

DRAFT

Comprehensive Corneal Course: Pathology-Focused

22-24 October 2025

12-14 November 2025

19-20 November 2025

University of Brescia (Brescia) / Venice Eye Bank (Venice) - Italy

Course Chairman: Francesco Semeraro

Course Scientific Coordinators: Alessandro Ruzza, Vito Romano

ESASO Scientific Director: Mario Romano

Introduction

This proposal outlines the structure of an innovative corneal training course focusing on corneal and ocular surface surgery to address disease like Keratoconus, Fuchs Endothelial Dystrophy, and Bullous Keratopathy and ocular surface disease. The program is designed to provide participants with an in-depth the different surgical techniques through a combination of theoretical education, practical wet labs, surgical skill development, and live surgery observation.

The course will take place across three distinguished locations, each providing specialized facilities and expertise: **the Venice Eye Bank, and the University of Brescia.**

Learning Objectives

Develop a comprehensive understanding of the pathophysiology, clinical presentation, and management of anterior and posterior lamella surgery and ocular surface surgery.

Master advanced graft preparation techniques (DMEK, DSAEK, DALK). Gain confidence in suturing and handling corneal tissues in a wet lab setting. Observe live surgeries to bridge the gap between theory and clinical practice.

Target Audience

Ophthalmology residents, young full ophthalmologists, and fellows.

Corneal surgeons seeking to refine their surgical techniques.

Eye bank specialists interested in advancing their knowledge of graft preparation.

The level of the course is intermediate

Facilities

Venice Eye Bank:

Renowned for expertise in tissue preparation and distribution, offering high-quality donor corneas for hands-on training.

University of Brescia:

A leading centre for corneal surgery with experienced faculty providing real-world surgical insights.

Conclusion

This course offers a unique, multidisciplinary approach to corneal pathology and surgery, leveraging the expertise and resources of three distinguished centres. Participants will leave with a well-rounded skill set and confidence to manage complex corneal cases effectively.

22-24 October 2025 / Course 1 - Anterior lamellar Module

22 October 2025 - University of Brescia

Theoretical training		
18:00 – 20:00	- Overview of Keratoconus pathology and diagnosis.	Vito Romano / TBC
	- Advances in non-surgical management (e.g., cross-linking, scleral lenses).	
Indications for surgical intervention and grafting techniques		

23 October 2025 - University of Brescia

08:00 – 13:00	Live Surgery Observation	Vito Romano / TBC
	Opportunity to observe a variety of anterior lamellar corneal surgeries including: DALK big bubble / manual DALK / PK/ mushroom PK	
13:00-14:30	Lunch	
14:30-16:00	Postoperative case discussions	Vito Romano / TBC
	Debriefing on what was seen during the morning	
16:00-16:10	Closing remarks	Vito Romano / TBC
	Travelling to Venice	

24 October 2025 - Eye Bank Venice

Wet Lab:		
08:00 – 13:00	- Introduction to suturing techniques.	Alessandro Ruzza / TBD
	- Practice using artificial and donor corneas to develop skills in partial-thickness grafting.	
	- Techniques to assess donor tissue quality and manage challenging cases.	
	- Training in suturing techniques for full-thickness and partial-thickness corneal grafts.	
	- Preparation of corneal grafts for DALK procedures, Bowman layer transplantation and CAIRS.	
13:00-14:00	Lunch	
14:00-16:00	Wet Lab	Alessandro Ruzza / TBD
16:00-16:10	Closing remarks	Alessandro Ruzza / TBD

12-14 November 2025 / Course 2 - Posterior lamellar Module

12 November 2025 - University of Brescia

Theoretical training:

18:00 – 20:00	- Overview of endothelial dysfunction etiology and clinical presentation.	Vito Romano /
	- Treatment options: medical management versus surgical interventions.	TBD

Discussion of penetrating keratoplasty versus lamellar techniques.

13 November 2025 - University of Brescia

08:00 – 13:00	Live Surgery Observation	Vito Romano /
	Opportunity to observe a variety of posterior corneal surgeries including DMEK / DSAEK / Graft preparation	TBD
13:00-14:30	Lunch	
14:30-16:00	Postoperative case discussions	Vito Romano /
	Debriefing on what was seen during the morning	TBD
16:00-16:10	Closing remarks	Vito Romano /
	Travelling to Venice	TBD

14 November 2025 - Eye Bank Venice

Wet Lab:

08:00 – 13:00	- Introduction to suturing techniques.	Alessandro Ruzza / TBD
	- Practice using artificial and donor corneas to develop skills in partial-thickness grafting	
	- Techniques to assess donor tissue quality and manage challenging cases	
	- Training in suturing techniques for full-thickness and partial-thickness corneal grafts	
	- Preparation of ultra-thin DSAEK/ DMEK: peeling, loading, unfoolding	
13:00-14:00	Lunch	
14:00-16:00	Wet Lab	Alessandro Ruzza / TBD
16:00-16:10	Closing remarks	Alessandro Ruzza / TBD

19-20 November 2025 / Course 3 - Ocular surface Module

12 November 2025 - University of Brescia

Theoretical training:

18:00 – 20:00	- Overview of Ocular Surface Pathologies: pterygium, persistent epithelial defects, band keratopathy	Vito Romano / TBD
	- Comparative analysis of ocular surface disorders and the role of surgical intervention in managing recurrent or advanced cases.	
	- Innovative Adjuncts in Ocular Surface Reconstruction: <ul style="list-style-type: none"> ➤ Amniotic Membrane Transplantation (AMT): biological properties, mechanisms of action, and role in reducing inflammation and fibrosis. ➤ Platelet-Rich Plasma (PRP) Application: overview of PRP preparation and its growth factors in promoting wound healing. 	

13 November 2025 - University of Brescia

Opportunity to observe a variety of ocular surface surgeries including

08:00 – 13:00	- Pterygium Excision: Observe a live demonstration of pterygium excision employing state-of-the-art techniques.	Vito Romano / TBD
	- Amniotic membrane placement	
	- Application of PRP to enhance ocular surface healing.	

13:00-14:30 Lunch

14:30-16:00	Postoperative case discussions	Vito Romano /
	Debriefing on what was seen during the morning	TBD

16:00-16:10	Closing remarks	Vito Romano / TBD
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