

Microbial-based Cancer Therapy - Bugs as Drugs

Technologies to Overcome Cancer

While microbial based therapy is one of the oldest cancer therapy modalities, dating from the bacterial therapies of the late 19th and early 20th centuries, the subject is not well studied, and research has yielded few effective and safe cancer treatments.

Recent scientific advances in tumor biology, microbial pathogenesis, cancer immunity and new molecular tools make it possible to revisit the old concept from new perspectives, utilizing current scientific technologies. Most cancer therapeutics are costly, not widely available, nor accessible to most patients in low and middle-income countries (LMICs). Microbial based therapy has unique capacity to self-regenerate, which may offer new therapeutic opportunities for cancer patients worldwide, including LMICs that account for most of the world population.

These funding opportunities are the first NIH initiatives to promote research on microbial based cancer therapy and we hope these funding opportunities will stimulate more research interest in the field and unleash new tools based on microbes against cancer, augmenting NCI's efforts to find novel approaches to combat cancer.

An important area of research of this PAR includes Preclinical research on new microbial based cancer therapies suitable for low resource settings, especially for cancers prevalent in LMICs and compatible with local medical/health infrastructure.

Funding opportunities for Microbial-based Cancer Therapy

- [R21 for early stage research \(PAR-19-194\)](#)
- [R01 for mature projects \(PAR-19-193\)](#)
- Examples of Applications: (RO1, R21s) <https://www.nichd.nih.gov/grants-contracts/process-strategies/process/samples>

General Information on Microbial-based Cancer Therapy

- [White paper on microbial anti-cancer therapy and prevention](#)
- [Report on the NCI Microbial-Based Cancer Therapy Conference](#)
- [Commentary on resurgence of interest in microbial-based therapy for cancer](#)

NCI Microbial-Based Cancer Therapy Conference

- [Introduction](#)
 - [Abstracts](#)
 - [Posters](#)
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