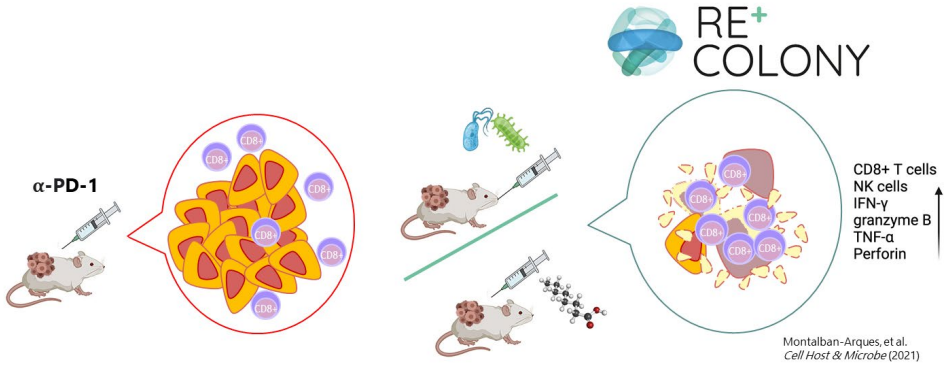
Problem: Colorectal cancer (CRC) is the third most prevalent cancer and the second leading cause of cancer mortality worldwide. In advanced stages, 5-year-survival rates are below 15%. Besides their low efficacy, current therapies often have severe side effects, decreasing the quality of life of CRC patients significantly.

Solution: Based on human CRC patient data, we identified specific bacteria that are less abundant in CRC patients compared to healthy individuals. When applying these bacteria in mice, they show very high efficacy as a monotherapy in various CRC models as well as in other solid tumor entities through specific activation of CD8+ T-cells. Our aim is to apply these bacterial strains to cancer patients in lyophilized form contained in gastro resistant capsules with colonic release. Additionally, we identified the molecule that is responsible for the immune-activating effect as well as the receptor that is targeted by that molecule. Since our *in vivo* data shows that activation of this specific receptor is sufficient for provoking a strong anti-tumor immune effect, we aim to develop a small molecule targeting that receptor as a second project.



USP: Our approach is much more effective than current immunotherapy (immune checkpoint inhibitors) *in vivo*. Furthermore, since our products are based on commensal bacteria or small molecules that target the same receptors as beneficial microbiota, we expect higher safety and better tolerability in comparison with the clinical standard-of-care or therapies currently under development. In contrast to other approaches that are targeting the microbiota, we have identified the mechanism of action of our Live Biotherapeutic Product (LBP) in detail. Our therapies aim at improving treatment efficacy while at the same time minimizing severe side-effects and reducing visits to the hospital. Moreover, our LBP could even be applied to prevent tumor recurrence or to avoid tumor development in risk patients.

Roadmap: LBP (RCLBP-01): 1. We will address the regulatory requirements needed for preclinical/clinical development. 2. We will test our LBP in lyophilized form to confirm the efficacy and safety *in vivo*. 3. In GLP studies, we will perform DRF and biodistribution studies. By the second half of 2025, we aim to move into the clinical phase.
Small molecule (RCLM01): 1. We established a partnership with a CRO that already has developed lead molecules for our target receptor. 2. We will perform *in vivo* evaluation of these candidates to select the molecule for lead optimization. 3. Lead optimization and pre-clinical studies and in parallel addressing the regulatory requirements needed for preclinical/clinical development.

Market opportunities:
Current immunotherapies are effective in only a small and defined subpopulation of CRC patients (3-6%). We expect that we can provide an effective immunotherapy to a much higher percentage of patients, covering a bigger market share of the CRC therapeutics market, which is around 6.4 billion $ in EU and USA. Furthermore, our products showed efficacy in other cancer models such as lung cancer, breast cancer and melanoma, providing us with opportunities to expand our target market to other cancer entities.

Investment: Seed round of 2 M to finance:
- Lead optimization to obtain an optimized compound to go into clinical development.

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Technology:
Proprietary gut bacterial strains and small molecules based on bacteria-derived metabolites for the treatment of cancer.

Drug pipeline:
LBP:
RCLBP01 - Preclinical
Small molecule:
RCLM01 - Preclinical

Company:
Incorporated in Sept. 2022 as spin-off of the University of Zurich

Funding:
6.470 M Non-dilutive
350 K Convertible loan

Board of Directors:
Dr. Andrin Oswald
Dr. Ana Montalban-Arques

Management:
Dr. Ana Montalban-Arques, CEO
Dr. Philipp Busenhart, CBO
Dr. Egle Katkeviciute, CSO

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Dr. Egle Thomas
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Publications:
Montalban-Arques, et al., 2021
Cell Host & Microbe