

## Hookvacc rewild

<b>Project partners</b>
Universität Basel, Albert-Ludwigs-Universität Freiburg
<b>Project duration / Awarded funding</b>
01/03/2023 – 29/02/2024 / 39,998€
<b>Short description of the project</b>
<p>The project "Hookvacc rewild" studied the hook-worm, which causes a tropical disease with high morbidity, affecting 700 million people worldwide. The goal of the project was to design a vaccine. As the laboratory models used so far did not reproduce the salient features of human infection, the project partners aimed to use laboratory mice with the complex microbiome of wild mice, so-called wildling mice. Indeed, it was clearly shown that wildlings more closely resemble human immune responses. In two preclinical trials, where rodent and even non-human primate models had failed to predict the human response to harmful drug treatments, wildlings accurately phenocopied the human outcome and could have prevented these tragically failed clinical trials (Rosshart et al, Science, 2019). The project was led by the University of Basel and carried out in cooperation with the University of Freiburg.</p>
<b>Concrete implementation of the project (What was the funding used for?) (max. 500 characters (including spaces))</b>
<p>We hired a lab technician to take care of wildling mice and established an SOP for harbouring both wildlings and SPF mice in our facility without cross contamination. We worked with two large cohorts of wildlings and SPF mice, fully characterizing their parasitological and immunological responses.</p>
<b>Project result(s) and continuation of collaboration (max. 500 characters (including spaces))</b>
<p>As hypothesized, the wildlings had a loss of protection to reinfection like their human counterpart. We thus have established the first translatable laboratory model of hookworm infection that we can further use for immune mechanisms elucidation and for vaccine testing.</p>
<b>Further information (links, articles, photos)</b>