

Expanding GreenMark Biomedical Regenerative Dental Treatment Product Line

GreenMark announces its project "Targeted Remineralization Treatment Using Mineral Loaded Starch Nanoparticles" has been selected for additional funding.

ANN ARBOR, MI, UNITED STATES, July 16, 2025 /EINPresswire.com/ --**GreenMark Biomedical Inc.** announces its project entitled "Targeted **Remineralization Treatment Using** Mineral Loaded Starch Nanoparticles" has been selected for additional funding by the Translational Resource <u>Center</u> (TRC)'s Interdisciplinary Translational Project (ITP) program. The duration of support is anticipated to be from July 1, 2025, through Feb 28, 2026. GreenMark will receive up to \$162,000 in additional funding to advance new forms of its innovative regenerative products for noninvasive mineralization of early-stage dental decay through the TRC, involving dental schools at the University of Michigan, Pittsburgh, and Wyss Institute at Harvard. Since 2018 the center has provided GreenMark access to world-class expertise, resources, regulatory, clinical, and commercialization guidance to develop regenerative medicine products. The



CrystLCare[™] Biorestorative, Fluoride-Free fliptop pack containing 14 dental strips



center also collaborates closely with dental schools at University of Southern California, University of California institutions, and Stanford University.

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Of 109 applications reviewed since 2018, 22 projects have been funded, 14 exited, with 8 remaining, and GreenMark has been a top performer on its milestones, and first to launch a commercial product."

Dr. David Kohn, Director, Translational Resource Center, U. of Michigan remaining, and GreenMark has been a top performer on its project milestones being the first to launch a commercial product resulting from our center," explains Dr. David H. Kohn, MSE, PhD, Director of the Translational Resource Center and Natalie C. Roberts endowed Professor at the University of Michigan Department of Biomedical Engineering and Department of Biologic and Materials Sciences, School of Dentistry.

"We designed sub-micron particles capable of being targeted to sites where needed and to break down by natural enzymes in saliva, thereby releasing bioavailable calcium and phosphate, to fill porosities in enamel and occlude exposed dentinal tubules with in-situ generated apatite crystals," explains co-inventor Dr. Nathan Jones,

MSc, PhD, VP Technology for GreenMark and Co-Principal Investigator (PI) on the award. Independent Third-Party testing has shown the tiny mineral-loaded particles can be used to combat dental sensitivity and noninvasively restore early-stage enamel caries lesions.

"This funding is supporting the further development of different product forms beyond our CrystLCare[™] Biorestorative dissolvable dental strips, including toothpaste tablets, chewing gums and edible formulations," states Co-PI and GreenMark's Chairman and CEO, Dr. Steven Bloembergen, PhD.

About GreenMark Biomedical Inc.

GreenMark continues to innovate in minimally invasive dental care, offering groundbreaking solutions that address unmet needs in oral health. The Company is dedicated to transforming dental care through scientific innovation and technological excellence by developing a systems approach for treatment of dental sensitivity and management of caries (dental decay). GreenMark has developed methods to identify, better assess and monitor caries disease in its earliest stages, before being detected on X-ray radiographs. The company's LumiCare™ Caries Detection Rinse and half-dose LumiKids[™] rinse for ages 6 to 11, contain fluorescently labeled particles that target the porous subsurface of caries lesions in enamel and illuminate them using a dental curing light, thereby aiding in their visualization. The identification at early stages before a cavity forms facilitates the use of preventive non-surgical management options, resulting in less discomfort and improved long-term oral health outcomes for patients with its patented products that involve sub-micron particles produced from food-grade starch. This is an ideal carrier since enzymes in saliva degrade starch. Dental sensitivity affects up to 74% of Americans, and current products have limitations. Caries is the most prevalent chronic disease in the world, affecting more than 95% of Americans over their lifetimes. GreenMark's team has demonstrated the ability to load calcium and phosphate, the essential mineral components of dentin and

enamel, inside small starch particles, and has been developing treatment products designed to target and restore minerals to the teeth. While fluoride seals the upper surface without restoring the dominant lesion, GreenMark's tiny bioresorbable particles deliver bioactive calcium and phosphate ions directly to the subsurface of teeth where they undergo biomimetic crystallization to form hydroxyapatite. CrystLCare™ Biorestorative dental strips are fluoride-free and empower oral health for dentists and their patients, making checkups a more positive experience for dental clinics in the modern world. Low-dose fluoride efficient products will become available later this year. Visit <u>https://greenmark.bio/</u>.

About the Translational Resource Center

Reconstruction of dental, oral, and craniofacial (DOC) tissues through tissue engineering and regenerative medicine (RM) is a major goal in dentistry. Despite the continuing success and commercial viability of RM approaches in selected areas of medicine, the application of RM concepts to DOC problems has not been well-implemented in clinical practice. To meet this need, the Michigan-Pittsburgh-Wyss Regenerative Medicine (MPWRM) Resource Center, rebranded as the Translational Resource Center (TRC) in 2024, was established as an interdisciplinary partnership amongst the University of Michigan, the University of Pittsburgh, and the Wyss Institute at Harvard University, along with technology, clinical, regulatory, marketing, and commercial translation experts from private practice and industry. The TRC is supported in part by the National Institute of Dental and Craniofacial Research (NIDCR) of the National Institutes of Health under Award Number U24DE029462. The TRC collaborates with C-DOCTOR, Center for Dental, Oral, Craniofacial Tissue & Organ Regeneration, which involves University of Southern California, University of California San Francisco/Berkeley/Davis/Los Angeles, and Stanford University. Supported through a separate grant U24DE029463, it includes a comprehensive team of clinicians, research scientists, biostatisticians, regulatory scientists, and pre-clinical/clinical trial experts to enable development and clinical implementation of innovative approaches for dental, oral, and craniofacial tissue regeneration. TRC and C-DOCTOR operate in partnership with NIDCR. Visit https://translationalresourcecenter.org/.

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