Integral BioSystems Announces Next Steps for its Flagship Products based on OcuHeal and NanoM-Wafer Platforms

Bedford, MA-based Integral BioSystems is seeking seed round financing for two of its ophthalmic products, the NanoM-Wafer Lubricating Bandage and OcuHeal-UV400+

BEDFORD, MA, UNITED STATES, September 21, 2026 /EINPresswire.com/ -- Bedford, MA-based Integral BioSystems is announcing that it is seeking seed round financing for two of its ophthalmic products, the NanoM-Wafer Lubricating Bandage and OcuHeal-UV400+, through its wholly-owned fledgling subsidiary and innovation-focused Symphony Therapeutics, LLC. Both companies are based in Integral facilities in Bedford, MA.

The NanoM-Wafer Lubricating Bandage is designed as a product to treat symptoms of dry eye due to meibomian gland dysfunction (MGD) and Sjögren's syndrome. Meibomian glands produce critical lipids that comprise the lipid layer of the tear film; loss of meibomian glands (these do not regenerate) result in a deficiency of lipids to maintain the lipid: aqueous balance of the tear film. MGD in people can occur as a result of aging, as well as a side effect to chemotherapy and menopause. Sjögren's syndrome is a disorder of the lacrimal glands, occurring disproportionately in women than men, and manifests as a deficiency of the aqueous portion of the tear film.

The NanoM-Wafer Lubricating Bandage is designed as an in-situ “anchoring” lubricating film phase-transforming from a dry wafer to a thin hydrogel upon hydration, on the ocular surface. The hydrogel lasts on the ocular surface for 11-13 hours, dissolving slowly to a “Langmuir Blodgett like” monolayer at the air-water interface. The dry wafer product is being designed to be self-administered using a gloved hand, to be gently placed under the lower eyelid.

The product does not contain a drug. Rather, it is a mixture of ophthalmologically compatible polymers, lipids and a hydration-enhancing excipient that interacts with cells to elicit the production of tear mucin, thereby replacing key components of the tear film in dry eye disease. The design of the wafer is such that the placement of the flexible dry wafer results in rapid hydration and transformation into a transparent, tissue-interlocking, tissue-conforming hydrogel

that slowly dissolves on the ocular surface. The release of the hydrating excipient in question, resists further depletion of aqueous fluid and encourages the formation of a highly hydrated microenvironment. This product is being developed as a medical device to treat symptoms of dry eye, to be initially introduced in Europe, followed by other countries.

The NanoM-Wafer Lubricating Bandage can be thought of the next generation version of Lacrisert, an ocular insert that was commercialized as a slow dissolving insert to treat severe dry eye symptoms. The NanoM-Wafer Lubricating Bandage takes it into an advanced level of sophistication, into biomimetics and considerations of tissue-biomaterial interactions. The tissue-interlocking and conformal characteristics of the NanoM-Wafer Lubricating Bandage enable high biocompatibility and retention at the site.

The NanoM-Wafer Lubricating Bandage is one of many ocular products in consideration, using this platform, from products from presbyopia, cystinosis and glaucoma. Prototypes of the product has been tested in rabbit eye models for safety and tolerability.

The OcuHeal-UV400+ product is one in the pipeline of products-in-development, based on a lipid nanoparticle (LNP) platform technology developed by Integral BioSystems. OcuHeal-UV400+ product incorporates an UV-blocking antioxidant into nanostructured, liquid-crystalline lipid nanoparticles. The antioxidant compound has a high molar extinction coefficient and blocks both UV-A and UV-B, with further blocking of blue light generated by the encapsulated lipid nanoparticles. The encapsulated compound is biocompatible with, and protective of corneal epithelial cells, quenches reactive free radicals generated by various stressors (like particulate pollution) and elicits anti-fibrotic healing in injured corneal tissues.

With worldwide reports of ocular tissue disorders caused by UV radiation (both UVA and UVB), this product promises to be transformational. Specifically, UV damage of ocular tissues can lead to photokeratitis, pterygia, cataracts, corneal neovascularization, choroidal neovascularization, age-related macular degeneration, retinal burns and ocular cancer. Furthermore, this product, when commercialized, will have clinical utility to persons suffering from digital strain from prolonged computer use. OcuHeal-UV400+ eyedrops demonstrate long residence time of the antioxidant on the ocular surface (> 6 hours) and is tolerable, as tested in New Zealand White (NZW) rabbit eyes. Additionally, the company has completed 12-month cGLP stability studies, with on-going process development. Additional products are in-development with the lipid nanoparticulate formulation, with variants being designed for allergic rhinitis and skin regeneration. This product is being developed as a medical device as a protective device to be initially introduced in Europe, followed by other countries.

Integral BioSystems has funded the patenting of these platforms, as well as development milestones to date, by boot-strapping and applying profits from CRO-gained revenues. To complete the development of the products, Integral will seek funding through Symphony Therapeutics. Micro-funding is welcomed, as well as collaborations with pharma. Both platforms are patented in 14 global jurisdictions, with additional patent filings planned.

Integral BioSystems is a specialty drug delivery contract research firm focused on formulation and analytical development of both small molecule and biologics. Integral's hybrid business model has enabled the development of its own proprietary innovations.

If interested in partnering with Integral BioSystems, please reach out to the business development team at info@integralbiosystems.com.

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