



Department of Biotechnology  
Ministry of Science & Technology  
Government of India

**Call for Proposals on Nano-intervention in Management of Ophthalmic Diseases**

Nanobiotechnology holds considerable promise to address various issues related to ophthalmic disorders such as glaucoma, diabetic retinopathy, age related macular degeneration and other such diseases especially those affecting posterior segment of an eye. Nano enabled system and devices can find novel therapeutic solutions for crossing blood retina barrier and make sustained availability of drugs in desired therapeutic concentration in different compartments of eye. Aiming to advance research and provide innovations, Department of Biotechnology, Government of India invites proposals built upon innovative ideas in the areas of “**Nano Enabled System and Devices for Ocular diseases**” by undertaking studies including but not limited to the following areas:

**A. Design and development of Nano-enabled system for delivery of drugs in chronic diseases of eye for:**

- ✓ Sustained delivery of drugs for chronic conditions – Age related Macular Degeneration, Diabetic Retinopathy, Glaucoma.
- ✓ Tissue specific targeting of drugs in- ciliary body, trabecular network, bruch’s membrane/retinal pigment epithelial complex (sealing agents)
- ✓ Crossing blood retina barrier
- ✓ Non-invasive nano formulations of existing drugs
- ✓ Delivery of gene/s for - child blindness like Leber Congenital Amaurosis and Retinitis Pigmentosa
- ✓ Cell based therapy/regeneration

**B. Design and Development of Nano-enabled novel implant system for:**

- ✓ Sustain release of Steroid
- ✓ Sustain release of Non-steroidal anti inflammatory agents
- ✓ Anti-angiogenic implant with conventional (ANTI-VEGF) and novel targets
- ✓ Microneedle based systems/refillable drug delivery system
- ✓ Anterior segment implant
- ✓ Microenvironment responsive/tunable drug release system
- ✓ Post-surgery biodegradable Artificial vitreous substitutes

***How to Apply?***

Interested applicants are requested to submit full proposal in DBT format online through *e-Promis* [www.dbtepromis.nic.in](http://www.dbtepromis.nic.in) before **15<sup>th</sup> September, 2017**. A soft copy of the same proposal should also be sent over E-mail:- [dhananjay.tewary@nic.in](mailto:dhananjay.tewary@nic.in).

***Important Dates***

**Proposal submission Starts: 15<sup>th</sup> July, 2017**

**Proposal Submission Closes: 15<sup>th</sup> September, 2017**

***For any queries, contact:***

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