

Friday 5th of April 2024 2.00 pm

Sala Consiliare di Medicina - Viale Europa, 11

Seminar: Ocular Imaging and Systemic Pathologies & Artificial Intelligence

Duration: 2.30 hours

Overall Objective: The seminar aims to explore the application of ocular imaging in identifying and managing ocular and systemic pathologies, as well as to analyze the role of artificial intelligence in interpreting data obtained through these technologies.

Specific Objectives:

1. Understand the basic principles of ocular imaging and the various imaging modalities available.
2. Identify systemic pathologies that can be diagnosed through ocular imaging.
3. Explore the potential of artificial intelligence in analyzing and interpreting data from ocular imaging.
4. Discuss clinical cases and research studies illustrating the effectiveness of combined use of ocular imaging and artificial intelligence.
5. Foster interactive dialogue among participants to share clinical experiences and reflect on practical implications of these technologies in the field of ophthalmology.

Seminar Structure:

Session 1: Introduction to Ocular Imaging

- 15 min: Presentation of different ocular imaging modalities, including optical coherence tomography (OCT), retinal photography, and angiography. (**Dr. Marica Ventura**)
- 15 min: Identification of systemic pathologies diagnosable through ocular imaging (**Dr. Davide Romano**)
- 30 min: Corneal nerves in systemic disease (**Prof. Uazman Alan**)
- 10 min: Questions and answers.

Session 2: Artificial Intelligence in Ocular Imaging Interpretation

- 15 min: Empowering Biomedical Imaging: a brief overview on Artificial Intelligence (**Dr. Filippo Airaldi**) – recorded talk

- 30 min: Artificial intelligence-based models utilising corneal confocal microscopy images to diagnose neurodegenerative disorders (**Prof. Uazman Alan**)
- 15 min: Artificial intelligence and Corneal transplants: Deep-learning-based image analysis applied to Descemet Membrane Endothelial Keratoplasty (DMEK) (**Dr. Matteo Airaldi**) recorded talk
- 10 min: Conclusions and seminar closure.

Speakers:

Uazman Alan BSc, MPHe, FRCP(UK), PhD

Reader & Honorary Consultant Physician in Diabetes & Endocrinology

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Filippo Airaldi, PhD Candidate

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