Curriculum Vitae
Marta Biagioli, Ph.D.

Office Address: NeuroEpigenetics laboratory, Center for Integrative Biology (CIBIO)
University of Trento
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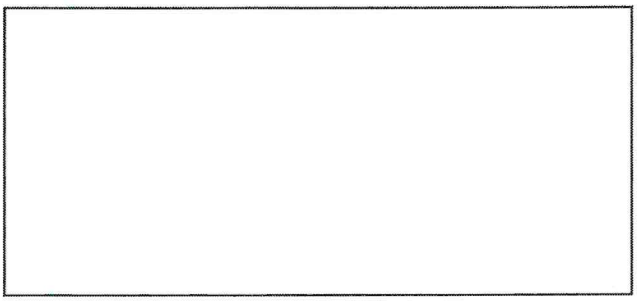

Associated URL https://www.researchgate.net/profile/Marta_Biagioli,
http://www.cibio.unitn.it/184/neuroepigenetics-laboratory
https://biagiolilab.wordpress.com

- ***EDUCATION***

2003 **Ph.D. in Molecular Biotechnologies**. Supervisors: Prof. Stefania Bucci and Prof. Detmar Beyersmann.
University of Pisa, Italy

1999 **Master in Biological Sciences** – curriculum Molecular Biology – 110/110 cum Laude
University of Pisa, Italy

- ***CURRENT POSITION***

2017 – ***Fixed-term researcher (RTD - B)*** – Principal Investigator of the Neuroepigenetic Laboratory
Department of Cellular, Computational and Integrative Biology
University of Trento, Italy

- ***PAST POSITIONS***

2014 – 2017 ***Fixed-term researcher (RTD –A)***
Center for Integrative Biology (CIBIO),
University of Trento, Italy

2009 – 2014 ***Senior Research Fellow***
Supervisor: Prof. Marcy MacDonald
Center for Human Genetics Research, Massachusetts General Hospital and Harvard Medical School, Boston (USA)

2009 – 2014 ***Research Fellow***
Supervisor: Prof. Stefano Gustincich
Neurobiology and Functional Genomics, International School for Advanced Studies (S.I.S.S.A.), Trieste (IT)

- ***HONORS ANS PRIZES***

2002 Best poster award, 12th International Workshop on in Vitro Toxicology, INVITOX

2002 Travel Fellowship, 12th International Workshop on in Vitro Toxicology, INVITOX
2002 Travel Fellowship, The 40° Congress of the European Societies of Toxicology, EUROTOX
2002 National Mobility Fellowship, Italian Society for Cellular and Developmental Biology (ABCD)
2015 New Pathways Award, Huntington's Society of Canada
2015 NARSAD 'Young Investigator Award', Brain & Behavior Research Foundation
2015 'Jan and Stefan Abrams Investigator', NARSAD - Research Partner Program
2016 Marie Skłodowska-Curie Reintegration Fellowship, Horizon 2020 - European Community
2016 Innovator Grant, Citizens United for Research in Epilepsy - CURE
2017 Human Biology Fellowship, Huntington's Disease Society of America – HDSA

- ***SUPERVISION OF UNDER GRADUATED, GRADUATE STUDENTS AND POSTDOC – most recents***

2019- *Supervisor of 1 Bachelor's Students, Angelica Anna Palmieri* – program: *Biomolecular Sciences and Technology*, Department CIBIO, University of Trento, Italy
2019- *Supervisor of 2 Master's Students, Miquel Pellegrini and Giulia Zarantonello* – program: *Cellular and Molecular Biotechnology*, Department CIBIO, University of Trento, Italy
2019- *Supervisor of 1 Master's Students, Michele Tebaldi* – program: *Quantitative and Computational Biology*, Department CIBIO, University of Trento, Italy
2019- *Supervision of 1 Pregrad student, Claudio Oss Pegorar,* genetics of Huntington's Disease, Department CIBIO, University of Trento, Italy
2018- *Supervision of 1 Ph.D. student, Michele Arnoldi*– program: Biomolecular Sciences, Department CIBIO, University of Trento, Italy
2016-2019 *Postdoctoral Fellow, Francesca Di Leva, Ph.D.* – project: genetics of ASD and SINEUP treatment *in vitro*. Department CIBIO, University of Trento, Italy
2018-2019 *Supervisor of 2 Master's Students, Alan Monziani and Denise Ferrarini – Cellular and Molecular Biotechnology*, Department CIBIO, University of Trento, Italy
2018-2019 *Supervisor of 3 Bachelor's Students, Luida Donini, Anna Barbieri, Elia Pennati – Biomolecular Sciences and Technology*, Department CIBIO, University of Trento, Italy
2017-2018 *Supervisor of 2 Master's Students, Michele Arnoldi, Michele Tebaldi* – Cellular and Molecular Biotechnology, Department CIBIO, University of Trento, Italy
2017-2018 *Supervisor of 3 Bachelor's Student, Milena Fiscato, Ilaria Sanvido, Giordano Alvari – Biomolecular Sciences and Technology*, Department CIBIO, University of Trento, Italy
2016-2017 *Supervisor of 1 Bachelor's Student, Alan Monziani – Biomolecular Sciences and Technology*, Department CIBIO, University of Trento, Italy
2015-2018 *Postdoctoral Fellow, Emanuela Kerschbamer, Ph.D.* – project: genetics of ASD, Chromatin-immunoprecipitation and sequencing, data-analysis, Department CIBIO, University of Trento, Italy
2015-2018 *Postdoctoral Fellow, Takshashila Tripathi, Ph.D.* – project: genetics of Huntington's Disease, Department CIBIO, University of Trento, Italy

- ***TEACHING ACTIVITIES***

2000-2001	Laboratory of *'Experimental Biology'*, Biological Sciences	University of Pisa, Italy
2001-2002	Laboratory of *'Experimental Biology'*, Biological Sciences	University of Pisa, Italy
2002-2003	Laboratory of *'Cytology and Histology'*, Biological Sciences	University of Pisa, Italy
2015-present	Master Course *'Cellular and Molecular Neurobiology'* (II year) Master in Cellular and Molecular Biotechnology. (48h) Curriculum in Neuroscience (Thought in English)	University of Trento, Italy
AA 2017/2018	Master Course *'Neurodegenerative Diseases'* (II year) Master in Cellular and Molecular Biotechnology. (6h) Curriculum in Neuroscience (Thought in English)	University of Trento, Italy
2019-present	Bachelor Course of *'RNA Biology'* (22h)	
2016-present	PhD Course in *'Epigenetics in Health and Disease'* (18h) Doctoral Program in Biomolecular Sciences	University of Trento, Italy

- ***INSTITUTIONAL RESPONSABILITIES***

2015 –	Bachelor's Student Advisor, Department CIBIO, University of Trento, Italy
2017 –	Master's Student Advisor, Department CIBIO, University of Trento, Italy
2018 –	Ph.D. Student Advisor, Department CIBIO, University of Trento, Italy
2014 –	Member of 'Consiglio Department CIBIO', Department CIBIO, University of Trento, Italy
2017 –	Member of TRAIN – "Trentino Autism Initiative" [http://www.unitn.it/ateneo/55368/train-trentino-autism-initiative]

- ***COMMISSIONS OF TRUST***

2009	*Ad hoc* reviewer for Environmental Health Perspectives
2014 –	*Ad hoc* reviewer for Neuroscience, Frontiers in Cellular Neuroscience, Human Molecular Genetics, Nature Communication, Scientific Reports, Epigenetics and Chromatin
2017 –	Scientific Evaluation Member of PhD Students, Ph.D. Program in Biomolecular Sciences, Department CIBIO, University of Trento, Italy
2017 – 2018	Review Editor, the Editorial Board of Frontiers in Cellular Neuroscience 'Chromatin Remodeling in Neurodevelopmental Disorders' Topic Editor, Frontiers in Molecular Neuroscience
2019	PhD Examiner Member, King's College, London, UK

- ***NATIONAL HABILITATION (Dec. 2016)***

1. 05/I1 GENETICA Professore Seconda Fascia	From 10/04/2017 till 10/04/2026
2. 05/E2 BIOLOGIA MOLECOLARE Professore Seconda Fascia	From 10/04/2017 till 10/04/2026

- ***MEMBERSHIPS OF SCIENTIFIC SOCIETIES***

2014-present	Member of American Society of Human Genetics (ASHG)
2015-present	Member of European Society of Human Genetics (ESHG)
2015-present	Member of European Huntington's Disease Network (EHDN)
2017-present	Member of TRAIN – "Trentino Autism Initiative"

[http://www.unitn.it/ateneo/55368/train-trentino-autism-initiative]

- ***MAIN COLLABORATIONS***

James F. Gusella	Human Genetics and Hungtington's Disease, MGH-HMS, Boston, U.S.A.
Michael E. Talkowski	Human Genetics and Autism Spectrum Disorders, MGH-HMS, Boston, U.S.A.
Francesco Ferrari	Chromatin analysis, IFOM, Milan
Albert Basson	Autism Spectrum Disorders Animal Models, King's College, London UK
Marcy E. MacDonald	Huntington's Disease Genetics, MGH-Broad Institute, Boston, U.S.A.
Vanessa Wheeler	Huntington's Disease Animal Models, MGH-HMS, Boston, U.S.A.
IhnSik Seong	Huntington's Disease and Epigenetics, MGH-HMS, Boston, U.S.A.
Christoph Dieterich	Circ-RNAs in Huntington's Disease, University Hospital Heidelberg, Germany
Stefano Gustincich	SINEUP technology, TranSINE Technology and Italian Institute of Technology, IT
Thierry Voet	Single-cell genomics, Sanger Institute-EBI Single-Cell Genomics Centre, UK
Rosanna Asselta	Circ-RNAs as disease biomarkers, Humanitas University, Milan

- ***CAREER BREAKS***

June – October 2013	Maternity Leave

- ***GRANTS AND FUNDING COMPLETED***

1. **Title of the project**: *Alternative splicing and circRNA alterations in Huntington's Disease pathogenesis.*
Period: July 2015 - July 2016
Gross amount: Canadian $ 150,000
Granting Agency: Huntington Society of Canada (HSC).

2. **Title of the project:** *SINEUPs technology to rescue CHD8 haploinsufficiency: possible new avenues of therapeutic intervention for autism spectrum disorders (ASD).*
Period: January 2016 – January 2018
Gross amount: $35,000/year
Granting Agency: NARSAD Young Investigator Grants, Brain and Behavior Research Foundation.

3. **Title of the project**: *TranSplicHD - Single-Cell Transcriptomics and Spliceosome analysis to uncover new mechanisms of neuronal vulnerability to Huntington's Disease degeneration.*
Period: Sept. 2016 – Sept. 2018
Gross amount: 90,000 Euro/year
Granting Agency: The European Community – Marie Skłodowska-Curie actions - Reintegration Fellowship

4. **Title of the project**: *SINEUPs Technology: a New Route to Treat Haploinsufficiency-Induced Epilepsy.*
Period: March 2017 – March 2018 NCE granted till Dec. 2018
Gross amount: $50,000/year
Granting Agency: Citizens United for Research in Epilepsy (CURE).

- ***ON-GOING GRANTS***

Project Title	*Funding source*	*Amount*	*Period*	*Role*	*% of Commitment*
Title of the project: CircRNAs, non-coding, stable RNA circles as potential new bio-markers for Huntington's Disease (HD)	Human Biology Fellowship Huntington's Disease Society of America (HDSA)	$75,000 /year	2018-2020	Principal Investigator	60
circ*HTT*, a circular RNA from the *HTT* locus: functional characterization and possible therapeutic applications.	Seed Money European Huntington's Disease Network	50,000 Euro	To be started 2020	Principal Investigator	N.D.

- ***INVITED PRESENTATIONS (selection of most recent)***

Marta Biagioli. "*Aberrant Alternative Splicing as a new player in Huntington's Disease Pathogenesis*". The 4th Animal Models of Neurodegenerative Diseases, Chateau Liblice, Prague, October 22-24, 2017.

Marta Biagioli. "*Haploinsufficiency models of CHD8 in neuronal cells display alterations in chromatin landscape and regulatory consequences in Wnt Signaling*". XX Congresso Nazionale della nostra Società Italiana di Genetica Umana (SIGU), Napoli 16-18 Novembre 2017.

Marta Biagioli. "*Alterations in linear and back-splicing as new players in Huntington's Disease pathogenesis.*" KAIST Department seminar – Daejeon, South Korea, May 28th 2019

Marta Biagioli. "*Alterations in linear and back-splicing as new players in Huntington's Disease pathogenesis.*" EMBO | EMBL Symposium: The Non-Coding Genome. EMBL Heidelberg, Germany 16 - 19 Oct 2019.

- ***PUBLICATIONS*** **[Google Scholar_Jan 2020_Total Citations 2001_H-index 18]**

1. Vidya Murthy, Toma Tebaldi, Toshimi Yoshida, Serkan Erdin, Teresa Calzonetti, Ravi Vijayvargia, Takshashila Tripathi, Emanuela Kerschbamer, Ihn Sik Seong, Alessandro Quattrone, Michael E. Talkowski, James F. Gusella, Katia Georgopoulos, Marcy E. MacDonald, **Marta Biagioli** (*). 'Hypomorphic mutation of the mouse Huntington's disease gene orthologue'. *PLoS Genet* 2019 Mar 21;15(3):e1007765.https://doi.org/10.1371/journal.pgen.1007765. (*) Corresponding author.
2. Primoz Knap, Toma Tebaldi, Francesca Di Leva, **Marta Biagioli**, Mauro Dalla Serra, Gabriella Viero. The Unexpected Tuners: Are LncRNAs Regulating Host Translation during Infections? 2017. *Toxins* 9 (11), 357. DOI: 10.3390/toxins911035.
3. The HD iPSC Consortium - Ryan G Lim, Lisa L Salazar, Daniel K Wilton [....**Marta Biagioli**.....] and Clive N Svendsen. Developmental alterations in Huntington's disease neural cells and pharmacological rescue in cells and mice. *Nature Neuroscience*, 2017. 20(5):648-660. DOI: 10.1038/nn.4532.
4. Emanuela Kerschbamer and **Marta Biagioli**. Huntington's Disease as Neurodevelopmental Disorder: Altered Chromatin Regulation, Coding, and Non-Coding RNA Transcription. Frontiers in Neuroscience. 2016 Jan 13;9:509. DOI: 10.3389/fnins.2015.00509.
5. **Marta Biagioli** (*), Francesco Ferrari (*), Eric M. Mendenhall, Yijing Zhang, Serkan Erdin, Ravi Vijayvargia, Sonia M. Vallabh, Nicole Solomos, Poornima Manavalan, Ashok Ragavendran, Fatih Ozsolak, Jong Min Lee, Michael E. Talkowski James F. Gusella, Marcy E. MacDonald, Peter J. Park and Ihn Sik Seong. *Htt* CAG repeat expansion confers on mutant huntingtin pleiotropic gains of function in chromatin regulation. *Human Molecular Genetics* (2015). 24 (9): 2442-2457. (*) These contributed equally to this work.
6. Sugathan Aarathi (*), **Marta Biagioli** (*), Christelle Golzio (*), Serkan Erdin (*), Ian Blumenthal, Poornima Manavalan, Ashok Ragavendran Harrison Brand, Diane Lucente, Judith Milese, Steven D. Sheridan, Alexei Stortchevoi, Manolis Kellis, Stephen J. Haggarty, Nicholas Katsanis, James F. Gusella, and Michael E. Talkowski. CHD8 regulates neurodevelopmental pathways associated with autism spectrum disorder in neural progenitors. *Proceedings of the National Academy of Sciences* (2014) 111, 42: E4468-E4477. (*) These authors contributed equally to this work.
7. William M Pryor, **Marta Biagioli**, Neelam Shahani, Supriya Swarnkar, Wen-Chin Huang, Damon T Page, Marcy E MacDonald, Srinivasa Subramaniam. Huntingtin promotes mTORC1 signaling in the pathogenesis of Huntington's disease. *Science Signaling*. (2014) 7 (349): ra103-ra103.
8. Talkowski M.E., Maussion G., Crapper L., Rosenfeld J.A., Blumenthal I., Hanscom C., Chiang C., Lindgren A., Pereira S., Ruderfer D., Diallo A.B., Lopez J.P., Turecki G., Chen E.S., Gigek C., Harris D.J., Lip V., An Y., **Biagioli M.**, Macdonald M.E., Lin M., Haggarty S.J., Sklar P., Purcell S., Kellis M., Schwartz S., Shaffer L.G., Natowicz M.R., Shen Y., Morton C.C., Gusella J.F., Ernst C. Disruption of a large intergenic noncoding RNA in subjects with neurodevelopmental disabilities. *American Journal of Human Genetics.* 2012 Dec 7;91(6):1128-34.
9. Carrieri C. (*), Cimatti L. (*), **Biagioli M.**, Beugnet A., Zucchelli S., Fedele S., Pesce E., Ferrer I., Collavin L., Santoro C., Forrest A.R.R., Carninci P., Biffo S., Stupka E. and Gustincich S. Long non-coding antisense RNA controls UchL1 translation through the 5' overlapping region and an embedded SINEB2 repeat. (*) These authors contributed equally to this work. *Nature.* 2012 Nov 15;491(7424):454-7.
10. Vilotti S., **Biagioli M.**, Foti R., Dal Ferro M., Scotto Lavina Z., Collavin L., Del Sal G., Zucchelli S. and Gustincich S. The PML nuclear bodies-associated protein TTRAP regulates ribosome biogenesis in nucleolar cavities upon proteasome inhibition. *Cell Death and Differentiation.* 2012, 19(3):488-500.
11. Zucchelli S., Marcuzzi F., Codrich M., Agostoni E., Vilotti S., **Biagioli M.**, Pinto M., Carnemolla A., Santoro C., Gustincich S., Persichetti F. Tumor Necrosis factor receptor associated factor 6 (TRAF6) associates with huntingtin protein and promotes its atypical ubiquitination to enhance aggregate formation. *Journal of Biological Chemistry.* 2011, 286(28):25108-17.

12. Ferrer I., Gómez A., Carmona M., Huesa G., Porta S., Riera-Codina M., **Biagioli M**., Gustincich S., Aso E. Neuronal Hemoglobin is Reduced in Alzheimer's Disease, Argyrophilic Grain Disease, Parkinson's Disease, and Dementia with Lewy Bodies. *Journal of Alzheimers Disease.* 2011, 23(3):537-50.
13. Foti R., Zucchelli S., **Biagioli M.**, Roncaglia P., Vilotti S., Calligaris R., Krmac H., Girardini J.E., Del Sal G., Gustincich S. Parkinson disease-associated DJ-1 is required for the expression of the glial cell line-derived neurotrophic factor receptor RET in human neuroblastoma cells. *Journal of Biological Chemistry*. 2010, 285(24):18565-74.
14. Zucchelli S., Codrich M., Marcuzzi F., Pinto M., Vilotti S., **Biagioli M**., Ferrer I., Gustincich S. TRAF6 promotes atypical ubiquitination of mutant DJ-1 and alpha-synuclein and is localized to Lewy bodies in sporadic Parkinson's disease brains. *Human Molecular Genetics.* 2010, 19(19):3759-70.
15. **Biagioli M.** (*), Pinto M. (*), Cesselli D., Zaninello M., Lazarevic D., Roncaglia P., Simone R., Vlachouli C., Plessy C., Bertin N., Beltrami A., Kobayashi K., Gallo V., Santoro C., Ferrer I., Rivella S., Beltrami C.A., Carninci P., Raviola E., Gustincich S. Unexpected expression of alpha- and beta-globin in mesencephalic dopaminergic neurons and glial cells. *Proceeding of the National Academy of Science U.S.A.* 2009, 106(36):15454-9. (*) These authors contributed equally to this work.
16. Zucchelli S., Vilotti S., Calligaris R., Lavina Z.S., **Biagioli M.**, Foti R., De Maso L., Pinto M., Gorza M., Speretta E., Casseler C., Tell G., Del Sal G., Gustincich S. Aggresome-forming TTRAP mediates pro-apoptotic properties of Parkinson's disease-associated DJ-1 missense mutations. *Cell Death and Differerentiation.* 2009, 16(3):428-38.
17. **Biagioli M.**, Pifferi S., Ragghianti M., Bucci S., Rizzuto R., Pinton P. Endoplasmic reticulum stress and alteration in calcium homeostasis are involved in cadmium-induced apoptosis. *Cell Calcium.* 2008, 43(2): 184-95.
18. **Biagioli M**., Pinton P, Scudiero R, Ragghianti M, Bucci S, Rizzuto R. Aequorin chimeras as valuable tool in the measurement of Ca^{2+} concentration during cadmium injury. *Toxicology. 2005,* 208: 389-98.
19. Waetjen W., Haase H., **Biagioli M.**, Beyersmann D. Induction of apoptosis in mammalian cell by cadmium and zinc. *Environmental Heath Perspectives*. 2002, 110: 865-867.
20. Waetjen W. Cox M., **Biagioli M**. and Beyersmann D. Cadmium-induced apoptosis in C6 glioma cells: mediation by caspase-9 activation. *Biometals.* 2002, 15: 15-22.
21. M. Biagioli, Waetjen W., Beyersmann D., Zoncu R., Cappellini C., Ragghianti M., Cremisi F., Bucci S. Cadmium-induced apoptosis in murine fibroblasts is suppressed by Bcl-2. *Archives of Toxicology*. 2001, 75: 313-320.

c. Book Chapters and Pre-print website

1. Silvia Bassi, Takshashila Tripathi, Alan Monziani, Francesca Di Leva, and **Marta Biagioli**. Chapter 15. 'Epigenetics of Huntington's disease'. *Adv Exp Med Biol*, Vol. 978, Raul Delgado-Morales (Eds): Neuroepigenomics in Aging and Disease. ISBN: 978-3-319-53888-4

Date

Trento, January 29, 2020

Signature