

NIGUSE KELILE LEMA

Woreda 11, Bole Sub City., Addis Ababa., Ethiopia

• +251 920 319 544 • niguse.kelile@gmail.com

<https://www.linkedin.com/in/niguse-kelile-lema/>

SUMMARY

Passionate about microbiome research, antimicrobial resistance (AMR), and bioinformatics. My research experience in metagenomics, sequencing technologies, and microbial community analysis. Interested in applying long-read sequencing and computational tools to advance AMR monitoring. have a blend of knowledge in Biotechnology, Microbiology, Bioinformatics, Python programming, Linux, and computer literacy.

WORK EXPERIENCE

Bioinformatics Researcher, Bio & Emerging Technology Institute

Sep 2024 - Present

- Involved in genomics and Bioinformatics projects,
- Supporting researchers in Next Generation Sequencing (NGS) and bioinformatics data analysis,
- Providing training in genomics and bioinformatics tools.

Lecturer, Arba Minch University

Sep 2022 - Sep 2024

- Taught and designed courses, Bioinformatics, Practical Molecular Biology, Industrial Biotechnology, and Nanobiotechnology.
- Focusing on integrating hands-on learning with advanced theoretical knowledge to enhance student expertise.

Assistance Lecturer, Arba Minch University

Oct 2018 - Jan 2022

- Delivered courses for graduate students, Molecular Biology and Molecular Biotechnology
- Coordinated Senior research project tasks for undergraduate students, ensuring correct submission according to the university guidelines

EDUCATION

Master of Science in Biotechnology

Sep 2019 - Sep 2022

Addis Ababa Science and Technology University

- Specialization in Industrial and Environmental Biotechnology
- Thesis on "Secondary Metabolite Biosynthetic Gene Clusters and Antimicrobial Resistance Gene Identification using shotgun metagenomics".

Bachelor of Science in Biotechnology

Sep 2014 - June 2018

Arba Minch University

- Relevant coursework in Biotechnology, Molecular Biology, and Bioinformatics.

PUBLICATIONS

- [Lema NK](#), Gemedat MT, Woldeesemayat AA. **Recent Advances in Metagenomic Approaches, Applications, and Challenges**. Curr Microbiol. 2023;80(11). <https://doi.org/10.1007/s00284-023-03451-5>
- Albene D, [Lema NK](#), Tesfaye G, Andeta AF, Ali K, Guadie A. **Probiotic potential of lactic acid bacteria isolated from Ethiopian traditional fermented Cheka beverage**. Ann Microbiol. 2024; <https://doi.org/10.1186/s13213-024-01771-w>
- Tibebe S, Kassahun E, Ale TH, Worku A, Sime T, Berhanu AA, [et al](#). **The application of Rumex Abysinicus derived activated carbon / bentonite clay / graphene oxide / iron oxide nanocomposite for removal of chromium from aqueous solution**. Sci Rep. 2024;1–20. <https://doi.org/10.1038/s41598-024-70238-4>
- [Lema NK](#), Gemedat MT, Woldeesemayat AA. **Secondary metabolite biosynthetic gene clusters and microbial diversity as predicted by shotgun metagenomic sequencing approach in hospitals and pharmaceutical industry wastes**. Sci Rep. 2025 Jul 15;15(1):25500. Available from: <https://www.nature.com/articles/s41598-025-03467-w>

ADDITIONAL INFORMATION

- **Technical Skills:** NGS data analysis, Scientific writing, Bioinformatics, and Molecular Microbiology
- **Languages:** English, Amharic, German
- **Certifications:** Python for Everybody, Advanced Data Science, Genomic Data Science Specialization
- **Awards/Activities:** African Genomics Fellow, Certificate of Achievement (Outstanding performance in postgraduate study)

REFERENCES

1. Dr. Adugna Abdi Woldeesemayat (Associate Professor); adugna.abdi@aastu.edu.et; +251966274642
2. Dr. Zewdu Edea (Director and Senior Researcher); zewdu.edea@betin.gov.et; +251945164703
3. Dr. Getinet Mekuriaw Tarekegn (Associate Professor); getinet.tarekegn@sruc.ac.uk; +447519734921