

Postdoctoral researcher position in the **Integrative Physiology of Gnotobionts** group

in the framework of the Grant Agency of the Czech Republic Junior Star project “**Specific bacterial strains and bacteria-derived postbiotics for amelioration of long-term sequelae of malnutrition**”

Previously, we have shown that microbiota is necessary to sustain optimal weight gain and linear growth of infant mice when fed a standard diet or a nutritionally depleted isocaloric diet ([Schwarzer et al., Science 2016](#)). Using monocolonized mouse model we showed that lactobacilli previously selected in *Drosophila* model of chronic undernutrition for their growth promoting capabilities were sufficient to increase linear growth of mice in a strain-dependent manner and recapitulated the whole microbiota's effect on growth. On the molecular level, we found that intestinal microbiota and *Lactobacillus plantarum* interact with the hormonal somatotrophic axis (GH/IGF-1) activity to drive systemic growth. This exciting finding implies that there might be evolutionary conserved effects of *Lactobacillus plantarum* strains to promote juvenile growth. We are further dissecting the molecular mechanism behind the bacteria driven host growth promotion with the ultimate goal to improve the current treatment of undernutrition in human population. Further reading ([Schwarzer et al., 2018](#); [Schwarzer 2018](#); [Poinsot et al., 2018](#)).

Requirements: Successful candidates must have a doctoral degree and a track record of productivity with peer-reviewed publications. They should demonstrate motivation and aptitude for learning and taking on new challenges and have good oral and written English communication skills. The ability to clearly and carefully document results in the scientific literature is desired.

Location: Laboratory of Gnotobiology (<http://gnotobio.mbu.cas.cz/>), Institute of Microbiology of the Czech Academy of Sciences, Doly 183, Nový Hrádek, 54922, Czech Republic

Applications due: 15.1.2021

Duration: full employment contract for 36 months

Starting date: February, 2021 (or as soon as possible)

Salary: 1700 EUR/month brutto (46 000 CZK/month brutto), 6 weeks of holidays, no teaching duties (We are located in the country side – cost of living much lower compared to the city)

Contact information: Applicants can send their CV and a motivation letter to schwarzer@biomed.cas.cz. For any other inquiries concerning the position please use the same email address.