

Interdisciplinary FRIAS Junior Researcher Conference 2016

# Avoiding Bias induced by Design and Analysis in Life History Cohort Studies

September 21-23, 2016, Freiburg, Germany

Join forces: epidemiologists and biostatisticians

## MOTIVATION

Population-based prospective cohort studies provide the preferred design for epidemiological research investigating effects of risk factors or exposure, as e.g. lifestyle, environmental or genetic predisposition on disease development. Setting up a valid cohort and following the cohort over a long time is challenging in many ways. While statistical tools for design and analysis have been developed over the last decades, use of these in actual studies is still lacking, often biasing results. A joint effort of epidemiologists and statisticians is needed for translation of existing tools and identifying areas where epidemiologic methods are still desired.

## GOALS OF THE CONFERENCE

- Bridging methodology and application
- Fruitful exchange across research fields
- Involve epidemiologists in state-of-the-art methodological discussions
- Introduce biostatisticians to different epidemiological areas and challenges of current epidemiological research
- Hands-on tutorials on how to analyze epidemiological data using R

## INVITED SPEAKERS

Keynote lecture

**Jerry Lawless** Statistician, Canada

1. Bias avoidable by appropriate analysis

**James Hanley** Biostatistician, Canada

**Michael Hoffmeister** Colorectal Cancer Epidemiologist, Germany

2. Bias from missing covariate measurements

**Thomas A. Gerds** Biostatistician, Denmark

**Christian Torp-Pedersen** Cardiovascular Epidemiologist, Denmark

3. Bias due to design: population and sampling

**Niels Keiding** Biostatistician, Denmark

**Karin Michels** Prevention and Cancer Epidemiologist, Germany

4. Bias from lacking outcome ascertainment in follow-up

**Martin Schumacher** Biostatistician, Germany

**Nicole Probst-Hensch** Environmental Epidemiologist, Switzerland

Plus: Hands-on R tutorials

**Bendix Carstensen** Biostatistician, Denmark

**Thomas A. Gerds** Biostatistician, Denmark

## STRUCTURE

Four different topics will be addressed in an invited session with two talks combining state-of-the-art methodological knowledge and practical needs of an epidemiologist by means of ongoing long-term and large size population based cohort studies. Each invited session will be followed by a **contributed session** motivated by a real world cohort study problem from **open abstract submissions**. Hands-on tutorials on how to analyze epidemiological data using the open-source analysis environment R will be provided as starter.

We cordially invite you to share your questions and thoughts regarding real world cohort studies with us:

**Submit your abstract until 15.05.2016 to [abilityconference@imbi.uni-freiburg.de](mailto:abilityconference@imbi.uni-freiburg.de)**

Tentative 14 abstracts can be selected for a contributed talk.

**Organizers:** Nadine Binder and Martin Wolkewitz, Institute for Medical Biometry and Statistics, Freiburg, Germany

**Contact us:** [abilityconference@imbi.uni-freiburg.de](mailto:abilityconference@imbi.uni-freiburg.de)

**Programme and Registration:** [www.frias.uni-freiburg.de/abilityconference](http://www.frias.uni-freiburg.de/abilityconference). Participation is limited.



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