



MASTERS THESIS IN THE INNER EAR RESEARCH LABORATORY OF THE DEPARTMENT OF BIOMEDICINE, UNIVERSITY HOSPITAL BASEL

Investigation of the auditory system at the molecular level

Our research group investigates the molecular mechanisms of hearing focusing on understanding the hearing process at the molecular level along with the survival and degeneration of sensory inner ear cells. Using in vitro and in vivo models, we investigate the effects of therapeutics to protect sensory cells or to determine the role of genes of interest using knockout mice.

You will be involved in one of our projects where you will learn and apply cell and molecular biology methods. You will be trained in various techniques needed for your own project, e.g. microsurgical techniques (isolation of the cochlea), organ culture, cell culture, RNA/DNA isolation, PCR, transcriptomics, proteomics, immunofluorescence, immunohistochemistry, microscopy, western blot and hearing tests (brainstem audiometry or ABR; and distortion-generated otoacoustic emissions or DPOAE).

Your work in our research laboratory will be supervised throughout your Master's thesis. You will have the opportunity to present your data in our internal meeting and exchange ideas with other researchers in the department. We are sure that you will have a productive and rewarding experience during your master's thesis in our team.

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