

December 2025

NEWSLETTER

THE DIGMINE project

Improved diagnostics by digital gold mining in historical neurophysiological data

NEW PUBLICATIONS:

We are very happy to announce that our comparison paper (Deriving reference limits from historical data - A comparison of four novel methods, Tomasz et al.) where we compare the existing four methods for creating reference limits from historical data (E-norms, E-Ref, MeRef and MMC), is now published. There are substantial differences in the performance of these methods varying with NCS measurement type, database size, and abnormality ratio. We found that a dynamic approach is recommended.

Our next paper, where we compare improved versions of the E-norms, E-Ref, and MeRef methods is currently in review process.

DIGMINE+ YEARLY SEMINAR:

Our research group held its third major meeting with national and international partners in November in Trondheim. The meeting was a big success, and we are thankful for the input and contribution from all the participants. We are looking forward to more collaborative work!



New project: NYDAG; Improved diagnostics for clinical neurophysiology

Senior neurophysiologist Nora Hognestad Haaland, has received funding from Dam stiftelsen to carry out her PhD project. By using historical data to create reference limits and validate these against the most common diseases seen in neurophysiological practice the project aims to improve diagnostics of carpal tunnel syndrome and polyneuropathy.



PhD project: Neurobench - Developing and applying novel methods for quality assurance and neurophysiological benchmarking

Sindre Eng is working on his first paper: "Creating reference limits for nerve conduction studies in children". Results show that novel methods can create usable reference limits in pediatric nerve conduction studies without the need for healthy controls.

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Digital gold mining in hospital data: The DIGMINE project

The DIGMINE project aims to improve diagnostics by digital gold mining in historical neurophysiological data.

Background

An accurate diagnosis is vital to provide optimal patient care. To diagnose neurological disorders, patients are examined with neurophysiological methods. Evidently, neurophysiological methods must be of high quality with standardized protocols and valid reference values. Norwegian hospitals have digital databases of neurophysiological data dating back to approximately the year 2000. In this project, we will use this treasure trove of valuable data to improve neurophysiological methods.

In the project we have established data infrastructure and collaborative efforts, which have resulted in a database with over 200.000 patients with neurophysiological data from hospitals across Norway, as well as creating systems for quality assurance and standardization.

The research projects will use the database to optimize and implement novel algorithms for establishing reference values, as well as novel methods for benchmarking and biomarker quality assurance.



We are thankful for all our collaborators and partners in the project! For more information please visit our website: [The DIGMINE project](#)

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