

May 23, 2025

Editors of
BMC Bioinformatics

Dear Editor,

Herewith, we submit the attached manuscript „Accelerating Metagenomic Identification of DNA Sequences Using Artificial Neural Networks” to be considered for publication in BMC Bioinformatics.

The article describes a new algorithm for metagenomic identification of DNA sequences using artificial neural networks, making the task much faster. To our knowledge, this is the first work that employs contrastive learning, which enables learning representations while preserving dissimilarity between sequences. Our software, tested on real data, called Exquisitor, is distributed under the terms of both the MIT license and the Apache License (Version 2.0), and is available at <https://github.com/pfgryz/exquisitor>.

We confirm that this manuscript has not been published elsewhere and is not being considered by another journal. All authors have approved the manuscript and agree with its submission to BMC Bioinformatics.

We hope the manuscript will receive your kind consideration.

Sincerely,
Patryk Gryz,
Robert Nowak