

PhD student position/ Poste de doctorant(e)

Therapeutic potential of hydrogen sulfide in vascular diseases

The laboratory of Vascular Surgery (CHUV, Lausanne; http://www.chuv.ch/chirurgie-vasculaire/cva_home/cva-recherche.htm) offers a 4-year PhD fellowship to conduct basic research under the joint supervision of biologist Florent Allagnat, PhD., and vascular surgeon Sébastien Déglise, MD.

Cardiovascular occlusive diseases are the leading cause of death in Western countries. Despite ever improving surgical technique and pre/post operative care, these surgeries suffer from high long-term failure rates. Recurrent end-organ ischemia often lead to loss of limb, brain function, or life. Despite decades of research, limited therapies are currently available.

Hydrogen Sulfide (H₂S) is a gas easily identified by its distinctive odor of rotten eggs. H₂S naturally occurs in mammalian tissue as a byproduct of cysteine metabolism via the enzymes cystathionine-β-synthase (CBS) and cystathionine gamma-lyase (CGL). This endogenous H₂S production is now recognized as having multiple cyto-protective properties.

This project is designed to assess the therapeutic potential of H₂S in the prevention of vascular disease, with a particular focus on abdominal aortic aneurysm (AAA), using animal models of vascular surgery and patient's samples/data.

We are looking for an organized, hard-working and determined PhD-student.

Applicants must hold a Master's degree in Biology or Medicine acceptable for registration as a PhD or MD-PhD student at a Swiss University.

Previous experience with animal surgery and mouse work is required. Animal experimentation certification is a plus. The successful candidate is independent and forward thinking as well as a team player. You will work in close collaboration with Vascular Surgeons, at the interface between medicine and research.

Interested applicants should submit a CV and brief description of their research achievement to: florent.allagnat@chuv.ch

Starting date: November 2021