

# Siefeldin Sobih

📍 Logan, Utah    📞 4353618233    ✉ siefeldinsobih@gmail.com

## WORK EXPERIENCE

---

### Utah State University, *Research Assistant*

08/2023 – present

Logan, US

- Analyzed 600+ hindgut samples (FASTQ files) in QIIME2 and integrated with physiological and hormone metadata across two research chapters.
- Built automated and reproducible pipelines using Nextflow, Bash, and Conda, reducing analysis time by 5+ hours per run.
- Applied compositional data analysis, ordination (PCoA, NMDS), and statistical modeling (PERMANOVA, ANOVA, LM, LMM, GLMs, ANCOM-BC2, and others) to evaluate microbial shifts in endangered rock iguanas.
- Maintained reproducibility and version control via GitHub.
- Contributed to ongoing manuscript on conservation implications for endangered species.

### Utah State University, *Teaching Assistant*

08/2024 – present

Logan, US

- Lead labs and design presentations for BIOL 3300 (General Microbiology).
- Grade assignments and mentor students in BIOL 3020 (Evolutionary Biology) and BIOL 3070 (Computational Biology); delivered guest lecture in BIOL 3020.
- Conduct office hours and collaborate with faculty to enhance course materials.
- Awarded Graduate Teaching Certificate.

### MSA University - Faculty of Biotechnology, *Teaching Assistant*

02/2023 – 08/2023

Giza, Egypt

- Taught laboratory sessions in Bioinformatics (BT204), Advanced Genetics (BT308), and Microbial Genetics (GEN202) to classes of 25+ students.
- Served on Faculty Quality Control committee, reviewing course specifications and ensuring academic standards.

### Nile University - Bioinformatics, *Intern Research Assistant*

01/2021 – 12/2022

Giza, Egypt

- Developed Python automation scripts for gene selection and Maintained reproducibility via GitHub.
- Contributed to a published peer-reviewed publication.

## EDUCATION

---

### Utah State University, *MSc in Biology*

08/2023 – 12/2025

Logan, Utah

- **GPA:** 4.0/4.0
- **Master Thesis:** Factors causing changes in the microbiome composition and physiological changes of the endangered Bahamian rock iguanas.

### Faculty of Agriculture, Cairo University, *BSc. in Biotechnology*

09/2017 – 05/2021

Giza, Egypt

- **Graduation Thesis:** Studied the biosynthesis of gold nanoparticles using bacterial and fungal strains, their antimicrobial effects, and potential applications as preservative materials.
- **Awards:** Received a Certificate of Gratitude from the Dean for excellence in graduation project and presentation skills.
- **Funding:** Awarded funding by the Department of IPIS for student excellence.

## PUBLICATIONS

---

Fadel, Y.M., Khaled, M., Emam, M. et al. Positive Selection Shapes Breast Cancer Tumor Suppressor Genes: Unveiling Insights into BRCA1, BRCA2, and MDC1 Stability. *J Mol Evol* 93, 100–110 (2025). <https://doi.org/10.1007/s00239-024-10222-8>, *Journal of Molecular Evolution*

16/12/2024