

ONGOING:

THE EFFECT OF PSYCHOSOCIAL JOB RESOURCES ON THE  
CARDIAC AUTONOMIC REGULATION ASSOCIATED WITH  
OCCUPATIONAL PHYSICAL ACTIVITY

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# MAIN AIMS

- (1) to examine the cardiac autonomic regulation response associated with detailed assessments of different types of occupational physical activities;
- (2) to investigate the impact of psychosocial job resources – mainly focusing on job control and social support – on the cardiac autonomic regulation connected to OPA.

We **hypothesize** that

- (1) workers with high levels of OPA, particularly including static activities with the upper body or arms, show increased sympathetic (HR) and reduced parasympathetic (HRV) responses throughout the ambulatory registration period
- (2) favorable job resources attenuate these harmful cardiac autonomic regulation responses.

# DESIGN & POPULATION

## Cross-sectional field study

- ❖ Organizations from service / production sector
- ❖ Voluntary participation from workers  
(Flemish-speaking, non-pregnant, employed  $\geq 80\%$ , no exclusive night shift)
- ❖ Target N:  $\pm 500$

# DATA COLLECTION

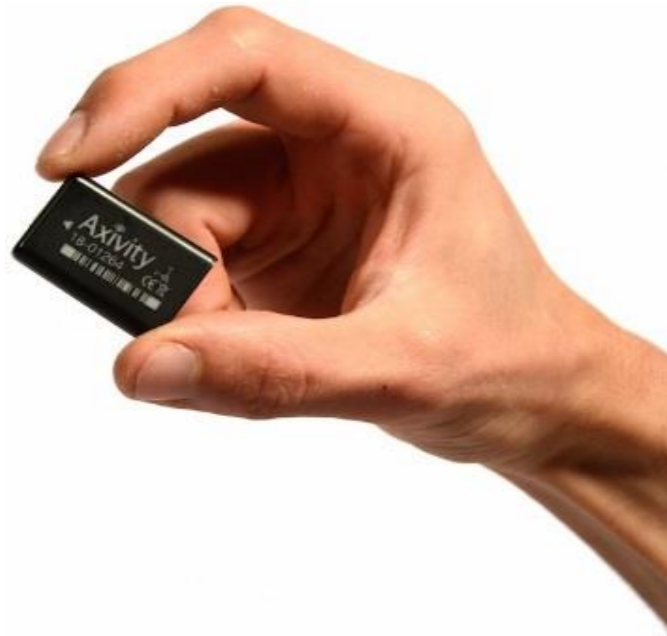
- ❖ Self-administered questionnaire
- ❖ Baseline screening at the workplace ( $\pm$  30 min.)

  - Resting blood pressure and heart rate
  - Antropometrics
  - Harvard step test
    - 5 minute protocol with 33cm / 40cm bench
    - Polar device HR assessment 1 – 2 – 3 minutes after ending the test



# DATA COLLECTION

- ❖ Objective ambulatory registrations 2-4 working days
  - Physical activity: Axivity AX3 accelerometers



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→ **Acti4 software:** type and duration of activities and postures

*(The National Research Centre for the Working Environment, Copenhagen, Denmark & BAuA, Berlin, Germany)*

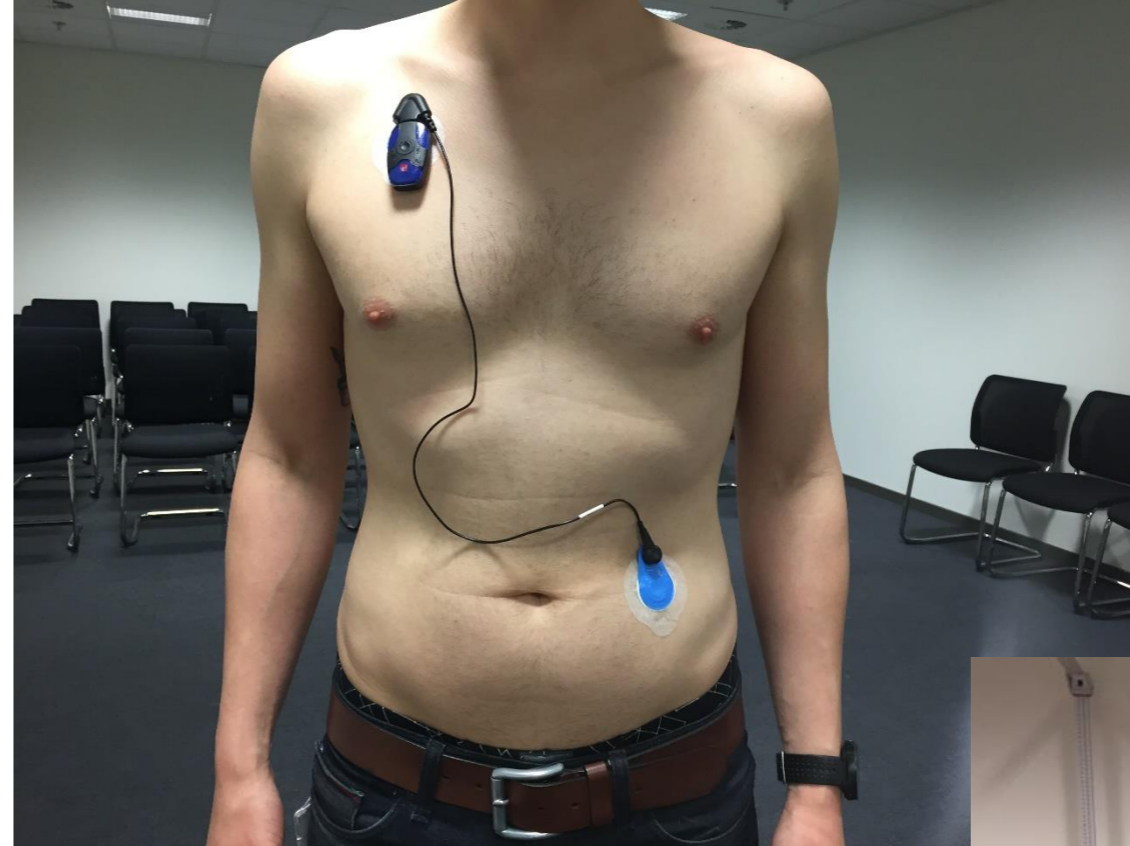
# DATA COLLECTION

- ❖ Objective ambulatory registrations 2-4 working days
  - Heart rate variability: Faros eMotion 90°



- Diary information

# DATA COLLECTION



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