Main Degree or Qualification, Diploma and Certificated held

Degree or Diploma:\_\_\_\_\_

#### Most recent employment

Emplo	ver:
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Position held:\_\_\_\_\_

How and where did you hear about this course?

\_\_\_\_\_

Would you be interested in presenting a case study related to your current or past research?

\_\_\_\_\_

Signed:\_\_\_\_\_

Date:\_\_\_\_\_

## **Contact Addresses**

If you need further details on the course please contact:

Emanuela Ciliberto, Unit of Cancer Epidemiology, Department of Medical Sciences, University of Turin, Via Santena, 7 – 10126 Torino Phone +39 011 6334661 emanuela.ciliberto@unito.it

Scientific Coordinators: Rino Bellocco (University of Milano-Bicocca , Karolinska Institutet) Lorenzo Richiardi (University of Turin) Laura Pazzagli (Karolinska Institutet)

Course homepage: <u>http://www.causal.altervista.org/</u>

**Location:** Department of Statistics and Quantitative Methods, University of Milano-Bicocca, Via Bicocca Degli Arcimboldi 8, Edificio U7, Aula Seminari Demografia (Secondo Piano), Milano.

The course is promoted by the Italian Society of Medical Statistics and Clinical Epidemiology (SISMEC) together with the Department of Statistics and Quantitative Methods, University of Milano-Bicocca and the Department of Medical Sciences, University of Turin.

# SISMEC Working Group on Causal Inference



A short course on concepts and methods in Causal Inference X Edition Milan (Italy), 14-16 December 2021

## Faculty

Rino Bellocco	University of Milano-Bicocca Karolinska Institutet
Lorenzo Richiardi Costanza Pizzi Daniela Zugna	University of Turin
Laura Pazzagli	Karolinska Institutet



#### **GOALS AND RATIONALE**

Causal inference plays a predominant role in science. In epidemiology, the goal and the ambition of the most part of the researchers is to determine an unbiased estimate of the effect of being exposed to a given factor on a well-defined outcome (effectiveness, disease, death). In recent years, there have been important statistical developments that go beyond the traditional multivariable regression techniques. Aims of this course are to discuss the current state of the art with respect to these issues, while retaining a practical focus, and to assess our current and future abilities to address effectively cause-and-effect questions.

## **COURSE DESCRIPTION**

### **14 December 2021** (9:30 - 17:30) Basic concepts in epidemiology seen through causal inference and causal diagrams. Estimation of causal

inference and causal diagrams. Estimation of causal effects through standardization.

## 15 December 2021 (9:00 - 17:30)

Marginal structural models for fixed and time-varying confounders.

**16 December 2021** (9:00 - 17:30) Mediation analysis.

Teaching will be based on both formal lectures and computer/group sessions. Computer sessions will use the R software.

## Teachers:

Rino Bellocco (University of Milano-Bicocca, Karolinska Institutet) Lorenzo Richiardi (University of Turin) Laura Pazzagli (Karolinska Institutet) Costanza Pizzi (University of Turin) Daniela Zugna (University of Turin)

## WHO SHOULD APPLY?

Undergraduate and postgraduate students, and health professionals interested in applied epidemiology and modern statistical methods.

The course is thought at an introduction/intermediate level.

### **COURSE FEE AND APPLICATION**

The total course fee is 150  $\in$ . Upon acceptance, payment details will be provided. The number of participants is limited to 20. For SISMEC members the reduced course fee is 100  $\in$ . A limited number of fellowships covering the full tuition will be awarded to students from the organizing universities.

Applicants should complete the attached form and return it as soon as possible to:

Emanuela Ciliberto, Unit of Cancer Epidemiology, Department of Medical Sciences, University of Turin Via Santena, 7 – 10126 Torino Phone +39 011 6334661 emanuela.ciliberto@unito.it

Payment details will be provided after the completion of the application form.

## Invited Speaker:

Tyler VanderWeele (Harvard T.H. Chan School of Public Health)

#### **APPLICATION FORM**

A Short Course on Concepts and Methods in Causal Inference.

Milan (Italy) 14 – 16, December 2021.

### Emanuela Ciliberto emanuela.ciliberto@unito.it

#### Please use block capitals

Male □ Female □