Europass
Curriculum Vitae

Personal information

First name(s) / Surname(s)
Abdoallah, Sharaf
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Date of birth
28 June 1982

http://orcid.org/0000-0002-3436-9290
https://www.linkedin.com/in/abdoallah-sharaf-ph-d-4a52614a/
https://github.com/abdo3a

Work experience

Dates
15/03/2023 – present
Occupation or position held
Senior Bioinformatician SequAna - Sequencing Analysis Core Facility, Department of Biology, University of Konstanz, Germany.
https://www.biologie.uni-konstanz.de/sequana/sequana/

Dates
01/02/2022 – 01/12/2023
Occupation or position held
Senior Bioinformatician in Faculty of Science, Department of Parasitology, University od South Bohemia, Czech Republic.
www.jcu.cz

Dates
01/01/2020 – 28/02/2023
Occupation or position held
Senior Bioinformatician in Biology Centre (ASCR), Mozgova Lab, Institute of Plant Molecular Biology, Czech Republic.
www.mozgovalab.umbr.cas.cz

Dates

01/09/2015 – 30/12/2019

Occupation or position held

Research Scientist in Biology Centre (ASCR), Institute of Parasitology, Czech Republic

www.paru.cas.cz

Education

Dates

October 2008 - July 2012

Title of qualification awarded

Ph.D. in Agriculture Science – Genetics

Name and type of organization providing education and training

Faculty of Agriculture, Ain Shams University (ASU), Egypt.

Level in national or international Classification

Doctor of Philosophy in Agriculture Science (Ph.D.)

Teaching skills

Dates

15 May 2023

Title of qualification awarded

One of the Educators of

The Eukaryotic Genome Assembly: How to Use BlobToolKit for Quality Assessment course.

Name and type of organization providing education and training

Wellcome Connecting Science and Future learn

https://www.futurelearn.com/courses/eukaryotic-genome-assembly-how-to-use-blobtoolkit-for-quality-assessment

Dates

26 -27 May 2022

Title of qualification awarded

Organizer of

1st African BioGenome Project (AfricaBP) Open Institute for Genomics and Bioinformatics Workshop on Endemic African Species

Name and type of organization providing education and training

African BioGenome Project (AfricaBP), https://africanbiogenome.org

Dates

11 November 2014 - 1 March 2015

Title of qualification awarded

Instructor of

Technologies and processes for improving the shelf-life the products of the agricultural sector through the use of edible films based on innovative pectins Course

Name and type of organization providing education and training

Lead DISBA / Partner CNR IAMC / CNR, IBBR / CNR, IBIM / CNR, ISAFOM / CNR, A.A.T. Spa, Italy Apofruit soc. coop. Agricola, Co.Ri.Bi.A., **http://filmedibili.it**

Dates

8-13 February 2014

Title of qualification awarded

The scientific coordinator of

The principles of Bioinformatics “Sequence Analysis Tools” workshop.

Name and type of organization providing education and training

Ain shams Centre for Genetic Engineering and Biotechnology (ACGEB)

Personal skills and competences

Mother tongue(s) **Arabic**

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
Spanish	B1	B1	B1	B1	B1
German	A1	A1	A1	A1	A1
Czech	A2	A2	A1	A1	A2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user

Common European Framework of Reference for Languages

Organizational skills and competences

- Co-Chair of the African BioGenome Project Pilot Committee - July 2021.
- Member of the European Reference Genome Atlas (ERGA) consortium - June 2021

Technical skills and competences

My practical skills have been greatly enriched through participation in scientific seminars, research center visits, specialized training courses, and hosting academic collaborators from various international universities. These experiences have deepened my understanding of both experimental and computational genomics.

I am proficient in standard molecular biology techniques and have hands-on experience with core genetics lab equipment, reagents, and protocols.

My analytical background is grounded in a wide range of statistical and machine learning approaches. I have applied supervised and unsupervised machine learning techniques—including classification, clustering, dimensionality reduction, and predictive modeling—to solve complex biological problems. I routinely integrate linear and nonlinear modeling, classical statistical tests, time-series analysis, and advanced data visualization in my research.

I have solid expertise in analyzing data from high-throughput omics technologies, including:

- Whole-genome sequencing (WGS)
- Bulk RNA sequencing (RNA-Seq)
- Single-cell and single-nucleus transcriptomics (sc/snRNA-Seq)

In terms of computational tools and workflow development:

- I have **extensive experience designing and managing scalable and reproducible pipelines using Nextflow (DSL2)** for genome annotation, transcriptomics, and variant analysis.
- I am highly proficient in **R** and **Python** for data science and bioinformatics.
- Skilled in **shell scripting** and **Unix-based tools** for automation and data processing.
- Experienced with **Git** for version control and collaborative software development.
- Familiar with both **high-performance cluster (HPC)** environments and **cloud computing platforms** for large-scale data analysis.

Selected conferences

- Keynote speech in the "9th MGIBR International Workshop: Biodiversity: Food security and Health", University of Tlemcen, Algeria. 20 -23 May 2024.
- A poster in Evo-chromo: Evolutionary approaches to research in chromatin workshop. Aarhus, Denmark. 11 – 14 May 2022.
- A talk in the Biodiversity Genomics (BG) 2021, streamed from UK. 27 May – 1 June 2018.
- A poster in the Annual Meeting of the Society for Molecular Biology and Evolution (SMBE) 2019. Manchester, UK. 21 – 25 July 2019.
- A talk in the XXII meeting of the International Society for Evolutionary Protistology, Droushia, Cyprus. 27 May – 1 June 2018.
- A poster in the Annual Meeting of the Society for Molecular Biology and Evolution (SMBE) 2017. Austin, TX, USA. 2 – 6 July 2017**.**

Chapters

- **Sharaf A** and Elateek S (2022). Orthology Prediction and Phylogenetic Analysis Methods in Plants. In: Plant Comparative Genomics. Methods in Molecular Biology, vol 2512. Humana, New York, NY. https://doi.org/10.1007/978-1-0716-2429-6_1
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Peer reviews

- Peer Community in Genomics; International Journal of Genomics, Hindawi; Journal of Applied Research on Medicinal and Aromatic Plants; Biologia; MDPI-Insects; Microbial Genomics; MDPI-Genes; Saudi Journal of Biological Sciences. Genetics and biodiversity journal (GABJ).
- Member of the Reviewer Board in:
  - microorganisms journal "https://www.mdpi.com/journal/microorganisms/submission_reviewers "
  - Genetics and biodiversity journal (GABJ) "https://ojs.univ-tlemcen.dz/index.php/GABJ/pages/view/Ed.bd."

Selected Publications

- **Sharaf A**, Nesengani LT, Hayah I *et al*. (2024) Establishing African genomics and bioinformatics programs through annual regional workshops. Nat Genet 56, 1556–1565. https://doi.org/10.1038/s41588-024-01807-6

- Vijayanathan M, Vadakkepat AK, Mahendran KR, **Sharaf A** *et al*. Structural and mechanistic insights into Quinolone Synthase to address its functional promiscuity. Commun Biol 7, 566 (2024). https://doi.org/10.1038/s42003-024-06152-2

- **Sharaf A**, Ndiribe CC, Omotoriogun TC *et al*. (2023) Bridging the gap in African biodiversity genomics and bioinformatics. Nat Biotechnol 41, 1348–1354. https://doi.org/10.1038/s41587-023-01933-2

- **Sharaf A**, Nuc P, Ripl J, *et al*. (2023) Transcriptome Dynamics in *Triticum aestivum* Genotypes Associated with Resistance against the Wheat Dwarf Virus. Viruses 15(3):689. https://doi.org/10.3390/v15030689

- **Sharaf A**, Vijayanathan M, Oborník M, Mozgová I. (2022) Phylogenetic profiling resolves early emergence of PRC2 and illuminates its functional core. Life Science Alliance 5 (7) e202101271. https://doi.org/10.26508/lsa.202101271

NOTE: All certifications needed to prove what is mentioned in this CV are ready to be presented whenever asked.

DATE: **25/06/2025** SIGNATURE: ***Abdoallah Sharaf***