

### 2.1.1.b. Annual highlights in PREDICT

By the end of 2022, the second year of the center period, PREDICT had 81 full- or part-time employees. This covers the center leader, partners, administrative employees, professors and senior researchers, postdocs, PhD students, statisticians/bioinformaticians, research nurses, and medical students..

In addition to publishing 35 high-quality scientific papers in leading journals such as Lancet Gastroenterology and Hepatology (IF 45.04), Nature Reviews Gastroenterology and Hepatology (IF 73.082), Gastroenterology (33.883), Gut (IF 31.795), and American Journal of Gastroenterology (IF 12.045); establishing collaboration with leading international research institutions (Harvard, Mount Sinai, UCSD, Sorbonne, Imperial College, Francis Crick Institute); involving patients; and disseminating findings via lay media, PREDICT has the following highlights from 2022 to report:

#### Establishing PREDICT's data infrastructure at the National Genome Center (NGC)

In 2022 we established the central PREDICT data infrastructure as a National Genome Center (NGC) managed cloud solution. Governance of the data lake, including data organization and a security model were developed as well as a Wiki to inform all new PREDICT employees how to conduct research on the infrastructure. The PREDICT data Infrastructure was in 2022 populated with national registry data and regional cohort data and it was prepared for molecular data obtained from analyses of biobank samples at Statens Serum Institute.

#### PREDICT Conference Copenhagen: 'Predicting IBD Occurrence and Disease Course'

The first international 2-day PREDICT Conference 'Predicting IBD Occurrence and Disease Course' was held at AAU CPH August 22-23, 2022. One-hundred persons from all over the world participated and we managed to gather the absolute best internationally recognized IBD experts for the first-class faculty of speakers, making the conference programme unique with inspiring and fruitful discussions of state-of-the-art in the field. At the conference, the leaders of the major international cohorts in the field convened and thereby enabled profound discussions of future validation and collaboration in relation to PREDICT's planned activities. The conference was a great success and received wide international attention, both in the IBD environment and in general, and has resulted in several month-long guest research stays at PREDICT by international scientists. Grant proposals will be prepared to obtain funding for another international PREDICT conference in 2024.

#### The NorDIBD cohort

The NorDIBD cohort is a population-based cohort of IBD patients arising from the large registry, GASTROBIO, containing all patients suffering from inflammatory bowel diseases in the North Denmark Region from 1978 to 2021. It will include granular and longitudinal information on IBD patients (both pediatric and adult) diagnosed in North Denmark during the last four decades and will be unmatched worldwide. The Aalborg University Hospital (AAUH) part of PREDICT leads the continuous updating of the NorDIBD cohort. Currently, 35 medical students are working on extracting detailed data from medical records as part of AAUHs PREDICT activities.

In 2022, we furthermore initiated, obtained permissions for and prepared a comprehensive OMICs study on the NorDIBD cohort with the aim of obtaining blood samples and fecal samples on the majority of the NorDIBD cohort. The AAUH group has organised laboratory handling of blood samples and packed bags with collection tubes, paper, gloves, ice wraps and cooler bags for transport as well as organizing storage in freezers and identifying contact information on 4,500 patients. Letters are now being sent out in smaller fractions offering patients to participate. The first patients have been enrolled in the study which will be ongoing for the next 4 years.