# DIPARTIMENTO DI MEDICINA MOLECOLARE E TRASLAZIONALE DOTTORATO DI RICERCA IN PRECISION MEDICINE

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### PhD PROGRAM IN PRECISION MEDICINE

### **COURSE**

"Metabolic Perspective in Angiogenesis for a Precision Medicine"

## Dr. Michela Corsini DMMT – Università degli Studi di Brescia

#### **ROOM B1**

24 January 2024 14:00 – 16:00 Lesson 1 – Metabolic needs in Angiogenesis

Angiogenesis in physiological and pathological processes. Metabolic regulation of angiogenic factors.

26 January 2024 14:00 - 16:00

**Lesson 2 – The Metabolic adaptation during Angiogenesis** 

Metabolic changes during angiogenesis.

Aerobic vs anaerobic metabolism: advantages and disadvantages.

30 January 2024 14:00 – 16:00

**Lesson 3 – Nutrient and Oxygen Sensing Pathway** 

How endothelial cells sense changes in nutrient and oxygen levels. The involvement of mTOR, AMPK, and HIF-1 $\alpha$  in sensing mechanisms.

1 February 2024 14:00 -16:00

**Lesson 4 – Mitochondrial dynamics in Angiogenesis** 

The role of mitochondrial dynamics in regulating angiogenesis. Fission and fusion events that influence endothelial cell function.

