



# 8TH ESTROT CONGRESS

European Society of Tissue Regeneration in Orthopaedics and Traumatology



**Nina Lindfors**  
*Chairman*

## THE MAIN TOPICS:

- Biomaterials – tissue regeneration, infection treatment
- Bone and cartilage – tissue reconstruction and regeneration
- Traumatology – surgical techniques, host reactions
- Plastic surgery – soft tissue regeneration
- Tissue regeneration in children



10-12 June 2024



Helsinki, Finland



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European Society of Tissue Regeneration in Orthopaedics and Traumatology

**E.S.T.R.O.T.**

## BOARD

### **PRESIDENT:**

Prof. Peter V. Giannoudis  
Leeds, United Kingdom

### **PAST PRESIDENT:**

Prof. Gerhard Schmidmaier  
Heidelberg, Germany

### **TREASURER:**

Prof. Thierry Bégué  
Paris, France

### **ESTROT AMBASSADOR:**

Scientific Committee Chair  
Prof. Giorgio M. Calori  
Milan, Italy

## OBJECTIVES

The objectives of the Society are:

To relieve sickness in particular by advancing and promoting education and research in the treatment of musculoskeletal disorders.

To cover all matters relating to the progress and development of the field of tissue regeneration including surgery of bone, cartilage, muscle, nerve, skin, imaging techniques, rehabilitation and other related medical specialities.

To disseminate the useful results of tissue regeneration research into the medical profession.

To promote audit of hard and soft tissue reconstruction in relation to patient outcomes.

To guide European Tissue Regeneration Policies and to guide alliances of similar organisations from other continents.

## **Helsinki – the cool and sustainable capital by the Baltic Sea**

Helsinki is a charming seaside city with a unique twist. Located on the shore of the Gulf of Finland, Helsinki is a place where urban culture meets coastal nature. The easy-going Nordic lifestyle and friendly locals make it easy to fall in love with this northern city – the capital of the happiest country in the world!



# FACULTY

Anttila Turkka - Helsinki, Finland  
Arts Chris - Maastricht, The Netherlands  
Asklof Tom - Helsinki, Finland  
Aspinen Samuli - Helsinki, Finland  
Begué Thierry - Paris, France  
Bjorkenheim Robert - Helsinki, Finland  
Blokhus Taco - Maastricht, The Netherlands  
Calori Giorgio Maria - Milan, Italy  
Emans Pieter - Maastricht, The Netherlands  
Gastgifvars John - Helsinki, Finland  
Geurts Jan - Maastricht, The Netherlands  
Giannoudis Peter - Leeds, United Kingdom  
Haara Mikko - Helsinki, Finland  
Heino Terhi - Turku, Finland  
Helenius Illka - Helsinki, Finland  
Hettiaratchy Shehan - London, United Kingdom  
Ibounig Thomas - Helsinki, Finland  
Jones Julian - London, United Kingdom  
Kalske Joonas - Helsinki, Finland  
Kauhanen Susanna - Helsinki, Finland  
Kiljunen Saija - Helsinki, Finland

Kold Soren - Aalborg, Denmark  
Lindfors Nina - Helsinki, Finland  
Lindahl Jan - Helsinki, Finland  
Marzi Ingo - Frankfurt, Germany  
Mattila Simo - Helsinki, Finland  
Mesimäki Karri - Helsinki, Finland  
Mora Leon - Medellin, Colombia  
Nietosvaara Yrjana - Helsinki, Finland  
Nikitin Petro - Kyiv, Ukraine  
Nordback Panu - Helsinki, Finland  
Rikhter Oleksandr Kyiv, Ukraine  
Ryhanen Jorma - Helsinki, Finland  
Salo Jari - Helsinki, Finland  
Schmidmaier Gerhard - Heidelberg, Germany  
Simons Tomi - Helsinki, Finland  
Suominen Sinikka - Helsinki, Finland  
Vallittu Pekka - Turku, Finland  
Villain Benoit - Paris, France  
Vuola Jyrki - Helsinki, Finland  
Welting Tim - Maastricht, The Netherlands  
Ylitalo Antti - Tampere, Finland

09:00 Registration

10:25 Welcome opening – *Nina Lindfors*

**Session I – Cartilage regeneration and osteoarthritis**

Chairmen: *Nina Lindfors, Peter Giannoudis*

10:30 Meniscal allograft transplantation outcomes in both minimal and moderate knee osteoarthritis  
*Jan Lindahl*

10:50 Cartilage repair and joint-preservation – *Pieter Emans*

11:10 Role of subchondral bone in joint cartilage regeneration – *Jari Salo*

11:30 Peptide-based molecular interventions for osteoarthritis – *Tim Welting*

11:50 Free vascularized fascia for the treatment of trapeziometacarpal osteoarthritis – *Simo Mattila*

**Session II – Complications and treatment protocols**

Chairmen: *Jan Lindahl, Gerhard Schmidmaier*

12:10 Complications using externally controlled intramedullary nails for limb lengthening or bone transport  
*Sören Kold*

12:30 Reducing complications – Protocol based orthoplastic approach to open tibia fractures – *Antti Ylitalo*

12:50 Lunch Break – the stairs in the Bridge Hospital

13.20 Poster Session

**Session III – Soft tissue treatment and tissue regeneration: plastic and hand surgery**

Chairmen: *Jyrki Vuola, Thierry Bégué*

- 14:00 Adipose tissue derived stromal cells – Clinical Applications – *Susanna Kauhanen*
- 14:20 Helsinki approach in the surgical management of lymphedema – *Sinikka Suominen*
- 14.40 Cell therapy for wound healing in burn patients – *Jyrki Vuola*
- 15.00 Skin substitutes, experiences in the burn unit – *John Gästgifvars*
- 15.20 Novel algorithmic approach for hand soft tissue reconstruction – *Panu Nordback*
  
- 15:40 Coffee Break

**Session IV – New technologies: Artificial Intelligence and 3D printing**

Chairmen: *Chris Arts, Nina Lindfors*

- 16:00 Detection of DRF with AI from plain radiographs – *Turkka Anttila*
- 16:20 Detection of hand Enchondromas using AI – *Jorma Ryhänen*
- 16:40 Using 3D printed patient specific b-TCP synthetic bone graft in distal radius osteotomies – *Samuli Aspinen*
- 17:00 Development and Characterization of a 3D printable filament containing Vancomycin for local antimicrobial and prophylactic applications – *Jonas Neijhoft*
- 17.20 Summary
  
- 18.00 Welcome reception Finska Läkaresällskapet garden and Annex

07:30 ESTROT Board meeting

**Session V – Musculoskeletal tissue regeneration in children**

Chairmen: *Ilkka Helenius, Taco J. Blokhuis*

08:30 Distraction osteogenesis in limb deformities – *Mikko Haara*

08:50 Bioactive glass for benign pediatric bone lesions – *Ilkka Helenius*

09:10 Nerve transfer and grafting for Brachial plexus birth injuries – *Yrjänä Nietosvaara*

09:30 Coffee Break

**Session VI – Innovative methods and techniques for treatment of bone**

Chairmen: *Gerhard Schmidmaier, Ingo Marzi*

09:45 Surgical technique for intramedullary bone infections – tactics for using bone endoscopy for debridement and cavity filling with S53P4 bioactive glass – *Leon Mora*

10:05 Innovative techniques for the treatment of bone defects in maxillofacial surgery – *Karri Mesimäki*

10:25 Implant induced ossification in cranial reconstructions – *Pekka Vallittu*

**Session VII – War trauma and treatment methods**

Chairmen: *Joonas Kalske, Leon Mora*

10:45 Situation in Ukraine since the war started “We shall overcome” – *Oleksandr Rikhter*

11:00 War trauma and bone substitutes in Ukraine – *Oleksandr Rikhter*

11:15 Experience in war trauma – *Jan Geurts*

11:35 Antibiotic-resistant infections in combat injuries – *Oleksandr Rikhter*

11:50 Discussion

12:00 **Lunch Break - the stairs in the Bridge Hospital**

**Session VIII - Basic science and Tissue Regeneration**

Chairmen: *Julian Jones, Nina Lindfors*

12:30 Phage therapy in orthopedic infections - *Saija Kiljunen*

12:50 Co-culture strategies to study the mechanisms of tissue regeneration - *Terhi Heino*

13:10 Supporting guided regeneration and controlling inflammation in order to replace bone defects clinically via tissue engineering - *Ingo Marzi*

**Session IX - Treatment methods of bone tissue I**

Chairmen: *Taco J. Blokhuis, Giorgio M. Calori*

13:40 Algorithm of treatment of non union and critical size bone defects, based on the innovative Nuss Classification - *Giorgio M. Calori*

14:00 Fresh Osteochondral Allografts for focal cartilage lesions of the humerus - *Thomas Ibounig*

14:20 Polytherapy for posttraumatic long bone non-unions - *Taco Blokhuis*

14:40 Bioactive glass S53P4 in the treatment of infected bone - *Joona Kalske*

15:00 The Art of Bone Void Filling: Issues, Challenges, Solutions - *Peter Giannoudis*

15.20 Coffee Break



15:30

**Free Paper Session**

Chairmen: *Chris Arts, Nina Lindfors*

**Session X - Treatment methods of bone tissue II**

Chairmen: *Timo Simons, Peter Giannoudis*

17:05

"Treatment options of segmental bone defect with Bioglass S53P4 – what is the evidence?"

*Gerhard Schmidmaier*

17:25

Single stage treatment of small-medium sized bone defects using S53P4 bioactive glass

*Robert Björkenheim*

17:45

Long-term results of using bioactive glass S53P4 in the spine - *Tom Asklof*

**Session XI - Bone defects and bone grafts**

Chairmen: *Gerhard Schmidmaier, Thierry Bégué*

- 08:30 Reconstruction of severe segmental bone defects in the lower limb by structural allograft in addition to the Masquelet technique - *Benoit Villain*
- 08:50 Limits of the Masquelet technique with or without bioactive glass S53P4 - *Thierry Bégué*
- 09:10 Bouncy bioglass for large bone defect regeneration - *Julian Jones*
- 09:30 Management of infected failed arthroplasty in adults over 70 years of age, comprehensive management in a single step with bioactive glass as part of the total strategy - *Leon Mora*
- 09:50 Outcome and predictors of treatment failure in chronic osteomyelitis using bioactive glass granules and putty formulation - *Fernando Baldy dor Reis*

10:10 **Award Ceremony**

10:30 Coffee Break

**Session XII - Future challenges and the way forward**

Chairmen: *Peter Giannoudis, Nina Lindfors*

- 10:50 Material technology to curb AMR; the DARTBAC project - *Chris Arts*
- 11:10 Bioactive glass S53P4 what have we achieved in 30 years and what next? - from a statistically suggested composition to clinical success and the way forward - *Nina Lindfors*
- 11:30 Segmental defect reconstruction an opening for a multicenter study? / Discussion - *Gerhard Schmidmaier*
- 12.00 Closure

# REGISTRATION FEES AND AWARDS

REGISTRATION FEES (VAT included)	UNTIL 09/05/2024	FROM 10/05/2024
Medical Doctors Member	200,00 €	250,00 €
Medical Doctors Non Member	350,00 €	€ 400,00 Joining ESTROT membership (fee € 50,00) will imply 8th ESTROT Members Registration fee € 250,00
Scientist, Residents and Researchers	75,00 €	100,00 €
Students and Nurses	50,00 €	75,00 €
Exhibitors	150,00 €	200,00 €
One day registration Member	100,00 €	150,00 €
One day registration Non Member	150,00 €	200,00 €
Social Reception 10 June	80,00 €	80,00 €

AWARDS	
Free papers	
Gold	€ 1.000,00
Silver	€ 500,00
Bronze	€ 250,00
Poster	€ 250,00

The registrations will be accepted in a chronological order and must have the copy of payment

Cancellation policy: registration fees are non refundable

# GENERAL INFORMATION

## LOCATION

MEILAHTI BRIDGE HOSPITAL

Haartmaninkatu 4

Helsinki

Finland

## REGISTRATION



## ORGANIZATIONAL BUREAU

**KEEP**  
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HEADQUARTERS

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