PERSONAL INFORMATION

Yinxiu Zhan



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Sex Male | Date of birth 30/04/1989 | Nationality Italian

Enterprise	University	EPR
☑ Management Level	☐ Full professor	Research Director and 1st level Technologist / First Researcher and 2nd level Technologist / Principal Investigator
☐ Mid-Management Level	☐ Associate Professor	☐ Level III Researcher and Technologist
☐ Employee / worker level	Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	☐ Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

WORK EXPERIENCE

Since 03-2022

Coordinator of Data Science unit

Istituto Europeo di Oncologia, Milan, Italy

- Coordinate the development and implementation of fully-automated and reproducible analysis of multi-omics data from patient cancer and control samples (Whole Exome Sequencing, RNA-seq, whole genome metagenomic sequencing)
- Support research groups in the development of non-standard analyses pipelines for genomics and microscopy data

Business or sector: Biomedical Research

Since 05-2022

Tutoring in Experimental Design course

Università degli Studi di Milano, Milan, Italy

 Help with teaching in Experimental Design course <u>Business or sector</u>: University

From 04-2015 to 03-2022

Researcher

Friedrich Miescher Institute for Biomedical Research, Basel, Switzerland

- Develop and implement of analysis pipelines for genomics and transcriptomics data
- Analysis of sequencing data from Nanopore technologies
- Develop and implement machine learning solutions for pattern recognition in biomedical research
- Develop and implement statistical and physical models to describe biological systems
- Develop and deploy Streamlit applications for data sharing and visualisation

Business or sector: Biomedical Research

From 01-2020 to 12-2020

Bioinformatics consultant

enGene Statistics GmbH, Basel, Switzerland

Analysis of Genome-wide CRISPR/Cas9 Knockout screens

Business or sector: Biomedical Research

EDUCATION AND TRAINING

2015-2019

PhD in Biophysics

Level 8

University of Basel, Basel, Switzerland

• My primary research goal was to understand whether and how the three-dimensional conformation

of chromatin is involved in the control of gene expression. To this aim, I used a combination of biophysical modelling and multi-omics data to shed light into the specific role of promoter enhancer interaction and transcriptional regulation.

2012-2014 Master degree in Physics

Level 7

University of Milan, Milan, Italy

University of Milan, Milan, Italy

2009-2012 Bachelor degree in Physics

Level 6

ADDITIONAL INFORMATION

Total number of publications in peer-review journals: 16 Total number of citations: 424 H-index (Scopus): 10

Top 10 publications

- P. Mach*, P. Kos*, **Y. Zhan***, et al. "Cohesin and CTCF control the dynamics of chromosome folding" Nat. Genetics, (2022, accepted) *equal contribution
- → J. Zuin, G. Roth, **Y. Zhan**, ... , L. Giorgetti "Nonlinear control of transcription through enhancer-promoter interactions", Nature (2022)
- B.T. Eichenberger*, **Y. Zhan***, M. Rempfler, L. Giorgetti, J.A. Chao "deepBlink: threshold-independent detection and localization of diffraction-limited spots" Nucleic Acids Res. (2021) *equal contribution
- F. Zenk*, **Y. Zhan***, ... , L. Giorgetti, N. Iovino "HP1 drives de novo 3D genome reorganization in early Drosophila embryos" Nature (2021) *equal contribution
- ⋄ J. Redolfi*, Y. Zhan*, C. Valdes*, ..., L. Giorgetti "DamC reveals principles of chromatin folding in vivo without crosslinking and ligation" Nat. Struct. Mol. Biol. (2019) *equal contribution
- J. H. Wilbertz, F. Voigt, I. Horvathova, G. Roth, Y. Zhan, J. A.Chao" Single-Molecule Imaging of mRNA Localization and Regulation during the Integrated Stress Response" Mol. Cell. (2019)
- I. Horvathova, F. Voigt, A.V. Kotrys, Y. Zhan, C.G. Artus-Revel, J. Eglinger, M. Stadler L. Giorgetti, J.A. Chao "The Dynamics of mRNA Turnover Revealed by Single-Molecule Imaging in Single Cells" Mol. Cell. (2017)
- **Y. Zhan**, L. Giorgetti, G. Tiana "Modelling genome-wide topological associating domains in mouse embryonic stem cells" Chromosome Research (2017)
- ♦ Y. Zhan, L. Mariani, I. Barozzi, E.G. Schulz, N. Bluthgen, M. Stadler, G. Tiana, L. Giorgetti "Reciprocal insulation analysis of Hi-C data shows that TADs represent a functionally but not structurally privileged scale in the hierarchical folding of chromosomes" Genome Res. (2017)
- **Y. Zhan**, L. Giorgetti, G. Tiana "Looping probability of random heteropolymers helps to understand the scaling properties of biopolymers." Physical Review E, Vol. 94, 032402, (2016)

Declararation

According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV