

## NEW RESEARCH EXPANDS UPON USE OF SABINSA'S CURCUMIN C3 COMPLEX® AS AN ADJUNCT TO CHEMOTHERAPY

**East Windsor, NJ (June 24, 2019)** – Sabinsa's Curcumin C3 Complex® has been studied as an adjuvant therapy with several cancer drugs in the past, and the body of science continues to grow with the recent publication of more positive research.

In continuation of two earlier related studies, researchers at the University of Leicester in the UK published the results of a phase IIa, open-labeled trial in which 27 subjects with metastatic colorectal cancer were randomized to take FOLFOX or FOLFOX + Curcumin C3 Complex (CUFOX). The study was directed towards the evaluation of safety, and efficacy of treatment via progression-free survival and overall survival. In general, CUFOX was well tolerated by all the subjects. Where causality was reported as possibly or probably related to curcumin were primarily gastrointestinal in nature, with the most common being diarrhea. In the per-protocol group median progression-free survival was 171 days for FOLFOX and 320 days for CUFOX. Median overall survival was 200 days for FOLFOX and 596 days for CUFOX. This is the first randomized controlled trial of CUFOX in metastatic colorectal subjects which has shown the safety and tolerability of CUFOX in subjects.



The authors conclude that "...combination of curcumin with FOLFOX chemotherapy represents a safe and tolerable treatment with potential to provide patient benefit." and that a phase III trial is warranted.

"Research examining the use of drugs and nutraceuticals together is an exciting new direction to investigate," said N. Kalyanam, Ph.D., Sabinsa's President of R&D. "Sabinsa continues to build on science and contribute to the extensive knowledge base of curcumin for better health for all."

The study, *Curcumin Combined with FOLFOX Chemotherapy Is Safe and Tolerable in Patients with Metastatic Colorectal Cancer in a Randomized Phase IIa Trial*, was published in the *Journal of Nutrition*: [doi/10.1093/jn/nxz029/5499032](https://doi.org/10.1093/jn/nxz029/5499032).

The study protocol, *Combining curcumin (C3-complex, Sabinsa) with standard care FOLFOX chemotherapy in patients with inoperable colorectal cancer (CUFOX): study protocol for a randomized*

control trial, was previously published in *Trials* 2015 and can be accessed here: [doi.org/10.1186/s13063-015-0641-1](https://doi.org/10.1186/s13063-015-0641-1).

A previous research article on a two-part study, *Curcumin inhibits cancer stem cell phenotypes in ex vivo models of colorectal liver metastases, and is clinically safe and tolerable in combination with FOLFOX chemotherapy*, was published in *Cancer Letters* in 2015 (doi: [10.1016/j.canlet.2015.05.005](https://doi.org/10.1016/j.canlet.2015.05.005)). The first part of the study included an *ex vivo* model to test the efficacy of the curcumin and FOLFOX therapy on cancer liver metastases. The second part included a phase I dose escalation study, which evaluated the safety and tolerability of curcumin during FOLFOX chemotherapy. Overall, the study results indicated that the combination of curcumin and 5-FU/oxaliplatin reduced the number of spheroids and downregulated cancer stem cells markers such as CD44, CD166, and ALDH activity. In the phase I dose escalation study, curcumin was found to be safe and tolerable up to a dose of 2 g in the colorectal cancer with liver metastases subjects.

**About Sabinsa Corporation:**



Sabinsa, founded in 1988, is a manufacturer and supplier of herbal extracts, cosmeceuticals, probiotics, minerals, and specialty fine chemicals. The company markets over 100 standardized botanical extracts and employs more than 1000 people worldwide in 11 manufacturing, R&D, sales, and distribution facilities. Process development and product innovation form the focus of the ongoing R&D efforts in the company's research facilities, located in India and the U.S. Products, many of which are both Kosher and Halal, are extensively researched, patented, and supported by hundreds of published clinical studies. Sabinsa's botanical cultivation program totals nearly 40,000 acres to ensure sustainable, fair trade materials are used in these ingredients. For more information, visit [sabinsa.com](http://sabinsa.com).

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