Coated PLGA Implants for Long-Term Controlled Release of Antibody Therapeutics

TECHNOLOGY NUMBER: 6843

OVERVIEW

An encapsulation material enabling extended release of therapeutic antibodies from an implant

- An alternative to frequent, high-risk therapeutic antibody injections, such as intravitreal injections to treat wet age-related macular degeneration

BACKGROUND

Wet age-related macular disease (AMD) is a leading cause of vision loss. Standard of care therapies reduce the disease's progress toward devastating vision loss and comprises injections of anti-vascular endothelia growth factor antibodies directly into the eyes of patients every month. The therapy reduces or stops the development of new blood vessels that cause vision loss in wet AMD, but repeated intravitreal injection of drugs commonly results in infection or hemorrhage. The new technology uses an implantation approach, rather than injection, for drug delivery, solving most of the side effects of injection-based therapy.

The new technology allows an encapsulated drug to be released continuously for 8 weeks by coating the implants. In vivo testing demonstrated that the cumulative release of a drug using the invention is relatively linear over 70 days without showing any signs of protein aggregation.

PATENT APPLICATION

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Medical Devices
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