In-situ Production of Anti-inflammatory Lipids for Treating Inflammation

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ABSTRACT

Researchers at the University of California, Davis, have developed a process for isolating anti-inflammatory lipids for treating autoimmune and inflammatory diseases.

FULL DESCRIPTION

Autoimmune and inflammatory disorders are a broad category of diseases in which the immune system attacks healthy cells. After cancer and heart disease, autoimmune diseases are the third most common, affecting approximately 8% of the population. These diseases affect almost every organ in the body, including neurologic, cardiac, endocrine, musculoskeletal, gastrointestinal (GI), lung, kidney, skin, eye, and vascular systems. The most common include type 1 diabetes, multiple sclerosis, rheumatoid arthritis, lupus, Crohn's disease, psoriasis, scleroderma, and cancer. Unfortunately, these inflammatory conditions cannot be cured and must be managed by various medications with minimal efficacy.

Researchers at the University of California, Davis, have developed a method to produce enzymatically oxidative lipids with ant-inflammatory properties from milk fat. The process broadly involves isolating milk fat globules, incubating them with polyunsaturated fatty acids, and recovering the therapeutic anti-inflammatory lipids. Thus far, the inventors have prototyped the approach and demonstrated the ability to isolate the anti-inflammatory lipids within the laboratory.

APPLICATIONS

- Treatment of autoimmune and inflammatory diseases.

FEATURES/BENEFITS

- Naturally derived anti-inflammatory lipids for the treatment of autoimmune and inflammatory diseases.
- Delivered orally, topically, or injected at the site of inflammation.
- Simple and scalable isolation process.

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Published Application	20260041696	02/12/2026	2022-611

Additional Patent Pending

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- Methods for Selecting and Identifying Cancer Stem Cells
- Ultrafast Light-Induced Inactivation of both Bacteria and Virus based on Bio-Affinity Ligands
- Method for Efficient Loading of Bioactives into Lipid Membrane Microcapsules
- Polyphenol Infusions to Improve Gastro-Intestinal Stability of Probiotics

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OTHER INFORMATION

KEYWORDS

inflammation, autoimmune and metabolic disease, natural products, treatment

CATEGORIZED AS

- Biotechnology
  - Health
- Medical
  - Disease: Autoimmune and Inflammation
  - Therapeutics

RELATED CASES

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