

Gregory C. Gibson

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Education and Professional Experience

2009-present Professor, School of Biological Sciences, Georgia Institute of Technology
Human genomics

2008-2009 Australian Professorial Fellow, Univ of Queensland, Brisbane Australia
Genetics of gene expression variation in humans

2005-2007 William Neal Reynolds Distinguished Professor of Genetics. NC State University
Genomics of gene expression variation in flies, canids and humans

1998-2005 Assistant; Associate (2001) Professor North Carolina State University
Quantitative genomics of morphogenesis and pharmacology in *Drosophila*

1994-1998 Assistant Professor University of Michigan
Quantitative molecular genetics of developmental stability in *Drosophila*.

1993-1994 Post-doctoral Fellow Cathy C. Laurie, Duke University
Evolutionary quantitative genetics of genital morphology in *Drosophila*.

1990-1993 Post-doctoral Fellow David S. Hogness, Stanford University
Population and quantitative genetics of the *Ultrabithorax* gene in *Drosophila*.
Theoretical population genetic modeling (with Marcus W Feldman).

1986-1989 Graduate Student Walter J. Gehring, U. of Basel
Functional dissection of biological specificity of homeotic proteins in *Drosophila*.

HONORS AND AWARDS

2017-2019 Visiting Professor, Garvan Institute for Medical Research, Sydney Australia
2017 Fulbright Council for International Exchange Senior Scholar US for study in Spain
2013 Consultant to NICHD
2006 Elected Fellow of the American Association for the Advancement of Science (AAAS)
2005 William Neal Reynolds Distinguished Professor
2002 NCSU Alumni Outstanding Researcher Award
1998 Visiting Research Associate, Stanford University Center for Computational Genetics
1996-2001 David and Lucille Packard Foundation Fellowship in Science and Engineering
1996-1997 Basil O'Connor Young Investigator Award of the March of Dimes
1993-1994 Hargitt Fellow of Duke University Department of Zoology
1990-1993 Helen Hay Whitney Foundation Post-Doctoral Fellow
1989 Doctor of Philosophy, *summa cum laude*, Univ. of Basel, Switzerland
1985 Bachelor of Science, First Class Honors, Univ. of Sydney, Australia

COMMUNITY SERVICE

2018-present Co-Director, CHoA Center for Transplantation and Immune-Related Disorders (CTID)
2017-present Faculty of the 1000, Comparative Genomics section
2013-2017 Scientific Advisory Board, Rare Alleles NSF Plant Genome Project, Cornell Univ
2013 External Review Committee, Finnish Institute of Molecular Medicine
2012-2016 Scientific Advisory Board, Dartmouth Institute for Quantitative Biomedical Sciences
2010-2015 Chair, Scientific Advisory Board, CARTaGENE Population Genomics, U de Montreal
2007-2014 Chair, Scientific Advisory Board, Max Plank Institute for Evolutionary Biology
2006-2016 Section Editor: Gene Expression and Natural Variation, *PLoS Genetics*
2005-2007 Associate Director for Education and Outreach, National Evolutionary Synthesis Center
2003-2007 Assistant Director for Life Sciences, North Carolina Agricultural Research Service
2002-2005 North Carolina Governor's Task Force on Genomics and Public Health
(Chair 2004, 2005; Futures and Research Group Chair 2003-2005)
2003-2007 Member, FlyBase Advisory Board
2003 Co-author, Drosophila Species White Paper, led to sequencing of 9 new genomes
2002-2003 Executive Director, NCSU CALS Genome Research Laboratory
2002-2007 10 NSF and NIH Scientific Merit Review panels; Christian Doppler Society, Austria
2001-2002 Founding Member, Faculty of the 1000, Online Research Review Service

Editorial Boards: *PLoS Genetics* (since 2005)
Genome Medicine (since 2013)
Journal of Personalized Medicine (starting 2015)
Genetics (2004-2010)
American Naturalist (2005-2010)
Current Biology (2003-2009)
Genetical Research (1999-2012; Minireviews Editor 2001-2005)
Genes, Brain, and Behavior (since 2002)
Development, Genes, and Evolution (since 1996)

Ad-hoc Reviewer for: *Nature*, *Nature Genetics*, *Genetics*, *Genetical Research*, *TREE*, *Journal of Heredity*, *Current Biology*, *Development and Evolution*, *Genome Biology*, *Genome Research*, *Molecular Biology and Evolution*, *PNAS*, *Science*, *PLoS Biology*, *Molecular Ecology*

TEACHING (1999 – 2018)

BIOL4545 Human Genetics (7X @ GaTech)
BIOL4803C Health, Genes and Society (4X @GaTech)
BIOL8802H Experimental Genomics: Graduate Colloquium (1X @ GaTech)
BIOL8802L Quantitative Genetics: Graduate Colloquium (1X@GaTech)
GN495G: Genes, Development, and Evolution: Advanced Undergraduate Course (4X @ NCSU)
GN810G: Genome Science: Core Graduate Course in Genome Science curriculum (3X @ NCSU)
GN495A: Introduction to Genome Science: Advanced Undergraduate Course (4X @ NCSU)
GN810E: Complex Human Disease: Graduate Colloquium (1X @ NCSU)

Summer Institute of Statistical Genetics: "Genome Science" and "Gene Expression" Modules
Raleigh NC 2001 - 2004; Seattle WA 2006 - 2016
Christchurch NZ, 2001; Dublin Ireland, 2002, Melbourne Australia, 2003;
Faro Portugal, 2004; Seoul Korea, 2005; Aarhus Denmark, 2006; Beijing China, 2010,
Liege Belgium 2007, 2009, 2011, Edinburgh 2012, Abu Dhabi 2017, Brisbane 2017

Doctoral Students:

Dae-gwon Ahn, Ph.D.	1994-1998	Currently Research Assistant Professor, Univ. of Chicago
Arnar Palsson, Ph.D.	1998-2003	Currently Asst Prof, Univ. of Iceland
Roland Carrillo, Ph.D.	1999-2004	Regional representative, DiscoverX Corporation
Gisele Passador-Gurgel	2000-2006	Currently Teaching Asst. Prof, NCSU
Jennifer Moser	2001-2005	Currently Program Officer, Veterans Affairs
Pierre Bushel	2001-2005	Currently Director of Bioinformatics, NIEHS Durham
Wen-Ping Hsieh	2002-2005	Currently Associate Professor, Tsing Hua Univ. Taiwan
Erin Kennerly	2005-2008	Currently Account Manager, Q ² Solutions, Durham NC
Youssef Idaghdour	2005-2000	Currently Assistant Professor, NYU Abu Dhabi
Kevin Lee	2011-2014	Currently MD student, UGA
Thanawadee Preeprem	2012-2014	Currently Assistant Professor, Ubon Ratchathani Univ, Thailand
Jing Zhao	2011-2015	Currently Research Scientist, Seven Bridges Genomics, SFO CA
Monica Rojas	2012-2016	Currently Scientific Analyst, Otogenetics, Atlanta GA
Swetha Garimalla	2014-2018	Research Informatician, Prevail Therapeutics
Diana Williams	2014-2018	Forensic scientist, Defence Forensic Science Center
Biao Zeng	2014-2018	Current student at GT
Khalid Alhumimidi	2014-	Current student at GT
Angela Mo	2016-	Current student at GT
Ruoyu Tian	2016-	Current student at GT
Kiera Berger	2017-	Current student at GT
Hari Somenini	2017-	Current student at Emory (co-supervised with S Kugathasan)
Camila Medrano	2017-	Current student at GT
Meixue Duan	2018-	Current student at GT
Monica Isgut	2018-	Current student at GT

Masters Students (Georgia Tech):

Neha Gupta	2009-2010	Research Bioinformatician, TIGR, Maryland
Arthi Talla	2009-2010	Research Bioinformatician, VGTI, Florida
Ben Hsieh	2009-2011	Research Bioinformatician, UGA
Jinhee Kim	2009-2012	In Chicago
Haozheng Tian	2010-2011	PhD Student, Georgia Tech
Peter Qin	2010-2011	Software developer, Amazon, Seattle WA
Artika Nath	2011-2012	Post-Doctoral Fellow, IDI-Baker Institute, Melbourne, Aust.
Ambily Sivasdas	2011-2012	PhD Student, IGIB Delhi
Seo Young Choi	2011-2012	Accountant
Vartika Agarwal	2012-2013	Research Bioinformatician, Phillips, NY
Karthik Murugesan	2013-2014	Research Bioinformatician, Phillips, NY
Roopa Reddy	2014-2015	In India
Chen Guo	2015-2016	Research Bioinformatician, Sacramento CA
Hari Subramanian	2015-2016	Research Bioinformatician, Chicago IL
Michael Finlayson	2016-2017	Research Bioinformatician, Columbia University, NY
Annachiara Korchmaros	2017	Research Bioinformatician, Albert Einstein College, NY
Meixue Duan	2016-2017	Current PhD student at GT (my group)
Sini Nagpal	2017-	Current student at GT

Post-Doctoral Fellows:

Wei (Wendy) Jin	1999-2000	Currently Director of Plant Epidemiology, APHIS, Raleigh NC
Naruo Nikoh	2001-2003	Currently Associate Professor, Open University of Japan, Chiba

Ian Dworkin	2002-2007	Currently Associate Professor, Michigan State University
Lisa Goering	2003-2007	Currently Associate Professor, St Edwards College, Austin TX
Laura Reed	2006-2010	Currently Assistant Professor, University of Alabama
Yue Luo	2010-2011	Currently Clinical Research Coordinator, Emory University
Rubina Tabassum	2012-2013	Currently Research Scientist, FIMM, Helsinki Finland
Idy Akinsanmi	2014-2015	Currently Clinical Scientist, Alpharetta GA
Yang Tan	2013-2015	Currently Post-Doctoral fellow, Harvard University
Bao Zhang	2016-2017	Currently Research Assistant Professor, Jiaotong Univ, PRC
Urko Martinez	2013-2018	Currently Post-Doctoral fellow

GRANTS RECEIVED

ACTIVE:

- National Institutes of Health, NIDDK 1-R01DK119991
“New computational and transcriptional approaches to the biology of inflammatory bowel disease”
G Gibson PI
4 years, \$125,000 / yr DC 9/18 – 8/22
- National Institutes of Health, Human Genome Research 1-R01HG008146
“eQTL Mega-analysis for Functional Assessment of Multi-enhancer Gene Regulation”
G Gibson PI, S Kumar (Temple) and G Bao (Rice) Co-Is
3 years, \$500,000 / yr DC to GT 7/16 – 6/19
- National Institutes of Health, NIDDK 2-R01DK087694
“Gene Discoveries in Subjects with Crohn's disease of African descent”
Subra Kugathasan, Emory, PI; G Gibson Co-I
5 years, \$90,000 Direct to GT 7/16 – 6/21
- National Institutes of Health, NIAID 1-P01-AI125180
“B cells in Lupus Nephritis” Ignacio Sanz, Emory University, PI; Ronghu Wu GT Co-I
5 years, \$55,000 / yr DC to GT 7/16 – 6/21
- Muscular Dystrophy Foundation of America 2/17 – 1/20
“Neuromuscular Disorders: Variants of Unknown Significance”
And Jain Foundation for Limb Girdle Muscular Dystrophy
“Monocyte assays of LGMD pathology”
These grants, awarded to Madhuri Hegde, formerly Emory Genetics Lab, are being transferred to me as Co-PI as she has moved to Perkin Elmer. This should be complete by February.
Also Emory+Childrens Healthcare of Atlanta Center for Pediatric Innovation (CPI) Seed Grant:
G Gibson PI, M Hegde Co-I, \$50,000 in FY 2016/2017
Ongoing, \$250,000 / yr total funding across the three grants (and NIH pending)
- National Institutes of Health, General Medical Sciences 1T32GM105490-01
“A Computational Biology and Predictive Health Genomics Training Program at GT”
5 years, \$180,000 / yr 6/14 – 4/19
- IBB Seed Grant (Co-PI with Ed Botchwey, BME) 7/17 – 6/19
“Single cell RNASeq and Lipidomics of Mesenchymal Stem Cells”
2 years, \$50,000 per year (second year pending demonstrated research progress)

COMPLETED:

8. Emory+Childrens Healthcare of Atlanta Center for Pediatric Innovation (CPI)
“A disruptive approach to CF therapy: targeted RNAi delivery to reprogrammed airway neutrophils”
Rabindra Tirouvanziam PI, G Gibson and J Dahlman CoIs at GT
\$25,000 DC to GT
9. National Institutes of Health, General Medical Sciences 1-P01GM0996568
Statistical and Quantitative Genetics – Project 3 Bruce Weir, UWashington, Program Director
5 years, \$225,000 / yr DC to GT 6/12 – 5/17
Administrative supplement, 2 years, \$40,000/yr 3/14 – 2/16
10. NIAID-DMID-NIHAI2010100 (M. Galinski, Yerkes Primate Center, PI)
An Integrated Approach to Understanding Host-Pathogen Interactions
3 years, \$300,000/yr DC to GT 7/12 – 12/15
11. Georgia Tech/Emory Immunoengineering Seed Grant (J Galipeau, Emory, Co-PI)
Molecular genetic and functional characterization of Crohn’s MSCs immune plasticity
1 year, \$50,000 7/14 – 6/15
12. Children’s Healthcare of Atlanta Pediatric Innovation Center (R Guldberg, Co-PI)
Toward personalized treatment for Osteochonritis Dissecans based on Genomic Imaging
1 year \$60,000 6/13 – 5/14
13. National Institutes of Health, NICHD Biostatistics and Bioinformatics Branch
Inter-Personnel Agreement
12 months, \$40,000 5/13 – 4/14
14. Georgia Tech Institute for Bioengineering and Bioscience (IBB)
Single cell genomic profiling Co-PI with Melissa Kemp, GT
2 year, \$50,000 / yr 7/11 – 6/13
15. Childrens Healthcare of Atlanta Pediatric Medical Device Consortium
RNA-Seq profiling in support of in-time craniosynostosis intervention (with R. Olivares)
1 year, \$50,000 7/12 – 6/13
16. Children's Healthcare of Atlanta, Center for Cystic Fibrosis Research
Genome-wide gene expression profiling in CFRD 3/10 - 2/11
1 year, \$50,000 Co-PI with Arlene Stecenko, MD (Emory University)
17. Australian Research Council, Australian Professorial Fellowship DP0880204
Drosophila Quantitative Genomics
5 years, AUD \$1,015,754 (approx US \$900,000) 1/08 – 12/12
18. National Institutes of Health, Heart, Lung and Blood R01HL085481
Polygenic Basis of Cardiac Dysfunction in *Drosophila*.
5 years, \$1,250,000 total direct costs 1/08- 12/12
(Co-PI with R. Bodmer, Burham Institute, San Diego)
- 19a. National Institutes of Health, General Medical Sciences R01GM61600
Quantitative Genetic Analysis of Signal Transduction in *Drosophila*.

- 4 years, \$500,000 total direct costs 10/00 - 9/04
- 19b. National Institutes of Health, General Medical Sciences 2-R01GM61600
Quantitative Genetic Analysis of Signal Transduction in *Drosophila*.
4 years, \$600,000 total direct costs 4/05 - 3/09
20. National Institutes of Health, General Medical Sciences P01-GM45344
Quantitative Pharmacogenomics in *Drosophila*
5 years, \$425,000 total direct costs 12/00 - 11/05
21. National Science Foundation EF-0423641
A National Center for the Synthesis of Biological Evolution
5 years, \$15 million; Total Costs to NCSU \$1,500,000
(K. Smith, Duke, P.I.; Co-P.I. with J. Kingsolver, T. Vision at UNC)
(last 2 yrs of NCSU portion transferred to B. Wiegmann 11/2007)
22. David and Lucille Packard Foundation for Science and Engineering
Quantitative Developmental and Evolutionary Genetics
5 years, \$575,000 total direct costs 10/96 - 9/01
23. NC State Center for Comparative Medicine and Translational Research
Development of an illumina genotyping resource for pharmacogenetics of anti-epileptic response
in dogs. 1 year pilot, \$15,000 direct costs. 3/06 – 12/06
24. Canine Health Foundation of the American Kennel Club ACORN
Pharmacogenetics of Canine Epilepsy
1 year, \$12,000 11/07 – 10/08
25. Canine Health Foundation of the American Kennel Club
Genomics of Canine Brain Neoplasia
2 years, \$123,600, total costs 9/04 – 8/06
(M. Breen, NCSU-CVM, P.I.; Co-P.I. with N. Olby, NCSU-CVM)
26. National Institutes of Health, General Medical Sciences R24-GM65513
Quantitative genomics of sexual dimorphism
2 years, \$56,000 total direct costs to NCSU 4/02 - 8/03
(with 5 other groups; S. Nuzhdin at UC Davis, P.I.)
27. National Institutes of Health, National Institute of Aging R03
Microarray-based Analysis of Gene Expression in Aging *Drosophila*
1 year, \$50,000 total direct costs 9/99 - 8/00
28. North Carolina Affiliate of the American Heart Association
Quantitative Genetic Analysis of Heart Rate in *Drosophila*
2 years, \$110,000 total direct costs 5/98 - 4/00
29. March of Dimes Research Foundation, Basil O'Connor Award
Quantitative Genetic Analysis of Developmental Stability
2 years, \$80,000 total direct costs 8/96 - 7/98

PUBLISHED RESEARCH AND REVIEW PAPERS

140. Gibson G. (2018) Going to the negative: genomics for optimized medical prescription. *Nat Rev Genet.* In press.
139. Salazar-Noratto G, de Nijs N, Stevens HY, Gibson G, Gulberg RE (2018) Regional gene expression analysis of multiple tissues in an experimental animal model of post-traumatic osteoarthritis. *Osteoarthritis Cartilage* In press.
138. Nguyen DC, Garimalla S, Xiao H, Kyu S, Albizua I, Galipeau J, Chiang KY, Waller EK, Wu R, Gibson G, Roberson J, Lund FE, Randall TD, Sanz I, Lee FE. (2018) Factors of the bone marrow microniche that support human plasma cell survival and immunoglobulin secretion. *Nat Commun.* **9**: 3698. PMID: 30209264
137. Rojas-Peña ML, Duan M, Arafat D, Rengifo L, Herrera S, Arévalo-Herrera M, Gibson G. (2018) Individualized transcriptional resolution of complicated malaria in a Colombian study. *J Pers Med.* **8**: pii: E29. PMID: 30223463
136. Zeng B, Gibson G. (2018) PolyQTL: Bayesian multiple eQTL detection with control for population structure and sample relatedness. *Bioinformatics.* doi: 10.1093/bioinformatics/bty728. [Epub ahead of print] PMID: 30165584
135. Nagpal S, Gibson G, Marigorta UM. (2018) Pervasive modulation of obesity risk by the environment and genomic background. *Genes (Basel)* **9**. pii: E411. PMID: 30110940
134. Mo A, Marigorta UM, Arafat D, Chan LHK, Ponder L, Jang SR, Prince J, Kugathasan S, Prahalad S, Gibson G. (2018) Disease-specific regulation of gene expression in a comparative analysis of juvenile idiopathic arthritis and inflammatory bowel disease. *Genome Med.* **10**: 48. PMID: 29950172
133. Marigorta UM, Rodríguez JA, Gibson G, Navarro A. (2018) Replicability and Prediction: Lessons and Challenges from GWAS. *Trends Genet.* **34**: 504-517. PMID: 29716745
132. Zeng J, de Vlaming R, Wu Y, Robinson MR, Lloyd-Jones LR, Yengo L, Yap CX, Xue A, Sidorenko J, McRae AF, Powell JE, Montgomery GW, Metspalu A, Esko T, Gibson G, Wray NR, Visscher PM, Yang J. (2018) Signatures of negative selection in the genetic architecture of human complex traits. *Nat Genet.* **50**: 746-753. PMID: 29662166
131. Chinnadurai R, Rajan D, Qayed M, Arafat D, Garcia M, Liu Y, Kugathasan S, Anderson LJ, Gibson G, Galipeau J. (2018) Potency analysis of mesenchymal stromal cells using a combinatorial assay matrix approach. *Cell Rep.* **22**: 2504-2517. PMID: 29490284
130. Venkateswaran S, Prince J, Cutler DJ, Marigorta UM, Okou DT, Prahalad S, Mack D, Boyle B, Walters T, Griffiths A, Sauer CG, LeLeiko N, Keljo D, Markowitz J, Baker SS, Rosh J, Pfeifferkorn M, Heyman MB, Patel A, Otlej A, Baldassano R, Noe J, Rufo P, Oliva-Hemker M, Davis S, Zwick ME, Gibson G, Denson LA, Hyams J, Kugathasan S. (2018) Enhanced contribution of HLA in pediatric onset ulcerative colitis. *Inflamm Bowel Dis.* **24**: 829-838. PMID: 29562276
129. Marigorta UM, Denson LA, Hyams JS, Mondal K, Prince J, Walters TD, Griffiths A, Noe JD, Crandall W, Rosh J, Mack D, Kellermayer R, Heyman M, Baker S, Stephens M, Baldassano R, Markowitz J, Kim MO, Dubinsky MC, Cho J, Aronow B, Kugathasan S, Gibson G. (2017) Transcriptional risk scores link GWAS to eQTL and predict complications in Crohn's Disease. *Nature Genetics* **49**: 1517-1521. PMID: 28805827

128. Kugathasan S, Denson LA, Walters TD, Kim MO, Marigorta UM, Schirmer M, Mondal K, Liu C, Griffiths A, Noe J, Crandall W, Snapper S, Rabizadeh S, Rosh J, Shapiro J, Guthery S, Mack D, Kellermayer R, Kappelman M, Steiner S, Moulton D, Keljo D, Cohen S, Oliva-Hemker M, Heyman M, Otley A, Baker S, Evans J, Kirschner B, Patel A, Ziring D, Trapnell B, Sylvester F, Stephens M, Baldassano R, Markowitz J, Cho J, Xavier R, Huttenhower C, Aronow B, Gibson G, Hyams J, Dubinsky M. (2017) Prediction of complicated disease course for children newly diagnosed with Crohn's disease: a multicentre inception cohort study. *Lancet*. **389**: 1710-1718. PMID: 28259484
127. Lukowski SW, Lloyd-Jones LR, Holloway A, Kirsten H, Hemani G, Yang J, Small K, Zhao J, Metspalu A, Dermitzakis ET, Gibson G, Spector TD, Thiery J, Scholz M, Montgomery GW, Esko T, Visscher PM, Powell JE. (2017) Genetic correlations reveal the shared genetic architecture of transcription in human peripheral blood. *Nat Commun*. **8**: 483. PMID: 28883458
126. Zeng B, Lloyd-Jones LR, Holloway A, Marigorta UM, Metspalu A, Montgomery GW, Esko T, Brigham KL, Quyyumi AA, Idaghmour Y, Yang J, Visscher PM, Powell JE, Gibson G. (2017) Constraints on eQTL fine mapping in the presence of multi-site local regulation of gene expression. *G3 (Bethesda)*. **7**: 2533-2544. PMID: 28600440
125. Lloyd-Jones LR, Holloway A, McRae A, Yang J, Small K, Zhao J, Zeng B, Bakshi A, Metspalu A, Dermitzakis M, Gibson G, Spector T, Montgomery G, Esko T, Visscher PM, Powell JE. (2017) The genetic architecture of gene expression in peripheral blood. *Am J Hum Genet*. **100**: 228-237. PMID: 28157541
124. Chinnadurai R, Rajan D, Ng S, McCullough K, Arafat D, Waller EK, Anderson L, Gibson G, Galipeau J. (2017) Immune dysfunctionality of replicative senescent mesenchymal stromal cells is corrected by IFN γ priming. *Blood Adv*. **1**: 628-643. PMID: 28713871
123. Stenger EO, Chinnadurai R, Yuan S, Garcia M, Arafat D, Gibson G, Krishnamurti L, Galipeau J. (2017) Bone marrow-derived mesenchymal stromal cells from patients with sickle cell disease display intact functionality. *Biol Blood Marrow Transplant*. **23**: 736-745. PMID: 28132869
122. Williams DW, Gibson G. (2017) Individualization of pubic hair bacterial communities and the effects of storage time and temperature. *Forensic Sci Int Genet*. **26**: 12-20. PMID: 27744226
121. Kassam I, Lloyd-Jones L, Holloway A, Small KS, Zeng B, Bakshi A, Metspalu A, Gibson G, Spector TD, Esko T, Montgomery GW, Powell JE, Yang J, Visscher PM, McRae AF. (2016) Autosomal genetic control of human gene expression does not differ across the sexes. *Genome Biol*. **17**: 248. PMID: 27908293 PMCID: PMC5134098
120. Effects of a health-partner intervention on cardiovascular risk. (2016) Al Mheid I, Kelli HM, Ko YA, Hammadah M, Ahmed H, Hayek S, Vaccarino V, Ziegler TR, Gibson G, Lampl M, Alexander RW, Brigham K, Martin GS, Quyyumi AA. *J Am Heart Assoc*. **5** pii: e004217. PMID: 27729334 PMCID: PMC5121518
119. Paaby AB, Gibson G. (2016) Cryptic genetic variation in evolutionary developmental genetics. *Biology (Basel)*. **5** pii: E28. PMID: 27304973 PMCID: PMC4929542
118. Zhao J, Akinsanmi I, Arafat D, Cradick TJ, Lee CM, Banskota S, Marigorta UM, Bao G, Gibson G. (2016) A burden of rare variants associated with extremes of gene expression in human peripheral blood. *Am J Hum Genet*. **98**: 209-309. PMID: 26849112 PMCID: PMC4746369
117. Prasher B, Gibson G, Mukerji M. (2016) Genomic insights into ayurvedic and western approaches to personalized medicine. *J Genet*. **95**: 209-228. PMID: 27019453

116. Gibson G, Marigorta UM, Ojagbeghru ER, Park S. (2015) PART of the WHOLE: A Case Study in Wellness-Oriented Personalized Medicine. *Yale J Biol Med.* **88**: 397-406. PMID: 26604864
PMCID: PMC4654189
115. Tabassum R, Sivadas A, Agrawal V, Tian H, Arafat D, Gibson G. (2015) Omic personality: implications of stable transcript and methylation profiles for personalized medicine. *Genome Med.* **7**:88 PMID: 26391122
PMCID: PMC4578259
114. Wingo AP, Almlı LM, Stevens JJ, Klengel T, Uddin M, Li Y, Bustamante AC, Lori A, Koen N, Stein DJ, Smith AK, Aiello A, Koenen K, Wildman D, Galea S, Bradley B, Binder E, Jin P, Gibson G, Ressler KJ. (2015) DICER1 and microRNA regulation in post-traumatic stress disorder with comorbid depression. *Nat Commun.* **6**: 10106. PMID: 26632874 PMCID: PMC4686835
113. Rojas-Peña ML, Vallejo A, Herrera S, Gibson G, Arévalo-Herrera M. (2015) Transcription profiling of malaria-naïve and semi-immune Colombian volunteers in a *Plasmodium vivax* sporozoite challenge. *PLoS Negl Trop Dis.* **9**:e0003978. PMID: 26244760 PMCID: PMC4526565
112. Gibson G, Powell JE, Marigorta UM.(2015) Expression quantitative trait locus analysis for translational medicine. *Genome Med.* 2015 **7**: 60. PMID: 26110023 PMCID: PMC4479075
111. Ingersoll SA, Laval J, Forrest OA, Preininger M, Brown MR, Arafat D, Gibson G, Tangpricha V, Tirouvanziam R. (2015) Mature cystic fibrosis airway neutrophils suppress T cell function: evidence for a role of arginase 1 but not programmed death-ligand 1. *J Immunol.* **194**: 5520-5528. PMID: 25926674
PMCID: PMC4433848
110. Shehata BM, Cundiff CA, Lee K, Sabharwal A, Lalwani MK, Davis AK, Agrawal V, Sivasubbu S, Iannucci GJ, Gibson G. (2015) Exome sequencing of patients with histiocytoid cardiomyopathy reveals a de novo NDUFB11 mutation that plays a role in the pathogenesis of histiocytoid cardiomyopathy. *Am J Med Genet A.* **167**: 2114-2121. PMID: 25921236 NIHMS ID: 734425
109. Chinnadurai R, Copland IB, Ng S, Garcia M, Prasad M, Arafat D, Gibson G, Kugathasan S, Galipeau J. Mesenchymal stromal cells derived From Crohn's patients deploy Indoleamine 2,3-dioxygenase-mediated immune suppression, independent of autophagy. *Mol Ther.* **23**: 1248-1261. PMID: 25899824
108. Tabassum R, Cunningham L, Stephens EH, Sturdivant K, Martin GS, Brigham KL, Gibson G. (2015) A longitudinal study of health improvement in the Atlanta CHDWB wellness cohort. *J Pers Med.* **4**: 489-507. PMID: 25563459 PMCID: PMC4282885
107. Wingo AP, Gibson G. (2015) Blood gene expression profiles suggest altered immune function associated with symptoms of generalized anxiety disorder. *Brain Behav Immun.* **43**: 184-191. PMID: 25300922 PMCID: PMC4377320
106. Lee KJ, Yin W, Arafat D, Tang Y, Uppal K, Tran V, Cabrera-Mora M, Lapp S, Moreno A, Meyer E, DeBarry JD, Pakala S, Nayak V, Kissinger JC, Jones DP, Galinski M, Styczynski MP, Gibson G. (2014) Comparative transcriptomics and metabolomics in a rhesus macaque drug administration study. *Front Cell Dev Biol.* **2**: 54. PMID: 25453034
105. Marigorta UM, Gibson G. (2014) A simulation study of gene-by-environment interactions in GWAS implies ample hidden effects. *Front Genet.* **5**: 225. PMID: 25101110

104. Kippner LE, Kim J, Kemp ML, Gibson G. (2014) Single cell transcriptional analysis reveals novel innate immune cell types. *Peer J.*, **2**: e452. PMID: 25024920
103. Hemani G, Shakhbazov K, Westra HJ, Esko T, Henders AK, McRae AF, Yang J, Gibson G, Martin NG, Metspalu A, Franke L, Montgomery GW, Visscher PM, Powell JE. (2014) Detection and replication of epistasis influencing transcription in humans. *Nature* **508**: 249-253. PMID: 24572353
102. Gibson G. (2014) Wellness and health omics linked to the environment: the WHOLE approach to personalized medicine. *Adv Exp Med Biol.* **799**: 1-14. PMID: 24292959
101. Kim J, Ghasemzadeh N, Eapen D, Chung N, Storey JD, Quyyumi AA, Gibson G. (2014) Gene expression profiles associated with acute myocardial infarction and risk of cardiovascular death. *Genome Medicine* **6**:40. PMID: 24971157
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