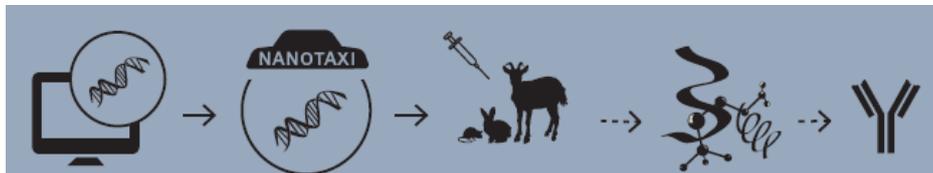


## Collaboration Agreement with Virbac Animal Health to Discover Monoclonal Antibody for Quality Control of Multivalent Vaccine

**Nantes – France, 17th April, 2014** – In-Cell-Art, a biotechnology company specializing in nanocarrier technologies called Nanotaxi® for macromolecules delivery (DNA, RNA, Protein), announces a collaboration agreement with Virbac Animal Health to use ICANTibodies™ in order to discover monoclonal antibody against an antigen of multivalent vaccine that does not cross react with the other components. The discovered monoclonal antibody will be used to develop an assay which allows the identification and the quantification of this antigen to control the quality of multivalent vaccine in the market.

The figure below is the schematic presentation of ICANTibodies™, a fully integrated antibodies discovery process without peptide and recombinant protein (from plasmid DNA antigen design and synthesis, Nanotaxi®/plasmid formulation and immunization in various species, to antibody quality controls). The financial terms of this agreement are not disclosed.



Nanotaxi®, the proprietary In-Cell-Art formulations, makes ICANTibodies™ unique compared to other genetic immunization-based antibodies discovery (e.g. gene gun) since Nanotaxi® dramatically increases expression of the gene-encoded antigen and hugely stimulates the innate immune system through an unique delivery mechanism. The combination of these two properties allows the Nanotaxi® to generate powerful immune responses and antibodies of interest even against extremely difficult targets such as complex of integral membrane proteins and proteins with high homology. Discovered antibodies are of high quality with high specificity and high affinity (~pM).

Bruno Pitard, co-founder of In-Cell-Art, said “This collaboration with Virbac Animal Health that operates in more than 100 countries and ranks today as the 8th largest animal health company worldwide, is an important milestone of the business development of In-Cell-Art. We are highly motivated to work for the leading veterinary pharmaceutical firm to support the quality control of multivalent vaccine”.

## **About In-Cell-Art**

In-Cell-Art (ICA), which is headquartered in Nantes (France) is a biopharmaceutical company specializing in the preclinical and pharmaceutical development of nanocarriers named Nanotaxi® for macromolecular drugs. Its founder and research team, which includes a Nobel Laureate, have designed new classes of vectors that are organized on a nanometric scale, which enables them to cross the cell barrier efficiently and safely. In-Cell-Art offers a range of reagents and biotechnology development services:

### **1. ICANTibodies™**

In the absence of recombinant antigen, ICANTibodies™ allows, from an in silico DNA antigenic sequence, the production of the most ambitious functional antibodies against any natively expressed nuclear, cytoplasmic, secreted or membrane proteins. ICANTibodies™ has allowed, in less than 3 years, the production of more than 300 different functional antibodies. In-Cell-Art has worked with a number of pharmaceutical firms (Sanofi, GlaxoSmithKline, Geneuro etc.) and public research institutions and universities (Institut Cochin, Cancer Research UK, Institute of Neurology UK etc).

### **2. ICA Nanotaxi®**

- DNA Vaccine

ICA614 Nanotaxi®, an innovative DNA synthetic formulation, offers unique efficient and industrial features such as the dramatic enhancement of the immunogenicity of plasmid DNA-encoding tumours or pathogen-derived antigens, a reduction in the dose of plasmid DNA, as well as an excellent safety profile. ICA614 Nanotaxi® represents a crucial step in DNA vaccine development, and is currently being tested by major vaccine companies (Sanofi-Pasteur, Merial etc.).

- mRNA Vaccine

Some other ICA Nanotaxi® are also being assessed in \$33.1 million RN-ARMORVAX consortium, co-funded by US Defense Advanced Research Projects Agency (DARPA). The consortium would validate the new application of ICA Nanotaxi® for mRNA-based vaccines for infectious diseases in collaboration with CureVac and Sanofi-Pasteur.

- mRNA Replacement Therapy

Some other ICA Nanotaxi® are also developed to improve the limited efficacy and stability of mRNA therapeutics, leading to the dramatic increase in therapeutic protein expression without DNA-encoded gene.

### **3. ICAFectin® transfection reagents**

ICAFectin® transfection reagents are innovative breakthrough synthetic vectors for in vitro nucleic acid delivery. They are becoming the reagents of choice for efficient DNA and siRNA transfections as demonstrated by their increasing use in numerous studies published in high impact factor journals including Journal of Biological Chemistry, Nucleic Acids Research, PLOS ONE, PLOS Pathogen, Human Gene Therapy and more.

In-Cell-Art is a privately held company, which was founded in 2005. It is a member of the Atlanpole Biotherapies high-tech cluster of biotechnology companies in western France.

#### **About Virbac**

Founded in 1968 in Carros close to Nice by veterinarian Pierre-Richard Dick, Virbac is dedicated exclusively to animal health. With a turnover of €736 million in 2013, the company ranks today as the 8th largest animal health company worldwide. Its wide range of vaccines and medicines are used in the prevention and treatment of the main pathologies for both companion and food-producing animals.

Over the last forty years Virbac has become a recognised expert in the sector, offering products and services that combine quality, effectiveness and convenience for care providers (veterinarians and animal owners).

Present in more than 100 countries the company has more than 4,350 employees. Quoted on the Paris Stock Exchange since 1985 Virbac has remained a family company, not only as regards its shareholding but also through its management principles, its culture and its company values.

International presence has been an integral part of Virbac's strategy since the very beginning. Starting in 1978, group expansion abroad speeded up progressively in the 1980s and then in the 1990s. Today Virbac is present in all 5 continents, with around 85% of its sales made outside of France.

<http://www.virbac.com/home-en.html>

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