

## **ROUND TABLE : LARYNGEAL BIOENGINEERING AND TRANSPLANTATION – “RESURRECTING THE LARYNX”**

PEVOC12, Ghent, Belgium, 2017

This session will provide the latest updates in laryngeal transplantation and regenerative medicine. The following speakers will be contributing towards this session:

### **Professor Martin Birchall, University College London, UK (Chair)**

Professor Martin Birchall is one of the leading academic laryngologists, as well an international figure in the field of translational regenerative medicine. Professor Birchall is chair of laryngology at UCL and is currently President of the British Laryngological Association.

Since 1995, Prof Martin Birchall has attempted to harness the best of biomedical science to support restoration of function to people whose throats have been damaged by accident and disease, including cancer. Working with scientists, fellow surgeons and patients he has assembled specific teams to address a variety of throat disorders.

In 2008 and 2010, Prof Martin Birchall co-led the multidisciplinary teams which successfully performed the World's first stem-cell based, tissue-engineered organ implants (bronchus and trachea) in an adult and a child respectively, opening up new vistas for organ replacement in years to come. In addition, he was part of the 2010 team in California who performed the second documented laryngeal transplant, following on from the Cleveland patient in 1998.

In this session, Prof Martin Birchall will be discussing animating bioengineered larynges and the use of robotics to replace, or enhance, laryngeal function.

### **Professor Stellan Hertegard, Karolinska Institute, Sweden**

Professor Hertegard is a Professor of Phoniatics and Laryngology at the Karolinska Institute, Sweden. His research has focused on translational medicine and he has developed and pioneered the use of stem cell therapies for the treatment of vocal fold scarring from animal models through to human clinical trials. He has published widely in the field and is currently leading a ground-breaking clinical trial investigating the use of mesenchymal stem cells in scarred human vocal folds.

In this session, Prof Hertegard will be discussing his work in the field of stem cell-based vocal cord regeneration, as well as the challenges, barriers and solutions to problems faced by researchers working in translational medicine clinical trials.

**Professor Jean-Paul Marie, University Hospital of Rouen, France**

Prof Jean-Paul Marie is a Professor in the Department of Otolaryngology, Head & Neck Surgery and Audiophonology at the University Hospital in Rouen, France.

He has worked on laryngeal reinnervation for several years through animal research projects, and now applies these techniques in humans. He regularly presents his results at international conferences and workshops. His main interest is in Phonosurgery, Neurolaryngology, but also Otology and Skull base surgery. He is a member of the ELS, EGFL and American Neurolaryngology Study Group. He is also former President of the French Society of Phoniatriy.

In this session, Prof Jean-Paul Marie will be discussing reinnervation techniques and strategies.

**Dr Jonathan Fishman, University College London, UK**

Dr Jonathan Fishman is an ENT Surgeon and Laryngologist, as well as Academy of Medical Sciences Clinical Lecturer at UCL. His current research interests lie in regenerative medicine approaches for vocal fold regeneration. This formed the basis of his PhD which studied the immunomodulatory effect of decellularised scaffolds for laryngeal tissue-engineering. He has received personal research fellowships from The Academy of Medical Sciences, Medical Research Council, Sparks Children's Charity, The Royal College of Surgeons of England and The Royal Society of Medicine. He is Senior Editor for the Journal of Laryngology & Otology (Cambridge University Press) and sits on the council for the British Laryngological Association.

In this session, Jonathan Fishman will be presenting on tissue engineering of the laryngeal framework.

**Dr Maciej Grajek , Gliwice, Poland**

Dr Maciej Grajek is a skilled oncological surgeon and microsurgeon from Gliwice, Poland. Working alongside Prof Adam Maciejewski, together they have experience of laryngeal transplantation.

In this session, Dr Grajek will be presenting on the "First complex allotransplantation of neck organs - larynx, trachea, pharynx, oesophagus, thyroid, parathyroid glands and anterior cervical wall".