

## ***CERIUM NANOPARTICLES TO TREAT DISEASES OF POSTERIOR SEGMENT OF THE EYE***

### **The Need**

Alternative strategies and pharmaceutical compositions maintaining long-term dispersion stability of CeO<sub>2</sub> nanomaterials with safe and effective treatment of diseases, such as age-related macular degeneration, addressing upstream pathological mechanisms that drive disease progression, not only suppressing angiogenesis.

### **The Solution**

New cerium oxide nanoparticles have been developed as a treatment for disorders of the posterior segment of the eye, such as wet age-related macular degeneration. Nanoparticles are stabilized for preventing their aggregation both before and after administration as therapeutic agent, even in high salinity and low-protein media.

### **Innovative Aspects**

Good stability in aqueous solution before administration  
Significant reduction in aggregation after intravitreal administration  
Viable co-formulation with other active agents  
Stable conjugates with nanoparticles  
Good compatibility with existing intravitreal excipients  
Suitable aqueous intravitreal injection composition

**Stage of Development:** Preclinical

### **Intellectual Property**

**European patent application** (Priority date: October 23, 2025)  
Suitable for international extension (PCT application)

Available for:

- **Licensing**
- **Further development**

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