BIOGRAPHICAL SKETCH

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NAME: **Anna Pistocchi, Ph.D.**

ORCID ID: orcid.org/0000-0001-9467-2542
eRA COMMONS USER NAME: PISTOCCHIA

POSITION TITLE: **Associate professor**

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE	YEAR	FIELD OF STUDY
Universita' degli Studi di Milano, Italy	BS/MS	09/2003	Biology
Universita' degli Studi di Milano, Italy	PhD	12/2006	Zebrafish development
DIBIT, HSR institute, Segrate, Italy	Post-Doc	2006-2011	Applied biology
Universita' degli Studi di Milano, Italy	Associate Professor Type A and B	2012-2015	Applied biology

A. Personal Statement

In the past seven years I lead as Principal Investigator, a research group focusing on the use of zebrafish for the functional characterization of candidate genes in the onset of human pathologies, especially leukemia, muscular and neurodegenerative diseases, I started as RTD, progressively acquiring a role as a PI in the proposed projects and related publications. I have developed the skills required to be an independent group leader with my own laboratory at the Dept. of Medical Biotechnology and Translational Medicine University of Milan, LITA, Segrate. I have my own group composed by four PhD students and junior staff member to supervise for their graduation. I am leading projects and following them through to completion, with preparation of manuscripts. I also actively applied as a PI or contributed to several grant applications as Partner or with collaboration letters for my zebrafish expertise (Telethon 2015, 2017, AIRC 2016, AIRC 2018, Italian Foundation of Cystic Fibrosis 2017 and 2019, PRIN 2018, Ricerca Finalizzata 2016 and 2018, ERC starting 2018) and I won some of them (AIRC 2016 and Italian Foundation of Cystic Fibrosis 2017, 2019 in which I am the PI; Ricerca Finalizzata 2016, PRIN 2018 and AIRC 2018 in which I am partner or external collaborator). In each case, I generated preliminary data and ideas that were part of the proposals, and helped with writing of the scientific case for support.
I have authored 34 peer-reviewed published papers; my H-Index is 12.

B. Positions and Honors

Positions and Employment

2007-2009 Post-doctoral Fellow, University of Milan, advisor Prof. F. Cotelli
2009-2009 Post-doctoral Fellow, Dibit, San Raffaele Hospital, Milan, advisor G. Cossu. (CEE04468)
2009-2011 co.co.pro.at the San Raffaele-Fondazione Centro S. Raffaele del Monte Tabor- DIBIT Milano, advisor G. Cossu CE-ERCCOSSU
2011-2012 co.co.pro. at the Department of Biology University of Milan, advisors G. Cossu/G. Messina FP7
2012-2019 Assistant professor, Dept. of Medical Biotechnology and Translational Medicine, University of Milan

2019-present Associate professor, Dept. of Medical Biotechnology and Translational Medicine, University of Milan

Career Breaks

- From July 2012 to November 2012 Maternity leave first child
- From June 2015 to February 2016 Maternity leave second child.
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Other Experience and Professional Memberships

2014-2015 Member of the European Society of Human Genetics (ESHG).
2016-present Member of the Italian Association of Biology and Genetic (AIBG).
2014-present Member of the neuroscience integrated group NEURONEST, University of Milan.
2018–present Ad-Hoc Reviewer: *Scientific Reports, Journal of Cellular Physiology, Viral Immunology*
2019–present Editor Board Member, *Scientific Reports, BIOTECHNOLOGY and Molecular Biology Reviews.*
2019 Ad-Hoc Reviewer for ANR grant application
2018-2019 Member of the European Society of Human Genetics (ESHG).
2017-2021 Member of the EuFishBioMed net.
2018-2021 Member of the Zebrafish Disease Models Society (ZDMS)

Selected Peer-reviewed Publications

A complete list of my publications can be found at https://orcid.org/0000-0001-9467-2542.

C. Contribution to science

Since 2012 I lead as Principal Investigator a research group focusing on understanding the role of genes dysregulated in human diseases using zebrafish (*Danio rerio*) as a model system to functionally understand the molecular mechanisms underlying the pathology. In the past ten years I studied cohesin genes and their regulators NIPBL and HDAC8. Indeed, their dysregulation correlates with different pathologies such as the neurodegenerative Cornelia de Lange Syndrome, tumors such as myeloid leukemia and muscle differentiation defects. I developed a zebrafish model to study cohesin dysregulation and their role in the insurgence of the related pathologies (Pistocchi et al., 2013, Fazio et al., 2016; Ferrari et al., 2018, Bottai et al., 2018, Mazzola et al., 2019, Mazzola et al., 2020, Spreafico et al., 2020a, Spreafico et al., 2020b). Moreover, I have used zebrafish as a model system to study other human diseases such as chordoma (Ferrari et al., 2014) and cystic fibrosis (Cafora et al., 2019, Brix et al., 2020, Cafora et al., 2020). Recent publications relevant to the proposed research are:

1.Spreafico M, Mangano E, Mazzola M, Consolandi C, Bordoni R, Battaglia C, Bicciato S, Marozzi A, **Pistocchi A**. The Genome-Wide Impact of Nipblb Loss-of-Function on Zebrafish Gene Expression. Int J Mol Sci. 2020 Dec 19;21(24):9719. doi: 10.3390/ijms21249719. PMID: 33352756; PMCID: PMC7766774.
2. Spreafico M, Gruszka AM, Valli D, Mazzola M, Deflorian G, Quintè A, Totaro MG, Battaglia C, Alcalay M, Marozzi A, **Pistocchi A**. (2020) HDAC8: A Promising Therapeutic Target for Acute Myeloid Leukemia. Front Cell Dev Biol. 4;8:844. doi: 10.3389/fcell.2020.00844. PMID: 33015043; PMCID: PMC7498549.
3. Colombo M., Garavelli S., Mazzola M., Platonova N., Giannandrea D., Colella R., Apicella L., Lancellotti M., Lesma E., Ancona S., Palano M.T., Barbieri M., Taiana E., Lazzari E., Basile A., Turrini M., **Pistocchi A.**, Neri A., Chiaramonte R. (2020) Multiple myeloma exploits Jagged1 and Jagged2 to promote intrinsic and bone marrow-dependent drug resistance. Haematologica 105:1925-1936. doi: 10.3324/haematol.2019.221077. PMID: 31582544; PMCID: PMC7327642.
4. Ferrari L., Cafora M., Rota F., Hoxha M., Iodice S., Tarantini L., Dolci M., Delbue S., **Pistocchi A** (co-last author), Bollati V. (2019). “Extracellular Vesicles Released by Colorectal Cancer Cell Lines Modulate Innate

Immune Response I n Zebrafish Model: The Possible Role of Human Endogenous Retroviruses". Int J Mol Sci. 2019 Jul 26;20(15). pii: E3669. doi: 10.3390/ijms20153669.1.
5. Mazzola M., Deflorian G., Pezzotta A., Ferrari L., Fazio G., Bresciani E., Saitta C., Ferrari L., Fumagalli M., Parma M., Marasca F., Bodega B., Riva P., Cotelli F., Biondi A., Marozzi A., Cazzaniga G., **Pistocchi A**. (2019) "NIPBL: a new player in myeloid cells differentiation". Haematologica. 2019 pii: Haematol.2018.200899. doi: 10.3324/haematol.2018.200899
6. Bottai D., Spreafico M., **Pistocchi A**., Fazio G., Adami R., Grazioli P., Canu A., Bragato C.., Rigamonti S., Parodi C., Cazzaniga G., Biondi A., Cotelli F., Selicorni A., Massa V. (2018) "Modeling Cornelia de Lange syndrome in vitro and in vivo reveals a role for cohesin complex in neuronal survival and differentiation". Hum Mol Genet. doi: 10.1093/hmg/ddy329.

D. Research Support

Ongoing Research Support

Ministero della Salute Ricerca Finalizzata RF-2016-02361285 (Gellera) 16/10/2018-15/02/2022
Translational genetics of hereditary dysmyelinating disorders of the central nervous system: deep phenotyping, NGS strategies, and model organisms for clinical diagnosis and identification of novel disease genes
The major goal of this project is to identify new candidate genes for leukodystrophy insurgence.
Role in the project: Partner

PRIN 2017HWPZZZRF-2016-02361285 (Bollati) 10/01/2018-02/28/2022
Italian Ministry of University and Research
Nasal microbiota, bronchiolitis and air pollution: the Good, the Bad and the Ugly
The major goal of this project is to test if exposure to air pollution might alter the equilibrium of respiratory bacterial community, contributing to modify the systemic immune response to bronchiolitis in newborns.
Role in the project: Component of PI Unit

Ministero della Salute Ricerca Finalizzata GR-2018-12365922 (Milani) 10/01/2021-09/30/2024
Breast milk extracellular vesicles: maternal resilience to counterbalance life-threatening infant's conditions
Role in the project: Collaborator