



White Biotechnology Services Section Home

History

The roots of white biotechnology can be traced back to the early 20th century, with the production of penicillin marking a major breakthrough. However, the term "white biotechnology" gained prominence in the late 20th century as industries sought more eco-friendly alternatives to traditional chemical processes. The increasing concern for environmental sustainability and the growing demand for renewable resources paved the way for the rapid growth of white biotechnology applications.

Karl Ereky

Coined the term "biotechnology" in 1919 and laid the foundation for the field's interdisciplinary nature.

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Jay Keasling

Known for his work in synthetic biology and metabolic engineering, leading to the production of biofuels and other valuable compounds.

Industrial Applications

1.

Bioplastics

Developing sustainable alternatives to traditional plastics.

3.

Food and Beverage

Enhancing food processing and production.

5.

Agriculture

Developing biologically based pesticides and fertilizers.

7.

Textile Industry

Developing eco-friendly dyeing and finishing processes.

9.

Waste Management

Biodegrading and recycling waste materials.

11.

Water Treatment

Utilizing microorganisms for pollution control and wastewater treatment.

13.

Bioremediation

Cleaning up environmental contaminants using microbial activity.

15.

Carbon Capture

Developing microbial systems to capture and convert CO₂.

17.

Bio-surfactants

Producing surfactants for cleaning and emulsifying applications.

19.

Renewable Chemicals

Producing chemicals from biobased feedstocks.