Curriculum vitae

Manuela Sironi, PhD
Personal Data: born November 30th, 1971 in Como, Italy. Citizenship: Italian.
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Education and research experience:
2024-present: Associate Professor of Genetics, University of Milano-Bicocca
2006-present: Principal Investigator, Bioinformatics Unit., IRCCS E. Medea (Bosisio Parini, Italy).
2008-2020: Assistant Professor (University of Milan, Italy).
2007-2010: PhD in Molecular Medicine (University of Milan, Italy).
2005-2006: Researcher, Bioinformatics Lab, IRCCS E. Medea (Bosisio Parini, Italy).
2004: Visiting Scientist, Wadsworth Center, Molecular Genetics Program, Center for Medical Sciences, Albany, USA.
2001-2003: Specialty in Applied Genetics (University of Milan, Italy).
1998-2004: Researcher, Molecular Biology Unit, IRCCS E. Medea (Bosisio Parini, Italy).
1996-1998: Research fellowship, Department of Neurological Sciences, University of Milan, IRCCS Ospedale Maggiore Policlinico (Milano, Italy).
1995-1996: Research fellowship, Experimental Oncology, Istituto Nazionale per lo Studio e la Cura dei Tumori (Milano, Italy).
1995: Magna cum Laude Degree in Biological Sciences (Universita' degli Studi di Milano, Italy).
1990: High school graduation (60/60), Liceo Scientifico "P. Giovio", Como (Italy).

National Scientific qualifications (ASN):
2023: National Scientific Qualification to cover the role of Full Professor in Genetics (05/I1);
2022: National Scientific Qualification to cover the role of Associate Professor in Molecular Biology (05/E2);
National Scientific Qualification to cover the role of Associate Professor in Clinical and Medical Microbiology (06/A3).
2020: National Scientific Qualification to cover the role of Associate Professor in Microbiology (05/I2).
2018: National Scientific Qualification to cover the role of Associate Professor in Medical Genetics (06/A1).
2018: National Scientific Qualification to cover the role of Associate Professor in Health sciences and applied medical technologies (06/N1).
2017: National Scientific Qualification to cover the role of Associate Professor in Zoology and Anthropology (05/B1).

Language skills:
Italian: mother tongue.
English: fluent (written and spoken).
French: beginner (written and spoken).

Publications and bibliographic indexes:
Author of 181 publications in peer-reviewed international scientific journals (excluding conference proceedings): 26 first author, 99 last author.
Total citations: 7007 (Scopus), 10535 (Google Scholar).

H-index: 44 (Scopus), 52 (Google Scholar).

Editorial Boards:
2022-present: Co-Editor in Chief of Infection, Genetics and Evolution (Elsevier, IF=3.2).
2022-present: Editorial board of Viruses (MDPI, IF=5.8).
2020-present: Chief Editor of the Bioinformatic and Predictive Virology section (Frontiers in Virology, IF= not yet assigned).
2018-present: Senior Editor for Scientific Reports (Nature Publishing Group, IF=4.4).
2016-2021: Handling Editor for Infection, Genetics and Evolution (Elsevier).
2016-2018: Editorial Board of Scientific Reports (Nature Publishing Group).

Scientific boards:
2017-present: member of the *Arenaviridae* Study Group-International Committee on Taxonomy of Viruses (ICTV, https://ictv.global/).
2004-2020: Board member of the Neurology Residency Program, University of Milan.
2006-present: member of the Technical and Scientific Board, IRCCS E. Medea.

Committees/grant reviewing activity:
2023: Expert evaluator for the Fundação para a Ciência e a Tecnologia, I.P. (FCT), the Portuguese public funding agency for R&D [Experimental Biology panel].
2022: co-Chair of the Experimental Biology panel, Fundação para a Ciência e a Tecnologia, I.P. (FCT), the Portuguese public funding agency for R&D.
2021: Chair of the Experimental Biology panel, Fundação para a Ciência e a Tecnologia, I.P. (FCT), the Portuguese public funding agency for R&D.
2020: Expert evaluator for the Fundação para a Ciência e a Tecnologia, I.P. (FCT), the Portuguese public funding agency for R&D [Clinical Medicine panel].
2017: Expert evaluator for the Fundação para a Ciência e a Tecnologia, I.P. (FCT), the Portuguese public funding agency for R&D [Experimental Biology panel].
2015: Expert evaluator for the Fundação para a Ciência e a Tecnologia, I.P. (FCT), the Portuguese public funding agency for R&D [Experimental Biology panel].
2015: Expert evaluator for the European Research Commission, stage 1, H2020-BIOTEC.
2011: Expert evaluator for the European Research Commission, stage 1 and stage 2, FP7-HEALTH-2011-two stage [Topic 2.1.1-3 Large-scale genomics approaches to identify host determinants of infectious diseases].
Reviewer for the following agencies/programs: Swiss National Science Foundation, Cariplo Foundation (Italy), UEFISCDI EEA Grants, INCEPTION Program (France), ERINHA-ISIDORe Program (2022 Monkeypox Call).

Awarded Grants:
2023: PI, “An evolution-guided approach to study the interaction between MPXV and RIPK3, a central mediator of necroptosis”, ISIDORe Program (A New Approach to Pandemic Preparedness & Responsiveness Research in Europe, Monkeypox Call).
2020-2021: PI, “Characterization of SARS-CoV-2 accessory proteins in terms of host adaptation, biochemical properties, and pharmacophore models-CORONA”, Fondazione Cariplo.
2020-2021: collaborator, “Characterization of SARS-CoV-2 coding sequences and assessment of their role in COVID-19 pathogenesis”, Regione Lombardia.
2010-2015: collaborator, “Role of pathogen-driven selection in shaping the predisposition to inflammatory bowel disease (IBD): identification of disease susceptibility alleles” The Broad Medical Research Program of The Broad Foundation [grant IBD-0294].
2012-2013: Unit PI, “Comparison between Caucasian and Chinese genetic profiles predicting the response to rostafuroxin” (funded by CVie Therapeutics Company Limited).

2008: PI, “A population genetics approach to the identification of disease alleles and its application to juvenile and perinatal stoke”, the Italian Ministry of Health (“Ricerca Finalizzata,[RF-IEM-2007-633627].
2000-present: PI, one project/year “Ricerca Corrente” [the Italian Ministry of Health].

Memberships:
Italian Society of Evolutionary Biology (SIBE)

Manuscript reviewer for:
Science, Trends in Genetics, Molecular Biology and Evolution, BMC Evolutionary Biology; Journal of Molecular Evolution, Journal of Medical Genetics, Gene, Human Genetics, American Journal of Human Genetics, PLoS Genetics, Molecular Ecology, PLoS Pathogens, PNAS, Nature Communications, Journal of Virology, Nature Ecology and Evolution.

Teaching:
2008-2013: Assistant Professor, Practical Neurology 4 (Postgenomics and bioinformatics, comparative genomics), 6 hours/year, Neurology Residency Program, University of Milan
2013/2014: Assistant Professor, Practical Neurology 4 (Postgenomics, bioinformatics, comparative genomics, population genetics), 6 hours/year, Neurology Residency Program, University of Milan
2014/2015: Assistant Professor, Practical Neurology 4 (Postgenomics, bioinformatics, comparative genomics, population genetics), 6 hours/year, Neurology Residency Program, University of Milan
2015/2016: Assistant Professor, Practical Neurology 4 (Postgenomics, bioinformatics, comparative genomics, population genetics), 4 hours/year, Neurology Residency Program, University of Milan
2016/2017: Assistant Professor, Practical Neurology 3 (Postgenomics, bioinformatics, comparative genomics, population genetics), 4 hours/year, Neurology Residency Program, University of Milan
2017/2018: Assistant Professor, Practical Neurology 3 (Postgenomics, bioinformatics, comparative genomics, population genetics), 4 hours/year, Neurology Residency Program, University of Milan
2018/2019: Assistant Professor, Practical Neurology 3 (Postgenomics, bioinformatics, comparative genomics, population genetics), 4 hours/year, Neurology Residency Program, University of Milan

Student tutoring/Jury member:
2005-2006: co-supervisor, Matteo Fumagalli, Master Degree in Biomedical Engineering, Politecnico di Milano.
2008-2010: co-supervisor, Matteo Fumagalli, PhD in Biomedical Engineering, Politecnico di Milano.
2009-2010: co-supervisor, Beatrice Montorfano, Master Degree in Biotechnology, Università di Milano Bicocca.
2010-2011: co-supervisor, Diego Forni, Master Degree in Biotechnology, Università di Milano Bicocca.
2014-2016: co-supervisor, Chiara Pontremoli, PhD in Molecular and Translational Medicine. Università degli Studi di Mialno.
2020: jury member, Léa Picard, THESE de DOCTORAT DE L’UNIVERSITE DE LYON, l’Ecole Normale Supérieure de Lyon, Biologie Moléculaire, Intégrative et Cellulaire
2024: revision committee member, Tommaso Alfonsi PhD thesis, PhD in Information Technology, Politecnico di Milano.

Awards
Listed among the Top Italian Scientists (TIS) and the Top Italian Women Scientists (TIWS) (https://topitalianscientists.org/).

1996-1998: Research fellowship, Department of Neurological Sciences, University of Milan, IRCCS Ospedale Maggiore Policlinico (Milano, Italy).

Invited talks and event organization (last 10 years):

2016
Member of the Scientific Committee of MEEGID XIII, 13th International Conference on Molecular Epidemiology and Evolutionary Genetics of Infectious Diseases, 10-13 May 2016, Institute of Tropical Medicine, Antwerp, Belgium

Invited Speaker at MEEGID XIII, 13th International Conference on Molecular Epidemiology and Evolutionary Genetics of Infectious Diseases, 10-13 May 2016, Institute of Tropical Medicine, Antwerp, Belgium

Invited speaker at 8th congresso ICAR 2016, Italian Conference on AIDS and Antiviral Research- Università Milano-Bicocca, Milano, 6-8 Giugno 2016.

Invited speaker at the by the Italian Societies of Microbiology (SIM) and of Immunology, Clinical Immunology and Allergology (SIICA) (Novara, Novarello Congress Center, from 23 to 25 June 2016).

2017
Invited speaker at the 7th LCI-Symposium 2017 Evolution and Infection (Leibniz Center Infection), Leibniz, Germany.

2018
Keynote speaker at the Joint Spring Symposium 2018- Danish Society for Parasitology and Danish Society for Tropical Medicine & International Health- Copenhagen.

Member of the Scientific Committee of the 14th International Conference on Molecular Epidemiology and Evolutionary Genetics of Infectious Diseases (MEEGID) - Sitges, Spain.

Invited speaker at the 14th International Conference on Molecular Epidemiology and Evolutionary Genetics of Infectious Diseases- Sitges, Spain.

Invited seminar at INGM (Istituto Nazionale di Genetica Molecolare) [Seminar: “Zoonoses and the Red Queen (evolutionary genetics of zoonotic infections)“]

2019
Invited speaker at the Jacques Monod Conference - cjm5-2019 : Virus evolution on the mutualist - parasite continuum (Roscoff, France).

2020
Invited speaker- giornate virtuali del congresso della Società Italiana di Microbiologia-- 48th Virtual SIM 2020 (21-22 settembre 2020).

Invited speaker - XII PhD Meeting-- University of Milano-Bicocca

Invited seminar – Residency in Neurology, Università degli Studi di Milano [Evolutionary history and origin of SARS-CoV-2]

2021
Invited seminar for Séminaires d'Écologie et d'Évolution de Montpellier -- LabEx Centre Méditerranéen de l'Environnement et de la Biodiversité -- Center for Research on the Ecology and Evolution of Diseases (CREES)

2022
Invited speaker at the International Discussion Group on COVID Related Activities (hosted by

McGill university, McGill Genome Center, Montreal, Canada).

Invited speaker at XVI FISV Congress, 3R: Research, Resilience, Reprise -- Reggia di Portici (Naples), Italy (14-16 September 2022)

2023
Co-Chair of MEEGID XVI (16th International Conference on Molecular Epidemiology and Evolutionary Genetics of Infectious Diseases, Elsevier), Dresden (14-17 November 2023)

Invited seminar, Department of Biosciences, University of Milan (24 November 2023)

2025
Co-Chair of MEEGID XVII (17th International Conference on Molecular Epidemiology and Evolutionary Genetics of Infectious Diseases, Elsevier), to be held in Kolkata, India (18-21 November 2025)

Scientific dissemination activity:
Since 2014: active participation (interactive talks and activities) to the Researchers' Night (organized by IRCCS E. Medea)
2020: dissemination activity on COVID-19 (with the support of Cariplo Foundation). Target: local secondary schools (11 schools, more than 900 students reached).

List of publications

Journal articles (international, peer reviewed only):

1 Fassati A, Bardoni A, **Sironi M**, Wells DJ, Bresolin N, Scarlato G, Hatanaka M, Yamaoka S, Dickson G. Insertion of two independent enhancers in the long terminal repeat of a self-inactivating vector results in high-titer retroviral vectors with tissue-specific expression. Hum Gene Ther. 1998; 9(17):2459-68. doi: 10.1089/hum.1998.9.17-2459

2 Bardoni A, **Sironi M**, Felisari G, Comi GP, Bresolin N.
Absence of brain Dp140 isoform and cognitive impairment in Becker muscular dystrophy. Lancet. 1999; 353(9156):897-8. doi: 10.1016/S0140-6736(98)05801-2

3 Bardoni A, Felisari G, **Sironi M**, Comi G, Lai M, Robotti M, Bresolin N.
Loss of Dp140 regulatory sequences is associated with cognitive impairment in dystrophinopathies. Neuromuscul Disord. 2000; 10(3):194-9. doi: 10.1016/s0960-8966(99)00108-x

4 Felisari G, Martinelli Boneschi F, Bardoni A, **Sironi M**, Comi GP, Robotti M, Turconi AC, Lai M, Corrao G, Bresolin N.
Loss of Dp140 dystrophin isoform and intellectual impairment in Duchenne dystrophy. Neurology. 2000; 55(4):559-64. doi: 10.1212/wnl.55.4.559.

5 **Sironi M**, Corti S, Locatelli F, Cagliani R, Comi GP.
A novel splice site mutation (3157+1G>T) in the dystrophin gene causing total exon skipping and DMD phenotype. Hum Mutat. 2001; 17(3):239. doi: 10.1002/humu.18

6 Torrente Y, Tremblay JP, Pisati F, Belicchi M, Rossi B, **Sironi M**, Fortunato F, El Fahime M, D'Angelo MG, Caron NJ, Constantin G, Paulin D, Scarlato G, Bresolin N.
Intraarterial injection of muscle-derived CD34(+)Sca-1(+) stem cells restores dystrophin in mdx mice. J Cell Biol. 2001; 152(2):335-48. doi: 10.1083/jcb.152.2.335

7 Cagliani R, Comi GP, Tancredi L, **Sironi M**, Fortunato F, Giorda R, Bardoni A, Moggio M, Prelle A, Bresolin N, Scarlato G.
Primary beta-sarcoglycanopathy manifesting as recurrent exercise-induced myoglobinuria. Neuromuscul Disord. 2001; 11(4):389-94. doi: 10.1016/s0960-8966(00)00207-8

8 **Sironi M**, Bardoni A, Felisari G, Cagliani R, Robotti M, Comi GP, Moggio M, Bresolin N.
Transcriptional activation of the non-muscle, full-length dystrophin isoforms in Duchenne muscular dystrophy skeletal muscle. J Neurol Sci. 2001; 186(1-2):51-7. doi: 10.1016/s0022-510x(01)00502-0

9 Corti S, Salani S, Del Bo R, **Sironi M**, Strazzer S, D'Angelo MG, Comi GP, Bresolin N, Scarlato G.
Chemotactic factors enhance myogenic cell migration across an endothelial monolayer. Exp Cell Res. 2001; 268(1):36-44. doi: 10.1006/excr.2001.5267

10 **Sironi M**, Pozzoli U, Cagliani R, Comi GP, Bardoni A, Bresolin N.
Analysis of splicing parameters in the dystrophin gene: relevance for physiological and pathogenetic splicing mechanisms. Hum Genet. 2001; 109(1):73-84. doi: 10.1007/s004390100547

11 Pozzoli U, **Sironi M**, Cagliani R, Comi GP, Bardoni A, Bresolin N.
Comparative analysis of the human dystrophin and utrophin gene structures. Genetics. 2002; 160(2):793-8. doi: 10.1093/genetics/160.2.793

12 **Sironi M**, Cagliani R, Pozzoli U, Bardoni A, Comi GP, Giorda R, Bresolin N.
The dystrophin gene is alternatively spliced throughout its coding sequence. FEBS Lett. 2002; 517(1-3):163-6. doi: 10.1016/s0014-5793(02)02613-3

13 Torrente Y, Belicchi M, Pisati F, Pagano SF, Fortunato F, **Sironi M**, D'Angelo MG, Parati EA, Scarlato G, Bresolin N.
Alternative sources of neurons and glia from somatic stem cells. Cell Transplant. 2002; 11(1):25-34.

14 Cagliani R, Bardoni A, **Sironi M**, Fortunato F, Prelle A, Felisari G, Bonaglia MC, D'Angelo MG, Moggio M, Bresolin N, Comi GP.
Two dystrophin proteins and transcripts in a mild dystrophinopathic patient. Neuromuscul Disord. 2003; 13(1):13-6. doi: 10.1016/s0960-8966(02)00192-x

15 **Sironi M**, Pozzoli U, Cagliani R, Giorda R, Comi GP, Bardoni A, Menozzi G, Bresolin N.
Relevance of sequence and structure elements for deletion events in the dystrophin gene major hot-spot. Hum Genet. 2003; 112(3):272-88. doi: 10.1007/s00439-002-0881-5

16 **Sironi M**, Cagliani R, Comi GP, Pozzoli U, Bardoni A, Giorda R, Bresolin N.
Trans-acting factors may cause dystrophin splicing misregulation in BMD skeletal muscles. FEBS Lett. 2003; 537(1-3):30-4. doi: 10.1016/s0014-5793(03)00066-8

17 Pozzoli U, Elgar G, Cagliani R, Riva L, Comi GP, Bresolin N, Bardoni A, **Sironi M**.
Comparative analysis of vertebrate dystrophin loci indicate intron gigantism as a common feature. Genome Res. 2003; 13(5):764-72. doi: 10.1101/gr.776503

18 Cagliani R, Fortunato F, Giorda R, Rodolico C, Bonaglia MC, **Sironi M**, D'Angelo MG, Prelle A, Locatelli F, Toscano A, Bresolin N, Comi GP.
Molecular analysis of LGMD-2B and MM patients: identification of novel DYSF mutations and possible founder effect in the Italian population. Neuromuscul Disord. 2003; 13(10):788-95. doi: 10.1016/s0960-8966(03)00133-0

19 Cagliani R, Bresolin N, Prelle A, Gallanti A, Fortunato F, **Sironi M**, Ciscato P, Fagiolari G, Bonato S, Galbiati S, Corti S, Lamperti C, Moggio M, Comi GP.
A CAV3 microdeletion differentially affects skeletal muscle and myocardium. Neurology. 2003; 61(11):1513-9. doi: 10.1212/01.wnl.0000097320.35982.03

20 Belicchi M, Pisati F, Lopa R, Porretti L, Fortunato F, **Sironi M**, Scalamogna M, Parati EA, Bresolin N, Torrente Y.
Human skin-derived stem cells migrate throughout forebrain and differentiate into astrocytes after injection into adult mouse brain. J Neurosci Res. 2004; 77(4):475-86. doi: 10.1002/jnr.20151.

21 Pozzoli U, Riva L, Menozzi G, Cagliani R, Comi GP, Bresolin N, Giorda R, **Sironi M**.
Over-representation of exonic splicing enhancers in human intronless genes suggests multiple functions in mRNA processing. Biochem Biophys Res Commun. 2004; 322(2):470-6. doi: 10.1016/j.bbrc.2004.07.144

22 Cagliani R, **Sironi M**, Ciafaloni E, Bardoni A, Fortunato F, Prelle A, Serafini M, Bresolin N, Comi GP.
An intragenic deletion/inversion event in the DMD gene determines a novel exon creation and results in a BMD phenotype. Hum Genet. 2004; 115(1):13-8. doi: 10.1007/s00439-004-1118-6

23 **Sironi M**, Menozzi G, Riva L, Cagliani R, Comi GP, Bresolin N, Giorda R, Pozzoli U.
Silencer elements as possible inhibitors of pseudoexon splicing. Nucleic Acids Res. 2004; 32(5):1783-91. doi: 10.1093/nar/gkh341

24 Pozzoli U, **Sironi M**.
Silencers regulate both constitutive and alternative splicing events in mammals. Cell Mol Life Sci. 2005; 62(14):1579-604. Review. doi: 10.1007/s00018-005-5030-6

25 **Sironi M**, Menozzi G, Comi GP, Cagliani R, Bresolin N, Pozzoli U.
Analysis of intronic conserved elements indicates that functional complexity might represent a major source of negative selection on non-coding sequences. Hum Mol Genet. 2005; 14(17):2533-46. doi: 10.1093/hmg/ddi257

26 **Sironi M**, Menozzi G, Comi GP, Bresolin N, Cagliani R, Pozzoli U.
Fixation of conserved sequences shapes human intron size and influences transposon-insertion dynamics. Trends Genet. 2005; 21(9):484-8. doi: 10.1016/j.tig.2005.06.009

27 Cagliani R, Magri F, Toscano A, Merlini L, Fortunato F, Lamperti C, Rodolico C, Prelle A, **Sironi M**, Aguennouz M, Ciscato P, Uncini A, Moggio M, Bresolin N, Comi GP.
Mutation finding in patients with dysferlin deficiency and role of the dysferlin interacting proteins annexin A1 and A2 in muscular dystrophies. Hum Mutat. 2005; 26(3):283. doi: 10.1002/humu.9364

28 **Sironi M**, Menozzi G, Comi GP, Cereda M, Cagliani R, Bresolin N, Pozzoli U.
Gene function and expression level influence the insertion/fixation dynamics of distinct transposon families in mammalian introns. Genome Biol. 2006; 7(12):R120. doi: 10.1186/gb-2006-7-12-r120

29 **Sironi M**, Pozzoli U, Comi GP, Riva S, Bordoni A, Bresolin N, Nag DK.
A region in the dystrophin gene major hot spot harbors a cluster of deletion breakpoints and generates double-strand breaks in yeast. FASEB J. 2006; 20(11):1910-2. doi: 10.1096/fj.05-5635fje

30 Nag DK, Pata JD, **Sironi M**, Flood DR, Hart AM.
Both conserved and non-conserved regions of Spo11 are essential for meiotic recombination initiation in yeast. Mol Genet Genomics. 2006; 276(4):313-21. doi: 10.1007/s00438-006-0143-7

31 Pozzoli U, Menozzi G, Comi GP, Cagliani R, Bresolin N, **Sironi M**.
Intron size in mammals: complexity comes to terms with economy. Trends Genet. 2007; 23(1):20-4. doi: 10.1016/j.tig.2006.10.003

32 Cagliani R, Fumagalli M, Riva S, Pozzoli U, Comi GP, Menozzi G, Bresolin N, **Sironi M**.
The signature of long-standing balancing selection at the human defensin beta-1 promoter. Genome Biol. 2008;9(9):R143. doi: 10.1186/gb-2008-9-9-r143.

33 Pozzoli U, Menozzi G, Fumagalli M, Cereda M, Comi GP, Cagliani R, Bresolin N, **Sironi M**.
Both selective and neutral processes drive GC content evolution in the human genome. BMC Evol Biol. 2008; 8:99. doi: 10.1186/1471-2148-8-99.

34 Arnoldi A, Tonelli A, Crippa F, Villani G, Pacelli C, **Sironi M**, Pozzoli U, D'Angelo MG, Meola G, Martinuzzi A, Crimella C, Redaelli F, Panzeri C, Renieri A, Comi GP, Turconi AC, Bresolin N, Bassi MT.
A clinical, genetic, and biochemical characterization of SPG7 mutations in a large cohort of patients with hereditary spastic paraplegia. Hum Mutat. 2008; 29(4):522-31. doi: 10.1002/humu.20682.

35 Fumagalli M, Cagliani R, Pozzoli U, Riva S, Comi GP, Menozzi G, Bresolin N, **Sironi M**.
A population genetics study of the familial Mediterranean fever gene: evidence of balancing selection under an overdominance regime. Genes Immun. 2009; 10(8):678-86. doi: 10.1038/gene.2009.59.

36 Cagliani R, Fumagalli M, Pozzoli U, Riva S, Comi GP, Torri F, Macciardi F, Bresolin N, **Sironi M**.
Diverse evolutionary histories for beta-adrenoreceptor genes in humans. Am J Hum Genet. 2009; 85(1):64-75. doi: 0.1016/j.ajhg.2009.06.005.

37 Cagliani R, Fumagalli M, Pozzoli U, Riva S, Cereda M, Comi GP, Pattini L, Bresolin N, **Sironi M**.
A complex selection signature at the human AVPR1B gene. BMC Evol Biol. 2009 Jun 1;9:123. doi: 10.1186/1471-2148-9-123.

38 Fumagalli M, Pozzoli U, Cagliani R, Comi GP, Riva S, Clerici M, Bresolin N, **Sironi M**.
Parasites represent a major selective force for interleukin genes and shape the genetic predisposition to autoimmune conditions. J Exp Med. 2009; 206(6):1395-408. doi: 10.1084/jem.20082779.

39 Crimella C, Arnoldi A, Crippa F, Mostacciuolo ML, Boaretto F, **Sironi M**, D'Angelo MG, Manzoni S, Piccinini L, Turconi AC, Toscano A, Musumeci O, Benedetti S, Fazio R, Bresolin N, Daga A, Martinuzzi A, Bassi MT.
Point mutations and a large intragenic deletion in SPG11 in complicated spastic paraplegia without thin corpus callosum. J Med Genet. 2009; 46(5):345-51. doi: 10.1136/jmg.2008.063321.

40 Fumagalli M, Cagliani R, Pozzoli U, Riva S, Comi GP, Menozzi G, Bresolin N, **Sironi M**.
Widespread balancing selection and pathogen-driven selection at blood group antigen genes. Genome Res. 2009; 19(2):199-212. doi:10.1101/gr.082768.108.

41 Fumagalli M, Pozzoli U, Cagliani R, Comi GP, Bresolin N, Clerici M, **Sironi M**.
Genome-wide identification of susceptibility alleles for viral infections through a population genetics approach. PLoS Genet. 2010; 6(2):e1000849. doi: 10.1371/journal.pgen.1000849.

42 Pozzoli U, Fumagalli M, Cagliani R, Comi GP, Bresolin N, Clerici M, **Sironi M**.
The role of protozoa-driven selection in shaping human genetic variability. Trends Genet. 2010; 26(3):95-9. doi: 10.1016/j.tig.2009.12.010.

43 Cagliani R, Fumagalli M, Riva S, Pozzoli U, Comi GP, Bresolin N, **Sironi M**.
Genetic variability in the ACE gene region surrounding the Alu I/D polymorphism is maintained by balancing selection in human populations. Pharmacogenet Genomics. 2010; 20(2):131-4. doi: 10.1097/FPC.0b013e3283333532.

44 Cagliani R, Riva S, Biasin M, Fumagalli M, Pozzoli U, Lo Caputo S, Mazzotta F, Piacentini L, Bresolin N, Clerici M, **Sironi M**.
Genetic diversity at endoplasmic reticulum aminopeptidases is maintained by balancing selection and is associated with natural resistance to HIV-1 infection. Hum Mol Genet. 2010; 19(23):4705-14. doi: 10.1093/hmg/ddq401.

45 Cagliani R, Fumagalli M, Biasin M, Piacentini L, Riva S, Pozzoli U, Bonaglia MC, Bresolin N, Clerici M, **Sironi M**.
Long-term balancing selection maintains trans-specific polymorphisms in the human TRIM5 gene. Hum Genet. 2010; 128(6):577-88. doi: 10.1007/s00439-010-0884-6.

46 Fumagalli M, Pozzoli U, Cagliani R, Comi GP, Bresolin N, Clerici M, **Sironi M**.
The landscape of human genes involved in the immune response to parasitic worms. BMC Evol Biol. 2010; 10:264. doi: 10.1186/1471-2148-10-264.

47 Fumagalli M, Cagliani R, Riva S, Pozzoli U, Biasin M, Piacentini L, Comi GP, Bresolin N, Clerici M, **Sironi M**.
Population genetics of IFIH1: ancient population structure, local selection, and implications for susceptibility to type 1 diabetes. Mol Biol Evol. 2010; 27(11):2555-66. doi: 10.1093/molbev/msq141.

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