Curriculm vitae

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CONTACT

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PROFESSIONAL EXPERIENCE

School	Degree	Date
University of Colorado	Assistant Professor	2024 - present
New York University/ MSKCC	Postdoctoral Fellow / Senior Research Scientist	2018 - 2024
Institute of Molecular Genetics (IGM-CNR)	Postdoctoral Fellow	2015 - 2018

EDUCATION

School	Degree	Date
University of Pavia (IT)	PhD in Genetics, Molecular and Cellular Biology	2011 - 2015
University of Milan (IT)	Master's in Molecular and Cellular Biology	2009 - 2011
University of Milan (IT)	Bachelor's in Biology	2005 - 2009

FELLOWSHIPS AND AWARDS

2024	Prize: 2024 Tri-Institutional Breakout Prize for junior investigators
2023	Prize: Best poster presentation, MSK Postdoc Research Symposium
2023	Prize: Society Scholars Prize, The Society of Memorial Sloan Kettering
2022	Travel grant: Marie-Josée Kravis Women in Science Endeavor, Travel grant
2019 - 2020	Fellowship: Kimmel Senior Postdoctoral Fellowship, New York University
2018 - 2019	Fellowship: NYSTEM training grant, New York State Stem Cell Science
2016 - 2017	Fellowship: Maria Costa Fellowship, AIRC (Associazione Italiana per la Ricerca sul Cancro - Italian Association for Cancer Research)

PEER-REVIEWED PUBLICATIONS

[*] Equally contributed as first author
[#] Equally contributed as corresponding author

1. **Brambati A***#, Sacco O*, Porcella S*, Heyza J, Kareh M, Schmidt J, Sfeir A#. RHINO directs MMEJ to repair DNA breaks in mitosis. *Science*. DOI: 10.1126/science.adh3694. PMID: 37440612
2. Zardoni L, Nardini E, **Brambati A**, Lucca C, Choudhary R, Loperfido F, Sabbioneda S, Liberi G. Elongating RNA polymerase II and RNA:DNA hybrids hinder fork progression and gene expression at sites of head-on replication-transcription collisions. *Nucleic Acids Resource*. 2021 Dec 16;49(22):12769-12784. doi: 10.1093/nar/gkab1146. PMID: 34878142.
3. Chandramouly G, Zhao J, McDevitt S, Rusanov T, Hoang T, Borisonnik N, Treddinick T, Lopezcolorado FW, Kent T, Siddique LA, Mallon J, Huhn J, Shoda Z, Kashkina E, **Brambati A**, Stark JM, Chen XS, Pomerantz RT. Polθ reverse transcribes RNA and promotes RNA-templated DNA repair. *Science Advances*. 2021 Jun 11;7(24):eabf1771. doi: 10.1126/sciadv.abf1771. PMID: 34117057.
4. Rawal CC, Zardoni L, Di Terlizzi M, Galati E, **Brambati A**, Lazzaro F, Liberi G, Pellicioli A. Senataxin Ortholog Sen1 Limits DNA:RNA Hybrid Accumulation at DNA Double-Strand Breaks to Control End Resection and Repair Fidelity. *Cell Reports*. 2020 May 5;31(5):107603. doi: 10.1016/j.celrep.2020.107603. PMID: 32375052.
5. **Brambati A**, Zardoni L, Nardini E, Pellicioli A, Liberi G. The dark side of RNA:DNA hybrids. *Mutation Research/Reviews in Mutation Research*. 2020 Apr-Jun;784:108300. doi: 10.1016/j.mrrev.2020.108300. Epub 2020 Feb 29. PMID: 32430097. *Review*
6. **Brambati A**, Barry RM, Sfeir A. DNA polymerase theta (Polθ) - an error-prone polymerase necessary for genome stability. *Current Opinion in Genetics & Development*. 2020 Feb;60:119-126. doi: 10.1016/j.gde.2020.02.017. Epub 2020 Apr 14. PMID: 32302896. *Review*
7. **Brambati A**, Zardoni L, Achar YJ, Piccini D, Galanti L, Colosio A, Foiani M, Liberi G. Dormant origins and fork protection mechanisms rescue sister forks arrested by transcription. *Nucleic Acids Resource*. 2018 Feb 16;46(3):1227-1239. doi: 10.1093/nar/gkx945. PMID: 29059325. *This paper was selected for the journal cover.*
8. **Brambati A**, Colosio A, Zardoni L, Galanti L, Liberi G. Replication and transcription on a collision course: eukaryotic regulation mechanisms and implications for DNA stability. *Frontiers in Genetics*. 2015 Apr 28;6:166. doi: 10.3389/fgene.2015.00166. PMID: 25972894. *Review*
9. Alzu A, Bermejo R, Begnis M, Lucca C, Piccini D, Carotenuto W, Saponaro M, **Brambati A**, Cocito A, Foiani M, Liberi G. Senataxin associates with replication forks to protect fork integrity across RNA-polymerase-II-transcribed genes. *Cell*. 2012 Nov 9;151(4):835-846. doi: 10.1016/j.cell.2012.09.041. PMID: 23141540.

PEER-REVIEW ACTIVITY

2021 - present	Review Editor in Cancer Genetics, *Frontiers in Oncology.*
2021	Guest Editor, *Journal of Visualized Experiments (JoVE).*

TEACHING RECORDS

2020-2021	Lecturer of the course “Fundamental Discoveries in Biology”, New York University. Together with Prof. Smith we discussed seminal papers in the field of replication.
2014	During my PhD at the University of Pavia I was teaching assistant for one semester of the course of “Genetics” from Prof. Semino. I provided theory notions and practical exercise on the topic “Mitosis and meiosis” for different classes of undergraduates.

MENTORING EXPERIENCE

2021 - present	Hina Shah, PhD student (2-years), SKI, MSKCC Olivia Sacco, Technician (2-years), SKI, MSKCC Ahmet Doymaz, MD/PhD rotation student, SKI, MSKCC Monica Selvaraj, PhD rotation student, SKI, MSKCC Jessica Das, undergraduate intern (summer), SKI, MSKCC
2019 - 2021	Julius Wu, undergraduate intern (2-years), New York University
2011 - 2018	Federica Evangelista, Master student (2-years), University of Pavia Michela Piras, Master student (2-years), University of Pavia Federica Loperfido, Master student (2-years), University of Pavia Luca Zardoni, Master student (2-years), University of Pavia Lorenzo Galanti, Master student (2-years), University of Pavia Erika Valeri, Master student (2-years), University of Pavia

PRESENTATIONS

1. Selected abstract for short talk at ASCB|EMBO Meeting - Cell Bio 2023, December 2-6, 2023, Boston. "RHINO directs MMEJ to repair DNA breaks in mitosis"
2. Invited talk at "IGM-CNR Alumni Talk", IGM-CNR, (Consiglio Nazionale delle Ricerche - National Institute for Research), Virtual meeting, January 24th, 2023. "RHINO restricts MMEJ activity to mitosis".
3. Selected abstract for short talk at "Tri-Institutional RNA Club – Mini Symposium", Rockefeller University, New York, NY, USA, December 1st, 2022. "Polymerase Zeta acts as reverse transcriptase to promote RNA-dependent DSB repair."
4. Selected abstract for short talk at "Genome Integrity Discussion Group", Rockefeller University, October 26th, 2022. "RHINO restricts MMEJ activity to mitosis."
5. Selected abstract for oral session at "Annual MSK Postdoctoral Research Symposium", MSKCC, New York, NY, USA, September 2021
6. Annual oral sessions at NYSTEM meetings, New York, NY, USA, 2018-2020.
7. Selected abstract for oral session at "1st Joint Annual Symposium of the Departments of Biology and Biotechnology, Molecular Medicine and IGM-CNR", Pavia, Italy, February 2017
8. Selected abstract for a short talk at "DNA Damage, Mutation & Cancer (GRS) Gordon-Kenan Research Seminar", Ventura, CA, USA, March 2016. Talk title: "Mechanisms that rescue replication forks arrested by transcription."
9. Oral session at IGM meeting, Pavia, Italy, October 2014. Talk title: "Transcription is a source of replication stress in Senataxin deficient cells."