

Ezequiel Miron

Curriculum vitae

📍 Dept. of Biochemistry, Univ. of Oxford
South Parks Rd, OX1 9U3, Oxford, UK
✉ eze.miron@bioch.ox.ac.uk

✉ eze.miron@bioch.ox.ac.uk
🐙 www.github.com/ezemiron
🌐 www.linkedin.com/in/ezequiel-miron

RESEARCH INTERESTS

Software solutions for high-throughput analysis of complex data. Mammalian nuclear chromatin architecture and epigenetic regulation. Super resolution optical microscopy, structured illumination microscopy (SIM). 3D printing.

EDUCATION

PhD Biochemistry - Schermelleh group 2013 – 2017
University of Oxford

"Super-resolution imaging and automated deep-content screening of functional 3D genome topology"

Automated image analysis applied to the investigation of interphase chromatin topology as characterised by the 3D distributions of epigenetic markers by super-resolution microscopy. Developed proficient command of Photoshop, Illustrator and a range of office suites in all major OS: Windows, Mac, Linux-Debian. Self-taught required programming skills in:

EXPERIENCED **R, GNU Octave, ImageJ, Git, Bash**

INTERMEDIATE **GNU Make, L^AT_EX**

BASIC **Matlab (see Octave), Python**

Imperial College London 2010 – 2013
BSc Biochemistry - **First class honours**

PROFESSIONAL AND ACADEMIC EXPERIENCE

Greene's Tutorial College, Oxford 2013 – 2016
Tutor and technician

Advanced Level and GCSE at Greene's College. Tailored lesson planning and one-to-one sessions with students. Chemical preparations for practicals.

SUBJECTS **Mathematics, Biology, Chemistry**

SUMMER 2012

Imperial College London
URO, Research Internship
Undergraduate Research Opportunity Program under Prof. E Hohenester, Department of Biophysics. Molecular biology and tissue culture applied to the study of collagen-binding proteins.

LANGUAGE SKILLS

ENGLISH Native speaker

SPANISH Native speaker

CATALAN Oral: good – Written: fair

FRENCH Oral: fair

FORMAL PRESENTATIONS

Prague - Poster and talk
International Congress of Cell Biology
University of Oxford - Poster
Bioimaging Festival
EMBL, Heidelberg - Poster
Chromatin and Epigenetics
Waddington Symposium, Edinburgh - Poster
Epigenetics in Dialogue with the Genome

AWARDS

Sydney Perry Foundation, Covenantors Trust
Educational Grant
University of Oxford, John Fell Fund
John Fell Award, co-author ~ £40,000
Dept. of Biochemistry, University of Oxford
DPhil Symposium Award
Imperial College London
UROP, Research Award

TRAINING AND OUTREACH

SOFTWARE	Statistics with SPSS course, R for Biochemists course, Matlab course, Software Carpentry course, Statistics course.
MICROSCOPY	ONBI DTC Image Analysis course, Micron Advanced Microscopy course, Laser Safety course, Imaris course.
GENERAL LABORATORY	Biological Safety course, Cryogenic Liquids Safety course, COSHH course.
COMMUNICATION	Effective Writing for Papers course, Presentations and viva preparation course.
OUTREACH	CAD and 3D printing (Makerbot and Formlabs), Oxfordshire Science Festival - developmental biology, automated generation of explorable Minecraft environments from 3D microscopy data for school outreach.

RECENT PUBLICATIONS

- 2016 **Miron E., et al.**
(Chromosome Architecture, pp.127-140, DOI: 10.1007/978-1-4939-3631-1_10)
In Vivo and In Situ Replication Labeling Methods for Super-resolution Structured Illumination Microscopy of Chromosome Territories and Chromatin Domains
- 2016 **Kraus F., Miron E., et al.**
(Nature Protocols - Past review)
Quantitative 3D structured illumination microscopy of nuclear structures
- 2016 **Demmerle J., et al.**
(Nature Protocols - Under review)
Strategy and tactics for successful structured illumination microscopy
- 2017 **Miron E., et al.**
(Manuscript)
Automated analysis of chromatin organisation and distributions of epigenetic markers by super-resolution microscopy
- 2017 **Miron E., et al.**
(Manuscript)
Epigenome rearrangement after large-scale remodelling of chromatin architecture