

Mark Gerstein

Williams Professor of Biomedical Informatics, Yale
Full CV as of 28 Jan. 2018 (with some sections less current)

Education

Harvard College	AB	1989	Physics (& History of Science)
Cambridge University	PhD	1993	Biophysics/Chemistry
Stanford University	post-doc	1993-1996	Bioinformatics

Positions

2006 -	AL Williams Prof. Biomedical Informatics, Yale U.
2002 -	co-director Yale Computational Biology and Bioinformatics Program
2006 -	Prof. Molecular Biophysics & Biochemistry, Yale U.
2006 -	Prof. of Computer Science, Yale U.
2001 - 2006	Assoc. Prof. Molecular Biophysics & Biochemistry and Computer Science, Yale U
1997 - 2001	Asst. Prof. Molecular Biophysics & Biochemistry, Yale U.

Honors

2015	ISCB (Intl. Society of Computational Biology) Fellow
2009	AAAS Fellow
1997 - 2001	Young Investigator Awards from Navy & IBM, and PhRMA, Donaghue, & Keck foundations
1993 - 1996	Damon Runyon-Walter Winchell post-doctoral Fellowship
1989 - 1993	Herchel-Smith Scholarship funded PhD at Cambridge
1989	Graduated college <i>summa cum laude & phi beta kappa</i>

Editorial Boards

Genome Research, Molecular Systems Biology, PLoS Comp Bio, GenomeBiology,
BMC Bioinformatics, Molecular & Cellular Proteomics, Molecular Biology & Evolution

Professional Experience (beyond Yale, but not including for profits)

Analysis Working Group co-chair: NHGRI ModENCODE Project ('07-'14), Brainspan Project ('09-),
1000 Genomes Functional Interpretation Group ('11-'15), exRNA consortium ('13-),
CMG [Centers for Mendelian Genomics] ('13-), PsychENCODE ('14-), PCAWG-2 [PanCancer
Analysis Working Group, non-coding drivers] ('14-), ENCODE & cancer ('13-)
Member Toronto Integrative Biology SAB
Member Cytoscape SAB
Program Committee BIBM '09, '12, '15
NIH Human Proteome Meeting Organizing Committee
NSF Workshops on Knowledge Management and Visualization Tools, '08.

Gerstein Lab Personnel

[Name, Role+Comment] (updated 28-Jan-2016)

PI

Mark Gerstein Albert L Williams Professor

Laboratory Staff

Mihali Felipe Systems Administrator
Lori Iannicelli Administrative Assistant

Research Scientists

Arif Harmanci ars
Joel Rozowsky Research Scientist
Anurag Sethi ars
Daifeng Wang ars
Koon-Kiu Yan ars

Postdocs

Timur Galeev
Robert Kitchen (jt. w. A. Nairn)
Sushant Kumar
Shuang Liu (jt. w. N Sestan)
Shaoke Lou
Fabio Navarro
Baikang Pei
Leonidas Salichos
Cristina Sisu
Dan Spakowicz (jt. w. G Weinstock)
Jinrui Xu
Jing Zhang

Graduate Students

Jieming Chen CBB (jt. w. L Regan); short postdoc
Declan Clarke Chemistry
Mengting Gu CBB
Donghoon Lee CBB
Xiaotong Li CBB (jt. w. L Pusztai)
Shantao Li CBB

Lucas Lochovsky CBB; short postdoc
William Meyerson CBB (MD/PhD)
Paul Muir MCDB (jt. w. F Isaacs)
Michael R. Schoenberg MBB (jt. w. M Simon)

Yale Undergrads

Richard Chang

ars+STL mentor

James Diao

ars+JR mentor

Jason Liu

ars+JZ mentor

Jeremy Liu

ars+KKY mentor

Julien Clancy

ars+RK mentor: full-time postgrad

Jayanth Krishnan

ars+JZ mentor; full-time postgrad

Misc.

Brian Barron

MD student; KKY mentor

Daniel Burkhardt

Rotation; ars+ANS mentor

Patrick McGillivray

MD candidate; ars+RK mentor

Yunsi Yang

Masters Student; ars+ANS mentor

Xue Zeng

Rotation; ars+ANS mentor

Past Postdoctoral Associates and Fellows (as of 31 Sep. 2014)

Currently Holding a Faculty Position

Jiang Qian	1999 – 2002	Johns Hopkins	Assoc. Prof.
Paul Harrison	1999 – 2004	Biology Dept., McGill U	Tenured Assoc. Prof.
Yuval Kluger	1999 – 2002	Pathology Dept., Yale U.	Assoc. Prof.
Nicholas Luscombe	2000 – 2004	Univ. College London	Tenured Prof.
Zhaolei Zhang	2002 – 2004	CCBR, U of Toronto	Tenured Assoc. Prof.
John Karro	2003 – 2005	CS Dept., Miami U.	Asst. Prof.
Yu (Brandon) Xia	2003 – 2006	Bioengineering Dept., McGill U	Assoc. Prof.
Long Lu	2003 – 2006	Cincinnati Children's Hospital	Asst. Prof.
Olof Emanuelsson	2003 – 2005	Royal Inst. of Technology, Sweden	Asst. Prof.
Deyou Zheng	2003 – 2007	Albert Einstein College of Medicine	Asst. Prof.
Alberto Paccanaro	2003 – 2005	CS Dept. Royal Holloway, U of London	Reader (w/ Tenure)
Phillip Kim	2004 – 2008	CCBR, U of Toronto	Asst. Prof.
Zhengdong Zhang	2005 – 2010	Albert Einstein College of Medicine	Asst. Prof.
Jan Korbel	2005 – 2007	EMBL	Group Leader
Andrea Sboner	2006 – 2011	Cornell Medical School	Asst. Prof.
Zhi (John) Lu	2008 – 2011	Tsinghua University	Asst. Prof.
Chao Cheng	2008 – 2012	Dartmouth University	Asst. Prof.
Alexej Abyzov	2008 – 2014	Mayo Clinic/U of Minnesota	Asst. Prof.
Ekta Khurana	2008 – 2014	Weill Cornell Medical College	Asst Prof.
Gang Fang	2007 – 2014	NYU (Shanghai)	Asst Prof

Working in Industry

Valery Trifonov	1998 – 2004	Goldman Sachs
Ning Lan	2000 – 2002	Incyte
Yang Liu	2000 – 2003	Sigma-Aldrich
Ian Laurenzi	2002 – 2004	ExxonMobil
Sambath Chung	2002 – 2004	Genelogic
Ursula Lehnert	2002 – 2004	McKinsey Consulting
Duncan Milburn	2002 – 2005	UCB Pharma
Zhiyun (Eric) Yu	2003 – 2006	McKinsey Consulting
Yongpan (Daniel) Yan	2005 – 2006	Glaxosmithkline
Thayalini Arinaminpathy	2005 – 2007	British Telecom
Anne Burba (Counterman)	2005 – 2009	freelance writing
Nitin Bhardwaj	2007 – 2011	BASF
Renqiang Min	2011 – 2012	NEC
Wyatt Clark	2013 – 2014	BioMarin Pharmaceutical

Other

Hedi Hedyi	1998 – 2000	
Jochen Junker	2000 – 2002	
Chern-Sing Goh	2002 – 2006	
Rajkumar (Raj) Sasidharan	2004 – 2008	
Alexander Karpikov	2004 – 2007	
Can (John) Bruce	2005 – 2007	
Roger Alexander	2007 – 2013	Pacific NW Diabetes Research Inst

Past PhD students (as of 31 Sep. 2014)

Currently Holding a Faculty Position

Paul Bertone	1998 – 2005	EBI (Cambridge)	Group Leader
Haiyuan Yu	2000 – 2005	Biostat & Comp. Bio., Cornell U	Asst. Prof.
Samuel Flores	2004 – 2007	Cell & Mol. Biol., Uppsala U	Asst. Prof.
Kevin Yip	2004 – 2009	The Chinese University of Hong Kong	Asst. Prof.

Elsewhere in academia

Xinmeng Mu	2007 – 2012	Broad Inst./Harvard Med.	Postdoc
Raymond Auerbach	2007 - 2012	Stanford U.	Postdoc

Working in Industry

Werner Krebs	1996 – 2001	Bank of America
Ronald Jansen	1997 – 2002	Goldman Sachs
Vadim Alexandrov	1998 – 2003	Psychogenics
Dov Greenbaum	1999 – 2004	Pearl Cohen Zedek Latzer
Thomas Royce	2002 – 2007	Illumina
Andrew Smith	2002 – 2007	Bristol-Myers Squibb
Jiang Du	2004 – 2010	JP Morgan
Chong Shou	2005 – 2011	MF Global
Hugo (Yu Kor) Lam	2005 – 2010	23andme
William Grenawitzke	2006 – 2006	Merrill Lynch
Michael Seringhaus	2001 – 2007	Latham & Watkins
Lukas Habegger	2007 – 2012	LEK Consulting
Jing Leng	2009 – 2014	Illumina

Other

Ted Johnson	1996 – 2003
Rajdeep Das	1998 – 2004
Tara Gianoulis	2003 – 2009
Prianka Patel	2004 – 2010

Teaching (as of 28 Jan. 2016)

Bioinformatics: Practical Application of Simulation & Data Mining

CBB752b, MBB752b, CS752b, MBB452, MBB753, MBB754
Responsible for whole-semester course on fundamentals of bioinformatics taught to advanced undergraduates and graduate students (from Computational Biology, Biophysics, & CS).
Course comprised of 25 lectures of 75' each with weekly section, graded homework and quizzes, midterm and final project.
Taught course continuously for 19 iterations (since '98), usually in Spring.
Course web site is www.gersteinlab.org/courses/452

Responsible Conduct of Research

MBB676b in the Spring of '14
Responsible for 1 lecture

Past Courses

Parts of (~6 75' lectures)
1) CS Course "Introduction to Data Mining"
2) Molecular Biophysics course "Macromolecules"

Current Committee Work (as of 28 Jan. 2016)

Departmental & Program Activities

Yale Computational Biology & Bioinformatics (CBB) Program

co-DGS and co-director with H Zhao (fall '02-)
(previous to this was member of the track committee)

Computational Biology admissions committee
Thesis Research & Qualifying Exam committees (>5)
Medical School Strategic Planning Bridge sub-Committee on Biomedical Data Science (co-chair)

Other University Activities

West Campus Systems Biology Institute Advisory Committee ('12-) and
Computational Biology Search ('15)
University Deputy CIO Search & Sr. Director Research Technologies ('12-'15)
Yale Center for Research Computing Steering Committee
CT Biocompute Yale lead ('15)
co-director Keck Bioinformatics Resource

Other Writings & Presentations (as of 30 Sep. 2015)

Opinion Pieces

D Greenbaum & M Gerstein (2008). "Danger: Sharing Gene Data", Hartford Courant, July 10, pg. A11 (Op-ed)

D Greenbaum & M Gerstein (2008). "Personal genomics requires redefining privacy -- The human blueprint: dangerous secrets", SF Chronicle, Nov. 2, Page 2 (Insight)

M Seringhaus & M Gerstein (2009). "Putting too much information online can erode individual privacy", Hartford Courant, June 5 (Op-ed)

D Greenbaum & M Gerstein (2010). "Exploring genetics of professional athletes", SF Chronicle, May 2, Page E-4 (Insight)

D Greenbaum & M Gerstein (2012). "The Age of Genetically Optimized Sports", Wall Street Journal, July 24, Page A13 (Opinion)

D Greenbaum & M Gerstein (2013). "Your DNA vulnerable to snooping, too?", USA Today, July 27 (Opinion)

D Greenbaum & M Gerstein (2013). "Proceed with Caution," The Scientist, Oct 1

D Greenbaum & M Gerstein (2015). "Too big to close down: Websites need regulation like utilities", SF Chronicle, April 24 (Opinion)

D Greenbaum & M Gerstein (2015). "Why can employers fingerprint, but not test workers' DNA?", SF Chronicle, July 10 (Opinion)

Recorded Panel Discussions & Interviews

M Gerstein (2008). "A Great Historical Document - The Human Genome", Futures in Biotech 34 (podcast moderated by M Pelletier)

"A Closer Look at Personal Genomic Testing", Inforum Genomics Panel, at the Commonwealth Club of California, including L Avey, D Ballon, D Magnus, M Gerstein, J Rae-Dupree (2009)

"Whose DNA is it?", a panel discussion on Personal Genomics, on the Agenda with Steve Paikin, as part of the Quantum to Cosmos Festival (Q2C) in Waterloo, ON, 21 Oct. 2009

"Genomics, Proteomics, Cellular Immunity, and Anti-Matter", a panel discussion moderated by M Pelletier, including V Racaniello, A Nantel, M Gerstein, and G Farr. Futures in Biotech 71 (22 Nov. 2010)

M Gerstein (2011). "Bioinformatics: Essential Gene names Skewed in a Network of Blame", Futures in Biotech 83 (podcast moderated by M Pelletier)

"6 PhDs Piled High And Deep", a panel discussion moderated by M Pelletier, including G Farr, D Thomas, M Gerstein, S Melov, and J Sanchez. Futures in Biotech 91 (16 Dec. 2011)

M Gerstein (2014). "What in the World", Sirius XM Radio Canada, 60' on 20 Nov. (Interview by Richard Garner)

M Gerstein (2015). "What Now? Going Beyond the \$1,000 Genome", Mendelspod, 17 Sept. (podcast moderated by T Timpson)

Main Scientific Publications

(As of 28 Jan. 2016, see footnotes at end of the publication section)

-- 2016 --

E Khurana, Y Fu, D Chakravarty, F Demichelis, MA Rubin, M Gerstein (2016). "Role of non-coding sequence variants in cancer." *Nat Rev Genet* 17: 93-108.

-- 2015 --

Cancer Genome Atlas Research Network. "The Molecular Taxonomy of Primary Prostate Cancer." *Cell* 163: 1011-25.

A Abyzov, S Li, MB Gerstein (2015). "Understanding genome structural variations." *Oncotarget* .

A Sethi, D Clarke, J Chen, S Kumar, TR Galeev, L Regan, M Gerstein (2015). "Reads meet rotamers: structural biology in the age of deep sequencing." *Curr Opin Struct Biol* 35: 125-34.

S Akbarian, C Liu, JA Knowles, FM Vaccarino, PJ Farnham, GE Crawford, AE Jaffe, D Pinto, S Dracheva, DH Geschwind, J Mill, AC Nairn, A Abyzov, S Pochareddy, S Prabhakar, S Weissman, PF Sullivan, MW State, Z Weng, MA Peters, KP White, MB Gerstein, A Amiri, C Armoskus, AE Ashley-Koch, T Bae, A Beckel-Mitchener, BP Berman, GA Coetzee, G Coppola, N Francoeur, M Fromer, R Gao, K Grennan, J Herstein, DH Kavanagh, NA Ivanov, Y Jiang, RR Kitchen, A Kozlenkov, M Kundakovic, M Li, Z Li, S Liu, LM Mangravite, E Mattei, E Markenscoff-Papadimitriou, FC Navarro, N North, L Omberg, D Panchision, N Parikshak, J Poschmann, AJ Price, M Purcaro, TE Reddy, P Roussos, S Schreiner, S Scuderi, R Sebra, M Shibata, AW Shieh, M Skarica, W Sun, V Swarup, A Thomas, J Tsuji, H van Bakel, D Wang, Y Wang, K Wang, DM Werling, AJ Willsey, H Witt, H Won, CC Wong, GA Wray, EY Wu, X Xu, L Yao, G Senthil, T Lehner, P Sklar, N Sestan (2015). "The PsychENCODE project." *Nat Neurosci* 18: 1707-12.

D Greenbaum, M Gerstein (2015). "Illuminating the Genome's Dark Matter," *Cell* 163:1047-1048.

Cancer Genome Atlas Research Network, WM Linehan, PT Spellman, CJ Ricketts, CJ Creighton, SS Fei, C Davis, DA Wheeler, BA Murray, L Schmidt, CD Vocke, M Peto, AA Al Mamun, E Shinbrot, A Sethi, S Brooks, WK Rathmell, AN Brooks, KA Hoadley, AG Robertson, D Brooks, R Bowlby, S Sadeghi, H Shen, DJ Weisenberger, M Bootwalla, SB Baylin, PW Laird, AD Cherniack, G Saksena, S Haake, J Li, H Liang, Y Lu, GB Mills, R Akbani, MD Leiserson, BJ Raphael, P Anur, D Bottaro, L Albiges, N Barnabas, TK Choueiri, B Czerniak, AK Godwin, AA Hakimi, TH Ho, J Hsieh, M Ittmann, WY Kim, B Krishnan, MJ Merino, KR Mills Shaw, VE Reuter, E Reznik, CS Shelley, B Shuch, S Signoretti, R Srinivasan, P Tamboli, G Thomas, S Tickoo, K Burnett, D Crain, J Gardner, K Lau, D Mallery, S Morris, JD Paulauskis, RJ Penny, C Shelton, WT Shelton, M Sherman, E Thompson, P Yena, MT Avedon, J Bowen, JM Gastier-Foster, M Gerken, KM Leraas, TM Lichtenberg, NC Ramirez, T Santos, L Wise, E Zmuda, JA Demchok, I Felau, CM Hutter, M Sheth, HJ Sofia, R Tarnuzzer, Z Wang, L Yang, JC Zenklusen, J Zhang, B Ayala, J Baboud, S Chudamani, J Liu, L Lolla, R Nares, T Pihl, Q Sun, Y Wan, Y Wu, A Ally, M Balasundaram, S Balu, R Beroukhi, T Bodenheimer, C Buhay, YS Butterfield, R Carlsen, SL Carter, H Chao, E Chuah, A Clarke, KR Covington, M Dahdouli, N Dewal, N Dhalla, HV Doddapaneni, JA Drummond, SB Gabriel, RA Gibbs, R Guin, W Hale, A Hawes, DN Hayes, RA Holt, AP Hoyle, SR Jefferys, SJ Jones, CD Jones, D Kalra, C Kovar, L Lewis, J Li, Y Ma, MA Marra, M Mayo, S Meng, M Meyerson, PA Mieczkowski, RA Moore, D Morton, LE Mose, AJ Mungall, D Muzny, JS Parker, CM Perou, J Roach, JE Schein, SE Schumacher, Y Shi, JV

Simons, P Sipahimalani, T Skelly, MG Soloway, C Sougnez, A Tam, D Tan, N Thiessen, U Veluvolu, M Wang, MD Wilkerson, T Wong, J Wu, L Xi, J Zhou, J Bedford, F Chen, Y Fu, M Gerstein, D Haussler, K Kasaian, P Lai, S Ling, A Radenbaugh, D Van Den Berg, JN Weinstein, J Zhu, M Albert, I Alexopoulou, JJ Andersen, JT Auman, J Bartlett, S Bastacky, J Bergsten, ML Blute, L Boice, RJ Bollag, J Boyd, E Castle, YB Chen, JC Cheville, E Curley, B Davies, A DeVolk, R Dhir, L Dike, J Eckman, J Engel, J Harr, R Hrebinko, M Huang, L Huelsenbeck-Dill, M Iacocca, B Jacobs, M Lobis, JK Maranchie, S McMeekin, J Myers, J Nelson, J Parfitt, A Parwani, N Petrelli, B Rabeno, S Roy, AL Salner, J Slaton, M Stanton, RH Thompson, L Thorne, K Tucker, PM Weinberger, C Winemiller, LA Zach, R Zuna (2015). "Comprehensive Molecular Characterization of Papillary Renal-Cell Carcinoma." *N Engl J Med* 374: 135-45.

The 1000 Genomes Project Consortium (2015). "A global reference for human genetic variation." *Nature* 526: 68–74.

PH Sudmant, T Rausch, E Gardner, R Handsaker, A Abyzov, J Huddleston, Y Zhang, K Ye, G Jun, M Fritz, M Konkel, A Malhotra, A Stütz, X Shi, F Paolo Casale, J Chen, F Hormozdiari, G Dayama, K Chen, M Malig, M Chaisson, K Walter, S Meiers, S Kashin, E Garrison, A Auton, H Lam, XJ Mu, C Alkan, D Antaki, T Bae, E Cerveira, P Chines, Z Chong, L Clarke, E Dal, L Ding, S Emery, X Fan, M Gujral, F Kahveci, J Kidd, Y Kong, E Lameijer, S McCarthy, P Flicek, R Gibbs, G Marth, C Mason, A Menelaou, D Muzny, B Nelson, A Noor, N Parrish, M Pendleton, A Quitadamo, B Raeder, E Schadt, M Romanovitch, A Schlattl, R Sebra, A Shabalina, A Untergasser, J Walker, M Wang, F Yu, C Zhang, J Zhang, X Zheng-Bradley, W Zhou, T Zichner, J Sebat, M Batzer, S McCarroll, The 1000 Genomes Project Consortium, R Mills, M Gerstein, A Bashir, O Stegle, S Devine, C Lee, E Eichler, JO Korbel (2015). "An integrated map of structural variation in 2,504 human genomes." *Nature* 526: 75–81.

JC Mu, P Tootoonchi Afshar, M Mohiyuddin, X Chen, J Li, N Bani Asadi, MB Gerstein, WH Wong, HY Lam (2015). "Leveraging long read sequencing from a single individual to provide a comprehensive resource for benchmarking variant calling methods." *Sci Rep* 5: 14493.

LT Fang, PT Afshar, A Chhibber, M Mohiyuddin, Y Fan, JC Mu, G Gibeling, S Barr, NB Asadi, MB Gerstein, DC Koboldt, W Wang, WH Wong, HY Lam (2015). "An ensemble approach to accurately detect somatic mutations using SomaticSeq." *Genome Biol* 16: 197.

EE Duffy, M Rutenberg-Schoenberg, CD Stark, RR Kitchen, MB Gerstein, MD Simon (2015). "Tracking Distinct RNA Populations Using Efficient and Reversible Covalent Chemistry." *Mol Cell* 59: 858-66.

L Lochovsky, J Zhang, Y Fu, E Khurana, M Gerstein (2015). "LARVA: an integrative framework for large-scale analysis of recurrent variants in noncoding annotations." *Nucleic Acids Res* .

PP Kuksa, MR Min, R Dugar, M Gerstein (2015). "High-order neural networks and kernel methods for peptide-MHC binding prediction." *Bioinformatics* .

J Mariani, G Coppola, P Zhang, A Abyzov, L Provini, L Tomasini, M Amenduni, A Szekely, D Palejev, M Wilson, M Gerstein, EL Grigorenko, K Chawarska, KA Pelphrey, JR Howe, FM Vaccarino. (2015) "FOXP1-Dependent Dysregulation of GABA/Glutamate Neuron Differentiation in Autism Spectrum Disorders." *Cell* Jul 16;162(2):375-90.

A Abyzov, S Li, DR Kim, M Mohiyuddin, AM Stütz, NF Parrish, XJ Mu, W Clark, K Chen, M Hurles, JO Korbel, HY Lam, C Lee, MB Gerstein (2015). "Analysis of deletion breakpoints from 1,092 humans reveals details of mutation mechanisms." *Nat Commun* 6: 7256.

D Greenbaum, M Gerstein (2015). "The computer connection." *Science* 347: 956.

M Mohiyuddin, JC Mu, J Li, N Bani Asadi, MB Gerstein, A Abyzov, WH Wong, HY Lam (2015). "MetaSV: an accurate and integrative structural-variant caller for next generation

sequencing." *Bioinformatics* 31: 2741-4.

D Wang, KK Yan, C Sisu, C Cheng, J Rozowsky, W Meyerson, MB Gerstein (2015). "Loregic: a method to characterize the cooperative logic of regulatory factors." *PLoS Comput Biol* 11: e1004132.

C Cheng, E Andrews, KK Yan, M Ung, D Wang, M Gerstein (2015). "An approach for determining and measuring network hierarchy applied to comparing the phosphorlome and the regulome." *Genome Biol* 16: 63.

-- 2014 --

JC Mu, M Mohiyuddin, J Li, N Bani Asadi, MB Gerstein, A Abyzov, WH Wong, HY Lam (2014). "VarSim: a high-fidelity simulation and validation framework for high-throughput genome sequencing with cancer applications." *Bioinformatics* 31: 1469-71.

RR Kitchen, JS Rozowsky, MB Gerstein, AC Nairn (2014). "Decoding neuroproteomics: integrating the genome, translome and functional anatomy." *Nat Neurosci* 17: 1491-9.

A Harmanci, J Rozowsky, M Gerstein (2014). "MUSIC: identification of enriched regions in ChIP-Seq experiments using a mappability-corrected multiscale signal processing framework." *Genome Biol* 15: 474.

Y Fu, Z Liu, S Lou, J Bedford, XJ Mu, KY Yip, E Khurana, M Gerstein (2014). "FunSeq2: a framework for prioritizing noncoding regulatory variants in cancer." *Genome Biol* 15: 480.

AP Boyle, CL Araya, C Brdlik, P Cayting, C Cheng, Y Cheng, K Gardner, LW Hillier, J Janette, L Jiang, D Kasper, T Kawli, P Kheradpour, A Kundaje, JJ Li, L Ma, W Niu, EJ Rehm, J Rozowsky, M Slattery, R Spokony, R Terrell, D Vafeados, D Wang, P Weisdepp, YC Wu, D Xie, KK Yan, EA Feingold, PJ Good, MJ Pazin, H Huang, PJ Bickel, SE Brenner, V Reinke, RH Waterston, M Gerstein, KP White, M Kellis, M Snyder (2014). "Comparative analysis of regulatory information and circuits across distant species." *Nature* 512: 453-6.

MB Gerstein, J Rozowsky, KK Yan, D Wang, C Cheng, JB Brown, CA Davis, L Hillier, C Sisu, JJ Li, B Pei, AO Harmanci, MO Duff, S Djebali, RP Alexander, BH Alver, R Auerbach, K Bell, PJ Bickel, ME Boeck, NP Boley, BW Booth, L Cherbas, P Cherbas, C Di, A Dobin, J Drenkow, B Ewing, G Fang, M Fastuca, EA Feingold, A Frankish, G Gao, PJ Good, R Guigó, A Hammonds, J Harrow, RA Hoskins, C Howald, L Hu, H Huang, TJ Hubbard, C Huynh, S Jha, D Kasper, M Kato, TC Kaufman, RR Kitchen, E Ladewig, J Lagarde, E Lai, J Leng, Z Lu, M MacCoss, G May, R McWhirter, G Merrihew, DM Miller, A Mortazavi, R Murad, B Oliver, S Olson, PJ Park, MJ Pazin, N Perrimon, D Pervouchine, V Reinke, A Reymond, G Robinson, A Samsonova, GI Saunders, F Schlesinger, A Sethi, FJ Slack, WC Spencer, MH Stoiber, P Strasbourger, A Tanzer, OA Thompson, KH Wan, G Wang, H Wang, KL Watkins, J Wen, K Wen, C Xue, L Yang, K Yip, C Zaleski, Y Zhang, H Zheng, SE Brenner, BR Graveley, SE Celniker, TR Gingeras, R Waterston (2014). "Comparative analysis of the transcriptome across distant species." *Nature* 512: 445-8.

C Sisu, B Pei, J Leng, A Frankish, Y Zhang, S Balasubramanian, R Harte, D Wang, M Rutenberg-Schoenberg, W Clark, M Diekhans, J Rozowsky, T Hubbard, J Harrow, MB Gerstein (2014). "Comparative analysis of pseudogenes across three phyla." *Proc Natl Acad Sci U S A* 111: 13361-6.

KK Yan, D Wang, J Rozowsky, H Zheng, C Cheng, M Gerstein (2014). "OrthoClust: an orthology-based network framework for clustering data across multiple species." *Genome Biol* 15: R100.

DG MacArthur, TA Manolio, DP Dimmock, HL Rehm, J Shendure, GR Abecasis, DR Adams, RB Altman, SE Antonarakis, EA Ashley, JC Barrett, LG Biesecker, DF Conrad, GM Cooper, NJ Cox, MJ Daly, MB Gerstein, DB Goldstein, JN Hirschhorn, SM Leal, LA Pennacchio, JA Stamatoyannopoulos, SR Sunyaev, D Valle, BF Voight, W Winckler, C Gunter (2014). "Guidelines for investigating causality of

sequence variants in human disease." *Nature* 508: 469-76.

M Kellis, B Wold, MP Snyder, BE Bernstein, A Kundaje, GK Marinov, LD Ward, E Birney, GE Crawford, J Dekker, I Dunham, LL Elnitski, PJ Farnham, EA Feingold, M Gerstein, MC Giddings, DM Gilbert, TR Gingeras, ED Green, R Guigo, T Hubbard, J Kent, JD Lieb, RM Myers, MJ Pazin, B Ren, JA Stamatoyannopoulos, Z Weng, KP White, RC Hardison (2014). "Defining functional DNA elements in the human genome." *Proc Natl Acad Sci U S A* 111: 6131-8.

JA Miller, SL Ding, SM Sunkin, KA Smith, L Ng, A Szafer, A Ebbert, ZL Riley, JJ Royall, K Aiona, JM Arnold, C Bennet, D Bertagnoli, K Brouner, S Butler, S Caldejon, A Carey, C Cuhaciyan, RA Dalley, N Dee, TA Dolbeare, BA Facer, D Feng, TP Fliss, G Gee, J Goldy, L Gourley, BW Gregor, G Gu, RE Howard, JM Jochim, CL Kuan, C Lau, CK Lee, F Lee, TA Lemon, P Lesnar, B McMurray, N Mastan, N Mosqueda, T Naluai-Cecchini, NK Ngo, J Nyhus, A Oldre, E Olson, J Parente, PD Parker, SE Parry, A Stevens, M Pletikos, M Reding, K Roll, D Sandman, M Sarreal, S Shapouri, NV Shapovalova, EH Shen, N Sjoquist, CR Slaughterbeck, M Smith, AJ Sodt, D Williams, L Zöllei, B Fischl, MB Gerstein, DH Geschwind, IA Glass, MJ Hawrylycz, RF Hevner, H Huang, AR Jones, JA Knowles, P Levitt, JW Phillips, N Sestan, P Wohnoutka, C Dang, A Bernard, JG Hohmann, ES Lein (2014). "Transcriptional landscape of the prenatal human brain." *Nature* 508: 199-206.

-- 2013 --

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I De Baere, L Liu, L Moens, J Van Beeumen, C Gielens, J Richelle, C Trotman, J Finch, M Gerstein, M Perutz (1992). "Polar zipper sequence in the high-affinity hemoglobin of *Ascaris suum*: amino acid sequence and structural interpretation." *Proc Natl Acad Sci U S A* 89: 4638-42.

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Inverse Problem for Synchrotron Radiation in the Presence of Noise. N Fisch, A Kritz, M Gerstein (1987) *Proceedings of the Sixth Joint Workshop on Electron Cyclotron Emission and Electron Cyclotron Resonance Heating*. (eds. A Riviere, A Costley), 23-30 (Oxford, 16-17 September).

Notes on Scientific Publications

(As of 30 Sept. 2015)

- a) 474 scientific publications in total. Not including in press or submitted articles.
- b) H-index for M Gerstein is 129
(according to Google Scholar, scholar.google.com/citations?user=YvjuUugAAAAJ)
- c) In the publication list, if M Gerstein is not a last or first author, he is not considered to be a "corresponding" or "senior" author except as noted by the asterisks (*) in the list below:

Sudmant... 1000 Genomes Project, Mills*, Gerstein*, Bashir*, Stegle*, Devine*, Lee*, Eichler*, Korbelt* (2015). *Nature* 492: 438-42

Abyzov... Urban*, Gerstein*, Vaccarino* (2012) *Nature* 492: 438-42

Gianoulis... Gerstein*, Strobel* (2012). *PLoS Genet* 8: e1002558.

MacArthur... 1000 Genomes Project... Gerstein*, Tyler-Smith* (2012). *Science* 335: 823.

Mills... Eichler*, Gerstein*, Hurles*, Lee*, McCarroll*, Korbelt*, 1000 Genomes Project (2011). *Nature* 470: 59.

Bertone... Gerstein*, Snyder* (2004). *Science* 306: 2242.