

Caroline Merckx

Evaluating the therapeutic potential of osmolytes in a mouse model for Duchenne Muscular Dystrophy

<p>Short Bio</p>	<p>I am a PhD student at the Laboratory for Neuropathology in Ghent University Hospital under the supervision of Prof. Dr. Jan De Bleecker. Our field of expertise is neuromuscular disorders. This topic is especially of interest to me as neuromuscular disorders occur in my family. My PhD thesis focuses on the regulation of osmolyte pathway members during different disease stages in a mouse model for Duchenne Muscular Dystrophy (DMD). Furthermore, the therapeutic potential of osmolytes in the mouse model for DMD is investigated.</p>
<p>Home Institution</p>	<p>Ghent University Hospital/Ghent University</p>
<p>Host Institution</p>	<p>University Medical Center Göttingen</p>
<p>Project description</p>	<p>Duchenne muscular dystrophy (DMD) is a muscular disorder characterized by progressive muscle weakness. In this project we aim to investigate the regulation of osmolyte pathway members during different disease stages in the mdx mouse model for DMD. Furthermore, we also want to explore the therapeutic potential of osmolytes in mdx mice in terms of inflammation and fibrosis. This will be carried out by qPCR experiments. Our collaborative partners at Universitätsmedizin Göttingen have agreed upon sharing both their theoretical and experimental know-how since they have already longstanding experience with carrying out qPCR experiments for the detection of relevant inflammatory cytokines in the mdx mouse model. Their knowledge and techniques might be nicely implemented at our research laboratory at the University Hospital Ghent.</p>
<p>Personal statement</p>	<p>This research stay abroad will give me the opportunity to learn a novel technique from experienced scientists that will strongly boost this research project. Personally, this research stay abroad will be very helpful in view of the project but also will allow me to step out of my comfort zone, to network with experienced scientist and discuss the project. The knowledge and techniques that I will learn abroad will be passed on to other researchers of this unit. This research project has potential to contribute to innovative therapeutic interventions in human muscle diseases and if successful this implies a direct benefit for the ERNs as well.</p>