

BIOGRAPHICAL SKETCH

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NAME: **Irene Gallina**

eRA COMMONS USER NAME (credential, e.g., agency login):

POSITION TITLE: Assistant professor of Genetics, RTT

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
University of Padova	BS	07/2007	Molecular Biology
University of Padova	MS	10/2009	Molecular Biology
University of Copenhagen	PHD	08/2013	Molecular and Cell Biology
University of Copenhagen	Postdoctoral	08/2019	DNA replication and repair
University of Padova	Postdoctoral	05/2024	Molecular virology

A. Personal Statement

I am an Assistant professor and Junior PI at the University of Padova with research interests centered on genome stability, DNA replication and repair, with a particular focus on the replication of eukaryotes and viruses. Our current main project, funded by an ERC Starting grant from the European Commission, aims at understanding the mechanisms by which herpesviruses exploit the host cell replication and repair machinery to replicate and maintain in latency. the role of non-canonical DNA structures in human disease. My previous and current work focuses on understanding different aspects of genome regulation, with a particular focus on replication-dependent processes and combines interdisciplinary approaches including molecular biology, biochemistry, genomics, and virology. My research contributes to the identification of novel molecular targets and therapeutic strategies, advancing both fundamental knowledge and translational applications in human health.

B. Positions, Scientific Appointments, and Honors**Positions and Scientific Appointments**

2024– Present	Assistant Professor (RTT), Department of Molecular Medicine, University of Padova
2024 – Present	Member of SIBBM
2023 – 2025	Member of ECR Advisory Board for Nucleic Acids Research
2022 – 2024	Marie-Sklodowska Curie Fellowship, Department of Molecular Medicine, University of Padova

2019 – 2021 Assistant Professor, NNF Center for Protein Research, Department of Medical sciences, University of Copenhagen

Honors

2023 ERC Starting grant, KAPTION
2022 Marie-Sklodowska Curie postdoctoral fellowship, G4-KuRE

C. Contributions to Science

Selected publications (full list at <https://pubmed.ncbi.nlm.nih.gov/?term=gallina+irene&sort=date>)

Tosoni, B.; Naghshineh, E.; Zanin, I.; Gallina, I.; Di Pietro, L.; Cleris, L.; Nadai, M.; Lecchi, M.; Verderio, P.; Pratesi, P.; Pasquali, S.; Zaffaroni, N.; Neidle, S.; Folini, M.; Richter, S.N. **The G-quadruplex experimental drug QN-302 impairs liposarcoma cell growth by inhibiting MDM2 expression and restoring p53 levels** *Nucleic Acids Research*, (2025), gkaf085.

Sellés-Baiget, S.; Ambjørn, S.M.; Carli, A.; Hendriks, I.A.; Gallina, I.; Benedict, B.; Zarantonello, A.; Gadi, S.A.; Meeusen, B.; Hertz, E.P.T.; Nielsen, M.L.; Nilsson, J.; Duxin, J.P. **Catalytic and noncatalytic functions of DNA polymerase κ in translesion DNA synthesis.** (2025) *Nature Structural & Molecular Biology*, 32(2), 300–314.

Nicoletto, G.; Terreri, M.; Maurizio, I.; Ruggiero, E.; Cernilogar, F.M.; Vaine, C.A.; Cottini, M.V.; Shcherbakova, I.; Penney, E.B.; Gallina, I.; Monchaud, D.; Bragg, D.C.; Schotta, G.; Richter, S.N. **G-quadruplexes in an SVA retrotransposon cause aberrant TAF1 gene expression in X-linked dystonia parkinsonism** *Nucleic Acids Research*, (2024), 52(19), 11571–11586.

I Zanin, E Ruggiero, G Nicoletto, S Lago, I Maurizio, I Gallina, SN Richter. **Genome-wide mapping of i-motifs reveals their association with transcription regulation in live human cells.** *Nucleic Acids Research*, (2023) 51 (16), 8309-8321.

Gallina I, Hendriks IA, Hoffmann S, Larsen NB, Johansen J, Colding-Christiansen CS, Schubert L, Selles-Baiget S, Fabian Z, Kuhbacher U, Gao AO, Raschle M, Rasmussen S, Nielsen ML, Mailand N, Duxin JP. **The ubiquitin ligase RFWD3 is required for translesion DNA synthesis.** (2021). *Mol Cell*, 81 (3), 442-458.

Gallina I, Duxin JP. **A safe fix for alcohol-derived DNA damage.** *Nature*, 579, 2020.

Larsen NB, Gao AO, Sparks JL, Gallina I, Wu RA, Mann M, Raschle M, Walter JC, Duxin JP. **Replication-coupled DNA-protein crosslink repair by SPRTN and the proteasome in Xenopus egg extracts.** (2019) *Mol Cell*, 574–588.

Gallina I, Christiansen SK, Pedersen RT, Lisby M, Oestergaard VH (2016). **TopBP1-mediated DNA processing during mitosis.** *Cell Cycle*. 17;15(2):176-83.

Gallina I, Colding C, Henriksen P, Offman J, Beli P, Mathiasen DP, Silva S, Hoffman E, Nakamura K, Groth A, Keijzers G, Rasmussen LJ, Choudhary C, Lisby M. (2015). **Cmr1/WDR76 defines a nuclear genotoxic stress body linking genome stability and protein quality control.** *Nat Comm*.