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EDUCATION BACKGROUND

- 2021- present: Doctoral Student in Earth Sciences, Laboratory of Environmental DNA, Department of Paleoceanography, Institute of Oceanology Polish Academy of Sciences, Sopot, Poland. Title of the dissertation: “*Exploring the marine biodiversity with environmental DNA*”, supervisor: dr. hab. Joanna Pawłowska and prof. Jan Pawłowski.
- 2019: M.Sc. in Microbiology, Environmental Microbiology and Genomics Lab. Department of Microbiology, Chungbuk National University, Cheongju, Korea. Title of the M.Sc. thesis: “*Genomic insights into the acid adaptation of novel methanotrophs enriched from acidic forest soils*”, supervisor: prof. Sung-Keun Rhee and prof. Dong-Hyun Roh.
- 2015: B.Sc. in Biotechnology and Pharmacy, University of Science and Technology of Hanoi, Hanoi, Vietnam. Title of the B.Sc. thesis: “*Induction of apoptosis in human colon adenocarcinoma cell line by modified natural compounds*”, supervisor: dr. Arthit Chairoungdua.

RESEARCH EXPERIENCE

Research Intern

- Apr 2015 - Jun 2015: Department of Physiology, Mahidol University, Bangkok, Thailand.
- Sep 2013 - Oct 2013: Institute of Biotechnology, VAST, Internship in Plant Cell Genetics Lab, Ha Noi, Viet Nam.
- Sep 2013 - May 2014: Climate Change Resilience Centre, Summer Intern, Ha Noi, Viet Nam.

Research Visits

- 2022: Training at ID-GENE, Geneva, Switzerland.
- 2021: Research visit at NORCE, Bergen, Norway.

Training/courses:

- 2022: 1st Vietnam School of Biology, Bioinformatics course, ICISE, Quy Nhon, Viet Nam.
- 2017: Course “*R for microbiologists*”, Cheongju, Chungbuk, Korea
- 2016: Course” *Workshop Scientific Publication on International Journal*”, Ho Chi Minh, Viet Nam.

Fieldwork experience:

- 2020-2023: participation in sampling campaigns on R/V *Oceania*.

PRIZES AND AWARDS

- Received the 2019 Best Poster Award from the Microbiological Society of Korea (MSK).
- Received the 2019 Best Paper Award from the Department of Microbiology, Chungbuk National University.
- FEMS Conference Grant, Congress of European Microbiologists, 9 - 13 July 2023, Hamburg, Germany.

CONFERENCE PRESENTATION

Poster Presentations

1. **N.L. Nguyen**, W.J. Yu, H.Y Yang, J.H Gwak, S.H. Kim, S.K. Rhee, “*Characterization of methanotrophic community enriched from acidic soils*”, MSK 2017 International Meeting of the Microbiological Society of Korea, April 26-18, 2017, Busan, Korea.
2. **N.L. Nguyen**, W.J. Yu, H.Y Yang, S.K. Rhee, “*Isolation of methane oxidizing bacteria from diversity pH condition by using floating and extinction culture*”, 4th Annual Conference of Vietnamese Young Scientist - ACVYS June 25, 2017 Gachon University, Korea.
3. **N.L. Nguyen**, W.J. Yu, H.Y Yang, J.H Gwak, S.H. Kim, S.K. Rhee, “*Polyphasic characterization of methanotrophic communities enriched from acidic soils*”, FEMS 2017 7th Congress of European Microbiologists, 9-13 July 2017, Valencia, Spain.
4. **N.L. Nguyen**, W.J. Yu, S.K. Rhee, “*Physiological and Genomic Characterization of a Thiotrophic Methanotroph from Isolated from Acidic Peat Bog*”, 2019 International Meeting of the Microbiological Society of Korea, April 17- 19, 2019, Jeju, Korea - Best Poster Award.
5. **N.L. Nguyen**, D. Devendra, J. Pawłowska, M. Łacka, A. Kujawa, N. Szymańska, I.B. Angeles, M. Zajaczkowski, J. Pawłowski, “*Diversity of benthic foraminifera from Coastal Svalbard: DNA metabarcoding and morphological methods*”, 2nd Polar Microbes Symposium, Tvärminne Zoological Station, May 3 – 6, 2022, Hanko, Finland.
6. **N.L. Nguyen**, J. Pawłowska, J. Pawłowski, “*Nordic Seas metabarcoding and eDNA taphonomy a comparison of V9 eukaryotic from the sea surface to the seafloor*”, FEMS 2023 Congress, 9 - 13 July 2023 Hamburg, Germany.

Oral Presentation

1. **N. L Nguyen**, J. Pawłowska, J. Pawłowski, “*Environmental DNA: a case study of marine biodiversity monitoring on past and present*”, Proceedings Of The International Sopot Youth Conference, 2021, 58, ISBN 978-83-946541-5-3.
2. **N.L. Nguyen**, J. Pawłowska, I.B. Angeles, M. Zajaczkowski , J. Pawłowski, “*Diversity of benthic foraminifera from Coastal Svalbard*”, 55 European Marine Biology Symposium, Gdansk, 19-23 September 2022.
3. **N.L. Nguyen**, J. Pawłowska, J. Pawłowski, “*Nordic Seas metabarcoding and eDNA taphonomy*”, BIOSCAN NOReDNA Conference, Nov. 9-10, 2022, Trondheim, Norway.
4. **N.L. Nguyen**, J. Pawłowska, J. Pawłowski, “*Foraminifera diversity from the ocean surface to the surface layer of sediments in Nordic Sea*”, International Symposium on Foraminifera Perugia, June 26th – 30th, 2023.

RESEARCH PUBLICATION

1. **N.L. Nguyen**, W.J. Yu, H.Y Yang, J.G Kim, M.Y Jung, S.J Park, S.W Roh, S.K Rhee (2017) “*A novel methanotroph in the genus Methylomonas that contains a distinct clade of soluble methane monooxygenase*”, J. Microbiol. 55: 775. doi: 10.1007/s12275-017-7317-3.
2. W.J. Yu, J.W. Lee, **N.L. Nguyen**, S.K Rhee, S.J. Park (2018) “*The characteristics and comparative analysis of methanotrophs reveal genomic insights into Methylochromium sp. enriched from marine sediments*”, Syst. Appl. Microbiol, ISSN 0723-2020, doi: 10.1016/j.syapm.2018.05.004.
3. **N.L. Nguyen**, Yu, W.J., Gwak, J.H., Kim, S.J., Park, S.J., Herbold, C.W., Kim, J.G., Jung, M.Y. & S.K. Rhee (2018) “*Genomic insights into the acid adaptation of novel methanotrophs enriched from acidic forest soils*”. Front. Microbiol, 9, doi: 10.3389/fmicb.2018.01982

4. S.K. Rhee, S.I. Awala, **N.L. Nguyen** (2019) Enrichment and Isolation of Aerobic and Anaerobic Methanotrophs. In: Lee E. (eds) Methanotrophs. Microbiology Monographs, vol 32. Springer, Cham. doi: 10.1007/978-3-030-23261-0_2.
5. S. I. Awala, L. A. Bellosillo, J.H. Gwak, **N.L. Nguyen**, S.J. Kim, B.H. Lee, & S.K. Rhee (2020) “*Methylococcus geothermalis* sp. nov., a methanotroph isolated from a geothermal field in the Republic of Korea”. IJSEM, 70, 5520-5530, doi: 10.1099/ijsem.0.004442.
6. **N.L. Nguyen** (2021) “DNA metabarcoding method for marine ecosystem biomonitoring”. In: Magdalena, M., Sławomir, S. & Tomasz, O. (eds.) Selected Problems in Earth and Related Environmental Sciences 2021. Gdansk: Instytutu Maszyn Przepływowych.
7. J-H Gwak, S.I. Awala, **N.L. Nguyen**, W.J. Yu, H.Y. Yang, M. Bergen, N. Jehmlich, K. Dimitri Kits, A. Loy, P. F. Dunfield, C. Dahl, J.H. Hyun, S. K. Rhee (2022) “Sulfur and methane oxidation by a single microorganism”, PNAS, Aug 9; 119(32): e2114799119, doi: 10.1073/pnas.2114799119.
8. **N.L. Nguyen**, J. Pawłowska, I.B. Angeles, M. Zajaczkowski, J. Pawłowski (2022) “Metabarcoding reveals high diversity of benthic foraminifera linked to water masses circulation at coastal Svalbard”, Geobiology, 21 (1), 133-150. doi: 10.1111/gbi.12530.
9. **N.L. Nguyen**, D. Devendra, N. Szymańska, M. Greco, I.B. Angeles, A.K.M. Weiner, J.L. Ray, T. Cordier, S.De Schepper, J. Pawłowski, J. Pawłowska (2023) “Sedimentary ancient DNA: a new paleogenomic tool for reconstructing the history of marine ecosystems”. Front. Mar. Sci. 10, 1185435, doi: 10.3389/fmars.2023.1185435.
10. T.T. Luong, T.H.T. Nguyen, T.D. Nguyen, V.T. Le, T.H.T. Pham, T.T. Ho, **N.L. Nguyen** (2023) “Degradation of triazole fungicides by plant growth-promoting bacteria from contaminated agricultural soil”, J. Microbiol. Biotech. 34 (1), 56–64, doi: 10.4014/jmb.2308.08037.
11. I.B. Angeles, **N.L. Nguyen**, M. Greco, K.S. Tan, J. Pawłowski (2024) “Assigning the unassigned: A signature-based classification of rDNA metabarcodes reveals new deep-sea diversity”, PLOS One 19 (2), e0298440, doi: 10.1371/journal.pone.0298440.

ROLE IN SCIENTIFIC PROJECTS

Principal Investigator

- “Marine sedimentary ancient DNA from Svalbard and Northern Europe: Metagenomics insights into the microbial diversity”, PRELUDIUM: pre-doctoral grants, financed by the National Science Center (Poland), grant no. 2023/49/N/ST10/01626.

Participation

- C1 Gas Refinery Program through the National Research Foundation of Korea (NRF), funded by the Ministry of Science, ICT & Future Planning (NRF-2015M3D3A1A01064881) and the NRF grant (NRF-2015- R1A4A1041869).
- "Research to produce bio-chips based on microarray DNA to diagnose human diseases", funded by Ministry of Industry and Trade (Vietnam), project no. 01/2017/CNC-HDKHCN.
- “Sedimentary ancient DNA - a new proxy to investigate the impact of environmental change on past and present biodiversity in Nordic Seas” within GRIEG Program, financed by the Norwegian Financial Mechanism 2014–2021 grant no. 2019/34/H/ST10/00682.