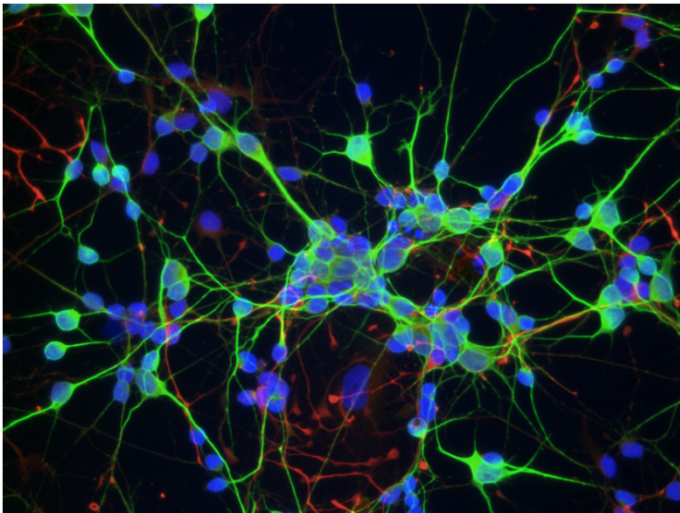


.....  
NuvoVec  
.....

your gene delivery tools

for research and therapy



### **Who we are**

NuvoVec srl is an innovative startup society, spin-off of the University of Ferrara.

The research team includes scientists from the University of Ferrara (Italy) and the University of Pittsburgh Medical Center (USA).

## The Scenario

**What is the future of medicine?** What will be the meaning of the term “therapy” 20 years from now? The discovery of truly innovative drugs for important medical needs has undergone a dramatic slowdown in the last decade, a trend expected to accelerate in the future.

The overwhelming majority of diseases are the result either of genetic mutations or of molecular mechanisms that can be corrected by expressing therapeutic genes. **NuvoVec has advanced technology to deliver large and complex corrective genes to patients that permanently change the course of disease.** Corrective gene therapy provides cures in many cases and effective treatments in others.

Recent advances in methods for cellular reprogramming has resulted in the ability to create embryonic-like stem cells from the patient’s own adult cells and the NuvoVec technology greatly enables this process. Further, cellular engineering using our systems can recreate any cell type for the regeneration of normal tissue or direct organ cellular therapy. These methods do not engender ethical issues associated with the use of human embryonic stem cells and avoid practical problems such as immune rejection since the cells come directly from the patient. Reprogrammed adult cells from diseased tissue are also in high demand as disease models for drug development and basic studies of pathologic processes ultimately enabling personalized medicine.

# NuvoVec

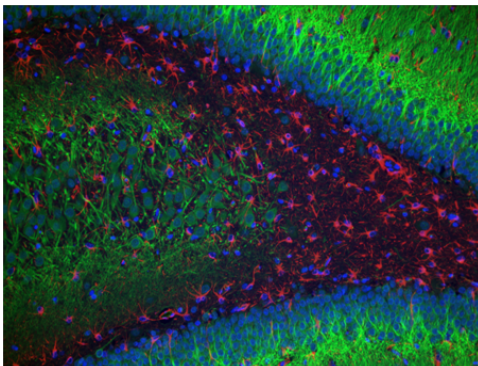
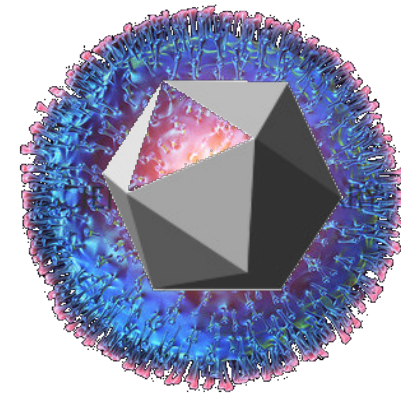
## The vision

Next generation therapies will depend upon correction of pathological gene products within diseased cells by direct gene transfer, or by transplant of healthy cells. These approaches share the need of transferring in cells of interest the genetic material necessary to heal or transform them.

NuvoVec offers to the researchers of today and to the physicians of the near future the technology to do this in an efficient and controlled manner.

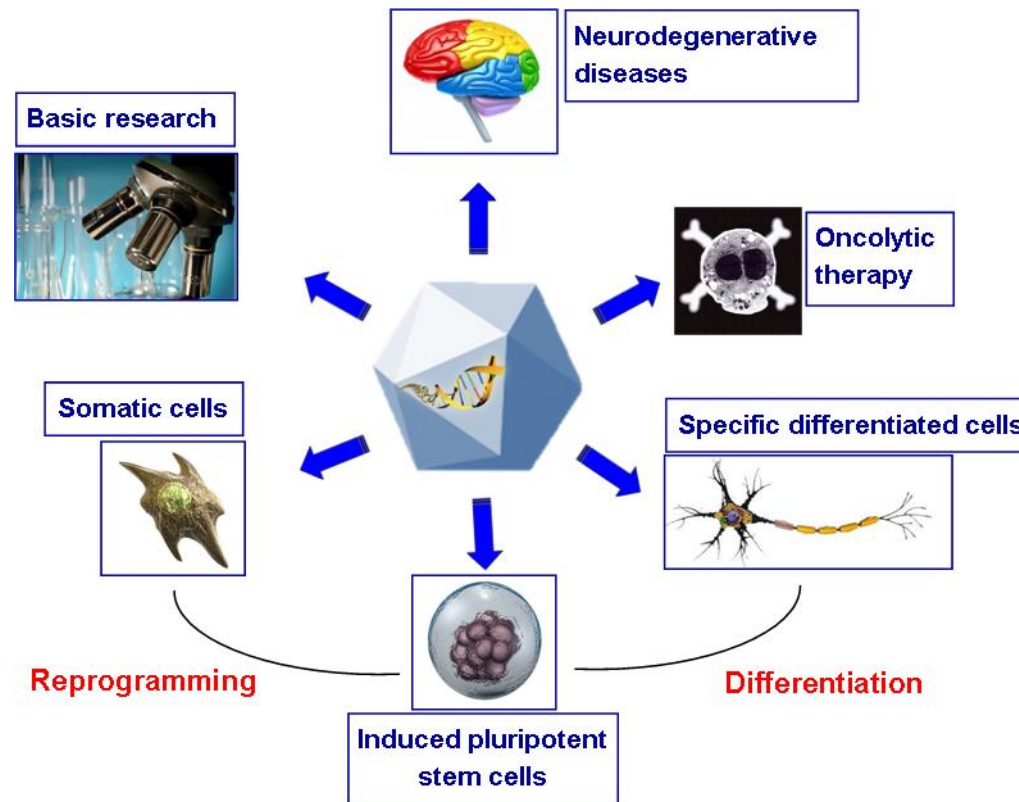
## The technology

The company technologies are based on a highly engineered herpes simplex virus (HSV) vector platform that provides gene transfer tools with high payload capacity, high specificity for gene expression in targeted cell types and high efficiency of gene delivery. NuvoVec's gene tools have broad utility for modeling human disease, production and modification of stem cells for human gene and cell therapy.



## The applications

NuvoVec provides customized gene vector technology for preclinical studies or advanced therapies for a variety of clinical applications, including liver and nervous system diseases.



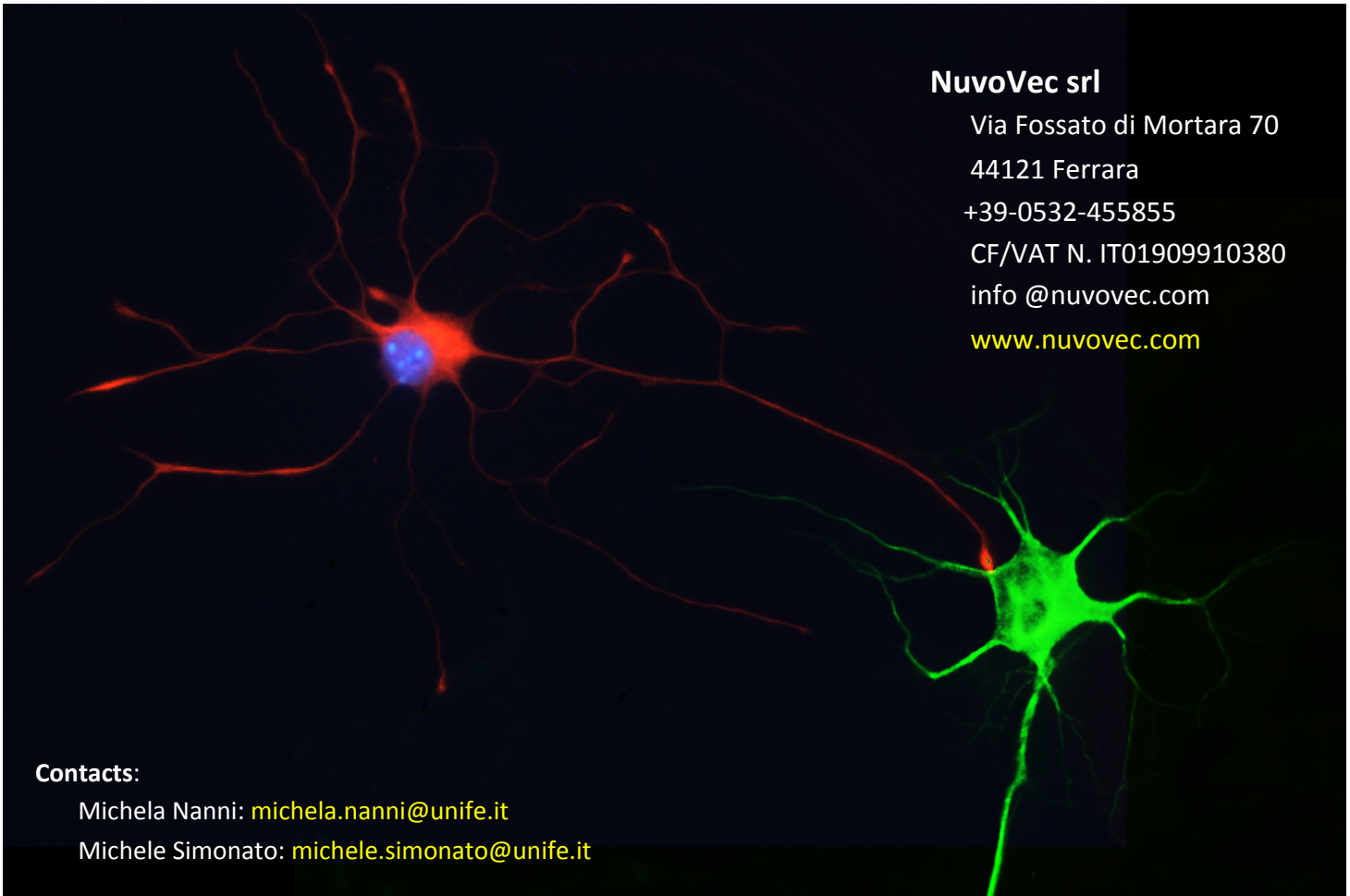
**NuvoVec is uniquely positioned to become a world leader in the generation and application of novel gene therapies designed to treat human diseases.**

NuvoVec markets two main products:

- 1) **custom-made vectors**, engineered for the delivery of one or more genes as specifically required from the buyer;
- 2) **ready-to-sell vectors**, containing genes or combination of genes widely used for research purposes (for example, the 4 “Yamanaka genes” to reprogram adult cells into “induced pluripotent stem cells – iPSCs”).

These vectors will be based on non-replicative Herpes Simplex viruses, able to efficiently infect almost any kind of murine and human cell without altering the cell genome or leading to toxicity.

**NuvoVec is the world leader in the development of this technology.**



**NuvoVec srl**

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