

USF Research News

USF Research & Innovation > USF Research News

Navigation +

Research & Innovation Newsletter

email address

SUBSCRIBE

University of South Florida researchers develop pure form of EGCg from green tea using crystal engineering

Dec. 9, 2015

DeNovX has licensed the USF technology to bring natural, pure crystalline EGCg to high value markets

TAMPA, Fla. and CHICAGO, IL – Researchers at the University of South Florida have developed a method for producing a pure, crystalline form of natural epigallocatechin gallate (EGCg), the most abundant polyphenol and antioxidant in green tea. This approach has been licensed exclusively by DeNovX and is being studied as a naturally derived therapeutic for important health issues, including Alzheimer’s disease, cardiovascular disease, and for slowing the progression of age-related muscle loss.



To address the unmet need for a pure form of EGCg, researchers from USF’s Department of Chemistry and Morsani College of Medicine collaborated to develop a more medically acceptable form of EGCg for use in disease prevention and treatment. From this fundamental effort came the first scientific report of a pure crystalline form of EGCg, and a better pharmacologic understanding of EGCg behavior was developed to support its use in treating

disease and improving health.

In 2013, USF was granted a patent on multiple crystalline EGCg compositions and their uses in pharmaceuticals, nutritional supplements, and various food products. This patent is exclusively licensed to DeNovX, a Chicago-based pharmaceutical technology company, and, according to Andrew Bond, DeNovX's chief business officer, it strategically complements the company's existing patent estate. DeNovX plans to commercialize crystalline EGCg for use as an active ingredient, with an initial focus on the nutraceutical, medical nutrition, and pharmaceutical markets.

"The capabilities of USF and its researchers are world class, and the university's technology transfer team is extremely knowledgeable and efficient in moving intellectual property into the commercial markets," said Bond. "DeNovX is looking forward to expanding its relationship with USF as we develop new products based on crystalline EGCg that have improved purity, potency, and predictability."

DeNovX has over 45 years of collective experience in healthcare and pharmaceutical technology commercialization, including experience in corporate and entrepreneurial pharmaceutical companies and in venture capital and billionaire angel-backed startups. The company founders have collaborated for over 20 years and are lead inventors on 15 issued US patents with international counterparts, which have been licensed and are in various stages of commercial development and use. DeNovX has an estate of five issued patents on pharmaceutical discovery and manufacturing methods that support the commercial development of EGCg products licensed from USF, along with a complement of issued and pending company-owned intellectual property.

"With approximately 240 billion cups of green tea consumed annually worldwide, and each cup containing 30-50 mg of EGCg, the database regarding the safe human use of EGCg is quite large," said Kevin Schaab, CEO of DeNovX. "The development of pure EGCg using crystal engineering is a real testament to the talents of the researchers at USF. We believe the use of natural, pure, and crystalline EGCg will aid those companies seeking regulatory approval for new products and will lead to the development of new proprietary products that will contribute to improved human health."

About DeNovX

DeNovX is a pharmaceutical technology company and a leader in crystal related technologies and high quality crystalline products for the pharmaceutical, nutritional, and food industries. With relevant expertise, patented products, and locations in Chicago and San Diego, DeNovX is strategically positioned to serve those high value industries for which innovation, intellectual property, and proprietary products are competitive imperatives. www.DeNovX.com.

##

*The **University of South Florida** is a high-impact, global research university dedicated to student success. USF is a Top 50 research university among both public and private institutions nationwide in total research expenditures, according to the National Science Foundation. Serving nearly 48,000 students, the USF System has an annual budget of \$1.5 billion and an annual economic impact of \$4.4 billion. USF is a member of the American Athletic Conference.*

##

Media contact: Lauren Golin, lgolin@usf.edu, 813-974-0102



Copyright © 2015, University of South Florida. All rights reserved.
3702 Spectrum Blvd. Ste. 165, Tampa, FL 33612, USA • 813-974-5570
This website is maintained by **Research & Innovation**.

About This Site • Contact USF

[USF Home](#)
[About USF](#)
[Academics](#)
[Admissions](#)
[Campus Life](#)
[Research](#)

[USF System](#)
[Administrative Units](#)
[Regulations & Policies](#)
[Human Resources](#)
[Emergency & Safety](#)
[Visit USF](#)

[USF Health](#)
[USF Athletics](#)
[USF Alumni](#)
[Support USF](#)
[USF Libraries](#)
[USF World](#)