University of Gdańsk
Technology Transfer Office

Bio-tech

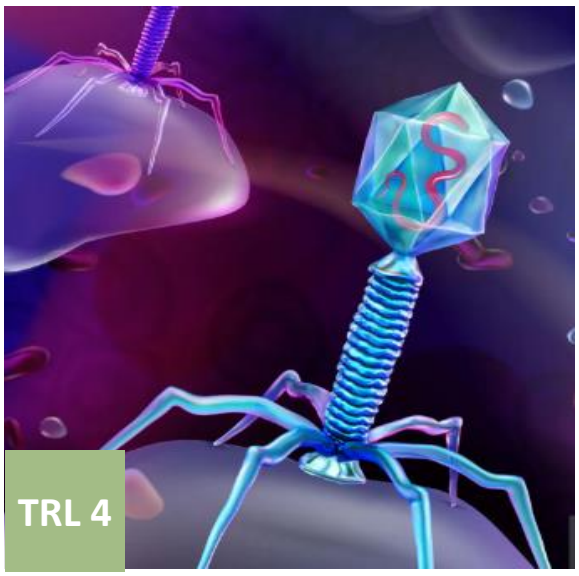
Method of bacteriophage particle condensation

About technology

Vast majority of bacteriophage research conducted in the pharmaceutical, agricultural or veterinary industries requires isolating new phage particles from soil, water, sewage, plant, or animal samples. The standard method of bacteriophage isolation, the so-called enrichment, involves incubating fresh cultures of bacteria with inoculum containing bacteriophage particles.

Existing enrichment methods posess a few disadvantages. Firstly, bacteriophage multiplication rate in the culture relies on the size of inoculum used, with smaller volumes resulting in much slower multiplication. Secondly, enrichment methods lacks selectivity - if two or more species of bacteriophage are present in the sample, only one of them may propagate, at the expense of other phage species. Alternative methods based on centrifugation, filtration, dialysis or adsorption of bacteriophage particles are not only time-consuming, but also require costly laboratory equipment and skilled personnel.

Invented **method allows** for **bacteriophage concentration** without selective multiplication in host culture cultures, which results in significant acceleration of bacteriophage particle production and cost reduction. The **method** is **simple**, **quick**, **reliable** and **enables bacteriophages** to be succesfully isolated from samples with a hundredfold lower concentration of phage particles than conventional propagation in bacterial culture. Moreover, the method does not require specialized laboratory equipment and is signifficantly less expensive than other methods based on centrifugation, filtration or dialysis.



Research Team

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IP Protection

The invention is the subject of polish patent protection **Pat. 229466**.

Implementation progress

TRL 4 –Technology validated in laboratory conditions

Cooperation opportunities

- Licensing agreement
- Transfer of ownership
- Spin off

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