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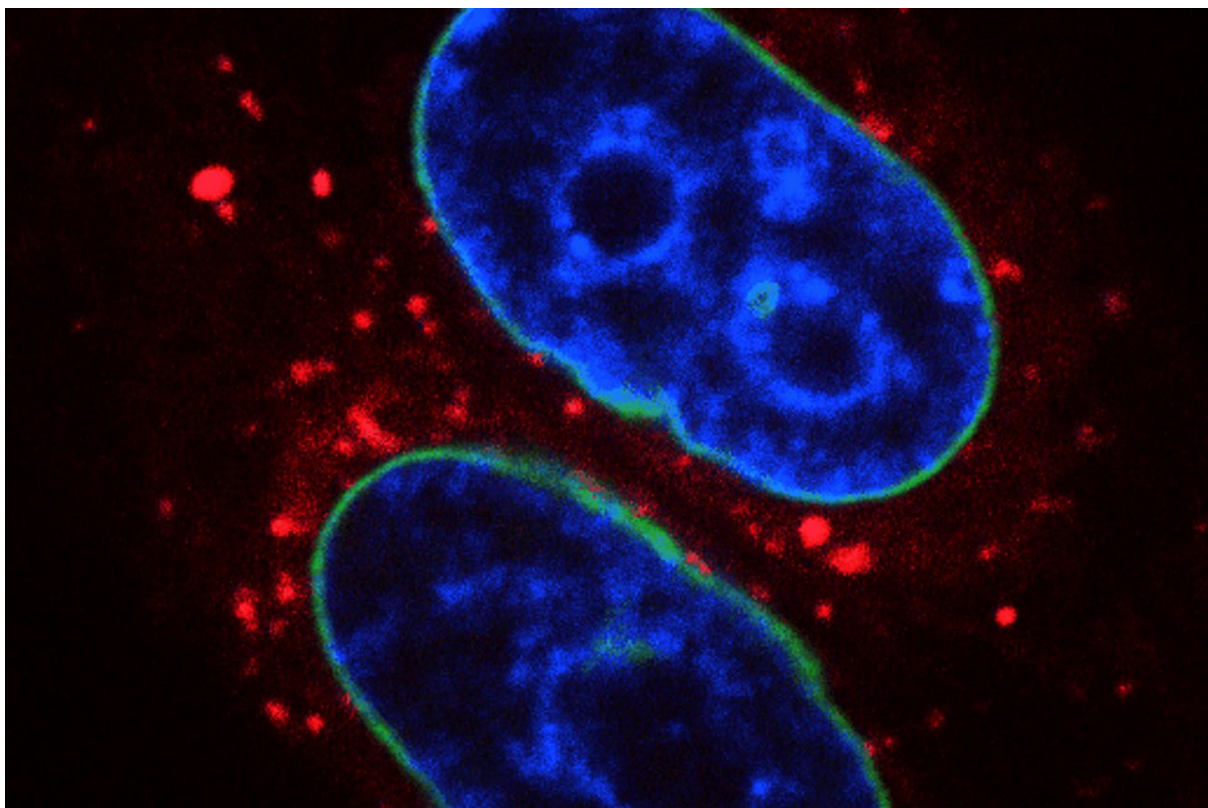
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A new discovery by our scientists

Croatian scientists have discovered a process that improves the existing therapy for colon cancer



Elsevier



[Author](#)

[Zoran Vitas](#)

11.09.2024.

at 17:00

A scientific group from the University of Oxford, the Nanyang Technological University from Singapore and the Ruđer Bošković Institute headed by prof. Kristijana Ramadan published an important study in the treatment of cancer today in the journal Cell

Scientists from Oxford University and Nanyang Technological University in Singapore, in collaboration with other scientific institutions, published an important study on cancer treatment in the scientific journal Cell. The study, in which Croatian scientists from the aforementioned universities in Singapore, Oxford, and **the Ruđer Bošković Institute from Zagreb** participated, represents a new cellular DNA repair process called nucleophagy. It is a type of autophagy, a cellular cleaning mechanism, a process that helps cells remove harmful DNA-protein clumps, also known as DNA lesions, from their nucleus, ensuring the stability of their genetic material and promoting cell survival. When chemotherapy drugs cause these harmful clumps to form, TEX264, a protein expressed in many tissues, including colorectal cancer, activates the process of nucleophagy to direct the clumps to the cell's waste disposal system, the lysosome, where they are broken down and destroyed, the paper explains. The process is necessary to repair DNA and ensure cell survival, especially during DNA-targeting cancer therapies, such as those used in colon cancer therapy. The leading author of this study is prof. Ph.D. Kristijan Ramadan, our distinguished scientist with several degrees, of which biochemistry and molecular biology stand out. Prof. After ETH in Zurich, Ramadan came to Oxford, where he obtained the title of full professor, and now he is transferring his knowledge to the Nanyang Technical University in Singapore.

