HIGHLY SELECTIVE VIRUSES SPECIFICALLY DESIGNED TO TREAT REFRACTARY TUMORS

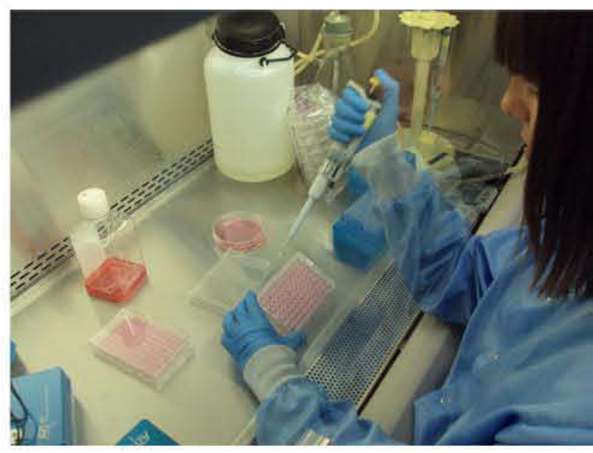
VCN Biosciences SL is a private-owned company focused in the development of new therapeutic approaches for tumors that lack effective treatment. The company uses the technological platform that offers oncolytic adenoviruses to design highly selective and efficient viruses able to replicate and self-amplify exclusively in tumor cells. Contrary to chemotherapy regimens, the ability of oncolytic virus to self-amplify in tumor cells provokes that the effective dose increases with time. VCN candidates in promising alternatives for the treatment of refractory tumors such as pancreatic and head & neck adenocarcinomas, that are current tumor targets for VCN.

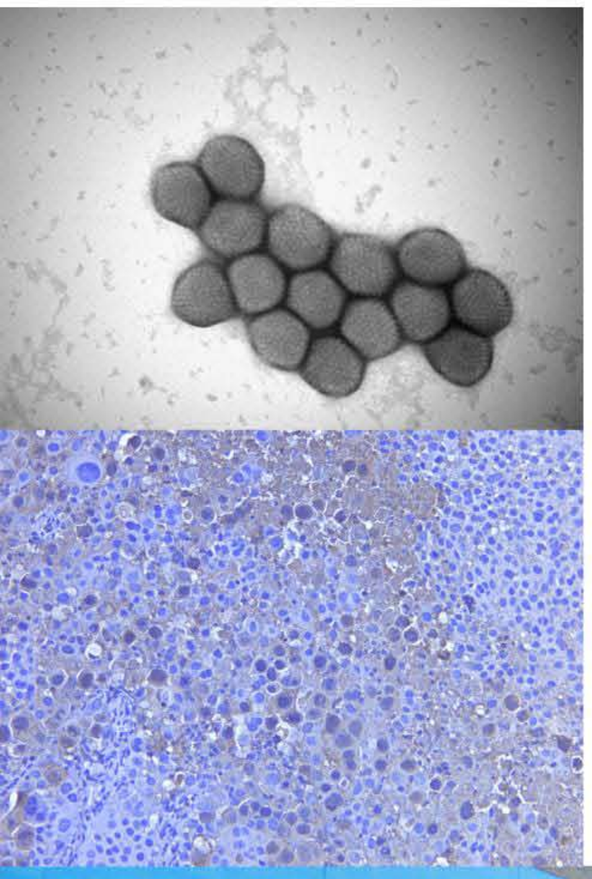
VCN TECHNOLOGIES

At the moment VCN possesses 2 exclusive licenses in independent technologies that result in enhanced antitumoral potency of oncolytic adenoviruses:

. T1 technology is based in a point mutation on adenovirus genome which very significantly enhances oncolytic properties of the adenovirus. The T1 technology provides a novel mechanism to increase the release of adenovirus from infected tumor cells, which causes enhanced antitumoral potency in human tumors when injected intra-tumorally or systemically. This technology that has been sub-licensed to ORCA Therapeutics (The Netherlands)

- Hyaluronidase Technology enhances the intratumoral spreading of oncolytic viruses. Most tumors are formed not exclusively by tumor cells, but also contain a significant part of accompanying tissue know as tumor stroma, that poses important limitations to the dissemination of therapeutic agents. Expression of hyaluronidase from virus genome partially degrades tumor stroma and allows better accessibility to treatment. Hyaluronidase technology is integrated in VCN lead candidate VCN-01.





OUR CURRENT CANDIDATE: VCN-01

VCN-01 is tumor-selective replication-competent adenovirus expressing PH20 hyaluronidase, an enzyme that degrades hyaluronan (HA), an important structural element of tumoral extracellular matrix. Hyaluronan blocks the action of various chemotherapeutic agents since it created a dense environment around tumor that increases interstitial pressure and slows drug entrance into tumor mass. Expression of hyaluronidase from VCN-01 facilitates tumor penetration, enhancing intratumoral virus spread. In addition, VCN-01 contains a modification in its capsid that allows the virus to partially evade liver trapping and target selectively the tumor masses after intravenous administration.

Extensive preclinical studies with VCN-01 have demonstrated a good toxicological profile of the virus. Moreover, VCN-01 improves therapeutic outcome compared to a similar virus without hyaluronidase expression when tested by intravenous or intratumoral administration.

VCN is planning to initiate a clinical program with VCN-01 in pancreatic cancer by intravenous administration and also in head&neck tumors by intratumoral administration. VCN-01 mechanism of action differs from conventional therapies in pancreas in terms of low probability of generation of resistances, inverse pharmacokinetics and overcoming of stromal barriers

CONTACT:

Manel Cascallo, PhD, CEO.
Bioincubadora I de BiopoL'H
c/ Feixa Llarga s/n
08908 – L'Hospitalet de Llobregat (Barcelona)
Phone: + 34 661 34 73 96
info@vcnbiosciences.com

biopol'H