**In brief - The NFA’s research programme for Musculoskeletal Disorders**

Summary

High ergonomic exposures in the working environment, fatigue and musculoskeletal disorders (MSDs) are prevalent among many workers in physically demanding jobs in Denmark. The ‘National strategy for working environment research’ as well as the ‘Tripartite agreement on prioritised national objectives for working environment efforts’ of 2020 states that fewer people should be subjected to significant physical strains in the workplace. This research programme is intended to contribute to that aim.

**Vision**

Our vision is to contribute to an enhanced understanding of the prevention and development of solutions to the challenges associated to the ergonomic working environment and MSDs among workers in physically demanding jobs. Our aim is to do so through groundbreaking international research, dissemination and training courses targeting relevant workplaces.

With a view to ensuring that the research targets the key challenges, problems and potentials in this field, we will involve stakeholders as co-creation actors throughout the entire research process:

* from understanding, prioritisation and concretising the specific challenge and potential,
* during the implementation of the research project,
* and in the dissemination and adoption of the research-based knowledge and tools to and among relevant actors

**Focus areas**

The research programme for Musculoskeletal Disorders includes six prioritised focus areas in which the NFA’s ambition is to be an international leader. The six focus areas contribute to all the three types of evidence included in the national research strategy. The prioritised focus areas are as follows:

1. knowledge about ergonomic working environments and MSDs through technical, objective surveys of ergonomic exposures in the working environment.
2. knowledge about the significance of combinations of ergonomic exposures in the working environment.
3. knowledge about retaining the ability to work and maintaining a long and healthy working life among workers with physically demanding jobs.
4. generating knowledge and launching workplace interventions to support the organisation and structure of healthy physically demanding work.
5. designing, testing and evaluating tools aimed at preventing chronic pain and improving the way work is organised as well as the management of work-related challenges among workers who have already developed chronic pain.
6. knowledge about how new technologies can change ergonomic exposures in the workplace, as well as how they can be used to strengthen prevention among employees with physically demanding jobs.

All the research projects will be designed to allow financial evaluation when relevant and possible. In addition, the projects or parts thereof will develop and utilise new digital technologies to collect large-scale data when relevant.

**Prioritised initiatives**

With a view to increasing the application-oriented knowledge about the prioritised areas, the research area on Musculoskeletal Disorders must strive to design research projects aimed at the knowledge gaps that exist in the field while also making use of the opportunities for collaboration and contact with researchers, practitioners and foundations that are already active within the research area. This means that the research area will prioritise concrete collaborations on/within the following subjects:

* Objective surveys
* Long, healthy working lives
* Combination ergonomics
* Health environment
* Building technology cohorts

**Competences**

The research area possesses competences largely focused on intervention research and epidemiology. There is a need to expand the area with individuals from technical backgrounds, e.g. data scientists who can contribute to developments within:

* technical surveys of ergonomic work exposures
* digital tools for efficient data collection and interventions
* the use of artificial intelligence in data processing
* analyses and interventions as well as data collection methods
* management and analyses of large datasets (big data) across countries.

In addition, the area possesses some knowledge on behavioural design and research dissemination, including R2P dissemination. If dissemination and R2P are to make up a larger part of the research area’s work, however, more resources will be required. If dissemination and R2P dissemination is to be primarily anchored elsewhere in the NFA, there will be a need for training/instruction in this area so that its contribution to the NFA’s overall dissemination/R2P is coordinated with the primary area.