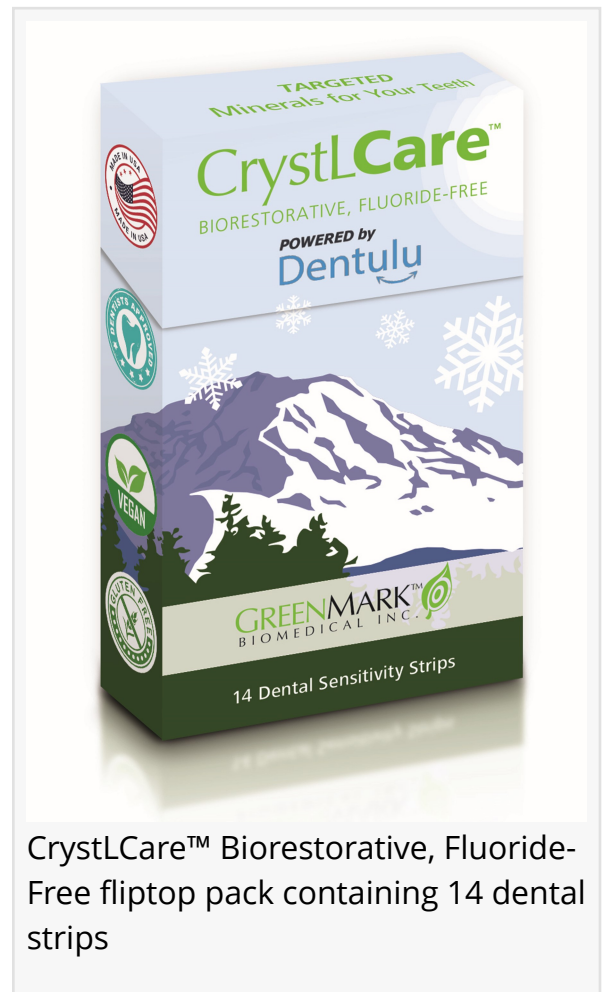


# GreenMark Regenerative Dental Treatment Advances with NIH Funding

*GreenMark receives additional funding to advance its innovative regenerative dental products for sensitivity treatment and mineralization of early dental decay.*

ANN ARBOR, MICHIGAN, UNITED STATES, May 16, 2024 /EINPresswire.com/ -- GreenMark Biomedical Inc. announces it will receive up to \$200,000 in additional funding to advance its innovative regenerative technology toward products for dental sensitivity treatment and noninvasive mineralization of early-stage dental decay. To date GreenMark raised \$8.6 million in equity investment and non-dilutive funding. In the final year of a 5-year program, Michigan-Pittsburgh-Wyss Regenerative Medicine (MPWRM) will continue to provide GreenMark access to world-class expertise, resources, regulatory, clinical, and commercialization guidance. The MPWRM Resource Center is funded by National Institutes of Health (NIH) through the National Institute of Dental and Craniofacial Research (NIDCR), involving University of Michigan, Pittsburgh, and Wyss Institute at Harvard, with a goal to develop regenerative medicine products and protocols. The center collaborates closely with University of Southern California, University of California institutions, and Stanford.



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

“Our research shows promising signs that this innovative approach at mineralization of dentin and enamel will provide both patients and dentists new pathways for reducing sensitivity and caries,” explains Dr. Arash Hakhamian, DDS, Chief Dental Officer at GreenMark, adding that “Dentinal hypersensitivity can now be quickly and effectively addressed with our dissolvable sensitivity strips, including before & after procedures for teeth whitening and even porcelain veneers.”

“Rather than using sensitivity products that provide short-term relief, or common toothpastes that contain tiny ‘rocks’ of non-reactive, pre-formed crystals, this award is supporting the

development of CrystLCare™ Biorestorative products designed to deliver active mineral components to regenerate and restore,” states GreenMark’s CEO, Dr. Steven Bloembergen, Ph.D., and Principal Investigator (PI) of the award.

“We designed sub-micron particles capable of being directed to the sites where needed, and to break down by natural enzymes in saliva, thereby releasing calcium and phosphate, to occlude porosities and dentinal tubules with in-situ generated apatite crystals,” explains co-inventor Dr. Nathan Jones, M.Sc., Ph.D., VP Technology for GreenMark and Co-PI on the award. Independent Third-Party testing has shown the dissolvable dental strips can be used to combat dental sensitivity and noninvasively restore early-stage caries lesions.

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*Dr. Arash Hakhamian, DDS,  
Chief Dental Officer,  
GreenMark Biomedical Inc.*

“This revolutionary approach improves upon current fluoride products, which seal the superficial upper-most surface of early caries without restoring the dominant subsurface lesion,” said co-inventor Dr. Brian Clarkson, B.Ch.D., L.D.S., M.S., Ph.D., Professor of Cariology at U-M School of Dentistry.

“The mineral-loaded particles in CrystLCare™ Biorestorative products use a biomimetic design to occlude dentinal tubules and incipient carious lesions in enamel, which are painful conditions that plague most Americans, thus enabling oral healthcare professionals to treat non-invasively,” explains co-inventor Dr. Joerg Lahann, Ph.D., Director of U-M Biointerfaces Institute.

“The goal of our work is to improve oral health outcomes, which impacts overall health, by helping to preserve teeth using a medical model for caries management, and avoiding needles and drills where possible,” states Dr. Wendy Bloembergen, MD, MS, GreenMark’s VP Clinical Affairs.

About GreenMark Biomedical Inc.

**NIH** Michigan · Pittsburgh · Wyss  
Regenerative Medicine Resource Center

**GreenMark Regenerative Dental Treatment  
Advances with NIH Funding**

Exposed dentinal tubules before and after treatment with  
CrystLCare™ Biorestorative, Fluoride-Free dental strips

Exposed dentinal tubules before and after treatment with CrystLCare™ Biorestorative, Fluoride-Free dental strips

GreenMark is developing a systems approach for treatment of dental sensitivity and management of caries (dental decay), with its patented products that involve sub-micron particles produced from food-grade starch, an ideal carrier since enzymes in saliva degrade starch. Dental sensitivity affects up to 74% of Americans, and 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, essential mineral components of dentin and enamel, inside its small starch particles, and has been developing treatment products designed to target and restore minerals to the teeth. The company recently launched "CrystLCare™ Biorestorative, Fluoride-Free", the first in a line of fluoride-free and fluoride-containing products. GreenMark also developed methods to identify, better assess and monitor caries disease in its earliest stages, before it's detected on X-Ray. The company's LumiCare™ Caries Detection Rinse and half-dose LumiKids™ Rinse for ages 6 to 11, contain fluorescent-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, allows the use of preventive non-surgical management options, resulting in less discomfort and improved long-term oral health outcomes for patients. Visit [www.greenmark.bio](http://www.greenmark.bio).

#### About University of Michigan (U-M)

The mission of the University of Michigan is to serve the people of Michigan and the world through preeminence in creating, communicating, preserving, and applying knowledge, art, and academic values, and in developing leaders and citizens who will challenge the present and enrich the future. Visit [www.umich.edu/about/](http://www.umich.edu/about/).

#### About National Institutes of Health (NIH)

NIH, the nation's medical research agency, includes 27 Institutes and Centers and is a component of the U.S. Department of Health and Human Services. NIH is the primary federal agency conducting and supporting basic, clinical, and translational medical research, and is investigating the causes, treatments, and cures for both common and rare diseases. For more information about NIH and its programs, visit [www.nih.gov](http://www.nih.gov). The National Institute of Dental and Craniofacial Research (NIDCR), part of NIH is the Nation's leading funder of research on oral, dental, and craniofacial health. Visit: <http://www.nidcr.nih.gov>.

#### About MPWRM Resource Center

Translation of tissue engineering/regenerative medicine technologies requires a new approach to bringing dental, oral, and craniofacial technologies to clinical practice. Michigan-Pittsburgh-Wyss Regenerative Medicine (MPWRM) is an integrated multidisciplinary Resource Center involving University of Michigan, University of Pittsburgh, and Wyss Institute at Harvard University, which is funded under NIH grant number U24-DE029462. MPWRM consists of leaders with clinical, science, engineering, and business expertise and an infrastructure to support navigation through the regulatory process and clinical trials. Its goal is to translate regenerative medicine innovations that address ongoing clinical needs to restore or create healthy, functional dental, oral, and craniofacial tissues. MPWRM 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 U24-DE029463, 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. Visit [www.mpwrm-doctr.org](http://www.mpwrm-doctr.org).

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