I·Gene

Dear Readers,

The I-GENE team is pleased to welcome you to the 6th issue of the I-GENE newsletter. I am proud to say that the team realized some major achievements during the last months. We have optimized the chemistry of our nanoformulation, in terms of stability and ability to spontaneously cross the membranes of human melanoma cells to edit them. Moreover, the superiority of our approach lies in the ability to switch the system on with light which increases the safety level of the technology and acceptability for future clinical applications. Please, stay up to date on the I-GENE project by reading this and next project newsletters!

Prof. Vittoria Raffa
I-GENE coordinator

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ABOUT I-GENE PROJECT

The objective of I-GENE project is to re-design the story of genome editing by developing a photo-switchable system. The I-GENE project is founded by EU (grant agreement ID: 862714) under the FET-OPEN scheme of HORIZON 2020, fostering novel ideas for radically new technologies.

Please follow our social media and website to get updates on the I-GENE mi… search activities.
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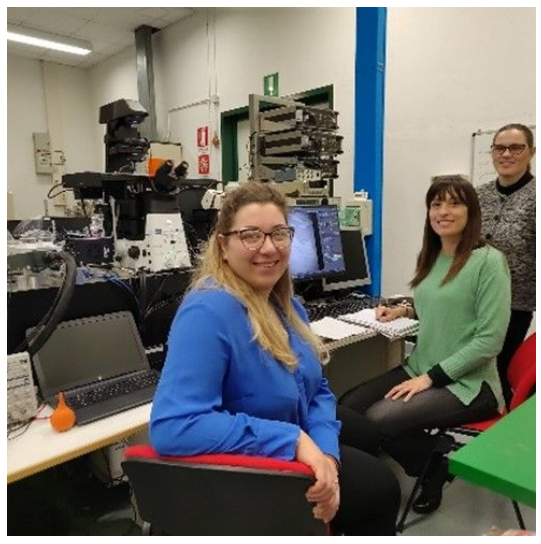


FROM IN VITRO TOWARDS PRECLINICAL STUDIES

The I-GENE technology aims to validate a light-switchable approach in treating melanoma cancer. With the great collaboration of multidisciplinary groups we are moving forward with our research! Here, our team is working in Prof. Francesco Fuso lab to the irradiation experiments to validate I-GENE tech on human melanoma cell lines, human melanoma cell spheroids, artificial human skin, and zebrafish models. Finger crossed, guys!

(From left to right: PhD student Carmen Rita Piazza, Dr Marta D' Amora, and Dr Paola Quaranta)

ALWAYS NEW IDEAS AND NOVEL APPROACHES

In order to reduce the number of animals used in research, we are developing alternative models. We keep challenging ourselves to work on a top level research and take advantage of the current-state-of-the-art. To do so, we have started to test different *in vitro* models and develop 3D cultures called spheroids using human melanoma cells. Stay …

Click Summary

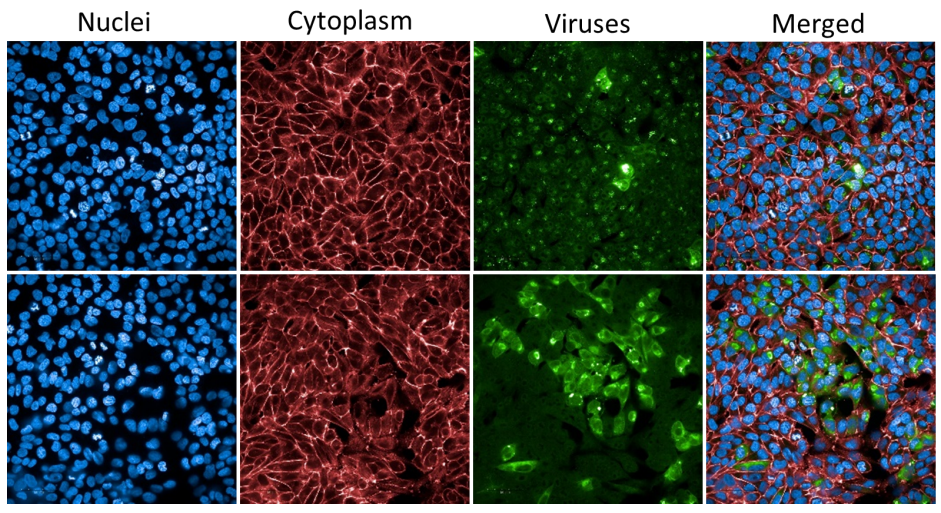
Phalloidin

Merge

ENOUGH WITH SARS-COV-2...WHAT IF I-GENE HELPS?

All right, so basically there's this RNA virus called SARS-CoV-2 that's been making our lives pretty miserable for the past few years. Cas13 is an enzyme able to destroy RNA virus genetic material. All the spot lights are on this Cas13 protein to free us, and I-GENE technology can help on this! We are developing a new system using the complexes that we have optimised to facilitate the entrance of the Cas13 protein in the cytoplasm of the cells where the viruses live. The goal? To stop the RNA viruses from spreading by destroying their genetic material! With the expertise of our consortium and the motivation to broaden the applications of our technology, we believe we can advance in this hot topic of our era and provide some useful input!

Our preliminary data show what we can achieve with I-GENE technology!



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I-GENE: FROM TARGET TO THERAPEUTICS

The CRISPR in drug discovery conference held at Oxford (United Kingdom), focussed on the pioneering applications of the CRISPR technology in therapeutis and its emerging cutting edge applications in drug discovery. Obviously I-GENE members could not miss this event to learn, discuss and exchange ideas and innovative approaches for CRISPR with international experts from accademia and industry. We strongly believe that establishing new connections, staying up to date, fostering learning, inspiration and provoke conversations that matter are at the basis of excellent research. Bringing together bench research with interests for applying the technology in pharmacological treatments as well as to encourage the approach to new CRISPR technologies are important goals of the I-GENE project

(Prof. Chiara Gabellini and PhD student Tiziana Schmidt attending the "Crispr in drug discovery conference")

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Discover more

Feedback

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I-GENE Consortium

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Please follow our social media and website to get updates on I-GENE mission and research activities:

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