

CURRICULUM VITAE



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Present position **ASSISTANT PROFESSOR**
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EDUCATION AND POST GRADUTE TRAINING

FORM DECEMBER 2008 TO NOW: DEPARTMENT LIFE SCIENCES
UNIVERSITY OF TRIESTE, ITALY
ASSISTANT PROFESSOR, ACADEMIC DISCIPLINE BIOS-06/A FIOLOGIA

April 2024 – May 2024: Leave of absence at the Mitchell Center for Neurodegenerative Disease
University of Texas (USA)
Visiting scientist

September 2018: A.I. Virtanen Institute for Molecular Sciences
University of Eastern Finland, Kuopio
Visiting professor (Erasmus+ - short mobility)

January 2008 – February 2008: Department of Neurobiology and Behaviour
University of California Irvine, USA
Visiting researcher

October 2006 – February 2007: Department of Neurobiology and Behaviour
University of California Irvine, USA
Visiting researcher

November 2005 – November 2008: Department of Physiology and Pathology
University of Trieste, Italy
Post-Doc position

July 2003 – November 2005: Department of Neurobiology and Behaviour
University of California Irvine, USA
Post-Doc position

2003: University of Trieste, Italy
PhD in Neuroscience

1999: University of Trieste, Italy
Master's Degree in Biological Sciences

TEACHING EXPERIENCE
AT UNIVERSITY OF TRIESTE:

2000-present: Human Physiology (School of Medicine, 24h)
2006-2008: Cell Physiology (Master of Biotechnology, 24h)
2008- present: Physiology (School of Pharmacy, Chimica e Tecnologia Farmaceutiche, 64h)
2009-present: Principle of Synaptic Transmission (International Master in Neuroscience, 16h)

INSTITUTIONAL POSITION:

2012 - 2017: Member of the PhD Program Faculty board in Neuroscience and Cognitive Sciences
2015-2021 Member of the Teaching Committee of the International Master Degree in Neuroscience (University of Trieste)
2023-present: Member of the Department Board
2025-present: Member of the Teaching Committee of the International Master Degree in Neuroscience (University of Trieste)

LANGUAGES:

September 2023: English C1 level certificate
Defined by the Common European Framework of reference for Languages and certificate by Centro Linguistico di Ateneo (University of Trieste)

TEACHING EXPERIENCE
IN OTHER INSTITUTIONS:

From 2015-present: Element of Biology and Electrophysiology – ITS Academy for New Life Technologies, Alessandro Volta, Trieste (36h)

RESEARCH ACTIVITY:

Neuromuscular plasticity
Piezo1 channels in skeletal muscle regeneration.
Xenopus oocytes as model for studying the asbestos - cell membrane interactions.

MENTORING:

Supervisor of Master Thesis (University of Trieste, Italy): International Master Degree in Neuroscience, School of Pharmacy, Biotechnology, Biological Sciences and Genomic.
Supervisor of PhD Thesis Neuroscience and Cognitive Sciences (University of Trieste), co-supervisor of PhD Thesis in Nanotechnology (University of Trieste).

MASTER/PHD EXTERNAL
REVIEWER:

Neuroscience (S.I.S.S.A., Italy), Experimental and Clinic Physiology (University of Varese, Italy), Behavioural Neuroscience (Sapienza University, Rome, Italy), School in Biomedicine and Neuroscience (University of Palermo, Italy), Faculty of Science, Stellenbosch University South Africa.

MAIN GRANTS FROM 2020:

2018-2022: "Microgravity-induced gene expression in a nerve-muscle coculture model" NEMUCO (partecipant)
2020-2024: Commissione Amianto, Regione Friuli Venezia Giulia (Contributi regionali per gli interventi in materia di situazioni da rischio amianto; bando 2020) ([scientific coordinator](#))

JOURNAL REVIEWER

European Biophysics Journal, Purinergic Signaling, Scientific Reports, Peer J., Cellular and Molecular Life Sciences, Neuroscience, Translational Psychiatry, Nanotoxicology, Neurobiology of Aging, JoVE, Membranes, Journal of Neuroscience Methods, FASEB, International Journal of Molecular Sciences, Membranes, Biomolecules, Cells, Acta Astronautica, Molecular Medicine Reports.

INVITED SPEAKER

2009: "La Sapienza" University (Italy): "GABA receptor desensitization in glial cells derived from KO mouse for adenosine receptors"
2009: "La Sapienza" University (Italy): "GABA-mediated current characterization recorded Xenopus oocytes microtransplanted with glial cell membrane isolated from mouse cortex"
2018: University of Eastern Finland, Kuopio "Muscle satellite stem cells: a powerful tool for muscle regeneration"

DISSEMINATION ACTIVITY

2006: Caffè delle Scienze 2006 (Trieste): "Come studiare il cervello umano con le uova di rana"
2011: Notte dei Ricercatori (ACCENTO Ideas & Music on BRAIN): "Le uova di Xenopus laevis nello studio delle patologie del sistema nervoso"
2015: Settimana del cervello 2013 (Caffè delle Scienze): "La scoperta dell'elettricità animale"
2015: Trieste Next 2015 Viaggio all'interno dei nostri muscoli: conoscerli per migliorarne la funzionalità
2019: Caffè delle Scienze Trieste and Gorizia, Italy: "Guerre stellari e la pillola dell'esercizio fisico"
2024: Osservatorio Farra d'Isonzo: L'esercizio fisico in pillole!

OTHER ACTIVITIES

April 2023: attend course on: "strategie tecniche di comunicazione docenti allievi"
20hr, ITS Volta, regione autonoma FVG Legge regionale 21 luglio 2017 n. cofinanziato dal Fondo Sociale Europeo
September 2020: attend a course on: "metodologie e tecniche per la formazione a distanza"
10hr, ITS Volta, autorizzato dalla regione autonoma FVG, Legge regionale 21 luglio 2017, n. 27, Decreto 19261, 11/08/2020, cofinanziato dal Fondo Sociale Europeo

ARTICLES IN PEER-REVIEWED JOURNALS FROM 2020

Bernareggi A, Sciancalepore M, Lorenzon P. (2020) Interplay Between Cholinergic and Adenosinergic Systems in Skeletal Muscle. *Neuroscience*. 439:41-47. doi: 10.1016/j.neuroscience.2019.05.020. (invited review article for a special issues) ([corresponding author](#)).

Bosutti A, Giniatullin A, Odnoshivkina Y, Giudice L, Malm T, Sciancalepore M, Giniatullin R, D'Andrea P, Lorenzon P, **Bernareggi A**. "Time window" effect of Yoda1-evoked Piezo1 channel activity during mouse skeletal muscle differentiation. *Acta Physiol (Oxf)*. 2021 Jun 7:e13702 doi: 10.1111/apha.13702. ([corresponding author](#)).

16. Lorenzon P, Furlan S, Ravara B, Bosutti A, Massaria G, **Bernareggi A**, Sciancalepore M, Trautmann G, Block K, Blottner D, Worley PF, Zampieri S, Salanova M, Volpe P. Preliminary Observations on Skeletal Muscle Adaptation and Plasticity in Homer 2^{-/-} Mice. *Metabolites*. 2021;11(9):642. doi: 10.3390/metabo11090642.

Bernareggi A, Bosutti A, Massaria G, Giniatullin R, Malm T, Sciancalepore M, Lorenzon P (2022). The State of the Art of Piezo1 Channels in Skeletal Muscle Regeneration. *Int J Mol Sci*. 14;23(12):6616. doi: 10.3390/ijms23126616. ([corresponding author](#)).

Sciancalepore M, Massaria G, Tramer F, Zacchi P, Lorenzon P, **Bernareggi A**. (2022) A preliminary study on the role of Piezo1 channels in myokine release from cultured mouse myotubes. *Biochem Biophys Res Commun*. 623:148-153. doi: 10.1016/j.bbrc.2022.07.059. ([corresponding author](#)).

Volpe P, Bosutti A, Nori A, Filadi R, Gherardi G, Trautmann G, Furlan S, Massaria G, Sciancalepore M, Megighian A, Caccin P, **Bernareggi A**, Salanova M, Sacchetto R, Sandonà D, Pizzo P, Lorenzon P (2022). Nerve-dependent distribution of subsynaptic type 1 inositol 1,4,5-trisphosphate receptor at the neuromuscular junction. *J Gen Physiol.* 7;154(11).

Gros K, Matkovič U, Parato G, Miš K, Luin E, **Bernareggi A**, Sciancalepore M, Marš T, Lorenzon P, Pirkmajer S. (2022). Neuronal agrin promotes proliferation of primary human myoblasts in an age-dependent. *Int J Mol Sci.* 23(19):11784. doi: 10.3390/ijms231911784.

Zangari M, Borelli V, **Bernareggi A**, Zabucchi G (2023). Asbestos fibers promote iron oxidation and compete with apoferritin enzymatic activity. *J Toxicol Environ Health A.* 86(2-3):69-73. doi: 10.1080/15287394.2022.2164391.

Bernareggi A, Zangari M, Constanti A, Zacchi P, Borelli V, Mangogna A, Lorenzon P, Zabucchi G (2023) Asbestos Fibers Enhance the TMEM16A Channel Activity in *Xenopus* Oocytes. *Membranes (Basel).* 13(2):180. doi: 10.3390/membranes13020180. (*corresponding author*) (This article belongs to the Special Issue The *Xenopus* Oocyte: A Tool for Membrane Biology).

Borelli V, Zangari M, **Bernareggi A**, Bardelli F, Vita F, Zabucchi G (2023). Ferruginous bodies exert a strong proinflammatory effect. *J Toxicol Environ Health A.* 1-5. doi: 10.1080/15287394.2023.2181899.

Braidotti, N., Ciubotaru, C.D., Rizzo, D. Bergamo L. **Bernareggi A.**, Cojoc D (2023). Investigating mechanosensitive channels activation in concert with the mechanical properties of red blood cells. *Discov Mechanical Engineering* 2, 18 doi.org/10.1007/s44245-023-00026-3

Sciancalepore M, Ragnini A, Zacchi P, Borelli V, D'Andrea P, Lorenzon P, **Bernareggi A** (2024). A Pharmacological Investigation of the TMEM16A Currents in Murine Skeletal Myogenic Precursor Cells. *Int J Mol Sci.* 25(4):2225. doi: 10.3390/ijms25042225. (*corresponding author*)

Zangari M, Zabucchi G, Conti M, Lorenzon P, Borelli V, Constanti A, Dellisanti F, Leone S, Vaccari L, **Bernareggi A**. (2024). Effect of Synthetic Vitreous Fiber Exposure on TMEM16A Channels in a *Xenopus laevis* Oocyte Model. *Int J Mol Sci.*;25(16):8661. doi: 10.3390/ijms25168661. (*corresponding author*)

Zangari M, Piccirilli F, Vaccari L, Radu C, Zacchi P, **Bernareggi A**, Leone S, Zabucchi G, Borelli V. (2024) Ferritin adsorption onto chrysotile asbestos fibers influences the protein secondary structure. *Heliyon.* 4;10(20):e38966. doi: 10.1016/j.heliyon.2024.e38966.

Braidotti N, Rizzo D, Ciubotaru CD, Sacco G, **Bernareggi A**, Cojoc D (2025). Actin instability alters red blood cell mechanics and Piezo1 channel activity. *Biomech Model Mechanobiol.* doi: 10.1007/s10237-024-01921-8.

BOOKS and CHAPTERS: Editor of the Italian edition of "Fisiologia del sistema endocrino e riproduttivo" by Bruce A. White, John R. Harrison, Lisa M. Mehlmann, 5th English edition, Piccin.

Abstract in Congress form 2022:

2024: EMC2024 Ljubljana September 2024:
Lorenzon P, **Bernareggi A**, Sciancalepore M, Volpe P, Nori A, Sacchetto R, Furlan A, Zampieri S, Ravara B
A novel role for Homer2 in the functional interplay nAChRs/IP3R1 regulating the endplate plasticity

EMC2024 Ljubljana September 2024:
Bernareggi A, Zhang W-R, Fracassi A, Sciancalepore A, Lorenzon P, Tagliatela G, Limon A
The pharmacological activation of Piezo1 channels modulates the release of exosomes on myogenic precursor cells

2023: ICAVS12-12th International Conference on Advanced Vibrational Spectroscopy, Krakow
Zangari M, Piccirilli F, **Bernareggi A**, Zabucchi G, Vaccari L

FTIR microscopy and nanoscopy analysis of protein-fiber interaction in asbestos body model assembling

VISPEC school and conference on Vibrational Spectroscopy, Perugia

Zangari M, Piccirilli F, **Bernareggi A**, Zabucchi G, Vaccari L.

A systematic study of protein-fiber interaction in asbestos body model using FTIR microscopy and IR nanoscopy
Comparative Medicine Copyright 2016 by the American Association for Laboratory Animal Science 73 Vol 66, No 1
p.79

2022: XXVI Congresso Nazionale SBPA, San Miniato, PI

Zangari M, Piccirilli F, **Bernareggi A**, Radu C, Vaccari L, Zabucchi G

The role played by protein –asbestos fiber interaction in asbestos pathogenicity

19th European Conference on the Spectroscopy of Biological Molecules, reims

Zangari M, Piccirilli F, **Bernareggi A**, Zabucchi G, Vaccari L

The role played by protein –asbestos fiber interaction in asbestos toxicity