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Curriculum Vitae

Xavier Bofill De Ros received his B.Sc. in Biochemistry and Biology at the Universitat de Barcelona (Spain). He completed his Ph.D. training in the laboratory of Dr. Cristina Fillat at Centre for Genomic Regulation (CRG) and Institut d'Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS). Xavier undertook his postdoctoral training in the laboratory of Dr. Shuo Gu at National Cancer Institute (USA). Both his Ph.D. and postdoctoral research focused on the mechanisms of microRNA regulation, and their applications in gene therapy. He joined the Department of Molecular Biology and Genetic at Aarhus University (Denmark) in 2023 supported by a starting grant from the Lundbeck Foundation Fellows programme.

Ansættelse

Adjunkt

Institut for Molekylærbiologi og Genetik - RNA-biologi og -innovation
Aarhus Universitet
Aarhus C, Danmark
1 feb. 2023 → present

Associeret redaktør

Molecular Therapy-Nucleic Acids
Waukesha, USA
1 jan. 2021 → present

Projekter

High-throughput identification of deamination sites

Bofill De Ros, X. (PI)
National Cancer Institute
01/05/2024 → 30/04/2025

AGOCancer: Impact of Argonaute PAZ domain mutations on miRNA turnover, target interaction and tumour development

Bofill De Ros, X. (PI)
Deutsche Forschungsgemeinschaft (DFG)
01/04/2024 → 31/03/2026

MicroRNA metabolism in tumors: Biology and Therapeutic opportunities

Bofill De Ros, X. (PI)
16/01/2023 → 15/01/2028

Publikationer

Hatton JN, Frone MN, ..., Bofill-De Ros X, et al. "Specifications of the ACMG/AMP variant curation guidelines for analysis of germline DICER1 variants". Human Mutation (2023)

Yang A*, Bofill-De Ros X*, Stanton RC, et al. "TENT2, TUT4 and TUT7 selectively regulate miRNA sequence and abundance". Nature Communications (2022)

Bofill-De Ros X#, Hong Z, Birkenfeld B, et al. "Flexible pri-miRNA structures enable tunable production of 5' isomiR". RNA Biology (2022)

Bofill-De Ros X#, Luke B, Guthridge R, et al. "Tumor IsomiR Encyclopedia (TIE): a pan-cancer database of miRNA isoforms". *Bioinformatics* (2021)

Yang A*, Shao TJ*, Bofill-De Ros X*, Lian C, Villanueva P, Dai L, Gu S. "AGO-bound mature miRNAs are oligouridylated by TUTs and subsequently degraded by DIS3L2". *Nature Communications* (2020)

Dai L, Hallmark L, Bofill-De Ros X, et al. "Novel, abundant Drosha isoforms are deficient in miRNA processing in cancer cells". *RNA Biology* (2020)

Desvignes T, ..., Bofill-De Ros X, et al. "Unification of miRNA and isomiR research: the mirGFF3 format and the mirtop API". *Bioinformatics* (2020)

Yang A*, Bofill-De Ros X*, et al. "3' uridylation Confers miRNAs with novel non-canonical target repertoires". *Molecular Cell* (2019)

Bofill-De Ros X, et al. "Structural differences between pri-miRNA paralogs promotes alternative Drosha cleavage and expands target repertoires". *Cell Reports* (2019) – Cover story

Bofill-De Ros X, Chen K, et al. "QuagmiR: A cloud-based application for isomiR big data analytics". *Bioinformatics* (2018)

Luna J*, Boni J*, Cuatrecasas M, Bofill-De Ros X, et al. "DYRK1A modulates c-MET in pancreatic ductal adenocarcinoma to drive tumour growth". *Gut* (2018)

Rodríguez-Comas J, Moreno-Asso A, ..., Bofill-De Ros X, et al. "Stress-induced microRNA-708 impairs β -cell function and growth". *Diabetes* (2017).

Bofill-De Ros X, Santos M, Vila M, et al. "Genome-wide miR-155 and miR-802 target gene identification in the hippocampus of Ts65Dn Down syndrome mouse model by miRNA sponges". *BMC Genomics* (2015).

Bofill-De Ros X*, Villanueva E*, Fillat C. "Late-phase miRNA-controlled oncolytic adenovirus for selective killing of cancer cells". *Oncotarget* (2015).

Bofill-De Ros X, Gironella M., Fillat C., "miR-148a and miR-216a regulated oncolytic adenoviruses targeting pancreatic tumors attenuate tissue damage without perturbation of miRNA activity". *Molecular Therapy* (2014).