EXIMIOUS

Mapping Exposure-Induced Immune Effects: Connecting the Exposome and the Immunome

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Danish Occupational Cohort with eXposure data (DOC*X)

Intro

The Danish Occupational Cohort with eXposure data (DOC*X) is a nationwide cohort with working life history on the entire Danish population.

DOC*X contributes to EXIMIOUS by investigating working life history relative to development of autoimmune diseases.

The DOC*X cohort

DOC*X is an entirely registry based nationwide cohort with time-specific working life history (job and industry) of Danish residents working at least one year, in 1970 + 1976-2018, in total 6.4 mill. individuals. Workers are included from the year they turn 16 and until their last registered employment. The unique feature about the DOC*X database is the information on selected occupational exposures, available through validated job-exposure matrices (JEMs) based on the Danish versions of the ISCO-88 and the NACE classification systems (www.doc-x.dk\en).
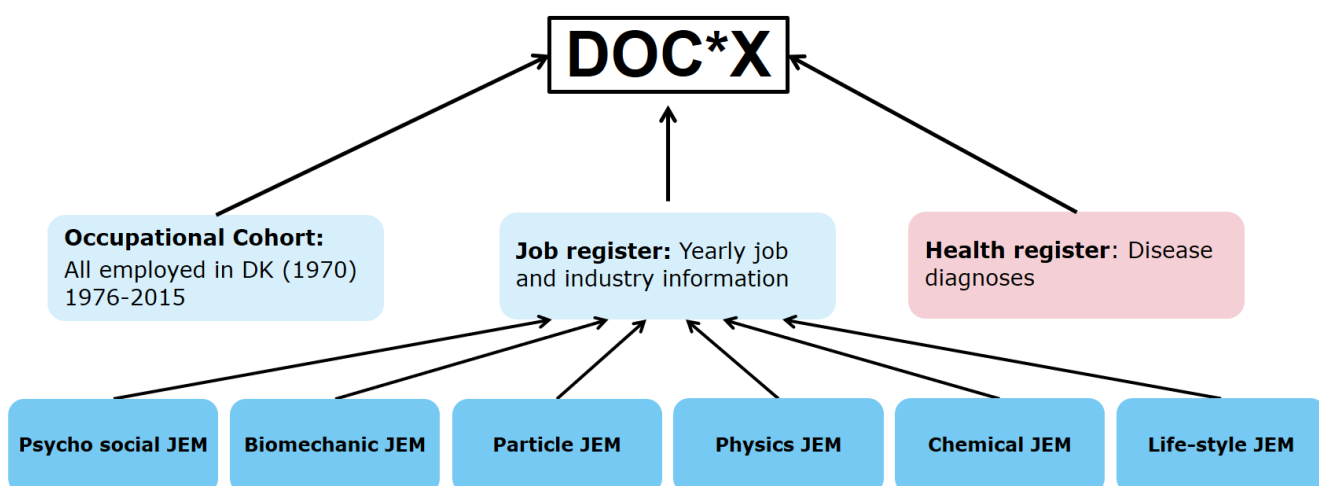
BONUSINFO: All employed women, who were pregnant during the period are included, with their children, in the DOC*X Generation Cohort.

DOC*X constituents (individual level)

- Annual information on occupation and industry
- Health, illness and death records
- Demographic information: migrations, social relationships, education and income.
- Absence from work and social support
- Job exposure matrices: noise, UV-radiation, dust (organic/inorganic), ergonomic workload, psychosocial exposures, chemicals (welding, quartz, organic solvents…)
- Air-pollution exposure at the individual level, modelled based on residential street address
- BONUSINFO: All employed women, who were pregnant during the period are included with their children in the DOC*X Generation Cohort.

EXIMIOUS Studies in the cohort

- Occupational history of single and combined psychosocial work exposures and risk of autoimmune rheumatic diseases
- Occupational exposure to chemicals and risk of autoimmune rheumatic diseases
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DOC*X

Occupational Cohort: All employed in DK (1970) 1976-2015

Job register: Yearly job and industry information

Health register: Disease diagnoses

Psycho social JEM | **Biomechanic JEM** | **Particle JEM** | **Physics JEM** | **Chemical JEM** | **Life-style JEM**

REFERENCES

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2. Nielsen HB, Sejbæk CS, Dreyer LW, Madsen IEH, Flachs EM, Hougaard KS. Study protocol for analyses of the association between psychosocial work environment exposures and risk of autoimmune rheumatic diseases. A study protocol from the EU-funded EXIMIOUS project. Preprint. Figshare. https://doi.org/10.6084/m9.figshare.24745563.v1; 2023.

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