

Mallory A Freeberg, PhD

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| Who I Am | Community Builder. Human Data Sharing Expert. Metadata Enthusiast. Open Science Advocate. | | |
| Contact | Address: Wellcome Trust Genome Campus Website: malloryfreeberg.github.io/whoami | LinkedIn: mallory-freeberg ORCID: 0000-0003-2949-3921 | |
| Professional Experience | EMBL European Bioinformatics Institute , Cambridge, UK | | |
| | Human Genomics Team Leader | | May 2024 - present |
| | <ul style="list-style-type: none">Leading multiple teams contributing to Ensembl, a foundational resource providing scientists with data and tools to study genomesProviding scientific and strategic oversight of the DECIPHER platform for enabling clinical interpretation of human genomic variation | | |
| | Coordinator, European Genome-phenome Archive | | Jun 2021 - Apr 2024 |
| | <ul style="list-style-type: none">Contributed expertise to help establish the Federated EGA Network for transnational discovery of and access to sensitive human data (blog post)Engaged with external partners and stakeholders to ensure human data submission, discovery, and distribution services align with community standards and data protection regulationsManaged a 14-person team responsible for operating production data archive services (publication) | | |
| | Project Lead, UK Biobank, European Genome-phenome Archive | | Aug 2019 - May 2021 |
| | <ul style="list-style-type: none">Oversaw data flow to archive 500,000 whole human genomes totalling 12PB of dataBuilt and led 3-person team to successfully distribute 4PB of data to cloud-based analysis platform | | |
| | Senior Bioinformatician, Human Cell Atlas Data Coordination Platform | | Oct 2017 - Jul 2019 |
| | <ul style="list-style-type: none">Coordinated data wrangling work for 6-person team across UK- and US-based institutionsPerformed curation and ingestion of flagship HCA datasets into the PlatformDeveloped HCA metadata standard for cellular-resolution transcriptomics data (publication) | | |
| | Johns Hopkins University , Baltimore, MD USA | | |
| | Trainer, Galaxy Training Network, The Galaxy Project | | Jan 2017 - Sep 2017 |
| | <ul style="list-style-type: none">Designed and delivered seven Galaxy training workshops in three countries (publication)Created training materials and computational workflows to support reproducible transcriptomics research (contributions) | | |
| | Postdoctoral Research Fellow, Department of Biology | | Jun 2015 - Sep 2017 |
| | <ul style="list-style-type: none">Investigated post-transcriptional gene regulatory networks using neural networksPiloted Oxford Nanopore direct RNA sequencing protocols to catalog transcriptomes | | |
| Education | PhD Bioinformatics , University of Michigan, USA | | |
| | Department of Computational Medicine and Bioinformatics | | |
| | Dissertation: Computational analysis of the post-transcriptional gene regulatory network (thesis) | | |
| | BSc Bioinformatics , Saint Vincent College, USA | | |
| | Herbert M. Boyer School of Natural Science, Mathematics, and Computing | | |
| | Dissertation: Functional annotation of non-coding elements in the <i>Amphioxus</i> genome | | |
| Selected Publications | Corvo A, Matalonga L, Spalding D, et al. (2023) Remote visualization of large-scale genomic alignments for collaborative clinical research and diagnosis of rare diseases. <i>Cell Genomics</i> . DOI: 10.1016/j.xgen.2022.100246 | | |
| | Thakur M, Bateman A, Brooksbank C, Freeberg MA, et al. (2022) EMBL's European Bioinformatics Institute (EMBL-EBI) in 2022. <i>Nucleic Acids Res</i> . DOI: 10.1093/nar/gkac1098 | | |

Freeberg MA, Fromont L, D'Altri T, *et al.* (2021) The European Genome-phenome Archive in 2021. *Nucleic Acids Res.* DOI:[10.1093/nar/gkab1059](https://doi.org/10.1093/nar/gkab1059)

Rehm HL, Page AJH, Smith L, *et al.* (2021) GA4GH: International policies and standards for data sharing across genomic research and healthcare. *Cell Genomics.* DOI:[10.1016/j.xgen.2021.100029](https://doi.org/10.1016/j.xgen.2021.100029)

Lawson J, Cabili MN, Kerry G, *et al.* (2021) The Data Use Ontology to streamline responsible access to human biomedical datasets. *Cell Genomics.* DOI:[10.1016/j.xgen.2021.100028](https://doi.org/10.1016/j.xgen.2021.100028)

⇒ Full list of publications can be found on [Google Scholar](#).

Selected Invited Talks

Federated EGA: Providing global discovery and access for sensitive human data. *ISMB/ECCB*; Jul 2023; Lyon, FR ([slides](#))

The Federated EGA: Global discovery and access for sensitive human data. *GA4GH 10th Plenary*; Sep 2022; Barcelona, ES ([slides](#))

FAIR principles and promoting openness in the life sciences. *NIHR Statistics Group Workshop*; Feb 2022; virtual ([slides](#))

The European Genome-phenome Archive Metadata Model. *GHGA Workshop on Metadata in Biomedical Genome Research*; Jun 2021; virtual ([slides](#))

Selected Conferences & Workshops

"Exploring gene and environmental exposure interactions to understand human health and disease" *EMBL-EBI Training Course*; Feb 2024; Cambridge, UK; Scientific Organiser and Trainer ([course](#))

"Demonstrating Federated EGA services for sensitive data discovery and access" *ELIXIR All Hands*; Jun 2023; Dublin, IE; Organiser and Presenter ([workshop](#))

Leadership Roles

Co-lead, GA4GH Implementation Forum (Mar 2024 - Present)
Guide discussions and assessment of solutions for scaling the Variant Call File format for representing genetic variants across large-scale studies

Co-lead, GA4GH "Future of VCF" Working Group (Mar 2022 - Feb 2024)
Guide discussions and assessment of solutions for scaling the Variant Call File format for representing genetic variants across large-scale studies

Organiser, ELIXIR Federated Human Data Community (Feb 2022 - Apr 2024)
Set agenda and priority topics for FHD Community meetings, co-organise FHD Community Day event, coordinate federated human data activities across ELIXIR members

Teaching & Mentoring

Mentor, Open Life Science (Jul 2020 - Present)
Mentor participants on open science practices as part of a 16-week mentorship and training program to empower open science ambassadors

Training Courses

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| ELIXIR LEadership And Diversity (ELEAD) mentoring programme | 2023-2024 |
| Emotional Intelligence and Mindfulness | 2020 |
| Talented Women's Impact Programme | 2019-2020 |
| EICAT Complementary Scientific Skills Training - Scientific Project Management | 2019 |
| Handling Conflict and Difficult Conversations | 2018 |