

## EU COST Action BM 1302

### Joining Forces in Corneal Regeneration

#### “Edge technology for in vivo corneal monitoring and restoration”

30<sup>th</sup> May – 3<sup>rd</sup> June 2016

#### PROGRAM OVERVIEW

##### Highlights:

Edge technology for ex vivo corneal imaging

In vivo corneal imaging – current trends

Genetics of corneal disease – update

Contemporary modality for ocular surface pathology

Update on artificial cornea

#### Sunday 29<sup>th</sup> May 2016

Check in

#### Monday 30<sup>th</sup> May 2016

**9:00 Welcome to the COST Summer Training School 2016**

*/Prof. Krasimir Ivanov, MD, PhD, DSc and Prof. Christina Grupcheva, MD, PhD, DSc, FEBO, FICO(Hon), FBCLA/*

**9:30 The microstructural secrets revealed by in vivo confocal microscopy**

*/Prof. Christina Grupcheva, MD, PhD, DSc, FEBO, FICO(Hon), FBCLA/*

**10:30 Coffee break**

**11:00 Tissue engineering of cornea – current challenges and prospective**

*/Dr. Tzvetan Popov, PhD/*

**12:30 Lunch break**

**13:30 Cell biology of visual pathway development**

*/Prof. Anton Tonchev, MD, PhD, DSc/*

**15:00 Coffee break**

**15:30 How can we “SEE” after cornea injury?**

*/Dr. Charles Cheng-Hung Chou, PhD/*

**19:30 The Vice-Rector’s conference dinner and Bulgarian experience. “TRANSLATION – medical, social and cultural aspects”**

## Tuesday 31<sup>st</sup> May

### 9:00 Seminar on corneal imaging in vivo (Group I)

*/Prof. Christina Grupcheva, MD, PhD, DSc; Dr. Teodora Marinova, MD, PhD; Dr. Mladena Radeva, MD; Dr. Jana Simova, MD, FEBO/*

### Seminar on corneal cell biology (Group II)

*/Dr. Tzvetan Popov, PhD and Antoniya Semerdzhieva, MSc/*

### Seminar on ocular pathology (Group III)

*/Assoc. prof. Peter Ghenev, MD, PhD and team/*

### Seminar on 3D ex vivo imaging (Group IV)

*/Prof. Anton Tonchev, MD, PhD, DSc; Dr. Marin Zhelezov, MD/*

### 10:30 Coffee break

### 11:00 Seminar on corneal imaging in vivo (Group IV)

*/Prof. Christina Grupcheva, MD, PhD, DSc; Dr. Teodora Marinova, MD, PhD; Dr. Mladena Radeva, MD; Dr. Jana Simova, MD, FEBO/*

### Seminar on corneal cell biology (Group III)

*/Dr. Tzvetan Popov, PhD and Antoniya Semerdzhieva, MSc/*

### Seminar on ocular pathology (Group II)

*/Assoc. prof. Peter Ghenev, MD, PhD and team/*

### Seminar on 3D ex vivo imaging (Group I)

*/Prof. Anton Tonchev, MD, PhD, DSc; Dr. Marin Zhelezov, MD/*

### 12:30 Lunch break

### 13:30 Live Surgery

*/Surgeons: Prof. Christina Grupcheva, MD, PhD, DSc; Dr. Yana Manolova MD; Assistants: Dr. Zarka Stoycheva MD, Dr. Dobrin Bojadziev MD, FEBO, Moderator: Dr. Jana Simova, MD, FEBO/*

### 15:00 Coffee break

### 15:30 Anterior surface and amniotic membrane

*/Dr. Yana Manolova, MD/*

## Wednesday 1<sup>st</sup> of June

### 9:00 Seminar on corneal imaging in vivo (Group II)

*/Prof. Christina Grupcheva, MD, PhD, DSc; Dr. Teodora Marinova, MD, PhD; Dr. Mladena Radeva, MD; Dr. Jana Simova, MD, FEBO/*

### Seminar on corneal cell biology (Group I)

*/Dr. Tzvetan Popov, PhD and Antoniya Semerdzhieva, MSc/*

### Seminar on ocular pathology (Group IV)

*/Assoc. prof. Peter Ghenev, MD, PhD and team/*

**Seminar on 3D ex vivo imaging (Group III)**

*/Prof. Anton Tonchev, MD, PhD, DSc; Dr. Marin Zhelezov, MD/*

**10:30 Coffee break**

**11:00 Seminar on corneal imaging in vivo (Group III)**

*/Prof. Christina Grupcheva, MD, PhD, DSc; Dr. Teodora Marinova, MD, PhD; Dr. Mladena Radeva, MD; Dr. Jana Simova, MD, FEBO/*

**Seminar on corneal cell biology (Group IV)**

*/Dr. Tzvetan Popov, PhD and Antoniya Semerdzhieva, MSc/*

**Seminar on ocular pathology (Group I)**

*/Assoc. prof. Peter Ghenev, MD, PhD and team/*

**Seminar on 3D ex vivo imaging (Group II)**

*/Prof. Anton Tonchev, MD, PhD, DSc; Dr. Marin Zhelezov, MD/*

**13:00 History and science – get-together. Comprehensive experience in the fields of biology, history and medicine.**

## **Thursday 2<sup>nd</sup> of June**

**9:00 New facts about corneal UV damage and protection. The use of “UV camera” and in vivo confocal microscopy for detection and diagnostics**

*/Prof. Christina Grupcheva, MD, PhD, DSc, FEBO, FICO(hon), FBCLA/*

**10:30 Coffee break**

**11:00 Omnigen: a stable and accessible dehydrated amniotic membrane matrix for innovate treatment of ocular surface indications**

*/Dr. Andrew Hopkinson, CEO; Moderator: Dr. Desislava Vankova, MD, PhD, MPH/*

**12:30 Lunch break**

**13:30 Growing human corneas by tissue-templating**

*/Dr. Ricardo Gouveia, PhD/*

**15:00 Coffee break**

**15:30 Tissue engineering – the main tool of the future medicine**

*/Dr. Tzvetan Popov, PhD/*

**17.30 Students' presentations**

**18.30 History of Medicine and the oldest “neurosurgical” treatment in Europe**

**19.30 COST traditional networking dinner**

## **Friday 3<sup>rd</sup> June**

**9:00 Collagen scaffolds for cornea and eye surgery**  
*/Dr. Charles Cheng-Hung Chou, PhD/*

**10:30 Coffee break**

**11:00 Metabolomics: a global biochemical approach of translational medicine**  
*/Prof. Bistra Galunska, PhD/*

**12:30 Lunch break**

**13:30 Public health aspects of corneal blindness**  
*/Dr. Desislava Vankova, MD, PhD, MPH/*

**15:00 Close up notes**

## **Saturday 4<sup>th</sup> June**

**Departure of all participants**