

Heidi Dvinge

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Nationality: Danish citizen

Research experience

Fred Hutchinson Cancer Research Center, Basic Sciences Division Seattle, USA

July 2012 -

Postdoctoral Fellow with Dr. Robert Bradley in the Computational Biology Program.

Cancer Research UK Cambridge Institute Cambridge, UK

October 2010 - May 2012

Scientific Officer with Prof. Carlos Caldas in “Functional Breast Cancer Genomics”.

University of Cambridge, EMBL-European Bioinformatics Institute Cambridge, UK

January 2007 - October 2010

Predocctoral Fellow with Dr. Paul Bertone.

University of Oxford, The Wellcome Trust Centre for Human Genetics Oxford, UK

November 2004 - October 2006

Research Assistant with Dr. Kalim Mir.

Selected publications

Dvinge H*, Kim E*, Abdel-Wahab O, Bradley RK. RNA splicing factors as oncoproteins and tumor suppressors. *Nature Reviews Cancer* 2016;16(7):413-30 *Joint first authors

Lee SC-W*, **Dvinge H***, Kim E, Cho H, Micol J-B, Chung YR, Durham B, Yoshimi A, Kim YJ, Thomas M, Lobry C, Wang X, Krivtsov A, Armstrong SA, Palacino J, Buonamici S, Smith PG, Bradley RK, Abdel-Wahab O. Therapeutic targeting of myeloid leukemias with spliceosomal mutations through modulation of splicing catalysis. *Nature Medicine* 2016;22(6):692 *Joint first authors

Dvinge H, Bradley RK. Widespread intron retention diversifies most cancer transcriptomes. *Genome Med.* 2015;7(1):45

Dvinge H, Ries RE, Ilagan JO, Stirewalt DL, Meshinchi S, Bradley RK. Sample processing obscures cancer-specific alterations in leukemic transcriptomes. *Proc Natl Acad Sci* 2014;111(47)

Dvinge H*, Git A*, Gräf S, Salmon-Divon M, Zhao Y, Hirst M, Armisen J, Miska EA, Chin S-F, Provenzano E, Turashvili G, Green A, Ellis I, Aparicio S, Caldas C. The shaping and functional

consequence of the miRNA landscape in breast cancer. *Nature* 2013;497(7449) *Joint first authors

Git A*, **Dvinge H***, Salmon-Divon M*, Osborne M, Kutter C, Hadfield J, Bertone P, Caldas C. Systematic comparison of microarray profiling, real-time PCR, and next-generation sequencing technologies for measuring differential microRNA expression. *RNA* 2010; 16(5):991-1006
*Joint first authors

Other publications

Hickey TE, Irvine CM, **Dvinge H**, Tarulli GA, Hanson AR, Ryan NK, Pickering MA, Birrell SN, Hu DG, Mackenzie PI, Russell R, Caldas C, Raj GV, Dehm SM, Plymate SR, Bradley RK, Tilley WD, Selth LA. Expression of androgen receptor splice variants in clinical breast cancers. *Oncotarget* 2015;6(42):44728-44

Cancer Genome Atlas Research Network. The Molecular Taxonomy of Primary Prostate Cancer. *Cell* 2015;163(4)

Robinson D, Van Allen EM, *et al.* Integrative clinical genomics of advanced prostate cancer. *Cell* 2015;161(5):1215-28

Metzakopian E, Lin W, Salmon-Divon M, **Dvinge H**, Ericson J, Perlmann T, Whitsett JA, Bertone P, Ang S-L. Genome wide characterization of FoxA2 targets reveals positive regulation of floor plate genes and negative regulation of centro-lateral genes in midbrain dopaminergic progenitors. *Development* 2012;139(14)

Reynolds N, Salmon-Divon M, **Dvinge H**, Hynes-Allen A, Balasooriya G, Leaford D, Behrens A, Bertone P, Hendrich B. NuRD-mediated deacetylation of H3K27 facilitates recruitment of Polycomb Repressive Complex 2 to direct gene repression. *EMBO Journal* 2011;431

Salmon-Divon M, **Dvinge H**, Tammoja K, Bertone P. PeakAnalyzer: Genome-wide annotation of chromatin binding and modification loci. *BMC Bioinformatics* 2010;11(1):415

Dvinge H, Bertone P. HTqPCR: high-throughput analysis and visualization of quantitative real-time PCR data in R. *Bioinformatics* 2009;25(24):3325-6

Tan DJ, **Dvinge H**, Christoforou A, Bertone P, Martinez Arias A, Lilley KS. Mapping organelle proteins and protein complexes in *Drosophila melanogaster*. *J Proteome Res* 2009;8(6):2667-78.

Kirstetter P, Schuster MB, Bereshchenko O, Moore S, **Dvinge H**, Kurz E, Theilgaard-Mönch K, Månsson R, Pedersen TA, Pabst T, Schrock E, Porse BT, Jacobsen SE, Bertone P, Tenen DG, Nerlov C. Modeling of C/EBPalpha mutant acute myeloid leukemia reveals a common expression signature of committed myeloid leukemia-initiating cells. *Cancer Cell* 2008;13(4):299-310

Education

University of Cambridge

Cambridge, UK

January 2007 - October 2010

EMBL-European Bioinformatics Institute

PhD in Computational Biology with Dr. Paul Bertone

Technical University of Denmark

Copenhagen, Denmark

September 1998 - September 2004

Center for Biological Sequence Analysis

Biochemical cand.polyt. (combined B.Sc. and M.Sc. in Engineering)

Novozymes A/S

Bagsværd, Denmark

January 2004 - August 2004

Internship with Dr. Steen Krosgård.

Hans Knöll Institut für Naturstoff-Forschung

Jena, Germany

July 2003 - August 2003

Internship with Dr. Ulrich Müller.

Hong Kong University of Science and Technology

Hong Kong, China

January 2002 - June 2002

Exchange student School of Engineering

Grants, fellowships, honors and awards

STTR Oncoscape Biospecimen Utilization Grant

\$100,000

2015-2016. Role on project: co-PI

Funder: Solid Tumor Translational Research (STTR)

Funding amount is in direct costs, with F&A in excess of that.

Breast Cancer Research Program Postdoctoral Fellowship Award

\$300,000

2014-2017. Role on project: PI

Funder: Department of Defense, W81XWH-14-1-0044

Funding amount is in direct costs, with F&A in excess of that (in total \$528,000).

EMBL-EBI Predoctoral Fellowship

2006-2010. Role on project: Predoctoral Fellow

Funder: European Molecular Biology Laboratory

Funding was for four consecutive years of fellowship stipend, University of Cambridge registration fees, and Corpus Christi College registration fees.

Graduate thesis an “exceptionally independent and excellent performance”

2004.

Technical University of Denmark

Denmark does not operate academic honors or awards systems, but I graduated with a distinction corresponding to the above title.

Invited and selected presentations

FHCRC Research Ethics Training seminar (US), 2015

2nd Seattle Genomic Instability and Cancer Symposium (US), 2015

Western Washington University, bioinformatics and female scholar program (US), 2014

FHCRC Basic Science Division seminar (US), 2014

ENDBC Methods in mammary gland biology and breast cancer (Switzerland), 2012

RECOMB 2011 Cancer Informatics, Barcelona (Spain), 2011

EMBO Cancer Genomics conference, Heidelberg (Germany), 2011

Sheba Cancer Research Center, Tel Hashomer, Tel Aviv (Israel), 2011

6th OnCamiR meeting, Cambridge (UK), 2010

EBI Predoc Seminar Day, Hinxton (UK), 2010

Cambridge NGS Bioinformatics Day (panel member), Cambridge (UK), 2009

EBI Masters Open Day, Hinxton (UK), 2008

EBI Predoc Seminar Day, Hinxton (UK), 2008

Outreach activities

2007: Participated in the inaugural season of "I'm a Scientist, Get me out of here"

2007: Rising Stars public communication course at University of Cambridge

2006-2008: Represented EBI at the Cambridge Science Festival

2001-2003: Member of ScienceShow at Technical University of Denmark

Teaching and mentoring

Mentoring undergraduate summer interns (Fred Hutchinson Cancer Research Center, SURP program)

Presentations and workshops during "R/Bioconductor for Next-Generation Sequencing" (European Bioinformatics Institute)

Student Counselor at LearningLab, teaching study habits, -skills, and -strategies (Technical University of Denmark)

Teaching Assistant in "Statistical design and analysis of experiments" (Technical University of Denmark)

Professional activities

Ad hoc reviewer for *Bioinformatics*, *FEBS Letters*, *BMC Cancer*, *BMC Genomics*, *Scientific Reports*, *Nucleic Acids Research*, and *RNA*.

2015: Member of Association for Women in Science (AWIS)

2012-: FHCRC Student-Postdoc Advisory Committee

2007-2009: EBI Staff Association, Student member

2008: Sanger-Cambridge PhD Symposium, Organizing committee

2007-2008: EBI PhD Student Representative

2007: EMBL International PhD Student Symposium, Organizing committee

2000: Nordic Conference of Applied Chemistry, Organizing committee

Languages

Fluent in English and Danish. Intermediate German, Swedish and Norwegian.