



Names: Natacha Usanase

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BIOGRAPHY

Miss Natacha Usanase is a young Rwandan researcher currently residing in the Turkish Republic of Northern Cyprus. Articulate professional offering an in-depth background in genetics, industrial and medical biotechnology, microbiology, and biomedical engineering focusing on disease diagnosis, treatment, and decision-making. Professional scientific paper writing personnel incorporating operational research approaches and artificial intelligence models.

Natacha Usanase received a Bachelor's Degree in 2020 at the College of Science and Technology-University of Rwanda, in the Faculty of Biotechnology, Department of Biology, where she successfully conducted a notable research project on the Identification of Plastic Degrading Microorganisms and Plastic Quantification. Miss Natacha also received a Master's Degree in 2022 at Near East University, in the Department of Biomedical Engineering where she conducted a groundbreaking research project on "The Role of Artificial Intelligence in The Prediction of Lung Cancer". With a strong interest in healthcare applications, she is invested in hybrid applications of Artificial Intelligence algorithms in the medical field for disease diagnosis, treatment, and decision-making. Currently pursuing her PhD in Biomedical Engineering at Near East University. Recently she has been working as a research assistant in the operational research center in health at Near East University, Turkish Republic of North Cyprus. She has publications in international and national journals, books, and conferences.

**ACADEMIC
CURRICULUM VITAE**

1. Name - Surname: Natacha Usanase

2. Title: PhD Candidate

3. Educational Background:

Degree	Department/Program	University	Year
Bachelor's	Biology/ Faculty of Biotechnology	College of Science and Technology-University of Rwanda, Rwanda	2017-2021
Master's	Applied Sciences/ Biomedical Engineering	Near East University, Cyprus	2021-2022
PhD	Applied Sciences/Biomedical Engineering	Near East University, Cyprus.	2023-Current

4. Master's / PhD Thesis

4.1. Master's Thesis Title and Thesis Advisor(s): "The Role of Artificial Intelligence in The Prediction Of Lung Cancer": Advisor: Assoc.Prof.Dr. Dilber Uzun Ozsahin

4.2. PhD Thesis /Medical Specialty Thesis Title and Advisor(s): "Evaluating The Performance of An Integrated Multi-Modal AI Framework for Early Detection and Therapeutic Decision-Making of Pancreatic Cancer": Advisor: Assist. Prof.Dr. Ilker Ozsahin, Co-Advisor: Assoc.Prof.Dr. Dilber Uzun Ozsahin

5. Academic Titles:

Date of Assistant Professorship:

Date of Associate Professorship:

Date of Professorship:

6. Supervised Master's and PhD Theses:

6.1. Master's Theses

6.2. PhD Theses

7. Publications

7.1. Articles Published in International Peer-Reviewed Journals (SCI,SSCI, AHCI, ESCI, Scopus)

1. Usanase, Natacha, Berna Uzun, Dilber Uzun Ozsahin, and Ilker Ozsahin. "A look at radiation detectors and their applications in medical imaging." *Japanese Journal of Radiology* (2023): 1-13.
2. Usman, A. G., Natacha Usanase, S. I. Abba, Ilker Ozsahin, Berna Uzun, Mohamed A. Yassin, Syed Masiur Rahman, and Dilber Uzun Ozsahin. "Environmental modelling of CO concentration using AI-based approach supported with filters feature extraction: a direct and inverse chemometrics-based simulation." *Sustainable Chemistry for the Environment* (2023): 100011.
3. Balcioglu, Ozlem, Natacha Usanase, Berna Uzun, Ilker Ozsahin, and Dilber Uzun Ozsahin. "A comparative analysis of DOACs vs warfarin for venous thromboembolism treatment in renal insufficiency." *Turkish Journal of Vascular Surgery (TJVS)* 32, no. 1 (2023).

7.2. Articles Published in Other International Peer-Reviewed Journals

7.3. Papers Presented at International Scientific Conferences and Published in Conference Proceedings

1. N. Usanase, B. Uzun, I. Ozsahin and D. U. Ozsahin, "The preference ranking of gold nanoparticle synthesis methods using a multi-criteria decision-making model," *The 3rd International Conference on Distributed Sensing and Intelligent Systems (ICDSIS 2022)*, Hybrid Conference, Sharjah, United Arab Emirates, 2022, pp. 314-320, doi: 10.1049/icp.2022.2481.
2. Ozsahin, Dilber Uzun, Natacha Usanase, Berna Uzun, Ilker Ozsahin, and Ozlem Balcioglu. "The Efficacy and Safety of Direct Oral Anticoagulants for The Treatment of Venous Thrombosis in Cancer Using Fuzzy PROMETHEE." In *2023 Advances in Science and Engineering Technology International Conferences (ASET)*, pp. 1-5. IEEE, 2023.

7.4. National/international Books or Book Chapters

1. Ozsahin, D. U., Duwa, B. B., Emegano, D. I., Mustapha, M. T., Usanase, N., Onakpojeruo, E. P., & Ozsahin, I. (2024). Construction of an automated hand sanitizer dispenser used against transmissible diseases.

