay, M Roederer, H Hoos, R Brinkman <i>RchyOptimyx: Cellular hierarchy optimization for flow cytometry</i> , Cytometry A
		N Aghaeepour, P Chattopadhyay, A Ganesan, <b>K O'Neill</b> , H Zare, A Jalali, H Hoos, M Roederer, R Brinkman: <i>Early immunologic correlates of HIV protection can be identified from computational analysis of complex multivariate T-cell flow cytometry assays</i> , Bioinformatics
2010		A Garcia, <b>K O'Neill</b> , L Garcia, P Lord, R Stevens, O Corcho, F Gibson <i>Developing Ontologies within Decentralised Settings</i> , Semantic e-Science
2008		R Jimenez, A Quinn, A Garcia, A Labarga, <b>K O'Neill</b> , F Martinez, G Salazar, H Hermjakob: <i>Dasty2, an Ajax protein DAS client</i> , Bioinformatics
<b>Scientific Software</b>		
	2017	Screw (in development)
	2016	ContiBAIT
	2013	flowBin
		BAIT
	2011	flowType
	2008	OntoDAS
<b>Mentorship</b>		
	2014	Eva Yap (Masters Student, completed 2017)
	2009	Six undergraduate/co-op students during PhD and post-doc (ongoing)
<b>Work Experience</b>		
	2010	<b>Scientific Technical Advisor</b> , <i>Twentieth Century Fox</i> , Vancouver, Canada Advised on the set of Rise of the Planet of the Apes
	2008	<b>Python Web Developer</b> , <i>ReportLab</i> , London, UK
	2001	<b>Gap Year</b> , <i>Various Positions</i> , London, UK