

## **ALLEGATO B**

UNIVERSITÀ DEGLI STUDI DI MILANO

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## [ LUCA BARTESAGHI, PhD ] CURRICULUM VITAE

### **INFORMAZIONI PERSONALI (NON INSERIRE INDIRIZZO PRIVATO E TELEFONO FISSO O CELLULARE)**

COGNOME	BARTESAGHI
NOME	LUCA
DATA DI NASCITA	[ 28, 12, 1980 ]

Name and Surname: Luca Bartesaghi, PhD

Date and place of birth: 28/12/1980, Milan (IT)

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Work address: Department of Neuroscience and Department of Clinical Neuroscience - Biomedicum, Karolinska Institutet  
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Current Position: Post-doc (Neuroscience Department, Karolinska Institute, Stockholm (SE))

### Languages

Italian - Native speaker

English - Highly proficient in spoken/written English

Spanish - Low intermediate

French - Low intermediate

### Education

**PhD thesis defence (02/05/2014)** - Thesis title: "Identification and characterization of novel molecular mechanisms involved in initiation and progression of myelination"

**PhD (2009 - 2014)** - Lemanic Neuroscience Doctoral School, University of Lausanne, Switzerland

**M.Sc. (2004-2006)** - Milan-Bicocca University, Italy. Industrial Biotechnology - Pharmacogenomics

**B.Sc. (2000-2004)** - Milan-Bicocca University, Italy. Molecular Biotechnology

### Research Experience

**2014 - present** : Post-doctoral research - Karolinska Institute, Department of Neuroscience (Stockholm, Sweden)

**2009 - 2014** : Doctoral research - University of Lausanne, Department of Medical Genetics (Lausanne, Switzerland)

**2007 - 2009** : Predoctoral research - San Raffaele Scientific Institute, Division of Genetics and Cellular Biology (Milan, Italy)

**2005 - 2007** : Master Thesis research - San Raffaele Scientific Institute, Division of Genetics and Cellular Biology (Milan, Italy)

**2003** : Undergraduate Thesis research - San Raffaele Scientific Institute, Division of Genetics and Cellular Biology (Milan, Italy)

### Teaching Experience

**2008 - 2020** : Supervisor of undergraduate (Gianluca Figlia MD, PhD, San Raffaele Scientific Institute; Olivia Miossec and Finja Berger - Karolinska institute) and doctoral students (Basilio Giangreco - UNIL; Filipa Boucanova, Karolinska institute). Leading of multiple frontal lessons (Master programs and Doctoral courses) and opponent during Master thesis defence.

### Scholarships & Awards

**2007 - 2009** : Scholarship from San Raffaele Scientific Institute (Stipend)

**2008** : Scholarship from the Gordon Conference board - (GC - Myelin Meeting 2008)

**2013** : Scholarship from LN doctoral school (Euroglia meeting 2013 - Berlin)

**2019** : Conference grant (PNS meeting 2019 - Genova)

### National & International Conference attended (poster and/or speaker)

Myelin Gordon Conference (Il Ciocco, 2008), Swiss Society of Neuroscience (Lausanne, 2010), Lemanic Neuroscience Meeting (Genève, 2010), Swiss society of Neuroscience (Basel, 2011), Euroglia Meeting (Prague, 2011), Lemanic Neuroscience Meeting (Les Diablerets, 2011), Swiss Society of Neuroscience (Zurich, 2012), Lemanic Neuroscience Meeting (Les Diablerets, 2012), Neuroscience meeting 2012 (New Orleans, 2012), Euroglia Meeting (Berlin, 2013), StratNeuro meeting, (May 2016), StratNeuro meeting, (May 2017), Neuroscience (Washington, November 2017), PNS meeting (Genoa, 2019), Euroglia (Porto, 2019).

Remarkable invitation as speaker: Department of Neurology, Boston Children's Hospital (Harvard Medical School, Boston, USA)

## Reviewing activities

**2019** - Molecular Genetics & Genomic Medicine

**2020** - Nature Communication

## Skills and techniques

- Strong background in molecular biology (DNA and RNA sampling, cloning, sequencing, RNA silencing, *in situ* hybridization, analysis of transcriptional profiling, analysis of microarrays, RNA sequencing and quantitative PCR, protein extraction, immune-precipitations, protein modifications, protein analysis and proteomics, immunohistochemistry, viral vectors manipulation and lentiviral production, chromatin immunoprecipitation, transgenic mice generation), data analysis and statistics.
- Expertise with cell culture (immortalized cell lines, primary neuronal and glial culture, iPSCs), animal handling (mice and rats) and surgery.
- Excellent skills in microscopy techniques (Fluorescent, confocal, electron and lightsheet microscopies).
- Acquired skills in communication and writing (both scientific articles and grants proposal), in planning and coordination of the teamwork with particular attention on time and strategy management, in leadership, training co-workers and students, skills in the presentation of my work, creativity and critical thinking.

## Addendum

During the past fourteen years I lived and worked in three different countries and prestigious realities (San Raffaele Scientific Institute-Milan, UNIL-Lausanne and Karolinska Institute-Stockholm) where I had the opportunity to train several graduate and undergraduate students. But probably most importantly I was able to transfer my know-how and my passion for science to both colleagues and students. Even if not strictly relevant to the scientific environment I learned how to transmit my knowledge as theatre teacher and director during the last two decades. These experiences were greatly formative for me as scientist.

Since the beginning of 2020 I took responsibility of my laboratory (including projects, animals, samples, reagents and equipment) after the decision of my post-doctoral mentor, Dr. Roman Chrast, to leave academia. The full list of items is available under request (example of items: equipment - fluorescent microscopes, plasma cleaner, qPCR and PCR machines, etc.. - reagents - wide range of enzymes and approximately 200 antibodies). Importantly, in agreement with the Karolinska Institutet, I can transfer with me the aforementioned materials to my new hosting institution. All this material, besides having a strategic importance for my research and having an important economic value, will also substantially facilitate a rapid restart of my work in the new research centre.

## LIST OF PUBLICATIONS

1 - Injured Axons Instruct Schwann Cells to Build Constricting Actin Spheres to Accelerate Axonal Disintegration.

Vaquié A, Sauvain A, Duman M, Nocera G, Egger B, Meyenhofer F, Falquet L, **Bartesaghi L**, Chrast R, Lamy CM, Bang S, Lee SR, Jeon NL, Ruff S, Jacob C.

**Cell Report.**

2019 Jun 11;27(11):3152-3166.e7. doi: 10.1016/j.celrep.2019.05.060.

PMID: 31189102

**2 - PRDM12 Is Required for Initiation of the Nociceptive Neuron Lineage during Neurogenesis.**

**Bartesaghi L\***, Wang Y\*, Fontanet P, Wanderoy S, Berger F, Wu H, Akkuratova N, Boučanova F, Médard JJ, Petitpré C, Landy MA, Zhang MD, Harrer P, Stendel C, Stucka R, Dusl M, Kastriti ME, Croci L, Lai HC, Consalez GG, Pattyn A, Ernfors P, Senderek J, Adameyko I, Lallemend F, Hadjab S, Chrast R.

**Cell Report.**

\* Co-first authors

2019 Mar 26;26(13):3484-3492.e4. doi: 10.1016/j.celrep.2019.02.098.

PMID: 30917305

**3 - Altered interplay between endoplasmic reticulum and mitochondria in Charcot-Marie-Tooth type 2A neuropathy.**

Bernard-Marissal N, van Hameren G, Juneja M, Pellegrino C, Louhivuori L, **Bartesaghi L**, Rochat C, El Mansour O, Médard JJ, Croisier M, MacLachlan C, Poirot O, Uhlén P, Timmerman V, Tricaud N, Schneider BL, Chrast R.

**Proceedings of the National Academy of Sciences - PNAS.**

2019 Feb 5;116(6):2328-2337. doi: 10.1073/pnas.1810932116. Epub 2019 Jan 18.

PMID: 30659145

**4 - Characterization of molecular mechanisms underlying the axonal Charcot-Marie-Tooth neuropathy caused by MORC2 mutations.**

Sancho P\*, **Bartesaghi L\***, Miossec O, García-García F, Ramírez-Jiménez L, Siddell A, Åkesson E, Hedlund E, Laššuthová P, Pascual-Pascual SI, Sevilla T, Kennerson M, Lupo V, Chrast R, Espinós C.

**Human Molecular Genetics.**

\* Co-first authors

2019 May 15;28(10):1629-1644. doi: 10.1093/hmg/ddz006.

PMID: 30624633

**5 - Loss of tubulin deglutamylase CCP1 causes infantile-onset neurodegeneration.**

Shashi V, Magiera MM, Klein D, Zaki M, Schoch K, Rudnik-Schöneborn S, Norman A, Lopes Abath Neto O, Dusl M, Yuan X, **Bartesaghi L**, De Marco P, Alfares AA, Marom R, Aruld ST, Guzmán-Vega FJ, Pena LD, Smith EC, Steinlin M, Babiker MO, Mohassel P, Foley AR, Donkervoort S, Kaur R, Ghosh PS, Stanley V, Musaev D, Nava C, Mignot C, Keren B, Scala M, Tassano E, Picco P, Doneda P, Fiorillo C, Issa MY, Alassiri A, Alahmad A, Gerard A, Liu P, Yang Y, Ertl-Wagner B, Kranz PG, Wentzenzen IM, Stucka R, Stong N, Allen AS, Goldstein DB; Undiagnosed Diseases Network, Schoser B, Rösler KM, Alfadhel M, Capra V, Chrast R, Strom TM, Kamsteeg EJ, Bönnemann CG, Gleeson JG, Martini R, Janke C, Senderek J.

**The EMBO journal.**

2018 Dec 3;37(23). pii: e100540. doi: 10.15252/embj.2018100540. Epub 2018 Nov 12.

PMID: 30420557

**6 - Missense mutations in TENM4, a regulator of axon guidance and central myelination, cause essential tremor.**

Hor H, Francescatto L\*, **Bartesaghi L\***, Ortega-Cubero S, Kousi M, Lorenzo-Betancor O, Jiménez-Jiménez FJ, Gironell A, Clarimón J, Drechsel O, Agúndez JA, Kenzelmann Broz D, Chiquet-Ehrismann R, Lleó A, Coria F, García-Martin E, Alonso-Navarro H, Martí MJ, Kulisevsky J, Hor CN, Ossowski S, Chrast R, Katsanis N, Pastor P, Estivill X.

**Human Molecular Genetics.**

\* Co-second authors

2015 Oct 15;24(20):5677-86. doi: 10.1093/hmg/ddv281. Epub 2015 Jul 17.

PMID: 26188006

7 - Sox4 participates in the modulation of Schwann cell myelination.

**Bartesaghi L**, Arnaud Gouttenoire E, Prunotto A, Médard JJ, Bergmann S, Chrast R.

**European Journal of Neuroscience.**

2015 Jul;42(2):1788-96. doi: 10.1111/ejn.12929. Epub 2015 May 19.

PMID: 25899854

8 - PLEKHG5 deficiency leads to an intermediate form of autosomal-recessive Charcot-Marie-Tooth disease.

Azzedine H, Zavadakova P, Planté-Bordeneuve V, Vaz Pato M, Pinto N, **Bartesaghi L**, Zenker J, Poirot O, Bernard-Marissal N, Arnaud Gouttenoire E, Cartoni R, Title A, Venturini G, Médard JJ, Makowski E, Schöls L, Claeys KG, Stendel C, Roos A, Weis J, Dubourg O, Leal Loureiro J, Stevanin G, Said G, Amato A, Baraban J, LeGuern E, Senderek J, Rivolta C, Chrast R.

**Human Molecular Genetics.**

2013 Oct 15;22(20):4224-32. doi: 10.1093/hmg/ddt274. Epub 2013 Jun 17.

PMID: 23777631

9 - Sh3tc2 deficiency affects neuregulin-1/ErbB signaling.

Gouttenoire EA, Lupo V, Calpena E, **Bartesaghi L**, Schüpfer F, Médard JJ, Maurer F, Beckmann JS, Senderek J, Palau F, Espinós C, Chrast R.

**Glia.** 2013 Jul;61(7):1041-51. doi: 10.1002/glia.22493. Epub 2013 Apr 2.

PMID: 23553667

10 - A missense mutation in myelin oligodendrocyte glycoprotein as a cause of familial narcolepsy with cataplexy.

Hor H, **Bartesaghi L**, Katalik Z, Vicário JL, de Andrés C, Pfister C, Lammers GJ, Guex N, Chrast R, Tafti M, Peraita-Adrados R.

**American Journal of Human Genetics.**

2011 Sep 9;89(3):474-9. doi: 10.1016/j.ajhg.2011.08.007. Erratum in: Am J Hum Genet. 2012 Aug 10;91(2):396.

PMID: 21907016

11 - Non-redundant function of dystroglycan and β1 integrins in radial sorting of axons.

Berti C\*, **Bartesaghi L\***, Ghidinelli M, Zambroni D, Figlia G, Chen ZL, Quattrini A, Wrabetz L, Feltri ML.

**Development.**

\* Co-first authors

2011 Sep;138(18):4025-37. doi: 10.1242/dev.065490.

PMID: 21862561

Referees for recommendation letters:

- Sandra Ceccatelli (Professor, Neuroscience Department, Karolinska Institute, Stockholm, Sweden and Director of the Ming Wai Lau Centre for Reparative Medicine, Karolinska Institute). sandra.ceccatelli@ki.se
- Roman Chrast (Professor, Neuroscience Department, Karolinska Institute, Stockholm, Sweden and, since 02/2020, Core facility coordinator, EPFL, Lausanne, Switzerland). roman.chrast@ki.se
- Laura Feltri (Professor and acting director of the Hunter James Kelly research institute, University of Buffalo, Buffalo, USA). mlfeltri@buffalo.edu
- Jan Senderek (Research Professor for neuromuscular diseases, University of Munich LMU, Munich, Germany). jan.senderek@med.uni-muenchen.de
- Claire Jacob (Professor, Institute of Developmental Biology and Neurobiology, University of Mainz, Mainz, Germany) cjacob@uni-mainz.de

Data

14/07/2020

Luogo

Stoccolma, Svezia