

Stanford



Dennis Wall

Associate Professor of Pediatrics (Systems Medicine), of Biomedical Data Science and, by courtesy, of Psychiatry and Behavioral Sciences

Pediatrics - Systems Medicine

CONTACT INFORMATION

• Lab Contact

Heidi Chau - Administrator, Wall Lab

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Bio

BIO

Dr. Dennis P. Wall, PhD is Associate Professor of Pediatrics, Psychiatry and Biomedical Data Sciences at Stanford Medical School. He leads a lab in Pediatric Innovation focused on developing methods in biomedical informatics to disentangle complex conditions that originate in childhood and perpetuate through the life course, including autism and related developmental delays. For over a decade, first on faculty at Harvard and now at Stanford University, and as healthcare has shifted increasingly to the use of digital technologies for data capture and finer resolutions of genomic scale, Dr. Wall has innovated, adapted and deployed bioinformatic strategies to enable precise and personalized interpretation of high resolution molecular and phenotypic data. Dr. Wall has pioneered the use of machine learning and artificial intelligence for fast, quantitative and mobile detection of neurodevelopmental disorders in children, as well as the use of use of machine learning systems on wearable devices, such as Google Glass, for real-time "exclinical" therapy. These same precision health approaches enable quantitative tracking of progress during treatment throughout an individual's life enabling big data generation of a type and scale never before possible, and have defined a new paradigm for behavioral detection and therapy that has won Dr. Wall several awards including a spot in the top ten of the World's top 30 autism researchers. Dr. Wall has acted as science advisor to several biotechnology and pharmaceutical companies, has created and advised on cutting-edge approaches to cloud computing, and has received numerous awards, including the Fred R. Cagle Award for Outstanding Achievement in Biology, the Vice Chancellor's Award for Research, three awards for excellence in teaching, the Harvard Medical School Leadership award, and the Slifka/Ritvo Clinical Innovation in Autism Research Award for outstanding advancements in clinical translation. He completed his PhD at the University of California, Berkeley and a National Science Foundation postdoctoral fellowship in Computational Genetics at Stanford University before joining the faculty at Harvard Medical School.

ACADEMIC APPOINTMENTS

- Associate Professor, Pediatrics - Systems Medicine
- Associate Professor, Biomedical Data Science
- Associate Professor (By courtesy), Psychiatry and Behavioral Sciences
- Member, Bio-X
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Wu Tsai Neurosciences Institute

PROFESSIONAL EDUCATION

- Fellow, Stanford University , Bioinformatics and Computational Genetics (2003)

- Ph.D., University of California, Berkeley , Integrative Biology (2001)

LINKS

- Wall Lab Website: <http://wall-lab.stanford.edu/>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Systems biology for design of clinical solutions that detect and treat disease

Teaching

COURSES

2018-19

- Translational Bioinformatics: BIOE 217, BIOMEDIN 217, CS 275, GENE 217 (Win)
- Translational Bioinformatics Lectures: BIOMEDIN 218 (Win)

2017-18

- Translational Bioinformatics: BIOE 217, BIOMEDIN 217, CS 275 (Win)
- Translational Bioinformatics Lectures: BIOMEDIN 218 (Win)

2016-17

- Translational Bioinformatics: BIOE 217, BIOMEDIN 217, CS 275 (Win)
- Translational Bioinformatics: GENE 217 (Win)
- Translational Bioinformatics Lectures: BIOMEDIN 218 (Win)

2015-16

- Personalized Genomic Medicine: BIOS 234 (Spr)
- Translational Bioinformatics: BIOMEDIN 217, CS 275 (Win)
- Translational Bioinformatics: GENE 217 (Win)
- Translational Bioinformatics Lectures: BIOMEDIN 218 (Win)

STANFORD ADVISEES

Med Scholar Project Advisor

Michelle Han

Postdoctoral Faculty Sponsor

Nick Haber, Haik Kalantarian

Doctoral Dissertation Advisor (AC)

Peter Washington

Doctoral (Program)

Adam Lavertu, Minh Nguyen, Guhan Venkataraman

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Biology (School of Humanities and Sciences) (Phd Program)
- Biomedical Informatics (Phd Program)

- Biomedical Informatics (Masters Program)

Publications

PUBLICATIONS

- **Effect of Wearable Digital Intervention for Improving Socialization in Children With Autism Spectrum Disorder: A Randomized Clinical Trial.** *JAMA pediatrics*
Voss, C., Schwartz, J., Daniels, J., Kline, A., Haber, N., Washington, P., Tariq, Q., Robinson, T. N., Desai, M., Phillips, J. M., Feinstein, C., Winograd, T., Wall, et al
2019
- **Coalitional Game Theory Facilitates Identification of Non-Coding Variants Associated With Autism.** *Biomedical informatics insights*
Sun, M. W., Gupta, A., Varma, M., Paskov, K. M., Jung, J., Stockham, N. T., Wall, D. P.
2019; 11: 1178222619832859
- **Detecting Developmental Delay and Autism Through Machine Learning Models Using Home Videos of Bangladeshi Children: Development and Validation Study.** *Journal of medical Internet research*
Tariq, Q., Fleming, S. L., Schwartz, J. N., Dunlap, K., Corbin, C., Washington, P., Kalantarian, H., Khan, N. Z., Darmstadt, G. L., Wall, D. P.
2019; 21 (4): e13822
- **Outgroup Machine Learning Approach Identifies Single Nucleotide Variants in Noncoding DNA Associated with Autism Spectrum Disorder**
Varma, M., Paskov, K., Jung, J., Chrisman, B., Stockham, N., Washington, P., Wall, D., Altman, R. B., Dunker, A. K., Hunter, L., Ritchie, M. D., Murray, T., Klein, et al
WORLD SCIENTIFIC PUBL CO PTE LTD.2019: 260–71
- **Outgroup Machine Learning Approach Identifies Single Nucleotide Variants in Noncoding DNA Associated with Autism Spectrum Disorder.** *Pacific Symposium on Biocomputing. Pacific Symposium on Biocomputing*
Varma, M., Paskov, K. M., Jung, J., Sierra Chrisman, B., Stockham, N. T., Washington, P. Y., Wall, D. P.
2019; 24: 260–71
- **Mobile detection of autism through machine learning on home video: A development and prospective validation study.** *PLoS medicine*
Tariq, Q., Daniels, J., Schwartz, J. N., Washington, P., Kalantarian, H., Wall, D. P.
2018; 15 (11): e1002705
- **Exploratory study examining the at-home feasibility of a wearable tool for social-affective learning in children with autism** *NPJ DIGITAL MEDICINE*
Daniels, J., Schwartz, J. N., Voss, C., Haber, N., Fazel, A., Kline, A., Washington, P., Feinstein, C., Winograd, T., Wall, D. P.
2018; 1
- **Machine learning approach for early detection of autism by combining questionnaire and home video screening** *JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION*
Abbas, H., Garberson, F., Glover, E., Wall, D. P.
2018; 25 (8): 1000–1007
- **Brain-specific functional relationship networks inform autism spectrum disorder gene prediction** *TRANSLATIONAL PSYCHIATRY*
Duda, M., Zhang, H., Li, H., Wall, D. P., Burmeister, M., Guan, Y.
2018; 8: 56
- **Feasibility Testing of a Wearable Behavioral Aid for Social Learning in Children with Autism** *APPLIED CLINICAL INFORMATICS*
Daniels, J., Haber, N., Voss, C., Schwartz, J., Tamura, S., Fazel, A., Kline, A., Washington, P., Phillips, J., Winograd, T., Feinstein, C., Wall, D. P.
2018; 9 (1): 129–40
- **Coalitional game theory as a promising approach to identify candidate autism genes**
Gupta, A., Sun, M., Paskov, K., Stockham, N., Jung, J., Wall, D., Altman, R. B., Dunker, A. K., Hunter, L., Ritchie, M. D., Murray, T., Klein, T. E.
WORLD SCIENTIFIC PUBL CO PTE LTD.2018: 436–47
- **Analysis of Sex and Recurrence Ratios in Simplex and Multiplex Autism Spectrum Disorder Implicates Sex-Specific Alleles as Inheritance Mechanism**
Chrisman, B., Varma, M., Washington, P., Paskov, K., Stockham, N., Jung, J., Wall, D. P., Zheng, H., Callejas, Z., Griol, D., Wang, H., Hu, Schmidt, H., et al
IEEE.2018: 1470–77

- **A Low Rank Model for Phenotype Imputation in Autism Spectrum Disorder.** *AMIA Joint Summits on Translational Science proceedings. AMIA Joint Summits on Translational Science*
Paskov, K. M., Wall, D. P.
2018; 2017: 178–87
- **Sparsifying machine learning models identify stable subsets of predictive features for behavioral detection of autism** *MOLECULAR AUTISM*
Levy, S., Duda, M., Haber, N., Wall, D. P.
2017; 8: 65
- **The GapMap project: a mobile surveillance system to map diagnosed autism cases and gaps in autism services globally** *MOLECULAR AUTISM*
Daniels, J., Schwartz, J., Albert, N., Du, M., Wall, D. P.
2017; 8: 55
- **Human Genome Sequencing at the Population Scale: A Primer on High-Throughput DNA Sequencing and Analysis** *AMERICAN JOURNAL OF EPIDEMIOLOGY*
Goldfeder, R. L., Wall, D. P., Khoury, M. J., Ioannidis, J. A., Ashley, E. A.
2017; 186 (8): 1000–1009
- **ONE IN THREE DE NOVO VARIANTS SEEN IN AUTISM SPECTRUM DISORDER PROBANDS ARE PRESENT AS STANDING VARIATION IN A COHORT OF MORE THAN 60,000 NON-ASD INDIVIDUALS**
Kosmicki, J., Samocha, K., Lek, M., MacArthur, D., Wall, D., Robinson, E., Daly, M.
ELSEVIER SCIENCE BV.2017: S280–S281
- **Crowdsourced validation of a machine-learning classification system for autism and ADHD.** *Translational psychiatry*
Duda, M., Haber, N., Daniels, J., Wall, D. P.
2017; 7 (5)
- **Cross-disorder comparative analysis of comorbid conditions reveals novel autism candidate genes** *BMC GENOMICS*
Diaz-Beltran, L., Esteban, F. J., Varma, M., Ortuzk, A., David, M., Wall, D. P.
2017; 18
- **Refining the role of de novo protein-truncating variants in neurodevelopmental disorders by using population reference samples.** *Nature genetics*
Kosmicki, J. A., Samocha, K. E., Howrigan, D. P., Sanders, S. J., Slowikowski, K., Lek, M., Karczewski, K. J., Cutler, D. J., Devlin, B., Roeder, K., Buxbaum, J. D., Neale, B. M., MacArthur, et al
2017
- **MC-GenomeKey: a multicloud system for the detection and annotation of genomic variants.** *BMC bioinformatics*
Elshazly, H., Souilmi, Y., Tonellato, P. J., Wall, D. P., Abouelhoda, M.
2017; 18 (1): 49-?
- **Machine learning for early detection of autism (and other conditions) using a parental questionnaire and home video screening**
Abbas, H., Garberson, F., Glover, E., Wall, D. P., Nie, J. Y., Obradovic, Z., Suzumura, T., Ghosh, R., Nambiar, R., Wang, C., Zang, H., BaezaYates, R., Hu, et al
IEEE.2017: 3558–61
- **Can we accelerate autism discoveries through crowdsourcing?** *RESEARCH IN AUTISM SPECTRUM DISORDERS*
David, M. M., Babineau, B. A., Wall, D. P.
2016; 32: 80-83
- **Comorbid Analysis of Genes Associated with Autism Spectrum Disorders Reveals Differential Evolutionary Constraints** *PLOS ONE*
David, M. M., Enard, D., Ozturk, A., Daniels, J., Jung, J., Diaz-Beltran, L., Wall, D. P.
2016; 11 (7)
- **Clinical Evaluation of a Novel and Mobile Autism Risk Assessment** *JOURNAL OF AUTISM AND DEVELOPMENTAL DISORDERS*
Duda, M., Daniels, J., Wall, D. P.
2016; 46 (6): 1953-1961
- **Automated integration of continuous glucose monitor data in the electronic health record using consumer technology.** *Journal of the American Medical Informatics Association*
Kumar, R. B., Goren, N. D., Stark, D. E., Wall, D. P., Longhurst, C. A.
2016; 23 (3): 532-537

- **Characterisation of agricultural drainage ditch sediments along the phosphorus transfer continuum in two contrasting headwater catchments** *JOURNAL OF SOILS AND SEDIMENTS*
Shore, M., Jordan, P., Mellander, P., Kelly-Quinn, M., Daly, K., Sims, J. T., Wall, D. P., Melland, A. R.
2016; 16 (5): 1643-1654
- **A research roadmap for next-generation sequencing informatics** *SCIENCE TRANSLATIONAL MEDICINE*
Altman, R. B., Prabhu, S., Sidow, A., Zook, J. M., Goldfeder, R., Litwack, D., Ashley, E., Asiminos, G., Bustamante, C. D., Donigan, K., Giacomini, K. M., Johansen, E., Khuri, et al
2016; 8 (335)
- **A Complex Systems Approach to Causal Discovery in Psychiatry** *PLOS ONE*
Saxe, G. N., Statnikov, A., Fenyo, D., Ren, J., Li, Z., Prasad, M., Wall, D., Bergman, N., Briggs, E. C., Aliferis, C.
2016; 11 (3)
- **A common molecular signature in ASD gene expression: following Root 66 to autism** *TRANSLATIONAL PSYCHIATRY*
Diaz-Beltran, L., Esteban, F. J., Wall, D. P.
2016; 6
- **The Quantified Brain: A Framework for Mobile Device-Based Assessment of Behavior and Neurological Function.** *Applied clinical informatics*
Stark, D. E., Kumar, R. B., Longhurst, C. A., Wall, D. P.
2016; 7 (2): 290-98
- **A Practical Approach to Real-Time Neutral Feature Subtraction for Facial Expression Recognition**
Haber, N., Voss, C., Fazel, A., Winograd, T., Wall, D. P., IEEE
IEEE.2016
- **DE NOVO MUTATIONS IN AUTISM IMPLICATE THE SYNAPTIC ELIMINATION NETWORK.** *Pacific Symposium on Biocomputing. Pacific Symposium on Biocomputing*
Ram Venkataraman, G., O'Connell, C., Egawa, F., Kashef-Haghighi, D., Wall, D. P.
2016; 22: 521-532
- **Use of machine learning for behavioral distinction of autism and ADHD.** *Translational psychiatry*
Duda, M., Ma, R., Haber, N., Wall, D. P.
2016; 6
- **Identification of Human Neuronal Protein Complexes Reveals Biochemical Activities and Convergent Mechanisms of Action in Autism Spectrum Disorders.** *Cell systems*
Li, J., Ma, Z., Shi, M., Maly, R. H., Aoki, H., Minic, Z., Phanse, S., Jin, K., Wall, D. P., Zhang, Z., Urban, A. E., Hallmayer, J., Babu, et al
2015; 1 (5): 361-374
- **Identification of Human Neuronal Protein Complexes Reveals Biochemical Activities and Convergent Mechanisms of Action in Autism Spectrum Disorders** *CELL SYSTEMS*
Li, J., Ma, Z., Shi, M., Maly, R. H., Aoki, H., Minic, Z., Phanse, S., Jin, K., Wall, D. P., Zhang, Z., Urban, A. E., Hallmayer, J., Babu, et al
2015; 1 (5): 361-374
- **Scalable and cost-effective NGS genotyping in the cloud** *BMC MEDICAL GENOMICS*
Souilmi, Y., Lancaster, A. K., Jung, J., Rizzo, E., Hawkins, J. B., Powles, R., Amzazi, S., Ghazal, H., Tonellato, P. J., Wall, D. P.
2015; 8
- **A transgenic resource for conditional competitive inhibition of conserved Drosophila microRNAs** *NATURE COMMUNICATIONS*
Fulga, T. A., McNeill, E. M., Binari, R., Yelick, J., Blanche, A., Booker, M., Steinkraus, B. R., Schnell-Levin, M., Zhao, Y., Deluca, T., Bejarano, F., Han, Z., Lai, et al
2015; 6
- **Searching for a minimal set of behaviors for autism detection through feature selection-based machine learning** *TRANSLATIONAL PSYCHIATRY*
Kosmicki, J. A., Sochat, V., Duda, M., Wall, D. P.
2015; 5
- **COSMOS: cloud enabled NGS analysis**
Souilmi, Y., Jung, J., Lancaster, A., Gafni, E., Amzazi, S., Ghazal, H., Wall, D., Tonellato, P.

BIOMED CENTRAL LTD.2015

- **Rising interdisciplinary collaborations refine our understanding of autisms and give hope to more personalized solutions** *PERSONALIZED MEDICINE*
Duda, M., Wall, D. P.
2015; 12 (4): 359-369
- **Translational Meta-analytical Methods to Localize the Regulatory Patterns of Neurological Disorders in the Human Brain.** *AMIA ... Annual Symposium proceedings / AMIA Symposium. AMIA Symposium*
Sochat, V., David, M., Wall, D. P.
2015; 2015: 2073-2082
- **Testing the accuracy of an observation-based classifier for rapid detection of autism risk.** *Translational psychiatry*
Duda, M., Kosmicki, J. A., Wall, D. P.
2015; 5
- **COSMOS: Python library for massively parallel workflows** *BIOINFORMATICS*
Gafni, E., Luquette, L. J., Lancaster, A. K., Hawkins, J. B., Jung, J., Souilmi, Y., Wall, D. P., Tonellato, P. J.
2014; 30 (20): 2956-2958
- **A framework for the interpretation of de novo mutation in human disease** *NATURE GENETICS*
Samocha, K. E., Robinson, E. B., Sanders, S. J., Stevens, C., Sabo, A., McGrath, L. M., Kosmicki, J. A., Rehnstrom, K., Mallick, S., Kirby, A., Wall, D. P., MacArthur, D. G., Gabriel, et al
2014; 46 (9): 944-?
- **Evaluating the critical source area concept of phosphorus loss from soils to water-bodies in agricultural catchments.** *The Science of the total environment*
Shore, M., Jordan, P., Mellander, P., Kelly-Quinn, M., Wall, D. P., Murphy, P. N., Melland, A. R.
2014; 490: 405-415
- **A literature search tool for intelligent extraction of disease-associated genes** *JOURNAL OF THE AMERICAN MEDICAL INFORMATICS ASSOCIATION*
Jung, J., DeLuca, T. F., Nelson, T. H., Wall, D. P.
2014; 21 (3): 399-405
- **The Potential of Accelerating Early Detection of Autism through Content Analysis of YouTube Videos.** *PloS one*
Fusaro, V. A., Daniels, J., Duda, M., DeLuca, T. F., D'Angelo, O., Tamburello, J., Maniscalco, J., Wall, D. P.
2014; 9 (4)
- **Testing the accuracy of an observation-based classifier for rapid detection of autism risk.** *Translational psychiatry*
Duda, M., Kosmicki, J. A., Wall, D. P.
2014; 4
- **Responding to a Diagnosis of Localized Prostate Cancer Men's Experiences of Normal Distress During the First 3 Postdiagnostic Months** *CANCER NURSING*
Wall, D. P., Kristjanson, L. J., Fisher, C., Boldy, D., Kendall, G. E.
2013; 36 (6): E44-E50
- **Quantification of Phosphorus Transport from a Karstic Agricultural Watershed to Emerging Spring Water** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Mellander, P., Jordan, P., Melland, A. R., Murphy, P. N., Wall, D. P., Mechan, S., Meehan, R., Kelly, C., Shine, O., Shortle, G.
2013; 47 (12): 6111-6119
- **Systems biology as a comparative approach to understand complex gene expression in neurological diseases.** *Behavioral sciences (Basel, Switzerland)*
Diaz-Beltran, L., Cano, C., Wall, D. P., Esteban, F. J.
2013; 3 (2): 253-272
- **Haplotype structure enables prioritization of common markers and candidate genes in autism spectrum disorder** *TRANSLATIONAL PSYCHIATRY*
Vardarajan, B. N., Eran, A., Jung, J., KUNKEL, L. M., Wall, D. P.
2013; 3
- **Genomics-Informed Pathology** *SCIENTIST*
Wall, D. P., Tonellato, P. J.
2013; 27 (1): 22-23

- **Autworks: a cross-disease analysis application for Autism and related disorders.** *AMIA Joint Summits on Translational Science proceedings. AMIA Joint Summits on Translational Science*
Wall, D.
2013; 2013: 42–43
- **Genetic Networks of Complex Disorders: from a Novel Search Engine for PubMed Article Database.** *AMIA Joint Summits on Translational Science proceedings AMIA Summit on Translational Science*
Jung, J., Wall, D. P.
2013; 2013: 99-?
- **Streaming Support for Data Intensive Cloud-Based Sequence Analysis** *BIOMED RESEARCH INTERNATIONAL*
Issa, S. A., Kienzler, R., El-Kalioby, M., Tonellato, P. J., Wall, D., Bruggmann, R., Abouelhoda, M.
2013
- **Personalized cloud-based bioinformatics services for research and education: use cases and the elasticHPC package** *Asia Pacific Bioinformatics Network (APBioNet) 11th International Conference on Bioinformatics (InCoB)*
El-Kalioby, M., Abouelhoda, M., Krueger, J., Giegerich, R., Sczyrba, A., Wall, D. P., Tonellato, P.
BIOMED CENTRAL LTD.2012
- **Autworks: a cross-disease network biology application for Autism and related disorders** *BMC MEDICAL GENOMICS*
Nelson, T. H., Jung, J., DeLuca, T. F., Hinebaugh, B. K., St Gabriel, K. C., Wall, D. P.
2012; 5
- **Cross-pollination of research findings, although uncommon, may accelerate discovery of human disease genes** *BMC MEDICAL GENETICS*
Duda, M., Nelson, T., Wall, D. P.
2012; 13
- **Use of Artificial Intelligence to Shorten the Behavioral Diagnosis of Autism** *PLOS ONE*
Wall, D. P., Dally, R., Luyster, R., Jung, J., DeLuca, T. F.
2012; 7 (8)
- **Delivery and impact bypass in a karst aquifer with high phosphorus source and pathway potential** *WATER RESEARCH*
Mellander, P., Jordan, P., Wall, D. P., Melland, A. R., Meehan, R., Kelly, C., Shortle, G.
2012; 46 (7): 2225-2236
- **Deriving clinical action from whole-genome analysis** *PERSONALIZED MEDICINE*
Wall, D. P., Tonellato, P. J.
2012; 9 (3): 247–52
- **Systems analysis of inflammatory bowel disease based on comprehensive gene information** *BMC MEDICAL GENETICS*
Suzuki, S., Takai-Igarashi, T., Fukuoka, Y., Wall, D. P., Tanaka, H., Tonellato, P. J.
2012; 13
- **Use of machine learning to shorten observation-based screening and diagnosis of autism** *TRANSLATIONAL PSYCHIATRY*
Wall, D. P., Kosmicki, J., DeLuca, T. F., Harstad, E., Fusaro, V. A.
2012; 2
- **Roundup 2.0: enabling comparative genomics for over 1800 genomes** *BIOINFORMATICS*
DeLuca, T. F., Cui, J., Jung, J., Gabriel, K. C., Wall, D. P.
2012; 28 (5): 715-716
- **Cloud Computing for Comparative Genomics with Windows Azure Platform** *EVOLUTIONARY BIOINFORMATICS*
Kim, I., Jung, J., DeLuca, T. F., Nelson, T. H., Wall, D. P.
2012; 8: 527-534
- **The future of genomics in pathology.** *F1000 medicine reports*
Wall, D. P., Tonellato, P. J.
2012; 4: 14-?
- **Phylogenetically informed logic relationships improve detection of biological network organization** *BMC BIOINFORMATICS*

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- Cui, J., DeLuca, T. F., Jung, J., Wall, D. P.
2011; 12
- **Identification of autoimmune gene signatures in autism** *TRANSLATIONAL PSYCHIATRY*
Jung, J., Kohane, I. S., Wall, D. P.
2011; 1
 - **Detecting biological network organization and functional gene orthologs** *BIOINFORMATICS*
Cui, J., DeLuca, T. F., Jung, J., Wall, D. P.
2011; 27 (20): 2919-2920
 - **Biomedical Cloud Computing With Amazon Web Services** *PLOS COMPUTATIONAL BIOLOGY*
Fusaro, V. A., Patil, P., Gafni, E., Wall, D. P., Tonellato, P. J.
2011; 7 (8)
 - **Using game theory to detect genes involved in Autism Spectrum Disorder** *TOP*
Esteban, F. J., Wall, D. P.
2011; 19 (1): 121-129
 - **The semantic organization of the animal category: evidence from semantic verbal fluency and network theory** *COGNITIVE PROCESSING*
Goni, J., Arrondo, G., Sepulcre, J., Martincorena, I., Velez de Mendizabal, N., Corominas-Murtra, B., Bejarano, B., Ardanza-Trevijano, S., Peraita, H., Wall, D. P., Villoslada, P.
2011; 12 (2): 183-196
 - **Genotator: A disease-agnostic tool for genetic annotation of disease** *BMC MEDICAL GENOMICS*
Wall, D. P., Pivovarov, R., Tong, M., Jung, J., Fusaro, V. A., DeLuca, T. F., Tonellato, P. J.
2010; 3
 - **Cloud computing for comparative genomics** *BMC BIOINFORMATICS*
Wall, D. P., Kudtarkar, P., Fusaro, V. A., Pivovarov, R., Patil, P., Tonellato, P. J.
2010; 11
 - **Cost-Effective Cloud Computing: A Case Study Using the Comparative Genomics Tool, Roundup** *EVOLUTIONARY BIOINFORMATICS*
Kudtarkar, P., DeLuca, T. F., Fusaro, V. A., Tonellato, P. J., Wall, D. P.
2010; 6: 197-203
 - **Collaborative text-annotation resource for disease-centered relation extraction from biomedical text** *JOURNAL OF BIOMEDICAL INFORMATICS*
Cano, C., Monaghan, T., Blanco, A., Wall, D. P., Peshkin, L.
2009; 42 (5): 967-977
 - **Reply to the "Letter to the Editors" by Steven Buyske** *NEUROGENETICS*
Abu-Elneel, K., Liu, T., Gazzaniga, F. S., Nishimura, Y., Wall, D. P., Geschwind, D. H., Lao, K., Kosik, K. S.
2009; 10 (2): 169-70
 - **Comparative analysis of neurological disorders focuses genome-wide search for autism genes** *GENOMICS*
Wall, D. P., Esteban, F. J., DeLuca, T. F., Huyck, M., Monaghan, T., de Mendizabal, N. V., Goni, J., Kohane, I. S.
2009; 93 (2): 120-129
 - **Heterogeneous dysregulation of microRNAs across the autism spectrum** *NEUROGENETICS*
Abu-Elneel, K., Liu, T., Gazzaniga, F. S., Nishimura, Y., Wall, D. P., Geschwind, D. H., Lao, K., Kosik, K. S.
2008; 9 (3): 153-161
 - **Testing the Accuracy of Eukaryotic Phylogenetic Profiles for Prediction of Biological Function** *EVOLUTIONARY BIOINFORMATICS*
Singh, S., Wall, D. P.
2008; 4: 217-223
 - **Ortholog detection using the reciprocal smallest distance algorithm.** *Methods in molecular biology (Clifton, N.J.)*
Wall, D. P., DeLuca, T.
2007; 396: 95-110

- **Roundup: a multi-genome repository of orthologs and evolutionary distances** *BIOINFORMATICS*
DeLuca, T. F., Wu, I., Pu, J., Monaghan, T., Peshkin, L., Singh, S., Wall, D. P.
2006; 22 (16): 2044-2046
- **Heparan sulfate proteoglycans and the emergence of neuronal connectivity** *CURRENT OPINION IN NEUROBIOLOGY*
Van Vactor, D., Wall, D. P., Johnson, K. G.
2006; 16 (1): 40-51
- **The role of selection in the evolution of human mitochondrial genomes** *GENETICS*
Kivisild, T., Shen, P. D., Wall, D. P., Do, B., Sung, R., Davis, K., Passarino, G., Underhill, P. A., Scharfe, C., Torroni, A., Scozzari, R., Modiano, D., Coppa, et al
2006; 172 (1): 373-387
- **Converging on a general model of protein evolution** *TRENDS IN BIOTECHNOLOGY*
Herbeck, J. T., Wall, D. P.
2005; 23 (10): 485-487
- **Origin and rapid diversification of a tropical moss** *EVOLUTION*
Wall, D. P.
2005; 59 (7): 1413-1424
- **Functional genomic analysis of the rates of protein evolution** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Wall, D. P., Hirsh, A. E., Fraser, H. B., Kumm, J., Giaever, G., Eisen, M. B., Feldman, M. W.
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