Alix Wentworth-Foster

MSc. Geobiology and Palaeobiology Graduate

CONTACT

linkedin.com/in/alix-foster-397080128
github.com/alixfoster

LABORATORY

Quantitative stable isotope probing (qSIP, ^{13}C)
qPCR and RT-qPCR
DNA and RNA extraction
16S / ITS amplicon sequencing and metabarcoding
NGS library preparation
Chlorophyll fluorescence (PAM, Fv/Fm); SDS-PAGE
Gel electrophoresis, NanoDrop spectrophotometry
Molecular cloning: Golden Gate, blue/white and colony PCR screening

BIOINFORMATICS

Genome assembly and annotation; comparative genomics
Amplicon pipelines: DADA2, QIIME, USEARCH
RNA-Seq and transcriptomic analysis
BLAST, Clustal, SeaView

DATA AND COMPUTING

R, Python, Excel
Statistical analysis and modelling
Version control and data management with GitHub

LANGUAGES

English: native (C2)
French: B2/C1
German: B1/B2, incl. teaching delivery

AWARDS

DAAD Scholarship
Fully funded two-year MSc, €32,000 (2023-2025)

Valedictorian, Class of 2022
Top BSc Biology student, University of Manchester

Academic and Drama Scholar
St Francis' College, £5,000 per year

REFEREES

Available on request.

PROFILE

Environmental microbiologist seeking a challenging PhD programme and a project related to microbial carbon and nutrient cycling in marine environments, linking direct measurements of activity to biogeochemical fluxes. I hold an MSc. in Geobiology and Palaeobiology from LMU Munich (final grade 1,4; thesis 1,0) and a First Class BSc. in Biology from Manchester, and graduated top of my cohort. My master's thesis used ^{13}C DNA-stable isotope probing to measure taxon-specific carbon assimilation under experimental warming in a High Arctic fjord, showing that abundance and activity are decoupled. I additionally hold two years' of research experience across molecular work (qPCR, NGS, RNA-Seq), photosynthetic physiology (PAM fluorometry) and bioinformatics.

EDUCATION

Ludwig-Maximilians-Universität München, Germany October 2023 - January 2026
MSc. Geobiology and Palaeobiology: Final grade 1,4 (Distinction); Master's thesis 1,0
Thesis (Prof. Dr W. Orsi): "The Extent of Fungal Carbon Assimilation in a High Arctic Fjord and Potential Community Shifts Under Climate Change": ^{13}C DNA-stable isotope probing coupled to metabarcoding to resolve taxon-specific carbon uptake in a stratified marine system and predict community restructuring under warming/stress.
Relevant modules: Geomicrobiology (1,3), Environmental Geobiology / Global Cycles (1,3), Molecular Methods in Geobiology (1,0), Marine Biology (1,3), Data Analysis and Statistics (1,3), Laboratory Methods and Field Practicals I & II (passed).

The University of Manchester, UK September 2019 - June 2022
BSc (Hons) Biology: First Class, 80/100; ranked first in cohort
Relevant modules: Environmental Microbiology (82), Molecular Biology (90), Omic Technologies and Resources (80), Computational Approaches to Biology (79), Ecology and Conservation (79).

St Francis' College, Letchworth, UK 2012 - 2019
A-Level A*A*A*A (incl. Mathematics); GCSE 12 A*. Head Girl 2018–2019.

RESEARCH AND TEACHING EXPERIENCE

Laboratory Technician, LMU Munich May 2024 - September 2025
– Ran molecular experiments on environmental and microbial samples: qPCR, PCR, DNA extraction, ITS amplicon sequencing, qSIP, NanoDrop spectroscopy, gel electrophoresis.
– Applied good laboratory practice across sample handling, documentation and data collection, with results intended for publication *[manuscript in preparation]*.

Teaching Assistant, LMU Munich April 2025 - October 2025
– Delivered practical and theoretical molecular biology teaching to bachelor's and master's students, in English and in German.
– Marked master's-level laboratory reports and gave written feedback to support student development.

Research Assistant, University of Manchester January 2022 - June 2022
– Characterised gene knockouts in developmental regulatory pathways (TOR) of a CAM plant under PhD supervision; RNA extraction, RNA-Seq, transcriptomics and pathway modelling. Phenotyped lines by chlorophyll fluorescence.
– Cloned reporter-gene constructs by Golden Gate assembly, screening by blue/white selection and colony PCR

ADDITIONAL EXPERIENCE

AI Trainer (STEM), DataAnnotation, remote February 2026 - present
– Selected through competitive assessment for high-priority STEM projects; writing and evaluating university-level exam questions across the biological and geo-sciences.
– Assessing model reasoning for scientific accuracy and depth and writing structured critiques.

Fintech and Commodities Trainee, Quoreka, UK October 2025 - January 2026
– Short commercial placement on climate variability in commodity markets.

SCIENCE COMMUNICATION AND OUTREACH

Scientific writer (freelance), remote September 2022 - Present
– Including a featured piece on extreme microorganisms featured in microbiaX (2026) and contribution to written pieces for a special exhibition at Manchester Museum (2023)

Publicity coordinator (paid position), LMU Munich March 2025 - September 2025
– Designed and produced promotional posters for weekly science seminars, featuring guest speakers from all over the globe.
– Promotion across multiple campuses and local community venues.

Museum Assistant (volunteer), University of Cambridge September 2022 - March 2023
– Front-of-house and public engagement; science communication and tours.

Field Assistant (volunteer), Mission Jurassic, University of Manchester July 2022 - August 2022
– International collaborative fieldwork in Wyoming, USA, featured in **BBC and CBC documentaries.**