

CURRICULUM VITAE**Name:** David Alan Quigley

Positions: Assistant Adjunct Professor
 UCSF Department of Epidemiology and Biostatistics
 Bioinformatics Programmer III
 UCSF Helen Diller Family Comprehensive Cancer Center

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EDUCATION

1994-1998	Carleton College, Northfield MN	B.A.	Magna Cum Laude, Computer Science
2004-2006	Columbia University, New York NY	M.A.	with honors, Biomedical Informatics
2011-2014	University of Oslo, Oslo (Supervisor: Anne-Lise Børresen-Dale)	Ph.D.	Genetics

PRINCIPAL POSITIONS HELD

1998-1999	Software Architects, Inc.	Consultant
1999-2002	CBS Marketwatch.com Inc.	Software Developer
2002-2004	Orrick, Herrington, & Sutcliffe L.L.P.	Software Developer
2004-2006	Columbia University	Graduate Research Assistant
2006-Now	University of California San Francisco	Bioinformatics Programmer
2015-Now	University of California San Francisco	Assistant Adjunct Professor

HONORS AND AWARDS

1994	National Merit Scholar
1997	Mortar Board Honor Society
2011	Named a Young Investigator of the Year by <i>Genome Technology</i>
2014	AACR Scholar in Training award (travel grant)

KEYWORDS / AREAS OF INTEREST

Genetics, Genomics, Bioinformatics, Cancer Biology, messenger RNA, network analysis, expression Quantitative Trait Loci, Breast Cancer, Skin Cancer, Mouse Models

PROFESSIONAL ACTIVITIES

PROFESSIONAL ORGANIZATIONS

Memberships

2011-Now American Association for Cancer Research
2011-2015 European Association for Cancer Research
2011-Now Genetics Society of America

SERVICE TO PROFESSIONAL PUBLICATIONS AND FOUNDATIONS

2009-Now Ad hoc reviewer for Molecular Carcinogenesis, PLoS ONE (two papers), Physiological Genomics, Bioinformatics, Nature: Scientific Reports, WIREs Systems Biology & Medicine, Carcinogenesis, Journal of Investigative Dermatology (two papers)
2009 Ad hoc reviewer for The Melanoma Foundation

INVITED PRESENTATIONS

2009 Johns Hopkins Hospital Visual Neuroscience Training Program
2014 UCSF Breast Oncology Program Seminar
2015 UCSF Department of Epidemiology and Biostatistics

PROFERRED PRESENTATIONS

2010 Cold Spring Harbor Systems Biology: Networks
2012 Norwegian Biochemical Society Annual Meeting
2012 Genetics Society of America, Mouse Molecular Genetics meeting
2014 AACR Workshop on Cellular Heterogeneity in the Tumor Microenvironment

UNIVERSITY AND PUBLIC SERVICE

School of Medicine

2010-Now Founder & Co-organizer, *Quantitative Biology Discussion Group* (monthly invited lectures on quantitative methods in biology)

TEACHING AND MENTORING

Postgraduate and Other Courses

2014, 2015 UCSF Biomedical Science graduate program, invited lecture in the Computational Biology and Biostatistics seminar series

RESEARCH AND CREATIVE ACTIVITIES

RESEARCH AWARDS

Past

1. UCSF Open Access Publishing Fund recipient
UCSF 06/15/2015
\$1,897
2. U01 CA141455 (Key personnel)
NCI 09/01/09-08/31/14
\$503,092
Science Leadership and Integration
3. NNX09AM52G NYU subaward (Key personnel)
NASA 07/01/09-06/30/14
\$302,097
NRA/NASA Specialized Centers of Research: Carcinogenesis and Central Nervous System Risk from Space Radiation.
4. U01 CA84244 (Key Personnel)
NCI 09/01/2009-03/31/14
\$540,319
A Systems Genetics Analysis of Cancer Risk, Progression and Therapeutic Response.
5. Breath Away from the Cure Foundation (Key personnel)
Bonnie Adario Foundation 03/01/07-02/28/12
\$250,000
A Systems Genetics approach to individualized lung cancer diagnosis and therapy.
6. DE-SC0003679 (Key Personnel)
DOE 02/15/10-02/14/13
\$211,375
A system genetics approach to identify low dose radiation-induced lymphoma susceptibility genes.
7. Web Services Grant (PI)
Amazon.com 09/01/09-09/01/10
\$4000
Systems Genetics of Lung Cancer

PEER REVIEWED PUBLICATIONS

1. Kundaje A, Lianoglou S, Li X, Quigley D, Arias M, Wiggins CH, Zhang L, Leslie C. Learning regulatory programs that accurately predict differential expression with MEDUSA. *Annals of the New York Academy of Sciences*. 2007 Dec;1115:178-202.
2. Li S, Sack R, Vijmasi T, Sathe S, Beaton A, Quigley D, Gallup M & McNamara N. Antibody Protein Array Analysis of the Tear Film Cytokines. *Optometry & Vision Science*. 2008 Aug;85(8):653-60.
3. Quigley DA, To MD, Pérez-Losada J, Pelorosso F, Mao J, Nagase H, Ginzinger D, & Balmain A. Genetic architecture of mouse skin inflammation and tumor susceptibility. *Nature*. 2009 Mar 26;458(7237):505-8.
4. Quigley DA & Balmain A. Systems genetics analysis of cancer susceptibility: from mouse models to humans. *Nature Reviews: Genetics*. 2009 Sep;10(9) 651-7.
5. Clement J, Pérez-Losada J, Quigley DA, Kim I, Delrosario R, Kuang-Yu J, Bosch A, Lluch A, Mao J, & Balmain A. Deletion of the PER3 gene on chromosome 1p36 in recurrent ER-positive breast cancer. *Journal of Clinical Oncology*. 2010 Aug;28(23): 3770-8.
6. Quigley DA, To MD, Kim IJ, Lin KK, Albertson DG, Sjolund J, Pérez-Losada J, Balmain A. Network Analysis of Skin Tumor Progression Identifies a Rewired Genetic Architecture Affecting Inflammation and Tumor Susceptibility. *Genome Biology*. 2011 Jan 18;12(1):R5.
7. Connolly EC, Saunier EF, Quigley D, Luu MT, de Sapio A, Hann B, Yingling JM, Akhurst RJ. Outgrowth of drug-resistant carcinomas expressing markers of tumor aggression after long term T β RI/II kinase inhibition with LY2109761. *Cancer Research*. 2011 Mar 15;71(6):2339-49.
8. Lalitha P, Shapiro B, Loh A, Fothergill A, Prajna N, Srinivasan M, Oldenburg C, Quigley DA, Chidambaram J, McLeod S, Acharya N & Lietman T. Amphotericin B and natamycin are not synergistic in vitro against *Fusarium* and *Aspergillus* spp isolated from keratitis. *British Journal of Ophthalmology*. 2011 May;95(5):744-5.
9. Chan MF, Sack R, Quigley DA, Sathe S, Vijmasi T, Li S, Holsclaw D, Strauss EC, McNamara NA. Membrane Array Analysis of Tear Proteins in Ocular Cicatricial Pemphigoid. *Optometry & Visual Science*. 2011 Aug;88(8):1005-9.
10. To MD, Quigley D, Mao J, Rosario R, Hsu J, Hodgson G, Jacks T, & Balmain A. Progressive genomic instability in the FVB/KrasLA2 mouse model of lung cancer. *Molecular Cancer Research*. 2011 Oct;9(10):1339-45.

11. Benzinou M, Clermont FF, Letteboer TG, Kim JH, Espejel S, Harradine KA, Arbelaez J, Luu MT, Roy R, Quigley D, Higgins MN, Zaid M, Aouizerat BE, van Amstel JK, Giraud S, Dupuis-Girod S, Lesca G, Plauchu H, Hughes CC, Westermann CJ & Akhurst RJ. Mouse and human strategies identify PTPN14 as a modifier of angiogenesis and hereditary haemorrhagic telangiectasia. *Nature Communications*. 2012 Jan 10;3:616.
12. Wong C, Yu J, Quigley DA, To M, Jen Kuang-Yu, Huang P, Del Rosario R & Balmain A. Inflammation and Hras Signaling Control Epithelial-mesenchymal Transition during Skin Tumor Progression. *Genes and Development*. 2013 Mar 15;27(6):670-82.
13. Kim IJ, Quigley D, To M, Jen, Pham P, Lin K, Jo B, Jen K, Raz D, Kim J, Mao JH, Jablons D & Balmain A. Rewiring of human lung cell lineage and mitotic networks in lung adenocarcinomas. *Nature Communications*. 2013 Apr 16; 4:1701.
14. Kang HC, Quigley D, Kim IJ, Wakabayashi Y, Ferguson-Smith MA, D'Alessandro M, Lane EB, Akhurst RJ, Goudie DR, Balmain A. Multiple Self-Healing Squamous Epithelioma (MSSE): Rare Variants in an Adjacent Region of Chromosome 9q22.3 to known TGFBR1 Mutations Suggest a Digenic or Multilocus Etiology. *Journal of Investigative Dermatology*. 2013 Jul;133(7):1907-10.
15. Quigley DA, Fiorito E, Nord S, Van Loo P, Alnæs G, Fleischer T, Tost J, Vollan HK, Tramm T, Overgaard J, Bukholm IR, Hurtado A, Balmain A, Børresen-Dale A, & Kristensen V. The 5p12 breast cancer susceptibility locus affects *MRPS30* expression in estrogen-receptor positive tumors. *Molecular Oncology*. 2014 Mar;8(2):273-84.
16. Sjölund J, Pelorosso FG, Quigley DA, Delrosario R, Balmain A. Identification of *Hipk2* as an essential regulator of white fat development. *Proceedings of the National Academy of Sciences*. 2014 May 20;111(20):7373-8.
17. Yang YL, Hung MS, Wang Y, Ni J, Mao JH, Hsieh D, Au A, Kumar A, Quigley D, Fang LT, Yeh CC, Xu Z, Jablons DM, You L. Lung Tumorigenesis in a Conditional *Cul4A* Transgenic Mouse Model. *Journal of Pathology*. 2014 Jun;233(2):113-23.
18. Silwal-Pandit L, Vollan HK, Chin S, Rueda O, McKinney S, Osako T, Quigley D, Kristensen V, Aparicio S, Børresen-Dale A, Caldas C, Langerod A. TP53 mutation spectrum in breast cancer is subtype specific and has distinct prognostic relevance. *Clinical Cancer Research*. 2014 Jul 1;20(13):3569-80.
19. Hackett C, Quigley DA, Wong R, Chen J, Cheng C, Song Y, Wei J, Pawlikowska L, Bao Y, Goldenberg D, Nguyen K, Gustafson W, Rallapalli S, Cho Y, Cook J, Kozlov S, Mao J, Van Dyke T, Kwok P, Kahn J, Balmain A, Fan Q, Weiss W. Expression Quantitative Trait Loci and Receptor Pharmacology Implicate *Arg1* and the GABA-A Receptor as Therapeutic Targets in Neuroblastoma. *Cell Reports*. 2014. Nov 6;9(3):1034-46.

20. Westcott PM, Halliwill KD, To MD, Rashid M, Rust AG, Keane TM, Delrosario R, Jen KY, Gurley KE, Kemp CJ, Fredlund E, Quigley DA, Adams DJ, Balmain A. The mutational landscapes of genetic and chemical models of Kras-driven non-small cell lung cancer. *Nature*. 2015 Jan 22;517(7535):489-92.
21. Quigley D, Silwal-Pandit L, Dannenfels R, Langerød A, Vollan HK, Vaske C, Siegel J, Troyanskaya O, Chin S, Caldas C, Balmain A, Børresen-Dale A, Kristensen V. Lymphocyte invasion in IC10/Basal-like breast tumors is associated with wild-type TP53. *Molecular Cancer Research*. 2015 Mar;13(3):493-501.
22. Chen J, Hackett CS, Zhang S, Song YK, Bell RJA, Molinaro AM, Quigley DA, Balmain A, Song JS, Costello JF, Gustafson WC, Van Dyke T, Kwok PY, Khan J, Weiss WA. The genetics of splicing in neuroblastoma. *Cancer Discovery*. 2015 Apr;5(4):380-95.
23. Letteboer TG, Benzinou M, Merrick CB, Quigley DA, Zhou K, Kim IJ, To MD, Jablons DM, van Amstel JK, Westermann CJ, Giraud S, Dupuis-Girod S, Lesca G, Berg JH, Balmain A, Akhurst RJ. Genetic variation in the functional ENG allele inherited from the non-affected parent associates with presence of pulmonary arteriovenous malformation in hereditary hemorrhagic telangiectasia 1 (HHT1) and may influence expression of PTPN14. *Frontiers in Genetics*. 2015 Mar 12;6:67.
24. Quigley DA. *equalizer* reduces SNP bias from Affymetrix microarrays. *BMC Bioinformatics*, 2015, 16:238 (30 July 2015).
25. Quigley DA, Kristensen VK. The role of tumor microenvironment and immune cell infiltration in cancer prognosis and therapy response. *Under review*.
26. Quigley DA, Tahiri A, Lüders T, Riis M, Balmain A, Anne-Lise Børresen-Dale, Bukholm IR, Kristensen V. Age and estrogen-dependent inflammation in breast adenocarcinoma and normal breast tissue. *Under review*.

NON-PEER REVIEWED PUBLICATIONS

1. Quigley D. RNA-seq Permits a Closer Look at Normal Skin and Psoriasis Gene Networks. *Journal of Investigative Dermatology*. 2014 Jul;134(7):1789-91. (Invited commentary)