

# OpsisDx™ is highlighted in a peer-reviewed scientific manuscript and featured on the journal's cover

MIAMI, FLORIDA, USA, December 9, 2022

/EINPresswire.com/ -- The novel scientific concept

behind [OpsisDx™](#), developed by Entopsis Inc., is outlined in a recently published peer-reviewed scientific manuscript in the Royal Society of Chemistry Analyst journal. In addition, OpsisDx™ was selected by the editors of the journal to be featured on the journal's cover.

“

OpsisDx™ has the potential to detect signals in multiple types of cancer through a urine sample and can complement other early detection platforms. We are excited about the vast market opportunity.”

*George Huang, Ph.D., Chief  
Financial Officer of Entopsis  
Inc.*

The manuscript, entitled ‘A [colorimetric chemical tongue](#) detects and distinguishes between multiple analytes’, demonstrates how photoinitiators can be used to profile simple and complex chemical mixtures using an array of polymers with distinct binding properties. The research team showed that photoinitiators have a newly discovered property. Once cleaved by ultraviolet (UV) light, the cleaved species remains in the polymer, and if the polymer happens to bind a substance, heating the polymer will cause a reaction between that substance and the cleaved species, resulting in color changes within the polymer. Applying heat is all that is needed to produce these color changes, hence allowing for polymer bound analytes to be

detected quickly and simply.

“Think of when a dentist shines a blue light on a composite filling. That light acts on a photoinitiator within the filling, causing the material to polymerize and harden. This work demonstrates that these everyday photoinitiators have a second secret superpower; they can also react with analytes to produce colored signals” said Ian Cheong Ph.D., co-senior author and scientific adviser to Entopsis Inc.

The research team went on to show how a polymer array could be used to bind to analytes and create different color profiles based on the nature of the analytes. Each spot on the 70-spot polymer array, had unique physiochemical binding properties, where a given spot bound to each analyte with varying affinities. For example, one spot preferentially bound large, circular, positively charged water-loving molecules, while yet another spot preferred small, water-repelling

molecules. Thus, exposing the array to a liquid sample produced a colorimetric readout based on the extent to which analytes bound to specific spots, and what colors were produced when the analytes and the cleaved species in the spot reacted upon heating.

This type of profiling allowed the Entopsis team to correctly distinguish between analytes, many with almost identical chemical compositions, with ~98% accuracy. The team is already working on applying this technology in combination with machine learning to detect early-stage cancers from urine samples and various research applications. If successful, this approach will serve as a multi-disease detection platform that may rival blood-based liquid biopsy tests.

#### About Entopsis Inc.

Entopsis was founded in 2011. It develops, partners, manufactures, and commercializes a number of proprietary platforms: OpsiDx™, and [PCRopsis™](#). The company utilizes this distinct convergence of technology to solve key scientific problems. Entopsis is predominantly focused in the areas of research tools, oncology, and infectious diseases, and explores new areas lacking suitable solutions. For more information, please visit [www.Entopsis.com](http://www.Entopsis.com).

Obdulio Piloto

Entopsis Inc.

[info@entopsis.com](mailto:info@entopsis.com)



This press release can be viewed online at: <https://www.einpresswire.com/article/605444218>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2022 Newsmatics Inc. All Right Reserved.