

## Curriculum Vitae

Judith Anne Blake, Ph.D.

**Position:** Professor  
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My research program focuses on functional and comparative genomics particularly in regards to approaches for integrating experimental data with existing knowledge to advance biomedical research. This research involves extensive development and application of semantic strategies for computational data integration including the development of ontologies, *i.e.*, formal structures that describe the state of knowledge in a computable form that is consistent under rigorous logical validation. A major accomplishment of my research program is the design and development of the Gene Ontology (GO), one of the cornerstones of modern computational biology (*Nature Genetics* 25:25-29, 2000; *PLoS Computational Biology*, 5(7):e1000431, 2009; *Nucleic Acids Research* 43:D1049-D1056, 2015). I am one of the founders and Principal Investigators of the GO. As well, I am one of the Principal Investigators of the Mouse Genome Informatics Consortium, a comprehensive knowledgebase of genetic, genomic, and biological data that powers the translation of mouse experimental data to models for understanding human biology and disease (*Nucleic Acid Research* 42:D810-817, 2014). Other highlights include early use of high-throughput DNA sequencing for the discovery of novel human genes (*Nature* 377:3-174, 1995), annotating one of the first complete genomes of cellular organisms (*Science* 273:1058-1073, 1996), and genome-scale assessment of transcriptional diversity and dynamics in the mouse genome (*Nature* 409:685-690, 2001; *Nature* 420: 563-573, 2002; *Nature* 507:462-470, 2014). Recent research initiatives in my research group include ontology-based molecular signatures by gene expression analysis (*BMC Bioinformatics* 14:263, 2013), and new methodologies for semantic inference of gene function (*BMC Bioinformatics* 15:405, 2014).

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**EDUCATION****Ph.D. in Biology (1981)**

Harvard University, Cambridge, MA.  
Thesis Advisor: Ernest E. Williams, Ph.D.

**M.A. in Biology (1978)**

Harvard University, Cambridge, MA.

**B.A. in Biology (1974)**

University of Connecticut, Storrs, CT.  
Magna cum laude with High Honors in Biology  
Honors Advisor: Hallie M. Krider, Ph.D.

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**POSITIONS****Professor (2015 – present)**

The Jackson Laboratory, Bar Harbor, ME

**Associate Professor (2007-2015)**

The Jackson Laboratory, Bar Harbor, ME

**Faculty: Institute for Systems Genomics (2014-present)**

University of Connecticut and the Jackson Laboratory, Farmington CT

**Visiting Faculty: University of Colorado School of Medicine (2013-present)**

University of Colorado: Anschutz Medical Campus, Aurora, CO

**Faculty: Sackler School of Graduate Biomedical Sciences (2012-present)**

Tufts University, Boston, MA

**Associate Professor of Medicine (clinical appointment) (2011-present)**

Tufts School of Medicine: Department of Medicine, Boston, MA

**Graduate Faculty: Graduate School of Biomedical Sciences (2002-present)**

University of Maine, Orono, ME

**Assistant Professor (2002-2007)**

The Jackson Laboratory, Bar Harbor, ME

**Research Scientist (1996-2002)**

Mouse Genome Informatics

The Jackson Laboratory, Bar Harbor, ME

**Research Staff (1993-1996)**

Molecular Systematics Laboratory,

Dept. of Genome Informatics,

The Institute for Genomic Research (TIGR), Gaithersburg, MD.

**Scientific Program Administrator (1991-1993)**

Laboratory of Molecular Systematics, Natural History Museum

Smithsonian Institution, Washington, D.C.

**Biological Support Staff (1989-1991)**

Laboratory of Molecular Systematics, Natural History Museum

Smithsonian Institution, Washington, D.C.

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**PUBLICATIONS (98 listed below)*****Peer-Reviewed Publications:***

Howe DG, **Blake JA**, Bradford YM, Bult CJ, Calvi BR, Engel SR, Kadin JA, Kaufman TC, Kishore R, Lauderkind SJF, Lewis SE, Moxon SAT, Richardson JE, Smith C. Model organism data evolving in support of translational medicine. *Lab Anim (NY)*. 2018 Sep 17. doi: 10.1038/s41684-018-0150-4. [Epub ahead of print] Review. PubMed PMID: 30224793.

Sensing the cilium, digital capture of ciliary data for comparative genomics investigations  
Karen R. Christie and **Judith A. Blake**. *Cilia* 2018 (7:3). PubMed:PMID: [29713460](#)  
PMCID:[PMC5907423](#)

Lovering RC, Roncaglia P, Howe DG, Lauderkind SJF, Khodiyar VK, Berardini TZ, Tweedie S, Foulger RE, Osumi-Sutherland D, Campbell NH, Huntley RP, Talmud PJ, **Blake JA**, Breckenridge R, Riley PR, Lambiase PD, Elliott PM, Clapp L, Tinker A, Hill DP. Improving Interpretation of Cardiac Phenotypes and Enhancing Discovery With Expanded Knowledge in the Gene Ontology. *Circulation. Genomic and precision medicine*. 2018; 11(2):e001813. NIHMSID: NIHMS929739 PubMed [journal] PMID: 29440116, PMCID: PMC5821137

Smith CL, **Blake JA**, Kadin JA, Richardson JE, Bult CJ. Mouse Genome Database

(MGD)-2018: knowledgebase for the laboratory mouse. *Nucleic acids research*. 2018; 46(D1):D836-D842. PubMed [journal] PMID: 29092072, PMCID: PMC5753350

Forslund K, Pereira C, Capella-Gutierrez S, Sousa da Silva A, Altenhoff A, Huerta-Cepas J, Muffato M, Patricio M, Vandepoele K, Ebersberger I, **Blake JA**, Fernández Breis JT, Boeckmann B, Gabaldón T, Sonnhammer E, Dessimoz C, Lewis S. Gearing up to handle the mosaic nature of life in the quest for orthologs. *Bioinformatics (Oxford, England)*. 2017; PubMed [journal] PMID: 28968857, PMCID: PMC5860199

**Blake JA**, Eppig JT, Kadin JA, Richardson JE, Smith CL, Bult CJ. Mouse Genome Database (MGD)-2017: community knowledge resource for the laboratory mouse. *Nucleic acids research*. 2017; 45(D1):D723-D729. PubMed [journal] PMID: 27899570, PMCID: PMC5210536

Natale DA, Arighi CN, **Blake JA**, Bona J, Chen C, Chen SC, Christie KR, Cowart J, D'Eustachio P, Diehl AD, Drabkin HJ, Duncan WD, Huang H, Ren J, Ross K, Ruttenberg A, Shamovsky V, Smith B, Wang Q, Zhang J, El-Sayed A, Wu CH. Protein Ontology (PRO): enhancing and scaling up the representation of protein entities. *Nucleic acids research*. 2017; 45(D1):D339-D346. PubMed [journal] PMID: 27899649, PMCID: PMC5210558

Gene Ontology Consortium. Expansion of the Gene Ontology knowledgebase and resources. *Nucleic acids research*. 2017; 45(D1):D331-D338. PubMed [journal] PMID: 27899567, PMCID: PMC5210579

Jiang X, Ringwald M, **Blake JA**, Shatkay H. Effective biomedical document classification for identifying publications relevant to the mouse Gene Expression Database (GXD). *Database : the journal of biological databases and curation*. 2017; 2017(1). PubMed [journal] PMID: 28365740, PMCID: PMC5467553

Eppig JT, Smith CL, **Blake JA**, Ringwald M, Kadin JA, Richardson JE, Bult CJ. Mouse Genome Informatics (MGI): Resources for Mining Mouse Genetic, Genomic, and Biological Data in Support of Primary and Translational Research. *Methods in molecular biology (Clifton, N.J.)*. 2017; 1488:47-73. PubMed [journal] PMID: 27933520

Diehl AD, Meehan TF, Bradford YM, Brush MH, Dahdul WM, Dougall DS, He Y, Osumi-Sutherland D, Ruttenberg A, Sarntivijai S, Van Slyke CE, Vasilevsky NA, Haendel MA, **Blake JA**, Mungall CJ. The Cell Ontology 2016: enhanced content, modularization, and ontology interoperability. *Journal of biomedical semantics*. 2016; 7(1):44. PubMed [journal] PMID: 27377652, PMCID: PMC4932724

Bult CJ, Eppig JT, **Blake JA**, Kadin JA, Richardson JE. Mouse genome database 2016. *Nucleic acids research*. 2016; 44(D1):D840-7. PubMed [journal] PMID: 26578600, PMCID: PMC4702860

Huang J, Gutierrez F, Strachan HJ, Dou D, Huang W, Smith B, **Blake JA**, Eilbeck K, Natale DA, Lin Y, Wu B, Silva Nd, Wang X, Liu Z, Borchert GM, Tan M, Ruttenberg

A. OmniSearch: a semantic search system based on the Ontology for MicroRNA Target (OMIT) for microRNA-target gene interaction data. *Journal of biomedical semantics*. 2016; 7:25. PubMed [journal] PMID: 27175225, PMCID: PMC4863347

Tripathi S, Vercruyssen S, Chawla K, Christie KR, **Blake JA**, Huntley RP, Orchard S, Hermjakob H, Thommesen L, Lægreid A, Kuiper M. Gene regulation knowledge commons: community action takes care of DNA binding transcription factors. *Database : the journal of biological databases and curation*. 2016; 2016. PubMed [journal] PMID: 27270715, PMCID: PMC4911790

Hill DP, D'Eustachio P, Berardini TZ, Mungall CJ, Renedo N, **Blake JA**. Modeling biochemical pathways in the gene ontology. *Database : the journal of biological databases and curation*. 2016; 2016. PubMed [journal] PMID: 27589964, PMCID: PMC5009323

Huang J, Eilbeck K, Smith B, **Blake JA**, Dou D, Huang W, Natale DA, Ruttenberg A, Huan J, Zimmermann MT, Jiang G, Lin Y, Wu B, Strachan HJ, de Silva N, Kasukurthi MV, Jha VK, He Y, Zhang S, Wang X, Liu Z, Borchert GM, Tan M. The development of non-coding RNA ontology. *International journal of data mining and bioinformatics*. 2016; 15(3):214-232. NIHMSID: NIHMS795655 PubMed [journal] PMID: 27990175, PMCID: PMC5156483

Huang J, Eilbeck K, Smith B, **Blake JA**, Dou D, Huang W, Natale DA, Ruttenberg A, Huan J, Zimmermann MT, Jiang G, Lin Y, Wu B, Strachan HJ, He Y, Zhang S, Wang X, Liu Z, Borchert GM, Tan M. The Non-Coding RNA Ontology (NCRO): a comprehensive resource for the unification of non-coding RNA biology. *Journal of biomedical semantics*. 2016; 7:24. PubMed [journal] PMID: 27152146, PMCID: PMC4857245

Drabkin HJ, Christie KR, Dolan ME, Hill DP, Ni L, Sitnikov D, **Blake JA**. Application of comparative biology in GO functional annotation: the mouse model. *Mammalian genome : official journal of the International Mammalian Genome Society*. 2015; 26(9-10):574-83. PubMed [journal] PMID: 26141960, PMCID: PMC4602061

Dolan ME, Baldarelli RM, Bello SM, Ni L, McAndrews MS, Bult CJ, Kadin JA, Richardson JE, Ringwald M, Eppig JT, **Blake JA**. Orthology for comparative genomics in the mouse genome database. *Mammalian genome : official journal of the International Mammalian Genome Society*. 2015; 26(7-8):305-13. PubMed [journal] PMID: 26223881, PMCID: PMC4534493

Eppig JT, Richardson JE, Kadin JA, Ringwald M, **Blake JA**, Bult CJ. Mouse Genome Informatics (MGI): reflecting on 25 years. *Mammalian genome : official journal of the International Mammalian Genome Society*. 2015; 26(7-8):272-84. PubMed [journal] PMID: 26238262, PMCID: PMC4534491

Eppig JT, Richardson JE, Kadin JA, Smith CL, **Blake JA**, Bult CJ. Mouse Genome Database: From sequence to phenotypes and disease models. *Genesis (New York, N.Y. : 2000)*. 2015; 53(8):458-73. NIHMSID: NIHMS707136 PubMed [journal] PMID:

26150326, PMCID: PMC4545690

Deans AR, Lewis SE, Huala E, Anzaldo SS, Ashburner M, Balhoff JP, Blackburn DC, **Blake JA**, Burleigh JG, Chanet B, Cooper LD, Courtot M, Csösz S, Cui H, Dahdul W, Das S, Dececchi TA, Dettai A, Diogo R, Druzinsky RE, Dumontier M, Franz NM, Friedrich F, Gkoutos GV, Haendel M, Harmon LJ, Hayamizu TF, He Y, Hines HM, Ibrahim N, Jackson LM, Jaiswal P, James-Zorn C, Köhler S, Lecointre G, Lapp H, Lawrence CJ, Le Novère N, Lundberg JG, Macklin J, Mast AR, Midford PE, Mikó I, Mungall CJ, Oellrich A, Osumi-Sutherland D, Parkinson H, Ramírez MJ, Richter S, Robinson PN, Ruttenberg A, Schulz KS, Segerdell E, Seltmann KC, Sharkey MJ, Smith AD, Smith B, Specht CD, Squires RB, Thacker RW, Thessen A, Fernandez-Triana J, Vihinen M, Vize PD, Vogt L, Wall CE, Walls RL, Westerfeld M, Wharton RA, Wirkner CS, Woolley JB, Yoder MJ, Zorn AM, Mabee P. Finding our way through phenotypes. *PLoS biology*. 2015; 13(1):e1002033. PubMed [journal] PMID: 25562316, PMCID: PMC4285398

Eppig JT, **Blake JA**, Bult CJ, Kadin JA, Richardson JE. The Mouse Genome Database (MGD): facilitating mouse as a model for human biology and disease. *Nucleic acids research*. 2015; 43(Database issue):D726-36. PubMed [journal] PMID: 25348401, PMCID: PMC4384027

Gene Ontology Consortium: going forward. *Nucleic acids research*. 2015; 43(Database issue):D1049-56. PubMed [journal] PMID: 25428369, PMCID: PMC4383973

Ascensao JA, Dolan ME, Hill DP, **Blake JA**. Methodology for the inference of gene function from phenotype data. *BMC bioinformatics*. 2014; 15:405. PubMed [journal] PMID: 25495798, PMCID: PMC4302099

Famiglietti ML, Estreicher A, Gos A, Bolleman J, Géhant S, Breuza L, Bridge A, Poux S, Redaschi N, Bougueleret L, Xenarios I. Genetic variations and diseases in UniProtKB/Swiss-Prot: the ins and outs of expert manual curation. *Human mutation*. 2014; 35(8):927-35. NIHMSID: NIHMS598698 PubMed [journal] PMID: 24848695, PMCID: PMC4107114

Huntley RP, Harris MA, Alam-Faruque Y, **Blake JA**, Carbon S, Dietze H, Dimmer EC, Foulger RE, Hill DP, Khodiyar VK, Lock A, Lomax J, Lovering RC, Mutowo-Meullenet P, Sawford T, Van Auken K, Wood V, Mungall CJ. A method for increasing expressivity of Gene Ontology annotations using a compositional approach. *BMC bioinformatics*. 2014; 15:155. PubMed [journal] PMID: 24885854, PMCID: PMC4039540

Forrest AR, Kawaji H, Rehli M, Baillie JK, de Hoon MJ, Haberle V, Lassmann T, Kulakovskiy IV, Lizio M, Itoh M, Andersson R, Mungall CJ, Meehan TF, Schmeier S, Bertin N, Jørgensen M, Dimont E, Arner E, Schmidl C, Schaefer U, Medvedeva YA, Plessy C, Vitezic M, Severin J, Semple C, Ishizu Y, Young RS, Francescato M, Alam I, Albanese D, Altschuler GM, Arakawa T, Archer JA, Arner P, Babina M, Rennie S, Balwierz PJ, Beckhouse AG, Pradhan-Bhatt S, **Blake JA**, Blumenthal A, Bodega B, Bonetti A, Briggs J, Brombacher F, Burroughs AM, Califano A, Cannistraci CV, Carbajo D, Chen Y, Chierici M, Ciani Y, Clevers HC, Dalla E, Davis CA, Detmar M, Diehl AD, Dohi T, Drabløs F, Edge AS, Edinger M, Ekwall K,

Endoh M, Enomoto H, Fagiolini M, Fairbairn L, Fang H, Farach-Carson MC, Faulkner GJ, Favorov AV, Fisher ME, Frith MC, Fujita R, Fukuda S, Furlanello C, Furino M, Furusawa J, Geijtenbeek TB, Gibson AP, Gingeras T, Goldowitz D, Gough J, Guhl S, Guler R, Gustinich S, Ha TJ, Hamaguchi M, Hara M, Harbers M, Harshbarger J, Hasegawa A, Hasegawa Y, Hashimoto T, Herlyn M, Hitchens KJ, Ho Sui SJ, Hofmann OM, Hoof I, Hori F, Huminiecki L, Iida K, Ikawa T, Jankovic BR, Jia H, Joshi A, Jurman G, Kaczkowski B, Kai C, Kaida K, Kaiho A, Kajiyama K, Kanamori-Katayama M, Kasianov AS, Kasukawa T, Katayama S, Kato S, Kawaguchi S, Kawamoto H, Kawamura YI, Kawashima T, Kempfle JS, Kenna TJ, Kere J, Khachigian LM, Kitamura T, Klinken SP, Knox AJ, Kojima M, Kojima S, Kondo N, Koseki H, Koyasu S, Krampitz S, Kubosaki A, Kwon AT, Laros JF, Lee W, Lennartsson A, Li K, Lilje B, Lipovich L, Mackay-Sim A, Manabe R, Mar JC, Marchand B, Mathelier A, Mejhert N, Meynert A, Mizuno Y, de Lima Morais DA, Morikawa H, Morimoto M, Moro K, Motakis E, Motohashi H, Mummery CL, Murata M, Nagao-Sato S, Nakachi Y, Nakahara F, Nakamura T, Nakamura Y, Nakazato K, van Nimwegen E, Ninomiya N, Nishiyori H, Noma S, Noma S, Noazaki T, Ogishima S, Ohkura N, Ohimiya H, Ohno H, Ohshima M, Okada-Hatakeyama M, Okazaki Y, Orlando V, Ovchinnikov DA, Pain A, Passier R, Patrikakis M, Persson H, Piazza S, Prendergast JG, Rackham OJ, Ramilowski JA, Rashid M, Ravasi T, Rizzu P, Roncador M, Roy S, Rye MB, Saijyo E, Sajantila A, Saka A, Sakaguchi S, Sakai M, Sato H, Savvi S, Saxena A, Schneider C, Schultes EA, Schulze-Tanzil GG, Schwegmann A, Sengstag T, Sheng G, Shimoji H, Shimoni Y, Shin JW, Simon C, Sugiyama D, Sugiyama T, Suzuki M, Suzuki N, Swoboda RK, 't Hoen PA, Tagami M, Takahashi N, Takai J, Tanaka H, Tatsukawa H, Tatum Z, Thompson M, Toyodo H, Toyoda T, Valen E, van de Wetering M, van den Berg LM, Verado R, Vijayan D, Vorontsov IE, Wasserman WW, Watanabe S, Wells CA, Winteringham LN, Wolvetang E, Wood EJ, Yamaguchi Y, Yamamoto M, Yoneda M, Yonekura Y, Yoshida S, Zabierowski SE, Zhang PG, Zhao X, Zucchelli S, Summers KM, Suzuki H, Daub CO, Kawai J, Heutink P, Hide W, Freeman TC, Lenhard B, Bajic VB, Taylor MS, Makeev VJ, Sandelin A, Hume DA, Carninci P, Hayashizaki Y. A promoter-level mammalian expression atlas. *Nature*. 2014; 507(7493):462-70. NIHMSID: NIHMS607910 PubMed [journal] PMID: 24670764, PMCID: PMC4529748

Wick HC, Drabkin H, Ngu H, Sackman M, Fournier C, Haggett J, **Blake JA**, Bianchi DW, Slonim DK. DFLAT: functional annotation for human development. *BMC bioinformatics*. 2014; 15:45. PubMed [journal] PMID: 24507166, PMCID: PMC3928322

**Blake JA**, Bult CJ, Eppig JT, Kadin JA, Richardson JE. The Mouse Genome Database: integration of and access to knowledge about the laboratory mouse. *Nucleic acids research*. 2014; 42(Database issue):D810-7. PubMed [journal] PMID: 24285300, PMCID: PMC3964950

Chibucos MC, Mungall CJ, Balakrishnan R, Christie KR, Huntley RP, White O, **Blake JA**, Lewis SE, Giglio M. Standardized description of scientific evidence using the Evidence Ontology (ECO). *Database : the journal of biological databases and curation*. 2014; 2014. PubMed [journal] PMID: 25052702, PMCID: PMC4105709

Alam-Faruque Y, Hill DP, Dimmer EC, Harris MA, Foulger RE, Tweedie S, Attrill H, Howe DG, Thomas SR, Davidson D, Woolf AS, **Blake JA**, Mungall CJ, O'Donovan C, Apweiler R, Huntley RP. Representing kidney development using the gene ontology.



PloS one. 2014; 9(6):e99864. PubMed [journal] PMID: 24941002, PMCID: PMC4062467

Haendel MA, Balhoff JP, Bastian FB, Blackburn DC, **Blake JA**, Bradford Y, Comte A, Dahdul WM, Dececchi TA, Druzinsky RE, Hayamizu TF, Ibrahim N, Lewis SE, Mabee PM, Niknejad A, Robinson-Rechavi M, Sereno PC, Mungall CJ. Unification of multi-species vertebrate anatomy ontologies for comparative biology in Uberon. *Journal of biomedical semantics*. 2014; 5:21. PubMed [journal] PMID: 25009735, PMCID: PMC4089931

Natale DA, Arighi CN, **Blake JA**, Bult CJ, Christie KR, Cowart J, D'Eustachio P, Diehl AD, Drabkin HJ, Helfer O, Huang H, Masci AM, Ren J, Roberts NV, Ross K, Ruttenberg A, Shamovsky V, Smith B, Yerramalla MS, Zhang J, AlJanahi A, Çelen I, Gan C, Lv M, Schuster-Lezell E, Wu CH. Protein Ontology: a controlled structured network of protein entities. *Nucleic acids research*. 2014; 42(Database issue):D415-21. PubMed [journal] PMID: 24270789, PMCID: PMC3964965

Huang J, Dang J, Borchert GM, Eilbeck K, Zhang H, Xiong M, Jiang W, Wu H, **Blake JA**, Natale DA, Tan M. OMIT: dynamic, semi-automated ontology development for the microRNA domain. *PloS one*. 2014; 9(7):e100855. PubMed [journal] PMID: 25025130, PMCID: PMC4099014

Meehan TF, Vasilevsky NA, Mungall CJ, Dougall DS, Haendel MA, **Blake JA**, Diehl AD. Ontology based molecular signatures for immune cell types via gene expression analysis. *BMC bioinformatics*. 2013; 14:263. PubMed [journal] PMID: 24004649, PMCID: PMC3844401

Roles for text mining in biomedical knowledge discovery and translational Medicine Bada M, Sitnikov D, **Blake J**, Hunter L. ISMB BioLink Special Interest Group 2013; 2013 July 20; Berlin, Germany. My Bibliography [presentation]

**Blake JA**, Dolan M, Drabkin H, Hill DP, Li N, Sitnikov D, Bridges S, Burgess S, Buza T, McCarthy F, Peddinti D, Pillai L, Carbon S, Dietze H, Ireland A, Lewis SE, Mungall CJ, Gaudet P, Chrisholm RL, Fey P, Kibbe WA, Basu S, Siegele DA, McIntosh BK, Renfro DP, Zweifel AE, Hu JC, Brown NH, Tweedie S, Alam-Faruque Y, Apweiler R, Auchinchloss A, Axelsen K, Bely B, Blatter M-, Bonilla C, Bouguerleret L, Boutet E, Breuza L, Bridge A, Chan WM, Chavali G, Coudert E, Dimmer E, Estreicher A, Famiglietti L, Feuermann M, Gos A, Gruaz-Gumowski N, Hieta R, Hinz C, Hulo C, Huntley R, James J, Jungo F, Keller G, Laiho K, Legge D, Lemercier P, Lieberherr D, Magrane M, Martin MJ, Masson P, Mutowo-Muellenet P, O'Donovan C, Pedruzzi I, Pichler K, Poggioli D, Porras Millán P, Poux S, Rivoire C, Roechert B, Sawford T, Schneider M, Stutz A, Sundaram S, Tognolli M, Xenarios I, Foulgar R, Lomax J, Roncaglia P, Khodiyar VK, Lovering RC, Talmud PJ, Chibucos M, Giglio MG, Chang H-, Hunter S, McAnulla C, Mitchell A, Sangrador A, Stephan R, Harris MA, Oliver SG, Rutherford K, Wood V, Bahler J, Lock A, Kersey PJ, McDowall DM, Staines DM, Dwinell M, Shimoyama M, Laudederkind S, Hayman T, Wang S-, Petri V, Lowry T, D'Eustachio P, Matthews L, Balakrishnan R, Binkley G, Cherry JM, Costanzo MC, Dwight SS, Engel SR, Fisk DG, Hitz BC, Hong EL, Karra K, Miyasato SR, Nash RS, Park J, Skrzypek MS, Weng S, Wong ED, Berardini TZ, Huala E, Mi H,

Thomas PD, Chan J, Kishore R, Sternberg P, Van Auken K, Howe D, Westerfield M. Gene Ontology annotations and resources. *Nucleic acids research*. 2013; 41(Database issue):D530-5. PubMed [journal] PMID: 23161678, PMCID: PMC3531070

Update on activities at the Universal Protein Resource (UniProt) in 2013. *Nucleic acids research*. 2013; 41(Database issue):D43-7. PubMed [journal] PMID: 23161681, PMCID: PMC3531094

Tripathi S, Christie KR, Balakrishnan R, Huntley R, Hill DP, Thommesen L, **Blake JA**, Kuiper M, Lægreid A. Gene Ontology annotation of sequence-specific DNA binding transcription factors: setting the stage for a large-scale curation effort. *Database : the journal of biological databases and curation*. 2013; 2013:bat062. PubMed [journal] PMID: 23981286, PMCID: PMC3753819

**Blake JA**. Ten quick tips for using the gene ontology. *PLoS computational biology*. 2013; 9(11):e1003343. PubMed [journal] PMID: 24244145, PMCID: PMC3828149

Bult CJ, Eppig JT, **Blake JA**, Kadin JA, Richardson JE. The mouse genome database: genotypes, phenotypes, and models of human disease. *Nucleic acids research*. 2013; 41(Database issue):D885-91. PubMed [journal] PMID: 23175610, PMCID: PMC3531104

Bada M, Eckert M, Evans D, Garcia K, Shipley K, Sitnikov D, Baumgartner WA Jr, Cohen KB, Verspoor K, **Blake JA**, Hunter LE. Concept annotation in the CRAFT corpus. *BMC bioinformatics*. 2012; 13:161. PubMed [journal] PMID: 22776079, PMCID: PMC3476437

Mattingly CJ, McKone TE, Callahan MA, **Blake JA**, Hubal EA. Providing the missing link: the exposure science ontology ExO. *Environmental science & technology*. 2012; 46(6):3046-53. PubMed [journal] PMID: 22324457, PMCID: PMC3314380

Taşan M, Drabkin HJ, Beaver JE, Chua HN, Dunham J, Tian W, **Blake JA**, Roth FP. A Resource of Quantitative Functional Annotation for Homo sapiens Genes. *G3 (Bethesda, Md.)*. 2012; 2(2):223-33. PubMed [journal] PMID: 22384401, PMCID: PMC3284330

Thomas PD, Wood V, Mungall CJ, Lewis SE, **Blake JA**. On the Use of Gene Ontology Annotations to Assess Functional Similarity among Orthologs and Paralogs: A Short Report. *PLoS computational biology*. 2012; 8(2):e1002386. PubMed [journal] PMID: 22359495, PMCID: PMC3280971

The Gene Ontology: enhancements for 2011. *Nucleic acids research*. 2012; 40(Database issue):D559-64. PubMed [journal] PMID: 22102568, PMCID: PMC3245151

Eppig JT, **Blake JA**, Bult CJ, Kadin JA, Richardson JE. The Mouse Genome Database (MGD): comprehensive resource for genetics and genomics of the laboratory mouse. *Nucleic acids research*. 2012; 40(Database issue):D881-6. PubMed [journal] PMID: 22075990, PMCID: PMC3245042

Drabkin HJ, **Blake JA**. Manual Gene Ontology annotation workflow at the Mouse



Genome Informatics Database. Database : the journal of biological databases and curation. 2012; 2012:bas045. PubMed [journal] PMID: 23110975, PMCID: PMC3483533

Gaudet P, Arighi C, Bastian F, Bateman A, **Blake JA**, Cherry MJ, D'Eustachio P, Finn R, Giglio M, Hirschman L, Kania R, Klimke W, Martin MJ, Karsch-Mizrachi I, Munoz-Torres M, Natale D, O'Donovan C, Ouellette F, Pruitt KD, Robinson-Rechavi M, Sansone SA, Schofield P, Sutton G, Van Auken K, Vasudevan S, Wu C, Young J, Mazumder R. Recent advances in biocuration: meeting report from the Fifth International Biocuration Conference. Database : the journal of biological databases and curation. 2012; 2012:bas036. PubMed [journal] PMID: 23110974, PMCID: PMC3483532

Bello SM, Richardson JE, Davis AP, Wiegers TC, Mattingly CJ, Dolan ME, Smith CL, **Blake JA**, Eppig JT. Disease model curation improvements at Mouse Genome Informatics. Database : the journal of biological databases and curation. 2012; 2012:bar063. PubMed [journal] PMID: 22434831, PMCID: PMC3308153

Meehan TF, Carr CJ, Jay JJ, Bult CJ, Chesler EJ, **Blake JA**. Autism candidate genes via mouse phenomics. Journal of biomedical informatics. 2011; 44 Suppl 1:S5-11. NIHMSID: NIHMS288361 PubMed [journal] PMID: 21397722, PMCID: PMC3263820

Bult CJ, Drabkin HJ, Evsikov A, Natale D, Arighi C, Roberts N, Ruttenberg A, D'Eustachio P, Smith B, **Blake JA**, Wu C. The representation of protein complexes in the Protein Ontology (PRO). BMC bioinformatics. 2011; 12:371. PubMed [journal] PMID: 21929785, PMCID: PMC3189193

Diehl AD, Augustine AD, **Blake JA**, Cowell LG, Gold ES, Gondré-Lewis TA, Masci AM, Meehan TF, Morel PA, Nijnik A, Peters B, Pulendran B, Scheuermann RH, Yao QA, Zand MS, Mungall CJ. Hematopoietic cell types: prototype for a revised cell ontology. Journal of biomedical informatics. 2011; 44(1):75-9. NIHMSID: NIHMS183967 PubMed [journal] PMID: 20123131, PMCID: PMC2892030

Meehan TF, Masci AM, Abdulla A, Cowell LG, **Blake JA**, Mungall CJ, Diehl AD. Logical development of the cell ontology. BMC bioinformatics. 2011; 12:6. PubMed [journal] PMID: 21208450, PMCID: PMC3024222

Gaudet P, Bairoch A, Field D, Sansone SA, Taylor C, Attwood TK, Bateman A, **Blake JA**, Bult CJ, Cherry JM, Chisholm RL, Cochrane G, Cook CE, Eppig JT, Galperin MY, Gentleman R, Goble CA, Gojobori T, Hancock JM, Howe DG, Imanishi T, Kelso J, Landsman D, Lewis SE, Karsch Mizrahi I, Orchard S, Ouellette BF, Ranganathan S, Richardson L, Rocca-Serra P, Schofield PN, Smedley D, Southan C, Tan TW, Tatusova T, Whetzel PL, White O, Yamasaki C. Towards BioDBcore: a community-defined information specification for biological databases. Database : the journal of biological databases and curation. 2011; 2011:baq027. PubMed [journal] PMID: 21205783, PMCID: PMC3017395

**Blake JA**, Bult CJ, Kadin JA, Richardson JE, Eppig JT. The Mouse Genome Database (MGD): premier model organism resource for mammalian genomics and genetics. Nucleic acids research. 2011; 39(Database issue):D842-8. PubMed [journal] PMID:

21051359, PMCID: PMC3013640

Natale DA, Arighi CN, Barker WC, **Blake JA**, Bult CJ, Caudy M, Drabkin HJ, D'Eustachio P, Evsikov AV, Huang H, Nchoutmboube J, Roberts NV, Smith B, Zhang J, Wu CH. The Protein Ontology: a structured representation of protein forms and complexes. *Nucleic acids research*. 2011; 39(Database issue):D539-45. PubMed [journal] PMID: 20935045, PMCID: PMC3013777

Gaudet P, Bairoch A, Field D, Sansone SA, Taylor C, Attwood TK, Bateman A, **Blake JA**, Bult CJ, Cherry JM, Chisholm RL, Cochrane G, Cook CE, Eppig JT, Galperin MY, Gentleman R, Goble CA, Gojobori T, Hancock JM, Howe DG, Imanishi T, Kelso J, Landsman D, Lewis SE, Mizrachi IK, Orchard S, Ouellette BF, Ranganathan S, Richardson L, Rocca-Serra P, Schofield PN, Smedley D, Southan C, Tan TW, Tatusova T, Whetzel PL, White O, Yamasaki C. Towards BioDBcore: a community-defined information specification for biological databases. *Nucleic acids research*. 2011; 39(Database issue):D7-10. PubMed [journal] PMID: 21097465, PMCID: PMC3013734

Alterovitz G, Xiang M, Hill DP, Lomax J, Liu J, Cherkassky M, Dreyfuss J, Mungall C, Harris MA, Dolan ME, **Blake JA**, Ramoni MF. Ontology engineering. *Nature biotechnology*. 2010; 28(2):128-30. NIHMSID: NIHMS191917 PubMed [journal] PMID: 20139945, PMCID: PMC4829499

The Gene Ontology in 2010: extensions and refinements. *Nucleic acids research*. 2010; 38(Database issue):D331-5. PubMed [journal] PMID: 19920128, PMCID: PMC2808930

Bult CJ, Kadin JA, Richardson JE, **Blake JA**, Eppig JT. The Mouse Genome Database: enhancements and updates. *Nucleic acids research*. 2010; 38(Database issue):D586-92. PubMed [journal] PMID: 19864252, PMCID: PMC2808942

The Gene Ontology's Reference Genome Project: a unified framework for functional annotation across species. *PLoS computational biology*. 2009; 5(7):e1000431. PubMed [journal] PMID: 19578431, PMCID: PMC2699109

Arighi CN, Liu H, Natale DA, Barker WC, Drabkin H, **Blake JA**, Smith B, Wu CH. TGF-beta signaling proteins and the Protein Ontology. *BMC bioinformatics*. 2009; 10 Suppl 5:S3. PubMed [journal] PMID: 19426460, PMCID: PMC2679403

**Blake JA**, Bult CJ, Eppig JT, Kadin JA, Richardson JE. The Mouse Genome Database genotypes::phenotypes. *Nucleic acids research*. 2009; 37(Database issue):D712-9. PubMed [journal] PMID: 18981050, PMCID: PMC2686566

Dowell KG, McAndrews-Hill MS, Hill DP, Drabkin HJ, **Blake JA**. Integrating text mining into the MGI biocuration workflow. *Database : the journal of biological databases and curation*. 2009; 2009:bap019. PubMed [journal] PMID: 20157492, PMCID: PMC2797454

**Blake JA**, Thomas M, Thompson JA, White R, Ziman M. Perplexing Pax: from puzzle to paradigm. *Developmental dynamics : an official publication of the American*

Association of Anatomists. 2008; 237(10):2791-803. PubMed [journal] PMID: 18816860

Lovering RC, Camon EB, **Blake JA**, Diehl AD. Access to immunology through the Gene Ontology. Immunology. 2008; 125(2):154-60. PubMed [journal] PMID: 18798919, PMCID: PMC2561138

**Blake JA**, Harris MA. The Gene Ontology (GO) project: structured vocabularies for molecular biology and their application to genome and expression analysis. Current protocols in bioinformatics. 2008; Chapter 7:Unit 7.2. PubMed [journal] PMID: 18819077

Hill DP, Smith B, McAndrews-Hill MS, **Blake JA**. Gene Ontology annotations: what they mean and where they come from. BMC bioinformatics. 2008; 9 Suppl 5:S2. PubMed [journal] PMID: 18460184, PMCID: PMC2367625

Bult CJ, Eppig JT, Kadin JA, Richardson JE, **Blake JA**. The Mouse Genome Database (MGD): mouse biology and model systems. Nucleic acids research. 2008; 36(Database issue):D724-8. PubMed [journal] PMID: 18158299, PMCID: PMC2238849

Taşan M, Tian W, Hill DP, Gibbons FD, **Blake JA**, Roth FP. An en masse phenotype and function prediction system for *Mus musculus*. Genome biology. 2008; 9 Suppl 1:S8. PubMed [journal] PMID: 18613952, PMCID: PMC2447542

Peña-Castillo L, Tasan M, Myers CL, Lee H, Joshi T, Zhang C, Guan Y, Leone M, Pagnani A, Kim WK, Krumpelman C, Tian W, Obozinski G, Qi Y, Mostafavi S, Lin GN, Berriz GF, Gibbons FD, Lanckriet G, Qiu J, Grant C, Barutcuoglu Z, Hill DP, Warde-Farley D, Grouios C, Ray D, **Blake JA**, Deng M, Jordan MI, Noble WS, Morris Q, Klein-Seetharaman J, Bar-Joseph Z, Chen T, Sun F, Troyanskaya OG, Marcotte EM, Xu D, Hughes TR, Roth FP. A critical assessment of *Mus musculus* gene function prediction using integrated genomic evidence. Genome biology. 2008; 9 Suppl 1:S2. PubMed [journal] PMID: 18613946, PMCID: PMC2447536

The Gene Ontology project in 2008. Nucleic acids research. 2008; 36(Database issue):D440-4. PubMed [journal] PMID: 17984083, PMCID: PMC2238979

Eppig JT, **Blake JA**, Bult CJ, Richardson JE, Kadin JA, Ringwald M. Mouse genome informatics (MGI) resources for pathology and toxicology. Toxicologic pathology. 2007; 35(3):456-7. PubMed [journal] PMID: 17474068

Diehl AD, Lee JA, Scheuermann RH, **Blake JA**. Ontology development for biological systems: immunology. Bioinformatics (Oxford, England). 2007; 23(7):913-5. PubMed [journal] PMID: 17267433

Eppig JT, **Blake JA**, Bult CJ, Kadin JA, Richardson JE. The mouse genome database (MGD): new features facilitating a model system. Nucleic acids research. 2007; 35(Database issue):D630-7. PubMed [journal] PMID: 17135206, PMCID: PMC1751527

**Blake JA**, Bult CJ. Beyond the data deluge: data integration and bio-ontologies.

Journal of biomedical informatics. 2006; 39(3):314-20. PubMed [journal] PMID: 16564748

**Blake JA**, Eppig JT, Bult CJ, Kadin JA, Richardson JE. The Mouse Genome Database (MGD): updates and enhancements. Nucleic acids research. 2006; 34(Database issue):D562-7. PubMed [journal] PMID: 16381933, PMCID: PMC1347448

The Gene Ontology (GO) project in 2006. Nucleic acids research. 2006; 34(Database issue):D322-6. PubMed [journal] PMID: 16381878, PMCID: PMC1347384

Dolan ME, Ni L, Camon E, **Blake JA**. A procedure for assessing GO annotation consistency. Bioinformatics (Oxford, England). 2005; 21 Suppl 1:i136-43. PubMed [journal] PMID: 15961450

Drabkin HJ, Hollenbeck C, Hill DP, **Blake JA**. Ontological visualization of protein-protein interactions. BMC bioinformatics. 2005; 6:29. PubMed [journal] PMID: 15707487, PMCID: PMC550656

Eppig JT, Bult CJ, Kadin JA, Richardson JE, **Blake JA**, Anagnostopoulos A, Baldarelli RM, Baya M, Beal JS, Bello SM, Boddy WJ, Bradt DW, Burkart DL, Butler NE, Campbell J, Cassell MA, Corbani LE, Cousins SL, Dahmen DJ, Dene H, Diehl AD, Drabkin HJ, Frazer KS, Frost P, Glass LH, Goldsmith CW, Grant PL, Lennon-Pierce M, Lewis J, Lu I, Maltais LJ, McAndrews-Hill M, McClellan L, Miers DB, Miller LA, Ni L, Ormsby JE, Qi D, Reddy TB, Reed DJ, Richards-Smith B, Shaw DR, Sinclair R, Smith CL, Szauter P, Walker MB, Walton DO, Washburn LL, Witham IT, Zhu Y. The Mouse Genome Database (MGD): from genes to mice--a community resource for mouse biology. Nucleic acids research. 2005; 33(Database issue):D471-5. PubMed [journal] PMID: 15608240, PMCID: PMC540067

Bult CJ, **Blake JA**, Richardson JE, Kadin JA, Eppig JT, Baldarelli RM, Barsanti K, Baya M, Beal JS, Boddy WJ, Bradt DW, Burkart DL, Butler NE, Campbell J, Corey R, Corbani LE, Cousins S, Dene H, Drabkin HJ, Frazer K, Garippa DM, Glass LH, Goldsmith CW, Grant PL, King BL, Lennon-Pierce M, Lewis J, Lu I, Lutz CM, Maltais LJ, McKenzie LM, Miers D, Modrusan D, Ni L, Ormsby JE, Qi D, Ramachandran S, Reddy TB, Reed DJ, Sinclair R, Shaw DR, Smith CL, Szauter P, Taylor B, Vanden Borre P, Walker M, Washburn L, Witham I, Winslow J, Zhu Y. The Mouse Genome Database (MGD): integrating biology with the genome. Nucleic acids research. 2004; 32(Database issue):D476-81. PubMed [journal] PMID: 14681461, PMCID: PMC308859

Hill DP, Begley DA, Finger JH, Hayamizu TF, McCright IJ, Smith CM, Beal JS, Corbani LE, **Blake JA**, Eppig JT, Kadin JA, Richardson JE, Ringwald M. The mouse Gene Expression Database (GXD): updates and enhancements. Nucleic acids research. 2004; 32(Database issue):D568-71. PubMed [journal] PMID: 14681482, PMCID: PMC308803

Harris MA, Clark J, Ireland A, Lomax J, Ashburner M, Foulger R, Eilbeck K, Lewis S, Marshall B, Mungall C, Richter J, Rubin GM, **Blake JA**, Bult C, Dolan M, Drabkin H, Eppig JT, Hill DP, Ni L, Ringwald M, Balakrishnan R, Cherry JM, Christie KR,

Costanzo MC, Dwight SS, Engel S, Fisk DG, Hirschman JE, Hong EL, Nash RS, Sethuraman A, Theesfeld CL, Botstein D, Dolinski K, Feierbach B, Berardini T, Mundodi S, Rhee SY, Apweiler R, Barrell D, Camon E, Dimmer E, Lee V, Chisholm R, Gaudet P, Kibbe W, Kishore R, Schwarz EM, Sternberg P, Gwinn M, Hannick L, Wortman J, Berriman M, Wood V, de la Cruz N, Tonellato P, Jaiswal P, Seigfried T, White R. The Gene Ontology (GO) database and informatics resource. *Nucleic acids research*. 2004; 32(Database issue):D258-61. PubMed [journal] PMID: 14681407, PMCID: PMC308770

Schriml LM, Hill DP, **Blake JA**, Bono H, Wynshaw-Boris A, Pavan WJ, Ring BZ, Beisel K, Setou M, Okazaki Y. Human disease genes and their cloned mouse orthologs: exploration of the FANTOM2 cDNA sequence data set. *Genome research*. 2003; 13(6B):1496-500. PubMed [journal] PMID: 12819148, PMCID: PMC403698

Baldarelli RM, Hill DP, **Blake JA**, Adachi J, Furuno M, Bradt D, Corbani LE, Cousins S, Frazer KS, Qi D, Yang L, Ramachandran S, Reed D, Zhu Y, Kasukawa T, Ringwald M, King BL, Maltais LJ, McKenzie LM, Schriml LM, Maglott D, Church DM, Pruitt K, Eppig JT, Richardson JE, Kadin JA, Bult CJ. Connecting sequence and biology in the laboratory mouse. *Genome research*. 2003; 13(6B):1505-19. PubMed [journal] PMID: 12819150, PMCID: PMC403701

**Blake JA**, Richardson JE, Bult CJ, Kadin JA, Eppig JT. MGD: the Mouse Genome Database. *Nucleic acids research*. 2003; 31(1):193-5. PubMed [journal] PMID: 12519980, PMCID: PMC165494

Hill DP, **Blake JA**, Richardson JE, Ringwald M. Extension and integration of the gene ontology (GO): combining GO vocabularies with external vocabularies. *Genome research*. 2002; 12(12):1982-91. PubMed [journal] PMID: 12466303, PMCID: PMC187579

**Blake JA**, Harris MA. The Gene Ontology (GO) project: structured vocabularies for molecular biology and their application to genome and expression analysis. *Current protocols in bioinformatics*. 2002; Chapter 7:Unit 7.2. PubMed [journal] PMID: 18792943

Maltais LJ, **Blake JA**, Chu T, Lutz CM, Eppig JT, Jackson I. Rules and guidelines for mouse gene, allele, and mutation nomenclature: a condensed version. *Genomics*. 2002; 79(4):471-4. PubMed [journal] PMID: 11944975

Eppig JT, **Blake JA**, Burkart DL, Goldsmith CW, Lutz CM, Smith CL. Corraling conditional mutations: a unified resource for mouse phenotypes. *Genesis (New York, N.Y. : 2000)*. 2002; 32(2):63-5. PubMed [journal] PMID: 11857778

**Blake JA**, Richardson JE, Bult CJ, Kadin JA, Eppig JT. The Mouse Genome Database (MGD): the model organism database for the laboratory mouse. *Nucleic acids research*. 2002; 30(1):113-5. PubMed [journal] PMID: 11752269, PMCID: PMC99116

**Blake JA**, Eppig JT, Richardson JE, Bult CJ, Kadin JA. The Mouse Genome Database (MGD): integration nexus for the laboratory mouse. *Nucleic acids research*. 2001; 29(1):91-4. PubMed [journal] PMID: 11125058, PMCID: PMC29788

Ashburner M, Ball CA, **Blake JA**, Botstein D, Butler H, Cherry JM, Davis AP, Dolinski K, Dwight SS, Eppig JT, Harris MA, Hill DP, Issel-Tarver L, Kasarskis A, Lewis S, Matese JC, Richardson JE, Ringwald M, Rubin GM, Sherlock G. Gene ontology: tool for the unification of biology. The Gene Ontology Consortium. *Nature genetics*. 2000; 25(1):25-9. NIHMSID: NIHMS269796 PubMed [journal] PMID: 10802651, PMCID: PMC3037419

Eppig JT, **Blake JA**, Davisson MT, Kadin JA, Richardson JE. The mouse genome database: a resource for today and tomorrow. *Lab animal*. 2000; 29(3):39-43. PubMed [journal] PMID: 11375645

### **Book Chapters, Reviews and Commentaries**

Anderson WP. Data management: A global coalition to sustain core data. *Nature*. 2017; 543(7644):179. PubMed [journal] PMID: 28277502

Deans, AR, Lewis SE, Huala E, Anzaldo SS, Ashburner M, Balhoff JP, Blackburn DC, **Blake JA**, Burleigh G, Chanut B, Cooper LD, Courtot M, Csösz S, Cui H, Dahdul W, Das S, Dececchi AT, Dettai A, Diogo R, Druzinsky RE, Dumontier M, Franz NM, Friedrich F, Gkoutos GV, Haendel M, Harmon LJ, Hayamizu TF, He Y, Hines HM, Ibrahim N, Jackson LM, Jaiswal P, James-Zorn C, Köhler S, Guillaume Lecoindre G, Lapp H, Lawrence CJ, Le Novère N, Lundberg JG, Macklin J, Mast AR, Midford PE, Mikó I, Mungall CJ, Oellrich A, Osumi-Sutherland D, Parkinson H, Ramírez MJ, Richter S, Robinson PN, Ruttenberg A, Schulz KS, Segerdell E, Seltmann KC, Sharkey MJ, Smith AD, Smith B, Specht CD, Squires RB, Terceire S, Thacker RW, Thessen AE, Fernandez-Triana J, Vihinen M, Vize PD, Vogt L, Wall CE, Walls R, Westerfeld M, Wharton RA, Wirkner CS, Woolley JB, Yoder MJ, Zorn AM, Mabee PM, 2014. Finding our way through phenotypes. *PLoS Biology* 2015 Jan 6;13(1):e1002033. doi: 10.1371/journal.pbio.1002033. eCollection 2015. PMCID:PMC4285398.

Gaudet P, Arighi C, Bastian F, Bateman A, **Blake JA**, Cherry MJ, D'Eustachio P, Finn R, Giglio M, Hirschman L, Kania R, Klimke W, Martin MJ, Karsch-Mizrachi I, Munoz-Torres M, Natale D, O'Donovan C, Ouellette F, Pruitt KD, Robinson-Rechavi M, Sansone SA, Schofield P, Sutton G, Van Auken K, Vasudevan S, Wu C, Young J, Mazumder R. 2012. Recent advances in biocuration: Meeting Report from the fifth International Biocuration Conference. *Database (Oxford)* 2012 Oct 29; 2012:bas036. PMCID: PMC3483532.

Gaudet P, Bairoch A, Field D, Sansone SA, Taylor C, Attwood TK, Bateman A, **Blake JA**, Bult CJ, Cherry JM, Chisholm RL, Cochrane G, Cook CE, Eppig JT, Galperin MY, Gentleman R, Goble CA, Gojobori T, ramon JM, Howe DG, Imanishi T, Kelso J, Landsman D, Lewis SE, Mizrahi IK, Orchard S, Ouellette BF, Ranganathan S, Richardson L, Rocca-Serra P, Schofield PN, Smedley D, Southan C, Tan TW, Tatusova T, Whetzel PL, White O, Yamasaki C; on behalf of the BioDBCore working group. Towards BioDBCore: A community-defined information specification for biological databases. *Nucleic Acids Res* Jan;39(Database issue):D7-10. Epub 2010 Nov 18. PMCID:PMC3013734.

**Blake JA**, 2009. "Genomics and Conservation Genetics" in *Conservation Genetics in the Age of Genomics*. Amato G, Ryder O, Rosenbaum H, and DeSalle R eds. Columbia University Press, New York pp179-186.



Drabkin HJ, Arighi C, Wu C, **Blake JA**. 2008. "Functional Annotation of Protein Isoforms and Modified Forms" In: *International Conference on Bioinformatics & Computational Biology*. Arabnia HR, Yang MG, Yang JY eds. CSREA Press. pp. 701-707.

Altman RB, Bergman CM, **Blake J**, Blaschke C, Cohen A, Gannon F, Grivell L, Hahn U, Hersh W, Hirschman L, Jensen LJ, Krallinger M, B, O'Donoghue SI, Peitsch MC, Rebholz-Schumann D, Shatkay H, Valencia A. 2008. Text mining for biology-the way forward: opinions from leading scientists. *Genome Biol* 9(Suppl 2):S7.

The Mouse Phenotype Database Integration Consortium: Hancock JM, Adams NC, Aidinis V, Blake A, **Blake JA**, Bogue M, Brown SDM, Chesler E, Davidson D, Duran C, Eppig JT, Gailus-Durner V, Gates H, Gkoutos GV, Greenaway S, Hrabe De Angelis M, Kollias G, Leblanc S, Lee K, Lengger C, Maier H, Mallon A-M, Masuya H, Melvin DG, Muller W, Parkinson H, Proctor G, Reuveni E, Schofield P, Skukla A, Smith C, Toyoda T, Vasseur L, Wakana S, Walling A, White J, Wood J, Zouberakis M. 2007. Integration of mouse phenome data resources. *Mammalian Genome*, 2007 Mar;18(3):157-63. Epub 2007 Apr 10.

Santos C, **Blake J**, States DJ. 2005. Supplementary data need to be kept in public repositories. *Nature* 439(7079):912.

**Blake JA**, Eppig JT, Bult CJ. 2003. "Mouse and Rat Genome Informatics" In *Bioinformatics for Geneticists*. Barnes MR, Gray IC eds. Wiley Press, London. pp. 119-142.

Eppig JT, Richardson JE, **Blake JA**, Davisson MT, Kadin JA, Ringwald M. 1999. "The Mouse Genome Database and the Gene Expression Database: Genotype to Phenotype" In *Bioinformatics: Databases and Systems*. Letovsky SI ed. Kluwer Academic Publ. pp. 119 - 128.

FitzGerald LM, **Blake JA**. 1998. "Databases for use in molecular biology: Concepts in their design, access and use." In *Molecular Approaches to the Study of the Oceans*. Cooksy KE, ed. Chapman and Hall. pp. 515-527.

**Blake JA**, Bult CJ. 1996. "Biological Databases on the Internet." In *Molecular Zoology: Advances, Strategies, and Protocols*. Ferrais JD, Palumbi ST eds. Wiley-Liss, Inc. pp. 3-18.

Bult CJ, **Blake JA**, Adams MD, White O, Sutton G, Clayton R, Kerlavage AR, Fields C, Venter JC. 1996. "The Impact of Rapid Gene Discovery Technology on Studies of Evolution and Biodiversity" In *BioDiversity II: Understanding and protecting our natural resources*. Joseph Henry Press, Washington, D.C. pp. 289-299.

**Blake J**. 1983. "C-Banding in *Anolis grahami*." In *Advances in Herpetology and Evolutionary Biology*. Rhodin A, Miyata K eds. M.C.Z., Cambridge, MA.

#### **Creative Commons Data Contributions**

Dolan ME, Mungall CJ, Dietze H, **Blake JA**. A simplified method for creating a cell cycle ontology for the laboratory mouse. Conference on Semantics in Healthcare and Life Sciences (CSHALS) 2011, 23 - 25 Feb 2011, 10.

<http://f1000.com/posters/browse/summary/1089988>.

**Invited Speaker / Invited Participant**

- 2018 Invited Speaker and Participant. Special Elixir Workshop on Core Data Resources. *Alliance of Genome Resources: Visions for the Future*. ISMB meeting of the Intl Soc Comp Biol. Chicago IL July 10.
- 2017 Selected Speaker. "Comparative Genomics and the Alliance of Genome Resources" Rocky Mountain Bioinformatics Conference, Aspen, CO. Dec 7-9.
- 2016 Invited Speaker and Participant. "Data Resources in LifeSciences" Workshop, International Human Frontier Science Program meeting, Strasbourg, France November 17-19.
- 2016 Invited Speaker: American University of Beirut. *From Data to Knowledge in Precision Medicine*. Beirut, Lebanon. October 17.
- 2016 Invited Speaker: Mayo Clinic. *From Data to Knowledge in Precision Medicine*. Rochester, MN. June 28.
- 2016 Selected Speaker: International Society for Biocuration 9<sup>th</sup> International Conference. 'What does this gene do' - *Strategies for Summary Data Presentation in MODs*. Geneva, Switzerland, April 11, 2016.
- 2015 BIO5 Distinguished Scholar Lecturer: Bioinformatics Series. *From Data Integration to Knowledge Discovery in biology and Biomedical Sciences*. October 27. *Evidence and Inference: Digital Data and Comparative Genomics*. October 28. Univ. Arizona BIO5 Institute.
- 2015 Invited Speaker. NCOR meeting "The Role of Ontology in Big Cancer Data". *The Impact of Ontologies on Comparative Genomics for Cancer, the Human-Mouse Connection*. Washington, D.C., May 13.
- 2014 Keynote Speaker. ISCB 12<sup>th</sup> Annual Rocky Mountain Bioinformatics Conference. *Modeling Glycolysis in the Gene Ontology: All Roads Lead to Pyruvate*. Aspen, CO. December 11-13.
- 2014 Invited Speaker. NIEHS-EPA Workshop for the Development of a Framework for Environmental Health Science Language. *Impact of Biomedical Ontologies on Data Harmonization and Computational Analysis Pipelines*. North Carolina State University, Raleigh, NC. September 15-16.
- 2014 Selected Speaker, BioOntologies SIG at ISCB Intelligent Systems for Molecular Biology Conference, *Representation of Biology in the Gene Ontology*. Boston, MA. July 11.
- 2014 Selected Speaker, BioOntologies SIG at ISCB Intelligent Systems for Molecular Biology Conference, *Protein Ontology: Flash Update*. Boston, MA. July 11.
- 2014 Invited Participant, Disease Ontology Workshop, European Bioinformatics Institute, Hinxton, Cambridgeshire, UK. June 12-13.
- 2013 Selected Speaker. ISCB 11<sup>th</sup> Annual Rocky Mountain Bioinformatics Conference. Aspen, CO. December 12-14. *Methodology for Inferring Function from Phenotype Data*.
- 2013 Invited Speaker, Quest for Orthologs 3. *The M:N Project at MGI: Beyond 1:1 Orthology Assertions*. Lusanne, Switzerland. July 26-28.
- 2013 Invited Participant, KOMP2 Translational Workshop. Washington, D.C. June 17-18.
- 2013 Invited Speaker and Participant. PRO-PO-GO Workshop. Buffalo, N.Y. May 15-16.
- 2013 Invited Speaker, 15<sup>th</sup> Genome Standards Consortium meeting, Washington D.C. April 22-23. *Gene Ontology: Functional Annotation for Comparative Genomics*.
- 2012 Selected Speaker, ISCB 10<sup>th</sup> Annual Rocky Mountain Bioinformatics Conference,

- Aspen CO. December 6-8, 2012. *Promise and Peril of Functional Annotation*.
- 2012 Invited Seminar Speaker, University of Alabama, Mobile, AL. Nov 14, 2012. *Progress and Promise of Biomedical Ontologies for Computational Biology*.
- 2011 Plenary Speaker, 9<sup>th</sup> Annual Rocky Mountain Bioinformatics Conference, Aspen, CO, December 8-10, 2011. *The Future of Research Communication: from Surfing to Deep Diving*.
- 2011 Invited Speaker / Invited Panel 'From Proteins to Disease', International Conference on Biomedical Ontologies. July 28-30, 2011. Buffalo, NY. *Pathways and Complexes: How to Represent What We Know and What We Don't Know*.
- 2011 Invited Speaker / ICR Webinar, caBIG Open Source Development Project and Standards Speaker Series. May 25, 2011. *The Gene Ontology*.
- 2010 Invited Speaker/Participant, NHGRI Informatics and Analysis Planning Meeting. April 21-22, 2010. Washington, DC. *Data Resources and Analysis Tools: Maintenance and Funding*.
- 2009 Plenary Speaker, North Atlantic Health Sciences Libraries Meeting, Oct 25-27, 2009. *Biomedical Literature in the Clouds: Ontologies, Data, and the Semantic Web*.
- 2009 Invited Speaker, BioCreative 11.5 Workshop, Madrid, Spain. Oct 7-9, 2009. *Digital Annotation for Production Bioinformatics Systems*.
- 2009 Invited Participant/Speaker, Quest for Orthologs Meeting, Cambridge-Hinxton Genome Center, U.K. July 3 – 5, 2009. *Orthologs, Paralogs, and Functional Annotations using the Gene Ontology*.
- 2009 Invited Participant, Foundation Meeting, Boston, Massachusetts. April 29, 2009. *Building Linked Web Communities in Biomedicine to Accelerate Research*.
- 2009 Invited Participant. National Evolutionary Synthesis Center, Durham, North Carolina. April 27-28, 2009. *Evolutionary Ontologies Workshop and Phenoscape Planning Meeting*.
- 2009 Invited Speaker. University of Tennessee, Knoxville, Tennessee. April 22, 2009. Talk: *Evidence and Inference: Data, Ontologies, and Comparative Genomics*
- 2009 Invited Speaker. University of Chicago, Chicago, Illinois. February 5, 2009. Talk: *Evidence and Inference: Comparative Biology in the Age of Genomics*.
- 2008 Invited Speaker. Brown University, Providence, Rhode Island. December 17, 2008. Talk: *Evidence and Inference: Comparative Biology in the Age of Genomics*.
- 2008 Invited Speaker. Pacific Northwest National Laboratory, Richland, Washington. December 11-12, 2008. Talk: *Evidence and Inference: Comparative Biology in the Age of Genomics*.
- 2008 Plenary Speaker. International Conference: *Delivering Value from Avian Genomics*. Mississippi State University, Starkville, Mississippi. May 19-20, 2008. Talk: *Ontologies for Biology*.
- 2008 Invited Speaker. Ontologies and Text Mining for Life Sciences: Current Status and Future Perspectives. Dagstuhl, Germany. March 24-28, 2008. Talk: *What makes text mining useful*.
- 2007 Plenary Speaker. Second International Biocuration Meeting, San Jose, CA October 25-28. Talk: *Evidence and Inference: Paths to Curation*.
- 2007 Invited Participant. PubMed Plus: New Directions in Publishing and Data Mining Leadership Conference. Co-chair of Working Group 1 [Capturing experimental

- design metadata in ways that facilitate data mining] David van Essen and Rob Williams, co-organizers. St. Louis, MO. June 18-19.
- 2007 Invited Participant – US-EC Workshop on Infrastructure Needs of Systems Biology. US-EC Task Force on Biotechnology Research: NSF, NIH, and Research Directorate of the European Commission. Boston, MA May 3-4.
- 2007 Invited Speaker and Participant – Dagstuhl Seminar: Towards Interoperability of Biomedical Ontologies. Wadern, Germany. March 27 – 30. Talk: *Alignment of Ontologies for Biological Research*.
- 2006 Invited Speaker and Participant – Global Dialogues on Emerging Science and Technology (GDEST) Conference on Bioinformatics, Petropolis, Brazil. November 12-15. Co-sponsored by the Office of the Science and Technology Advisor to the Secretary of State (STAD), USA and Brazilian National Laboratory for Scientific Computation. Talk: *Beyond the Data Deluge: The Gene Ontology and Mouse Genome Informatics*.
- 2006 Invited Speaker – South Carolina Medical School Seminar Series, Charleston, S.C. November 1. *Beyond the Data Deluge: The Gene Ontology and Mouse Genome Informatics*.
- 2006 Invited Speaker – Swiss Prot 20<sup>th</sup> Anniversary Celebration Conference, Fortaleza, Brazil. July 30-August 4. Talk: *Using Ontologies for Biomedical Research: Progress and Promise*.
- 2006 Invited Speaker – Workshop on Immunology Ontologies Gaithersburg, MD. March 21-22. Talk: *Utilization of Ontologies to Represent Mammalian Biology*.
- 2006 Invited Speaker - American Association for the Advancement of Science Annual Meeting. St. Louis, MO. February 17-20. Title: *Impact of BioOntologies on Biomedical Research*.
- 2006 Invited Participant – Bioinformatics Research Centers Meeting. Philadelphia, PA. February 6-7. Title: *The Gene Ontology*.
- 2005 Plenary Speaker – Mouse Biomedical Informatics Research Network (BIRN) meeting, UCLA, CA. May 31-June 1. Talk: *Beyond the Data Deluge*.
- 2005 Keynote Speaker – BioLINK05 Special Interest Group (SIG) at Intelligent Systems for Molecular Biology (ISMB) Meeting, Detroit, MI. June 23 –29. Talk: *Bioinformatics and the Biomedical Literature: Current Challenges*.
- 2005 Invited Panelist – BioOntologies Special Interest Group (SIG) at Intelligent Systems for Molecular Biology (ISMB) Meeting, Detroit MI. June 23 –29.
- 2005 Invited Participant – Fidelity Knowledge Management Workshop, Washington, D.C. June 18.
- 2005 Invited Speaker - Ontology and Biomedical Informatics Conference. Rome, Italy. Apr. 28 – May 2. Talk: *Beyond Data Integration: Data Management for Knowledge Discovery*.
- 2005 Invited Participant – Computable Semantics for Complex Biological Systems Workshop, Arlington VA. March 3-4. Talk: *Case Study GO: Challenges and Pitfalls in Ontology Development*.
- 2004 Invited Speaker –Standards and Ontologies for Functional Genomes Conference. Philadelphia, PA. October 23-26. Talk: *Functional Genome Annotation Using Controlled Vocabularies*.
- 2004 Invited Speaker – Genome Informatics Meeting, Wellcome Trust Genome Center, U.K. September 25. Talk: *Comparative Function Annotation and Analysis in Mouse*.

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- 2004 Invited Participant - DARPA Workshop on Bio-Ontologies. February 3-5. College Park, MD.
- 2004 Invited Seminar Speaker - Oregon Sciences and Health University, Portland OR, February 20, Talk: *From Data to Knowledge in the Digital Age: Mouse Genome Informatics and the Gene Ontology*.
- 2003 Invited Speaker - NIH-BISTI Symposium 2003. 'Digital Biology: The Emerging Paradigm'. Bethesda, MD. November 6-7, 2003. Talk: *Scientific Data Integration*.
- 2003 Invited Speaker/Participant - Wellcome Trust Workshop on Informatics Resources for the Human Genome. Bethesda, MD. September 22-23. Talk: *The Gene Ontology: Tool for the Unification of Biology*.
- 2003 Invited Speaker/Participant - NSF and MITRE-sponsored workshop on 'Disease Modeling and Prediction'. Reston, VA. Talk: *Genome, Genotypes and Human Diseases: The Mouse Model*.
- 2003 Invited Speaker - Advances in Genome Biology and Technology Conference, Marcos Island, FL. February 5-9. Talk: *Ontology Development in Model Organism Database Systems: The Gene Ontology and the Mouse Genome Informatics System*.
- 2003 Invited Participant - Biomedical Information Science and Technology Initiative (BISTI) Consortium Planning Workshop, NIH, Bethesda, MD. January 15-16.
- 2003 Invited Panelist - Pacific Symposium on Biocomputing 2003, Lihue, Kauai, HI January 3-7. Session: 'Current work in linking Ontologies, Databases and Literature'. Talk: *Mouse Genome Informatics and Data Integration*.
- 2002 Invited Speaker - NCI Cancer Diagnosis Program - Director's Challenge Principal Investigators Meeting, Bethesda, MD. November 6-8. Talk: *The Gene Ontology Project: Towards a Common Understanding and a Shared Description of Molecular Biology*.
- 2002 Invited Speaker - Genome Informatics Meeting, Hinxton, U.K. September 4-8. Talk: *The Gene Ontology Project: Impacts on Model Organism Information Systems*.
- 2002 Invited Speaker - 5<sup>th</sup> Annual BioOntologies Meeting; Edmonton, Canada. August 8. Talk: *Ontology Development in model organism database systems: The Gene Ontology and the Mouse Genome Informatics System*.
- 2002 Invited Speaker - IBC Post-Genomic Bioinformatics Conference, San Francisco, CA. June 24-26. Talk: *Challenges and Problems in Functional Analysis*.
- 2002 Invited Speaker and Participant - Event- and Process-Based Data Integration for the Gulf of Maine. Campobello Island, New Brunswick, Canada. June 12-14. Funded by NSF.
- 2002 Invited Participant - Toxicogenomics Database Workshop. MDI Biological Laboratories, Bar Harbor, ME. May 3-4.
- 2002 Invited Participant - Model Organism Database Workshop. Bethesda, MD. April 29-30.
- 2002 Invited Speaker - Ontologies in Bioinformatics and Medical Informatics. Manchester, U.K., March 23-24. Talk: *Working in Real Time: Building Ontologies While Annotating the Mouse from Genotype to Phenotype*.
- 2002 Invited Speaker - Bates College, Lewiston, ME. March 13. Title: *Power and Promise of Comparative Genomics*.
- 2001 Invited Speaker - Ontologies in the Life Sciences, a symposium sponsored by Millennium Pharmaceuticals. August 10. Talk: *The Gene Ontology Project*.
- 2001 Invited Participant and Speaker - Enabling Technologies for Alzheimer's Disease Research - An Alzheimer Research Forum Foundation workshop. Bar Harbor, ME. August 2 - 4. Talk: *Mouse Genome Informatics*.



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- 2001 Invited Speaker - 4<sup>th</sup> Annual Bio-Ontologies Meeting, Copenhagen, Demark. July 26. Talk: *Practical Tools for the Gene Ontology*.
- 2001 Invited Speaker - 11<sup>th</sup> Intl. Congr. on Genes, Gene Families and Isozymes. Stockholm, Sweden. June 30-July 5. Talk: *Gene Classification Systems and the Annotation of Gene Function and Process*.
- 2001 Invited Speaker - Conservation Genetics in the Age of Genomics - Spring Symposium of the American Museum of Natural History, NYC, NY. April 4-6. Talk: *Comparative Genomics and the Conservation of Biodiversity*.
- 2000 Invited Participant - Workshop on the Tree of Life Initiative, Austin, TX. December 3-4, 2000.
- 2000 Invited Participant - 'Functional Annotation of the Mouse' FANTOM Meeting. Tsukuba, Japan. August 28 - September 8.
- 2000 Invited Participant - Workshop on the Phylogenetics and Phyloinformatics to Assemble the Tree of Life, New Haven, CT. July 28-29.
- 2000 Invited Speaker - Genetic Resources for the New Century Meeting. San Diego, CA. May 7 -11. Title: *Impending Unification of Biological Information...The Mouse Model*.
- 2000 Invited Speaker - Conference on Bioinformatics of Genes and ESTs Relevant to Membrane and Cellular Toxicology. Bar Harbor, ME. April 28 -29. Title: *Nomenclature and Homologies: Strategies in the Formation of Specialized Gene Databases*.
- 2000 Invited Participant - Workshop on the Projected Use of Bioinformatics: Circuit Riders for the Computerization of Herbaria in the U.S.A. Lincoln, NE. April 6-9.
- 2000 Invited Speaker - International Rice Genome Meeting 2000, Tsukuba, Japan. Feb. 8 - 10. Title: *Data Integration in the Mouse Genome Databases*.
- 1999 Invited Speaker - Workshop on Functional Genomics, Heidelberg, Germany. August 4-5. Title: *Annotation at The Jackson Laboratory; Mouse Genome Informatics, From Genotype to Phenotype*.
- 1999 Invited Speaker - 2<sup>nd</sup> International Nomenclature Workshop, Cambridge, United Kingdom. April 30-May 2. Title: *Gene Families, A Nomenclature Perspective*.
- 1998 Invited Speaker - Rat Genome Mapping Conference , Hannover, Germany. October 5-7. Title: *Rat and Mouse Informatics and Database Resources*.
- 1998 Invited Speaker - Biological Informatics Conference" Canberra, Australia. Title: *Molecular Maps of Chromosomes*. July 6-8.
- 1998 Invited Speaker- Genes and Polymorphisms in Drug Discovery Workshop. May 19. Welwyn, England. Title: *Database and Internet Resources of Genes and Molecular Polymorphisms*.
- 1998 Invited Speaker. 1<sup>st</sup> International Nomenclature Workshop, Bar Harbor, ME. April 30-May 3. Title: *Nomenclature for Gene Families*.
- 1996 Invited Participant - Workshop on Biodiversity Informatics. San Diego, CA February 15 - 18.
- 1995 Invited Speaker - International Symposium and Workshop on Conservation Biology. Kuching, Sarawak, Malaysia. November 19 -23. Title: *Molecular Sequences, Bioinformatics and Conservation Biology*.
- 1995 Invited Speaker - Molecular Approaches to Zoology and Evolution Symposium, Society of Integrative and Comparative Biology, St. Louis, MO. January 5 - 8. Title: *Biological Information in an Electronic Age: Access to and use of Biological Databases*.
- 1994 Invited Participant - Workshop on the Infrastructure Requirements and Design Considerations for a Federation of Botanical Specimen Databases". Berkeley, CA, June 9-12.



- 1992 Invited Participant -Workshop on the Computerization on Natural History Collections. University of Michigan, Ann Arbor, MI. November 13-18.

### **Symposia/Workshops/Tutorials Organized**

- 2017 Co-organizer, Workshop: GeneWeaver 2.0: A platform for cross-species integration of heterogeneous functional genomics data. Mammalian Genetics and Genomics: from Molecular Mechanisms to Translational Applications. EMBL-Heidelberg, Germany. October
- 2017 Co-organizer, Workshop: New NIH initiative the "Alliance of Genome Resources" Mammalian Genetics and Genomics: from Molecular Mechanisms to Translational Applications. EMBL-Heidelberg, Germany. October
- 2016 Co-organizer, Workshop: Gene Enrichment Analysis: Tips and Strategies for Success, Intl. Soc. Biocurators meeting, Geneva, Switzerland. April.
- 2016 Invited participant. Disease Ontology Workshop, Intl Soc of Biocurators meeting, Geneva, Switzerland
- 2015 Co-organizer, Enrichment Analysis Workshop. IMGc meeting, Yokohama, Japan.
- 2014 Co-organizer, Phenotypes Workshop, International Society of Biocurators. Beijing, China. April.
- 2013 Session Co-Chair, Ontologies and Standards. 6<sup>th</sup> International Biocuration Meeting. April 7-10, Cambridge, UK.
- 2012 Co-Organizer, Workshop on the Classification of Diseases for Curation of Animal Models. 5<sup>th</sup> International Biocuration Conference: April 2-4, 2012. Washington, D.C.
- 2010 Organizer, Intelligent Systems for Molecular Biology- Workshop on Evidence Codes; Assay Tracking, ECO and OBI. July 12, 2010. Boston, MA
- 2005 Bioinformatics Workshop Leader: Comparative Genomics Conference. "Using the Gene Ontology Resources in Biological Research" Boston, MA.
- 2004 Co-organizer, Conference on Standards and Ontologies for Functional Genomics 2, Philadelphia, PA. October 23 - 27. Funded by NHGRI/NCRR/NCI/NERC/GSK.
- 1999 Co-organizer, 2<sup>nd</sup> International Nomenclature Workshop, Cambridge, U.K. April 30 - May 2. Sponsored by The Sanger Center, EU (EMBL).
- 1997 Co-organizer, International Nomenclature Workshop, The Jackson Laboratory, Bar Harbor, ME. April 30 - May 4. Sponsored by NSF, DOE & the U.S. Dept. of Agriculture, NHGRI, The Jackson Laboratory, and Burroughs Wellcome, Inc.
- 1994 Co-organizer, Workshop on Database Interoperability, Gaithersburg, MD. June 26 - 28. Sponsored by The Institute for Genomic Research (TIGR), DOE, and MasPar Co.
- 1993 Co-organizer, 2<sup>nd</sup> International Meeting on Ancient DNA, Smithsonian Institution, Washington, D.C. October 24 - 26. Sponsored by the Smithsonian Institution and the Sloan Foundation.

### **Community Service**

- 2016 - 2020 NIH permanent member of Genome Research Review Committee GENOM-G
- 2018 - Scientific Advisory Board, Disease Ontology project.
- 2017 - Scientific Advisory Board, RSCB Protein Data Bank (PDB)
- 2016 NIH NCI Special Emphasis Panel R21, U01, U24 applications. Feb 23-24.
- 2015- Scientific Advisory Board, DOE Joint Genome Institute (JGI), LBNL,
- 2015- Scientific Advisory Board, FlyBase Model Organism Database.
- 2015 - 2019 International Committee on Standardized Genetic Nomenclature for Mouse. Elected member.
- 2014 NIH BD2K special emphasis panel ZRG1 BST-N (50) Development of Software and Analysis Methods for Biomedical Big Data in Targeted Areas of High Need (U01).

- 2014–2017 Chair: Public Affairs and Policy Committee, International Society for Computational Biology [ISCB].
- 2010-2017 Board of Directors [Elected]. International Society for Computational Biology [ISCB].
- 2012-2017 Advisory Board. FORCE11:Future of Research Communication and e-Scholarship.
- 2014 NIH NIGMS special emphasis panel P20:COBRE: Center of Biomedical Research Excellence.
- 2014 IAR reviewer for NIH Special Emphasis Panel/Scientific Review Group 2014/10 ZGM1 TWD-6 (C1). COBRE grants.
- 2011-2015 ISCB voting representative to FASEB [Federation of American Societies for Experimental Biology] Board of Directors.
- 2013-2015 Senior Scientific Representative on Advisory Panel for new Nature Publishing Group publishing effort *Scientific Data*.
- 2006-2014 UniProt (Universal Protein Resource): External Scientific Advisory Board, 2013 NIH NIDDK R13 Conference Grant reviewer
- 2012-2014 Guest Associate Editor: PLoS Computational Biology Journal.
- 2008-2012 CIHR (Canada Institutes of Health Research) External Scientific Advisory Board. “Model Organism Interactions and Human Diseases” project. (Member).
- 2003-2014 External Scientific Advisory Panel for the MDI-BL Toxicogenomics Database (NIEHS)
- 2008-present External Advisor: Phenoscope Project of the National Evolutionary Synthesis Center
- 2009-2011 External Scientific Advisor – Disease Ontology Project
- 2006-2009 Member: NIH Study Section: Genomics, Computational Biology, and Technology (GCAT).
- 2006 NHLBI Cardiovascular Strategic Planning Working Group #11  
NIH BISTI meeting July 11-12, Washington, D.C.
- 2006-2009 External Scientific Advisory Panel, PharmaGenetics KnowledgeBase (PharmaGKB)
- 2004-2008 TREC Genomics Track - Steering Committee (NIST)
- 2003-2008 External Scientific Advisory Board, *Saccharomyces* Genome Database (SGD) (NHGRI)
- 2005 Special Editor, PLOS Genetics: Fantom 3 issue.
- 2004 NIH: INBRE Review Panel
- 2004-2005 NIH *Ad Hoc* Study Section Member: Genomics, Computational Biology and Technology (GCAT).
- 2003-2005 External Scientific Panel for the Pharmacogenetics Research Network (PGRN) (NIGMS)
- 2003-2006 External Scientific Advisory Board, TIGR Rice Genome Annotation Project (NSF)
- 2001-2003 NIH - BISTI pre-National Programs of Excellence in Biomedical Computing (NPEBC) Advisory Panel.
- 1995-1997 NSF – Research Collections in Systematics and Ecology Advisory Panel

### **Program Committees**

Bioinformatics 2019.

Intelligent Systems for Molecular Biology (ISCB-ISMB). 2005-2009, 2012-2013, 2015-16

European Conference on Computational Biology (ECCB) 2005, 2007, 2008, 2012-14  
2016.  
Future of Research Communications and e-Scholarship (FORCE11)-Program Com. 2016.  
Intl Soc of Biocuration Workshop PC: "Text Mininng and Biocuration: Moving to  
Integration. 2016  
ACM-BCB2013: ACM Conference on Bioinformatics, Computational Biology and  
Biomedical Informatics – 2013 Track Chair: Data and Knowledge Bases, TextMining  
and Ontologies  
AMIA Summit on Translational Bioinformatics. 2011.  
*BioCreAtIvE* (Critical Assessment of Information Extraction systems in Biology). 2012.  
Biological Data Visualization (BioVis 2012) IEEE Symposium on Biological Data  
Visualization.  
Bio-Ontologies Special Interest Group; ISMB meeting 2008 – 2011.  
Conference on Semantics in Healthcare and Life Sciences (CSHALS), 2014.  
Data Integration in the Life Sciences Meeting. 2005, 2011 - 2012.  
Gene Network and Pathway Generation and Analysis Workshop: ACM International  
Conference on Bioinformatics and Computational Biology (ACM-BCB). 2010  
International Conference on Data Integration in Life Sciences. 2012.  
International Conference on Biomedical Ontologies (ICBO), 2009, 2011, 2012, 2014.  
International Semantic Web Conference/Semantic Web Applications in Scientific  
Discourse. 2009.  
Pacific Symposium on Biocomputing. 2005.  
Symposium on Languages in Biology and Medicine. 2009, 2011, 2103  
Workshop on Gene Network and Pathway Generation and Analysis: in conjunction with  
ACM International Conference on Bioinformatics and Computational Biology (ACM-  
BCB). 2010.  
Text Mining and Biocuration Workshop, April 13, 2016, at 9<sup>th</sup> International Conference  
of Biocuration

#### **Ad Hoc Paper Reviews, Program and Grant Reviews, and Book Proposal Reviews**

AAAS Science  
Advances in Bioinformatics  
Bioinformatics  
BMC Bioinformatics  
Briefings in Bioinformatics  
Fonds National de la Recherche, Luxemburg  
Genomics  
Genome Biology  
Genome Research  
Journal of Biomedical Semantics  
Nature Review Genetics  
Netherlands Commission on National Roadmap Large-scale Research Facilities  
Nucleic Acid Research  
PLoS Computational Biology  
Trends in Bioinformatics  
Wiley Publishing  
Wellcome Trust

#### **The Jackson Laboratory Service**

Research Grants Committee (2004-present)  
Faculty Advisor: Library Sciences (2013 – 2018)  
Controlled Vocabularies Steering Committee [CVS] (2007 – 2008)  
Digital Asset Management Committee (2005)  
Education and Training Committee (1996-1999)  
Genetic Resources Committee (1999-2002)  
Library Committee (2004- 2012)  
Meetings Committee (2002-2003)  
Promotions Committee (2011-2012)  
Scientific Advisory Committee [SAC] (2007- 2009)  
Seminar Committee (1999-2002)  
Special Director of Development Recruitment Committee (2006-2007)  
Web Governance Committee (2009)

### **PhD. Thesis Committees**

Karen Dowell Graduate School of Biological Sciences, Univ. Maine, Orono, ME  
Thesis: (2013) "Exploring Pluripotent Stem Cell Self-Renewal and Cell Fate with Cell-Type-Specific Genomic Data Integration and Bayesian Network Machine Learning."

Jeremy Jay Graduate School of Computer Sciences, Univ. Maine, Orono, ME  
Thesis: (2013) "Data Integration and Analysis Techniques for Cross-species Gene-Phenotype Relationship Elucidation."

### **Students and Interns**

- 2018 Jessica Creelman, Rensselaer Polytechnic Institute, Troy, NY. TJL Summer Student Internship Program. *Transcription Factors, Their Targets, and Their Role in Breast Cancer.*
- 2017 Akeena Harper, Voorhees College, Denmark, S. Carolina. TJL Summer Student Internship Program. *Understanding Chemotherapeutic-Gene Relationships Through Cross-Species Analysis.*
- 2016 Yoojin Cha, Colby College, Waterville, ME. TJL Summer Student Internship Program. *From Function to Dysfunction: Gene Ontology and Cancer.*
- 2016 Jesus Roberto Franco, Univ of Texas, Rio Grande Valley, TX. TJL Summer Student Internship Program. *Testing the Paradigm: Cancer Gene Sets and the Hallmarks of Cancer.*
- 2015 Daniela Perry, Cornell University, Ithaca, NY. TJL Summer Student Internship Program. *Orthologs and Isoforms and Conservation of Function.*
- 2014 Nikolai Renaldo, Tufts University, Medford, MA. TJL Summer Student Internship Program. *Developing computable models of metabolic processes for the Gene Ontology.*
- 2013 Joao Ascensao, Rice University, Houston, Texas. TJL Summer Student Internship Program. *Methodology for Inferring Gene Function from Phenotype Data.* Publication: Ascensao J, Dolan ME, Hill DP, Blake JA. 2014. Methodology for Inferring Gene Function from Phenotype Data. BMC Bioinformatics 15:405 doi:10.1186/s12859-014-0405-z. PMID:25495798. (highly accessed).
- 2012 Parirash Abdolhosseini, University of Washington, Seattle, WA TJL Summer Student Internship Program. *Investigating the genetic connection between autism and seizures through the RNA binding protein Celf4.*

- 2012/13 Aaron Kravens, Mount Desert Island High School, Bar Harbor, Local Internship. *Investigation Into Vertebrate and Mammalian Homologous Gene Sets Using Databases.*
- 2011 Krystal English, Amherst College, Amherst, MA TJL Summer Student Internship Program. *The Role of Developmental Processes in Interstitial Lung Diseases.*
- 2011 Michael O'Keefe, Rensselaer Polytechnic Institute. TJL Summer Student Internship Program. *MouseMine: a flexible storage and retrieval solution for Mus musculus biological data.* Co-sponsored with Joel Richardson.
- 2011 Danielle Penny, Needham High School, MA. TJL Summer Student Internship Program. *Using Spatial and Temporal Qualities of Gene Expression to Prioritize Autism Candidate Genes.*
- 2010/11 Christopher Carr, North Carolina State University. TJL Summer Internship Program. *Enhancing knowledge representation of Autism in mouse informatics resources.* Publication: Meehan TF, Carr CJ, Bult CJ, Chesler EJ, Blake JA. 2011. Autism Candidate Genes via Mouse Phenomics. J Biomed Inform. Dec;44 Suppl 1:S5-11Mar 21 doi: 10.1016/j.jbi.2011.03.003. PMCID: PMC3263820.
- 2009/10 Wade Vallieau, Mount Desert Island High School Intern. (Fall/Spring/Summer, 2009-2010). *Importing Neuroinformatics Framework resources into the Cell Ontology.*
- 2009/10 Morgan Hightshoe, North Carolina State University. TJL Summer Internship Program. *Development and Reconstruction of the Neuronal Cell Types in the Cell Ontology.*
- 2009 David Smith, Maine School of Science and Mathematics. TJL Summer Internship Program. *Building a Cell Cycle Ontology for Mouse based on Mouse Genome Informatics Database.*
- 2009 Daniel Hales, Mount Desert Island High School Intern. *Bioinformatics of Lung Diseases.*
- 2008 Karen Dowell, UMaine Graduate Program in Functional Genomics. Rotation Student in Bioinformatics (Fall, 2008).
- 2008 William Kornahrens, North Carolina School of Math and Science, TJL Summer Internship Program, *Complex Complexities.*
- 2007 Marianne Seto, UMaine Graduate Program in Functional Genomics. Rotation Student in Bioinformatics (Summer, 2007).
- 2007 Esther Uduehi Wells Scholar at Indiana University, TJL Summer Internship Program. *Ontological Modeling for Knowledge Representation of Lung Disease.*
- 2006 Curt Christian, St. Cloud College, TJL Summer Internship Program, *Integration of Gene Ontology and Human Disease.*
- 2006 Michael Petkov, Ellsworth High School, TJL Summer Internship Program, *Mining Metabolic Pathway Data From Gene Ontology Annotations.*
- 2005 Daniel Leiber, Princeton University, TJL Summer Internship Program. *Using Ontological Reasoning to Investigate Metabolic Diseases.*
- 2004 Megan Campbell, Gettysburg College, TJL Summer Internship Program. *Assessing Gene Ontology (GO) Annotation Consistency Between the Mouse and Rat Genomes.*
- 2003 David Haluska, Brewer High School, TJL Summer Internship Program. *Creating a web-accessible database resource linking mouse models, inbred strains, and human diseases.*
- 2001 Daniel Lawrence, Mt. Desert Island High School Intern. *Putting Lee Silver's Book 'Mouse Genetics' on the Web.*
- 2000 Kelly Tolle, Carleton College, TJL Summer Internship Program. *Integrating*

*Existing On-line Databases: Creation and Implementation of a Controlled Vocabulary.*

- 2000 Robert Peliks, Lowell (CA) High School, TjL Summer Internship Program. *The Comparative Cancer Genetics Web Site*. Co-sponsored with Carol Bult and Janan Eppig.
- 1999 Winnie Liang, Carnegie Mellon University, TjL Summer Internship Program. *Development of a Mouse Trp53 Mutation Database*. Co-sponsored with Carol Bult and Janan Eppig.
- 1998 Margaret Douglass, Towson High School, TjL Summer Internship Program. *Graphical Representations of Conserved Regions between Mouse and Human Genomes*. Co-sponsored with Janan Eppig.
- 1998 Christina Hull, Trinity College, TjL Summer Internship Program. *Creating a Bioinformatics Resource: Problems and Promise*. Co-sponsored with Janan Eppig.
- 1997 Chris Tracey, Mt. Desert Island High School Intern. *A Typical Task in Bioinformatics*.

**Faculty Lectures/Tutorials**

- 2016-2018 "Big Genomic Data Skills Training for Professors" course, Jackson Laboratory, Leader of sections on Data Reproducibility, Data Analysis, and Data Integration.
- 2016 "21<sup>st</sup> Century Mouse Genetics" course, Jackson Laboratory, Lecturer "From Data to Knowledge in Biomedical Sciences."
- 2012-2015 "Mammalian Genetics" graduate course lectures. Tufts University – Jackson Laboratory.
- 2004-2012 "Functional Genomics" graduate course lectures. UMaine-Orono, Maine Medical Research Center, Portland, and The Jackson Laboratory, Bar Harbor, ME.
- 2011, 2012 Genomic and Proteomic Approaches to Complex Heart, Lung, Blood & Sleep Disorders September 8-16. The Jackson Laboratory.
- 2012 Short Course on Systems Genetics., The Jackson Laboratory
- 2007-2009 Mouse Models for Human Diseases. The Jackson Laboratory.
- 2006 Cold Spring Harbor Laboratory Course: Computational & Comparative Genomics, Cold Spring Harbor, NY.
- 2002-2006 Short Course on Genome Sequence Analysis: Theory and Practice. Co-sponsored by The Jackson Laboratory and NCBI. Bar Harbor, ME.
- 2002-2004 Short Course on Gene Microarray Development and Analysis: Approach to Heart, Lung, Blood and Sleep Disorders. Co-sponsored by The Jackson Laboratory and The Institute for Genomic Research, Bar Harbor, ME.
- 2003 Toxicogenomics. Gordon Research Conference. Bates College, Lewiston, ME.
- 2002, 2003 Advances in Genome Technology and Bioinformatics. Co-sponsored by the Marine Biological Laboratory and The Institute for Genomic Research (TIGR). Woods Hole, MA.
- 1996-2000 Instructor for Genetics Course offered by The Jackson Laboratory. Certified course for 3 credits with the University of Maine at Machias.

**Professional Societies**

American Association for the Advancement of Science  
 Genetics Society of America  
 International Society for Computational Biology



International Society for Biocuration  
International Society for Mammalian Genetics