

Obi L. Griffith (www.obigriffith.org, obig@bcgsc.ca)
Canada's Michael Smith Genome Sciences Centre
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EDUCATION

University of British Columbia, Vancouver, BC, Canada

Ph.D. in Medical Genetics, Faculty of Medicine

2003 - 2008

Average Grade Percentage: 90.5% (A+ average)

Thesis: "Identification of Gene Expression Changes in Human Cancer using Bioinformatic Approaches"

Selected courses: Topics in Statistics; Genome Analysis; Advanced Human Molecular Genetics; Advanced Human Genetics; Current Topics in Medical Genetics; Teaching & Learning in Life Sciences.

University of Winnipeg, Winnipeg, MB, Canada

B.Sc. in Biology (Honours) and Biochemistry

1996 - 1997, 1998 - 2002

Cumulative Grade Point Average: 4.23 (A+ average)

Thesis: "The Effect of Mating on the Pheromone System of the Yellow Mealworm Beetle, *Tenebrio molitor*"

Selected courses: Molecular Cell Biology; Molecular Genetics; Evolutionary Biology, Biological Modelling; Genetics; Principles of Ecology; Cell Biology; Biology of Prokaryotes & Viruses; Cells & Organisms; Evolution and Ecology; Protein Biochemistry; Intermediate Biochemistry; Thermodynamics & Kinetics; Organic Chemistry; Analytical Chemistry; Intro Chemistry; Intro Physics; Intro Calculus; Intro Statistics.

Edward Schreyer School, Beausejour, MB, Canada

High School Diploma

1992 - 1996

Valedictorian. Highest standing awards in Chemistry, Physics, and English Literature. Student body vice president (1995) and president (1996).

OTHER CERTIFICATIONS

Centre for Teaching and Academic Growth (UBC), Vancouver, BC, Canada

Instructional Skills Workshop (3 day)

2006

'Use of narrative in teaching' workshop (1 day)

2005

University of British Columbia, Vancouver, BC, Canada

Advanced Molecular Biology Laboratory course (1 week)

2005

AWARDS

Year	Award	Total Value
2007	Lloyd Skarsgard Research Excellence Prize ¹	\$500
2006	MSFHR Senior Trainee Award	\$14,000 (2yrs)
2005	CIHR Canada Graduate Scholarship Doctoral Award ²	\$105,000 (3yrs)
2004	John Bosdet Memorial Fund Travel Scholarship	\$670
2004	CIHR National Poster Competition Award (Silver)	\$250
2004	Albert B. and Mary Steiner Summer Research Award	\$650
2003-2006	UBC PhD Tuition Fee Award (4 years)	\$12,700 (4yrs)
2003	UBC Graduate Entrance Scholarship	\$4,000
2003	MSFHR Junior Trainee Award	\$24,400 (2yrs)
2003	NSERC PGS-A Award	\$34,600 (2yrs)

2002	University of Winnipeg Gold Medal in Biochemistry ³	N/A
2001	University of Winnipeg Library Mentorship Scholarship	\$750
2000	Dr. Edgar Van Nuys Allen Memorial Scholarship in Biology ⁴	\$950
1999	NSERC Undergraduate Award	\$5,200
1997-2001	Student of Highest Distinction Awards (3 years)	\$1,400 (3yrs)
1996	Board of Regents Special Entrance Scholarship	\$1,200
1996	Governor General's Award (Bronze Medal) ⁵	N/A
1995	AECL Award	\$250
Totals	20 awards	\$206,520

1. Awarded to most outstanding graduate student in their final year of studies at the BC Cancer Research Centre; 2. Provides special recognition and support to the top CIHR doctoral awards candidates who are expected to have an exceptionally high potential for future research achievement and productivity; 3. Awarded to student with highest standing in Biochemistry (4yr course); 4. Awarded annually to the most promising student entering the final year of the Honours B.Sc. program in Biology; 5. Awarded to the student graduating with the highest average.

OTHER HONOURS

- Profiled in Maclean's (May 24, 2004 issue) as one of Canada's 25 'Best and Brightest', chosen from more than 400 nominees submitted by Canadian universities.
- Profiled in MSFHR Focus Newsletter and University of Winnipeg Alumni Journal for contribution to sequencing of SARS genome.

TEACHING EXPERIENCE

University of British Columbia, Vancouver, BC, Canada

Guest lecturer – Cell Biology For Biomedical Engineering Graduate Students (APSC552) **2008-2009**

Developed lesson plans, delivered lectures, created and assessed weekly quizzes on topics of genetics, genomics, gene regulation, and basic cell biology.

University of British Columbia, Vancouver, BC, Canada

Guest lecturer – Cell and Organismal Biology (BIOL111); Cell Biology (BIOL200) **2007**

Developed lesson plans with emphasis on active learning techniques and delivered lectures on whole-organism cloning and case-based learning (as part of BIOL535 course).

Canadian Genetic Disease Network, Vancouver, BC, Canada

Instructor – Canadian Bioinformatics Workshop (Genomics session) **2006 - 2007**

Organized, developed, updated, and taught course material for one week (35 hours) workshop on the use and development of software tools for genomic and computational biology research.

Self-employed, Vancouver, BC, Canada

Private tutor **2005 - 2006**

Provide individual tutoring for high school and university level subjects.

University of British Columbia, Vancouver, BC, Canada

Teaching Assistant - Genome Analysis (MEDG505) **2006**

Assisted with instruction of course. Duties included organization of lecture and presentation schedule, maintenance of course website (<http://obiweb.bcgsc.ca/medgen/MEDG505/2006/>), and design and evaluation of assignments.

Teaching Assistant – Advanced Human Molecular Genetics (MEDG520) **2004**

Assisted with instruction of bioinformatics section of course. Duties included design and delivery of two

lab tutorials on use of bioinformatics tools, and individual tutoring sessions for students with questions.

University of Winnipeg, Winnipeg, MB, Canada

Lab Demonstrator - Biology of Vascular Plants; Biomodelling

2000 - 2001

Assisted in the instruction of the laboratory portion of Biology of Vascular Plants (BIO2153) and Biomodelling (BIO3492) courses. Supervised and instructed laboratory concepts, procedures, and techniques. Assisted with laboratory examinations.

SUPERVISORY EXPERIENCE

I have supervised projects for six undergraduate co-op students for a total of eight work terms (four months each). In each case, I designed the project, advertised the position, performed interviews and selected the applicant. As students under my direct supervision I coordinated their activities (through weekly meetings and progress reports), trained them in the necessary biology and computer skills, and submitted an evaluation of their performance to their university department. The student's projects were designed as an extension of my own research and have contributed to several publications (co-op student names are underlined in my publication list).

RELATED EXPERIENCE

Canada's Michael Smith Genome Sciences Centre, Vancouver, BC, Canada

Post-Doctoral Fellow

2008 - present

Bioinformatics research focusing on analysis of next-generation sequencing data for whole-genome transcript profiling, genotyping, re-sequencing, and other tasks. Contribute to several collaborations with clinical oncologists performing clinical statistics and tissue microarray analysis of several cancers.

Canada's Michael Smith Genome Sciences Centre, Vancouver, BC, Canada

Computational Biologist / Sequence Finisher

2002 - 2003

Bioinformatics research. Worked on Mammalian Gene Collection full length cDNA sequencing and PCR directed closure projects. Contributed to first assemblies and annotations of SARS genome sequence. Research involved creation and maintenance of numerous Perl scripts and MySQL databases to automate pipelines for projects listed above.

University of Winnipeg, Winnipeg, MB, Canada

Research Assistant – Chemistry Department (Dr. Vanderwel)

2000 - 2001

Conducted research as part of an honours thesis studying the mating behaviour of *Tenebrio molitor*, the Yellow Mealworm. Research involved in vivo assays, in vitro assays, bioassays, use of radio-labeled precursors and several types of liquid chromatography, including HPLC. Created a lab web page at: <http://chemistry.uwinnipeg.ca/dvanderwel/vanderwellabtour/vanderwelresearch.htm>

Research Assistant – Biology Department (Dr. Forbes)

2000

Found, catalogued, mapped, and monitored all nest activity in several study sites. Determined species composition, measured and recorded egg mass, egg dimensions, chick mass and tarsus length. Entry and analysis of data for behavioral evolution studies.

Research Assistant – Biology Department (Dr. Wang)

1999

Assisted with summer research under NSERC undergraduate award program. Duties included background research of literature, data collection, data entry and data analysis for pH, soil moisture, species composition, and dendrochronology. Investigated effects of logging and fires on forest health.

Atomic Energy Canada Ltd.

Research Assistant – Microbiology Department (Dr. Stroes-Gascoyne)

1995

Conducted a complete microbial analysis of ground water samples as part of a larger study to assess the

potential impacts of nuclear waste disposal in the Canadian Shield.

VOLUNTEER EXPERIENCE

Brain Tumor Foundation of Canada Vancouver Spring Sprint - Sponsorship and registration coordinator **2008**

Coordinated sponsorship and registration for annual run/walk event with ~180 participants and raising over \$50,000.

UBC Let's Talk Science Partnership Program **2004 - 2007**

Help promote education in the sciences through classroom visits with a partnered teacher, organized activities, demonstrations and campus or laboratory tours.

Genome Sciences Centre Social Committee – Committee Chair in 2005 **2003 - Present**

Help organize social activities for the centre such as pub nights, golf tournaments, lunch events, staff Christmas party, etc.

Genome Sciences Centre Hiking Club – founding member **2003 - 2007**

Help organize hiking trips for centre.

PROFESSIONAL SERVICE

Conference organizer – The RegCreative Jamboree, Ghent, Belgium **2006**

Helped to promote and organize an international 3 day workshop devoted to annotation of regulatory sequences attended by approximately 50 experts in the fields of bioinformatics, molecular biology, and computer science.

Journal reviewer – BMC Bioinformatics, BMC Genomics, BMC Medical Genomics, Cancer Research, Knowledge and Information Systems **2005-present**

SPECIALITIES

Bioinformatics, biochemistry, cancer informatics, biomarkers, microarrays, tissue microarrays, biostatistics, clinical statistics, clustering, classification, survival analysis, sequence analysis, SAGE/Solexa analysis, databases, scripting, genomics, genetics, meta-analysis, scientific writing, Perl, R, SPSS, unix/linux.

RESEARCH INTERESTS

My research interests can best be described as cancer informatics. Specifically, I use computational methods for the analysis of large cancer datasets at the molecular and genomic level. Part of my research aims to understand how changes in the regulatory sequences of DNA contribute to cancer development and progression. By comparing the expression patterns of genes in normal and cancerous tissue, I hope to identify genes that undergo a change in regulation leading to cancer. To this end, I am helping to develop novel algorithms for investigating cancer expression data in the areas of differential coexpression and subspace clustering. Once cancer-causing mutations are identified, I hope to investigate the biochemical mechanisms responsible for these regulatory changes by correlating them with known chromosomal mutations and rearrangements. Learning more about specific gene regulation changes that lead to cancer may lead to new ways to diagnose, predict and treat cancer. Complementary to this investigation is the curation and collection of known regulatory sequences and mutations. To this end, I have helped to develop an open access database and curation system (www.oreganno.org) for regulatory sequences and polymorphisms. My future research interests are focused on the development of a similar open access and open source for cancer expression analysis.

A related area of interest is the identification of molecular markers at the DNA, RNA or protein level that are useful for diagnosis and prognosis of cancer. Using bioinformatics methods, I have conducted an extensive meta-analysis of expression profiling studies for thyroid cancer. This has allowed the identification and ranking of high-confidence differentially expressed genes between cancer and non-

cancer states. Such candidates may prove useful as biomarkers of thyroid cancer and are currently being investigated by immunohistochemistry and tissue microarray analysis on a cohort of over two-hundred human thyroid tumor patient samples (in collaboration with Dr. S. Wiseman, St. Paul's Hospital). Preliminary results are promising with the current set of markers allowing malignant versus benign classification with an accuracy of 91.3%, sensitivity of 88.5% and specificity of 94%. It is our hope that additional markers (predicted in our meta-analysis) will improve performance and identify a panel of markers with utility as a diagnostic tool for thyroid cancer. Similar approaches are being extended to colon and rectal cancer. More detailed descriptions of my research projects can be found on my research webpage (www.obigriffith.org).

PUBLICATIONS (7 first-author, 1 last-author, 19 middle-author, 2 theses)

- Joshi B, Strugnell SS, Goetz JG, Kojic LD, Cox ME, **Griffith OL**, Chan SK, Jones SJ, Leung SP, Masoudi H, Leung S, Wiseman SM, Nabi IR. 2008. Phosphorylated caveolin-1 regulates Rho/ROCK-dependent focal adhesion dynamics and tumor cell migration and invasion. *Cancer Research*. 68(20):8210-20.
- **Griffith OL**, Chiu CG, Gown AM, Jones SJM, Wiseman SM. 2008. Biomarker Panel Diagnosis of Thyroid Cancer: A Critical Review. *Expert Review of Anticancer Therapy*. 8(9):1399-1413.
- Deen S, **Griffith OL**, Masoudi H, Gown A, Jones S, Wiseman SM. Anaplastic thyroid carcinoma exhibits intratumoral molecular homogeneity for a therapeutic target panel. *Endocrine-Related Cancer*. In Review. 28 Aug. 2008.
- Wiseman SM, Melck A, Masoudi H, Ghaidi F, Goldstein L, Gown A, Jones SJM, **Griffith OL**. 2008. Molecular Phenotyping of Thyroid Tumors Identifies a Marker Panel for Differentiated Thyroid Cancer Diagnosis. *Annals of Surgical Oncology*. 15(10):2811-26.
- Wiseman SM, **Griffith OL**, Melck A, Masoudi H, Gown A, Nabi IR, Jones SJM. 2008. Evaluation of type 1 growth factor receptor family expression in benign and malignant thyroid lesions. *The American Journal of Surgery*. 195(5):667-73.
- Leung S, **Griffith OL**, Masoudi H, Gown A, Jones S, Phang T, Wiseman SM. 2008. Clinical utility of type 1 growth factor receptor expression in colon cancer. *The American Journal of Surgery*. 195(5):604-10.
- **Griffith OL**. 2008. Identification of gene expression changes in human cancer using bioinformatic approaches. Ph.D. dissertation. University of British Columbia, Vancouver, BC, Canada.
- Chan SK, **Griffith OL**, Tai IT, Jones SJM. 2008. Meta-analysis of Colorectal Cancer Gene Expression Profiling Studies Identifies Consistently Reported Candidate Biomarkers. *Cancer Epidemiology Biomarkers & Prevention*. 17(3):543-52.
- Aerts S, Haeussler M, Van Vooren S, **Griffith OL**, Hulpiau P, Jones SJM, Montgomery SB, Bergman CM; Open Regulatory Annotation Consortium. 2008. Text-mining assisted regulatory annotation. *Genome Biology*. 9(2):R31.1-13.
- Griffith M, Tang MJ, **Griffith OL**, Chan SY, Asano JK, Zeng T, Flibotte S, Ally A, Baross A, Morin RD, Hirst M, Jones SJM, Morin GB, Tai IT and Marra MA. 2008. ALEXA – A microarray design platform for alternative expression analysis. *Nature Methods*. 5(2):118.
- **Griffith OL***, Montgomery SB*, Bernier B, Chu B, Kasaian K, Aerts S, Mahony S, Sleumer MC, Bilenky M, Haeussler M, Griffith M, Gallo SM, Giardine B, Hooghe B, Van Loo P, Blanco E, Ticolli A, Lithwick S, Portales-Casamar E, Donaldson IJ, Robertson G, Wadelius C, De Bleser P, Vlieghe D, Halfon MS, Wasserman W, Hardison R, Bergman CM, Jones SJ; Open Regulatory Annotation Consortium. 2008. ORegAnno: an open-access community-driven resource for regulatory annotation. *Nucleic Acids Research*. 36(Database issue):D107-13. *These authors contributed equally to this work.
- Melck AL, Masoudi H, **Griffith OL**, Rajput A, Wilkins GE, Bugis S, Jones S, Wiseman SM. 2007. Cell Cycle Regulators Show Diagnostic and Prognostic Utility for Differentiated Thyroid Cancer. *Annals of Surgical Oncology*. 14(12):3403-3411.
- **Griffith OL**, Melck A, Jones SJM, Wiseman SM. Thyroid Cancer: Identification of Gene Expression Markers for Diagnosis. In *Methods of Cancer Diagnosis, Therapy and Prognosis*. Hayat MA, editor. Springer Publishing Company. New York, NY. Accepted. 5 Jul. 2007.
- Wiseman SM, **Griffith OL**, Deen S, Rajput A, Masoudi H, Gilks B, Goldstein L, Gown A, Jones SJM. 2007. Identification of Molecular Markers Altered During Transformation of Differentiated Into Anaplastic Thyroid Carcinoma. *Archives of Surgery*. 142(8):717-729.
- Robertson G, Hirst M, Bainbridge M, Bilenky M, Zhao Y, Zeng T, Euskirchen G, Bernier B, Varhol R, Delaney A, Thiessen N, **Griffith OL**, He A, Marra M, Snyder M and Jones S. 2007. Genome-wide profiles of STAT1 DNA association using chromatin immunoprecipitation and massively parallel

sequencing. *Nature Methods*. 4(8):651-7.

- Montgomery SB, **Griffith OL**, Schuetz JM, Brooks-Wilson A, Jones SJM. 2007. A survey of genomic properties for the detection of regulatory polymorphisms. *PLoS Computational Biology*. 3(6): e106.
- **Griffith OL**, Melck A, Jones SJM, Wiseman SM. 2006. A Meta-analysis and Meta-review of Thyroid Cancer Gene Expression Profiling Studies Identifies Important Diagnostic Biomarkers. *Journal of Clinical Oncology*. 24(31):5043-5051.
- Gao BJ, **Griffith OL**, Ester M, Jones SJ. 2006. Discovering significant OPSM subspace clusters in massive gene expression data. In *Proceedings of the 12th ACM SIGKDD international Conference on Knowledge Discovery and Data Mining* (Philadelphia, PA, USA, August 20 - 23, 2006). KDD '06. ACM Press, New York, NY, 922-928.
- Siddiqui AS, Delaney AD, Schnerch A, **Griffith OL**, Jones SJM, Marra MA. 2006. Sequence biases in large scale gene expression profiling data. *Nucleic Acids Research*. 34(12):e83.
- Montgomery SB*, **Griffith OL***, Bilenky M, Pleasance ED, Prychyna Y, Sleumer MC, Zhang X, Jones SJM. 2006. ORegAnno: An open access database and curation system for literature-derived promoters, transcription factor binding sites, and regulatory variation. *Bioinformatics*. 22(5):637-640. *These authors contributed equally to this work.
- Robertson G, Bilenky M, Lin K, He A, Yuen, W, Dagpinar M, Varhol R, Teague K, **Griffith OL**, Zhang X, Pan Y, Hassel M, Sleumer MC, Pan W., Pleasance ED, Chuang M, Hao H, Li YY, Robertson N, Fjell C, Li B, Montgomery SB, Astakhova T, Zhou J, Sander J, Siddiqui AS, Jones SJM. 2006. cisRED: A database system for genome scale computational discovery of regulatory elements. *Nucleic Acids Research*. 34(Database issue):D68-73.
- **Griffith OL**, Pleasance ED, Fulton DL, Oveisi M, Ester M, Siddiqui AS, Jones SJM. 2005. Assessment and Integration of Publicly Available SAGE, cDNA Microarray, and Oligonucleotide Microarray Expression Data for Global Coexpression Analyses. *Genomics*. 86:476-488.
- Gerhard DS, Wagner L, Feingold EA, Shenmen CM, Grouse LH, Schuler G, Klein SL, Old S, Rasooly R, Good P, Guyer M, Peck AM, Derge JG, Lipman D, Collins FS, Jang W, Sherry S, Feolo M, Misquitta L, Lee E, Rotmistrovsky K, Greenhut SF, Schaefer CF, Buetow K, Bonner TI, Haussler D, Kent J, Kiekhäus M, Furey T, Brent M, Prange C, Schreiber K, Shapiro N, Bhat NK, Hopkins RF, Hsie F, Driscoll T, Soares MB, Casavant TL, Scheetz TE, Brown-stein MJ, Usdin TB, Toshiyuki S, Carninci P, Piao Y, Dudekula DB, Ko MS, Kawakami K, Suzuki Y, Sugano S, Gruber CE, Smith MR, Simmons B, Moore T, Waterman R, Johnson SL, Ruan Y, Wei CL, Mathavan S, Gunaratne PH, Wu J, Garcia AM, Hulyk SW, Fuh E, Yuan Y, Sneed A, Kowis C, Hodgson A, Muzny DM, McPherson J, Gibbs RA, Fahey J, Helton E, Kettelman M, Madan A, Rodrigues S, Sanchez A, Whiting M, Madari A, Young AC, Wetherby KD, Granite SJ, Kwong PN, Brinkley CP, Pearson RL, Bouffard GG, Blakesly RW, Green ED, Dickson MC, Rodriguez AC, Grimwood J, Schmutz J, Myers RM, Butterfield YS, Griffith M, **Griffith OL**, Krzywinski MI, Liao N, Morrin R, Palmquist D, Petrescu AS, Skalska U, Smailus DE, Stott JM, Schnerch A, Schein JE, Jones SJ, Holt RA, Baross A, Marra MA, Clifton S, Makowski KA, Bosak S, Malek J; MGC Project Team. 2004. The status, quality, and expansion of the NIH full-length cDNA project: the Mammalian Gene Collection (MGC). *Genome Research*. 14(10B):2121-7.
- Baross A, Butterfield YSN, Coughlin SM, Zeng T, Griffith M, **Griffith OL**, Petrescu AS, Smailus DE, Khattra J, McDonald HL, McKay SJ, Moksa M, Holt RA, Marra MA. 2004. Systematic Recovery and Analysis of Full-ORF Human cDNA Clones. *Genome Research*. 14(10B):2083-92.
- Civetta A, **Griffith OL**, Moodie GEE. 2004. Reply to Gregory's Letter to the Editor: Genome size and its correlation with longevity in fishes. *Experimental Gerontology*. 39(5):861-862.
- Marra MA, Jones SJ, Astell CR, Holt RA, Brooks-Wilson A, Butterfield YS, Khattra J, Asano JK, Barber SA, Chan SY, Cloutier A, Coughlin SM, Freeman D, Girn N, **Griffith OL**, Leach SR, Mayo M, McDonald H, Montgomery SB, Pandoh PK, Petrescu AS, Robertson AG, Schein JE, Siddiqui A, Smailus DE, Stott JM, Yang GS, Plummer F, Andonov A, Artsob H, Bastien N, Bernard K, Booth TF, Bowness D, Czub M, Drebot M, Fernando L, Flick R, Garbutt M, Gray M, Grolla A, Jones S, Feldmann H, Meyers A, Kabani A, Li Y, Normand S, Stroher U, Tipples GA, Tyler S, Vogrig R, Ward D, Watson B, Brunham RC, Krajden M, Petric M, Skowronski DM, Upton C, Roper RL. 2003. The Genome sequence of the SARS-associated coronavirus. *Science*. 300(5624):1399-404.
- **Griffith OL**, Moodie GE, Civetta A. 2003. Genome size and Longevity in Fish. *Experimental Gerontology*. 38(3):333-337.
- **Griffith OL**. 2001. The Effect of Mating on the Pheromone System of the Yellow Mealworm Beetle, *Tenebrio molitor*. B.Sc. Honours Thesis. University of Winnipeg. Winnipeg, MB, Canada.
- Haveman SA, Stroes-Gascoyne S, Hamon CJ, **Griffith OL**, Messerer CL. 1996. Microbial Analysis of

Water Collected from Privately Owned Wells and a Beaver Pond. *AECL Technical Report (TR-757)*.

PATENTS

- US patent application. *Biomarkers for Diagnosis of Differentiated Thyroid Cancer*. Inventors: Sam Wiseman, Steven Jones and **Obi Griffith**. Filed electronically March 13, 2008.
- US patent application. *Meta-analysis Method to Identify Consistently Reported Candidate Biomarkers for Colorectal Cancer*. Inventors: Simon Chan, **Obi Griffith**, Isabella Tai, Steven Jones. With technology development office.
- US patent application. *Biomarkers for Diagnosis of Thyroid Cancer*. Inventors: Sam Wiseman, Steven Jones, **Obi Griffith**. Filed electronically October 17, 2006.

INVITED TALKS

- **Griffith OL***, Montgomery SB*, Bergman CM, Bilenky M, Chu B, Pleasance ED, Prychyna Y, Sleumer MC, Zhang X, Jones SJM. *ORegAnno: A Community-Based Annotation System for Literature-Derived Regulatory sequences*. Invited talk (15 mins). Advances in Genome Biology and Technology. Marco Island, Florida, USA. 9 February 2007.**These authors contributed equally to this work*.
- **Griffith OL**. *Annotation standards in Oreganno*. Invited talk (20 mins). The RegCreative Jamboree, Ghent University, Ghent, Belgium. 29 November 2006.
- **Griffith OL**. *A bioinformatics approach to gene expression and gene regulation analysis in cancer*. Invited talk (10 mins). Vancouver Bioinformatics User Group (VanBUG), Vancouver, BC, Canada. 13 April 2006.

POSTERS AND PRESENTATIONS

- **Griffith OL**, Li Y, Leach S, Mungall AJ, Griffith M, Fejes A, Lee H, Stratford A, Marra MA, Dunn SE, Brooks-Wilson A, Jones SJM. *Identification of Novel Iressa Synergists by Illumina Sequencing and Drug Screening in Breast Cancer*. Poster presentation. Advances in Genome Biology and Technology. Marco Island, Florida, USA. February 2009.
- **Griffith OL**, Li Y, Leach S, Mungall AJ, Griffith M, Fejes A, Lee H, Stratford A, Marra MA, Dunn SE, Brooks-Wilson A, Jones SJM. *Iressa Induced Gene Expression Changes in Breast Cancer: Identification of Novel Iressa Synergists*. Poster presentation. BC Cancer Agency's Annual Cancer Conference. Vancouver, Canada. November 2008.
- **Griffith OL**, Gao BJ, Bilenky M, Prychyna Y, Ester M, Jones SJM. *Implementation and evaluation of Kiwi: A scalable subspace clustering algorithm for the identification of coregulated genes from extremely large gene expression datasets*. Poster presentation. Pacific Symposium on Biocomputing. Kohala Coast, HI, USA. January 2008.
- **Griffith OL**, Melck A, Wiseman SM, Jones SJM. *Meta-analysis and tissue microarray analysis identifies promising biomarkers for thyroid cancer*. Poster presentation. BC Cancer Agency's Annual Cancer Conference. Vancouver, Canada. November 2007.
- **Griffith OL**. *Novel bioinformatics methods for the identification of coexpressed, differentially expressed, and differentially coexpressed genes with application to cancer*. Oral presentation (60 min). Bioinformatics Seminar Series. July 2007.
- Leung S, **Griffith OL**, Phang T, Jones SJM, Masoudi H, Wiseman S. *Clinical Utility Of Type 1 Growth Factor Receptor Expression In Colon Cancer*. Oral presentation (manuscript to appear in the American Journal of Surgery). North Pacific Surgical Association. Victoria, Canada. Nov. 9-10, 2007.
- **Griffith OL**. *Novel bioinformatics methods for the identification of coexpressed, differentially expressed, and differentially coexpressed genes with application to cancer*. Oral presentation (30 min). BCCRC Thursday Seminar Series. June 2007.
- Wiseman SM, **Griffith OL**, Melck A, Masoudi H, Rajput A, Jones SJM. *Evaluation Of Type 1 Growth Factor Receptor Family Expression In 205 Thyroid Lesions Reveals Diagnostic Utility And Targeted Therapeutic Potential For HER1, HER3, and HER4*. Abstract submitted. 98th AACR Annual Meeting. Los Angeles, CA, USA. April 2007.
- Bilenky M, Robertson G, Dagpinar M, He A, Bainbridge M, Varhol R, Thiessen N, Teague K, **Griffith OL**, Sleumer MC, Li YY, Fjell C, Warren RL, Zhou J, Sander J, Marra M and Jones SJM. *Computational*

prediction and ranking of mammalian transcriptional regulatory modules using dense comparative genomics. Systems Biology: Global Regulation of Gene Expression. Cold Spring Harbor Laboratory, NY, USA. Mar. 29 – Apr. 1, 2007.

- **Griffith OL**. *KiWi: A novel subspace clustering algorithm for the identification of coexpressed genes from massive gene expression datasets*. Oral presentation (30 min). Research in Progress seminar series. Vancouver, BC. January 2007.
- **Griffith OL**. *A Meta-analysis of Thyroid Cancer Gene Expression Profiling Studies to Identify Useful Biomarkers for Tissue Microarray Analysis*. Oral presentation (30min). Bioinformatics seminar series. Vancouver, BC. August 2006.
- **Griffith OL**, Melck A, Jones SJM, Wiseman SM. *A Meta-Analysis of Thyroid Cancer Gene Expression Profiling Studies Identifies Important Diagnostic Biomarkers*. Poster presentation. CIHR Canadian Student Health Research Forum, Winnipeg, Canada. June 2006.
- **Griffith OL** and Jones SJM. *A novel method for identification of deregulated genes using differential coexpression analysis: a prostate cancer case study*. Poster presentation. Biology of Genomes Conference, Cold Spring Harbor Laboratory, New York, USA. May 2006.
- Montgomery SB, Bainbridge M, **Griffith OL**, Schinas J, Brooks-Wilson A, Jones SJM. *In silico approach to the identification of regulatory polymorphisms within promoter regions of homo sapiens using comparative genomics, regulatory feature and sequence composition metrics*. Poster presentation. Presented by S. Montgomery. Biology of Genomes Conference, Cold Spring Harbor Laboratory, New York, USA. May 2006.
- **Griffith OL**, Wiseman SM, Jones SJM. *Meta-analysis of thyroid cancer expression profiling studies – identification of promising diagnostic biomarkers*. Poster presentation. American Association of Cancer Researchers Annual Meeting. Washington, DC, USA. April 2006.
- **Griffith OL** and Jones SJM. 2006. *A novel method for identification of deregulated genes using differential coexpression analysis: a prostate cancer case study*. Poster presentation. World Microarray Congress, Vancouver, Canada. March 2006.
- Leung S, **Griffith OL**, Phang T, Jones SJM, Masoudi H, Wiseman S. *Variables other than AJCC disease stage show clinical utility for colon cancer disease prognostication*. Oral presentation. Presented by S. Leung. British Columbia Surgical Society - Annual Spring Meeting. Kamloops, Canada. March 2006.
- **Griffith OL***, Montgomery SB*, Bilenky M, Pleasance ED, Prychyna Y, Sleumer MC, Zhang X, Jones SJM. *ORegAnno: An open access database and curation system for literature-derived, experimentally-verified promoters, transcription factor binding sites, and regulatory variation*. Poster presentation. Pacific Symposium on Biocomputing. Wailea, HI, USA. January 2006. *These authors contributed equally to this work.
- **Griffith OL**. *Differential Coexpression in Cancer*. Oral presentation (30min). BC Cancer Research Centre Student Seminar Series. Vancouver, BC, Canada. November 2005.
- **Griffith OL** and Jones SJM. *Differential coexpression analysis for the identification of dysregulated genes in prostate cancer*. Poster presentation. BC Cancer Agency's Annual Cancer Conference. Vancouver, Canada. November 2005.
- **Griffith OL**, Wiseman SM, Jones SJM. *Meta-analysis of thyroid cancer expression profiling studies – identification of most promising biomarkers for tissue microarray analysis*. Poster presentation. BC Cancer Agency's Annual Cancer Conference. Vancouver, Canada. November 2005.
- Montgomery SB, **Griffith OL**, Schinas J, Brooks-Wilson A, Jones SJM. *In silico determination of functional non-coding polymorphisms*. Poster presentation. Presented by S. Montgomery. BC Cancer Agency's Annual Cancer Conference. Vancouver, Canada. November 2005.
- **Griffith OL**. *Differential Coexpression in Cancer*. Oral presentation (30min). Research in Progress seminar series. Vancouver, BC, Canada. June 2005.
- Sleumer MC, Bilenky M, **Griffith OL**, Pleasance ED, Robertson G, Zhang X, Jones SJM. *The Search for Regulatory Elements in C. elegans*. Poster presentation. Presented by M. Sleumer. The 15th Biennial international C. elegans conference. Los Angeles, USA. 25-29 June 2005.
- **Griffith OL**, Pleasance E, Fulton D, Bilenky M, Robertson G, Oveisi M, Pan YJ, Ester M, Siddiqui AS, Jones SJM. *Gene expression platforms for global coexpression analyses – assessment and integration for study of gene deregulation in cancer*. Oral presentation (5min) and poster presentation (invited). International Workshop on Encoding Information in DNA Sequence. Okinawa, Japan. February, 2005.
- **Griffith OL**, Pleasance E, Fulton D, Bilenky M, Robertson G, Oveisi M, Pan YJ, Ester M, Siddiqui A, Jones SJM. *Large-scale comparison of publicly available SAGE, cDNA, and oligonucleotide microarray expression data for global coexpression analyses*. Poster presentation. BC Cancer Agency's Annual

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