PROJECT RESUME

In mammals, including humans, paralysis after spinal cord injury is permanent and we do not regain function. In contrast, in the small tropical zebrafish, after a spinal cord injury, different cells invade the injury area and provide a substrate for the cut connections to reform. I here want to describe the types of cells that appear, in which order they arrive, and how they restructure the injury area. I will in particular analyse a protein that glues other proteins together and might construct a supporting substrate. I can do these experiments in 8 weeks, because we are using very young fish, in which complete spinal cord injury repair happens within 2 to 3 days of injury.

My results are going to give insight into the anatomy of successful spinal cord injury repair and might ultimately contribute to explain the failure to regenerate in mammals.