

## COO 29 : Global Trends in Bacteriophage Therapy Funding: A 25-Year Analysis

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**Introduction:** Bacteriophage therapy has re-emerged as a critical strategy in combating antibiotic resistance and infectious disease threats. However, little is known about the global investment landscape that shapes the development and accessibility of phage-based innovations. This study aimed to inform funders, policy makers, and researchers about the structural dynamics shaping this vital field. **Methods:** We conducted a comprehensive 25-year scientometric analysis (1999–2023) of 802 bacteriophage therapy research grants, totaling USD 318 million, using data from the Dimensions database. Our analysis included thematic modeling, trend assessment, and disaggregation by funder, geography, and gender. Topic modeling via Latent Dirichlet Allocation (LDA) identified major research domains, while funding dynamics were mapped across regions and institutions. **Results:** We observed a Compound Annual Growth Rate (CAGR) of 8.2% in grant numbers and a 20.6% increase in funding volume. Four dominant research themes emerged: bacteriophage therapy in infectious disease control, bacterial genetics, antimicrobial resistance strategies, and immunotherapeutic applications. Funding remained highly concentrated in high-income countries, with 95% of funds originating and circulating within the Global North. The number of researchers involved increased from 7 in 1999 to a peak of 164 in 2019 and 147 in 2018, reflecting a more than 20-fold increase over the study period. **Conclusion:** Our findings highlight both the rapid growth and inequitable structure of global phage therapy research funding. Addressing geographic and gender-based disparities is essential to unlock the full therapeutic potential of phage technologies. Strategic investments and inclusive funding frameworks are urgently needed to ensure global preparedness against antibiotic-resistant infections. **Keywords:** Bacteriophage Therapy; Research Funding; Global Health; Antibiotic Resistance; Investment Trends.