COST-Action No. 15129: DiMoPEx (Diagnosis, Monitoring, Prevention of Exposure Related Non-Communicable Diseases)

WG.3
Environmental and Occupational Epidemiology

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Many with an interest in occupational and environmental epidemiology from a range of countries: Italy, Hungary, Romania, Croatia, Serbia, Malta, Greece, the Netherlands, Belgium
Is epidemiology important??

<table>
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<th>Evidence in animal studies</th>
<th>Evidence in Epi studies</th>
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<td>Not sufficient</td>
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Metodological issues

- Input to study designs, including exposure assessment strategies

- Clever use of data: Combinations of large population based populations and measurements (exposure, outcome)

- Proper statistical methods

- Development of questionnaires
What we have promised

• To provide a research and training programme in the field of Environmental and Occupational Epidemiology for PhD candidates

• To provide opportunities for participation in environmental & occupational epidemiological research

• To provide basic training in the epidemiology of exposure-related diseases
What we have done – training programs and basic training

- 5 days phd course in Denmark December 2016: Quantitative exposure assessment in occupational and environmental epidemiology

- New methods in cancer epidemiology in Stockholm, 14-16 May, 2018 (repeated in 2021)

- WP3 lectures in more DiMoPEx training schools on exposure assessment (Authuum 2016, Leuven) and allergic disease (Summer 2018, Berlin)

- 3 days DiMoPEx course in basic epidemiology in Denmark Feb 2019
Sandbjerg estate
What we have done – research opportunities

- We have introduced register data sources from Denmark (Danish Occupational Cohort DOC*X (www.DOC-X.dk) and register resource at Aarhus University (http://cirrau.au.dk/))
- Project ideas in the (not successful) DOSE application 2017 with participation from more WPs still alive!
  - Can pyrethroid pesticides cause diabetes? (funded by Aarhus University and National Research Centre for the Working Environment, Copenhagen). PhD thesis submitted
  - The effect of organic dust and endotoxin exposure on cardiovascular diseases; lung cancer and interstitial lung disease – now a joint application to a Danish fund (DK and Sweden) including the DOC-X database
A Danish initiative – www.doc-x.dk
What we have done – research opportunities

• Example of a spin off from the basic course in Epidemiology 2019: Ana Inez Silva (Porto) collaborates with Karin Broberg in her phd project (supervisor) Ana STSM at Karolinska March 2020

• More researchers from DiMoPEx involved in successful Horizon 2020 applications:
  – EPHOR: Exposome project for health and occupational research. Coordinated by TNO in the Netherlands. Participants from Sweden, Belgium, Denmark
  – SPRINT: Sustainable plant protection transition: a global health approach. Coordinated by Wageningen University in the Netherlands. Participants from the Netherlands, Sweden, Belgium, Italy, Denmark
What we have done – research opportunities

• Successful application to WHO/ILO: work-related burden of disease and injury: Systematic reviews of occupational exposure to dusts and/or fibres and of the effect of occupational exposure to dusts and/or fibres on pneumoconiosis.

• Unpleasant and untransparent process from WHO – DiMoPEx withdraved

• Still two successful STSMs

• Still successful DiMoPex training school in systematic review methodology in Debrecan June 2017 with attendants from several countries
Examples of spin of protocols for systematic reviews

- Sgargi D et al; Protocol for a systematic review and meta-analysis of human exposure to pesticide residues in honey and other bees' products. In second review
The future

- A lot of friendships have been established
- A lot of new research's collaborations are in place
- A lot of joint epidemiological and mechanistic research are going on
- More large EU projects have been granted

Due to DiMoPEx!
Thank you Lygia