

Dominika Borselle

Project title: *Regenerative medicine in the treatment of congenital long-gap esophageal atresia*

Duration	3 months
Short Bio	The management of long gap esophageal atresia is still controversial. The preservation of the native esophagus is preferable, however some patients may require substitution. Regenerative medicine and esophageal tissue engineering as a promising future direction may overcome the need for substitution and offers a real advantage for the treatment of the complex LGEA cases.
Home Institution	Department of Pediatric Surgery and Urology, Wroclaw Medical University and Hospital, Poland
Host institution	Stem Cells and Regenerative Medicine, <u>UCL Great Ormond Street Institute of Child Health</u> , London, UK
Project description	Long gap esophageal atresia represents approximately less than 10% of all EA patients and its management remains controversial and challenging. The preservation of the native esophagus is preferable, however some patients may require substitution. Esophageal tissue engineering as a promising future direction may overcome the need for substitution and offers a real advantage for the treatment of the complex LGEA cases. I had a honour to collaborate with the esophageal research team of UCL Great Ormond Street Institute of Child Health. The project was conducted as an experimental study of esophageal replacement using autologous decellularised scaffolds in an in vivo animal model.
Personal statement	The fellowship was a great chance for me to participate in a project of esophageal tissue engineering. My professional interests involve especially minimally invasive surgery, newborn surgery, regenerative medicine and treatment of congenital rare diseases. I am a PhD student and my doctoral thesis focus on thoracoscopy in the treatment of esophageal atresia. An understanding of new scientific techniques will be invaluable when looking at prospective treatment options for newborn patients with congenital diseases. I hope to become a surgeon that can also participate in research, uniting my passion for treating congenital malformations using new technologies of minimally invasive surgery and advances in medical science.

In collaboration with :