

CURRICULUM VITAE

Personal details

Date of birth and Gender	27/07/1968, Male
First and Last Names	Bruno PITARD
Country	France

Current Position

VivAdju SAS Vice-Chairman of the Scientific Advisory Board
 Director of Research CNRS 1st class,
 bruno.pitard@univ-nantes.fr

Organization/Company

Code RNSR	Organism	Laboratory	Unit Code	Postal Code	Town
	VivAdju Inserm/CNRS	INCIT	1302/6001	75010 44200	Paris Nantes

Other Activities

Since 2022 : Member of the steering committee of INCIT (Inserm U1302/CNRS 6001)
2002 - 2015 : Member of the scientific advisory board of “Vaincre La Mucoviscidose”.
2003 - 2015 : Member of the management committee of CNRS UMR6291/Inserm UMR1087
2008 - 2011 : Member of the selection committee of ThermoFischer for the « Biotherapie prize”. President of the 2011 edition
2004 - 2007 : Member of the Regional Consultative Committee for Research and Technological Development (CCRFT) of Pays de Loire.
2007 : Member of the Genethon evaluation committee. Chairman of this committee JM Gilis
2009 : Member of the HCERS committee of the Unit led by Luis Mir (IGR, Villejuif)
Learned societies : Member of the organizing committee of the INCIT 2022 & 2024 congress
 Member of French Society of Biophysics (SFB).
 Member American Society for Gene Therapy (ASGT).
 Member Molecular Biology Society of Japan (MSBJ)

Teaching: 40 h/an; Master 1 (Nantes) Master 2 (Paris, Orleans, Tours, Cergy Pointoise, Nantes, Angers, Grenoble)

Professional Experience

Start	Finish	City/Town	Organization/Company	Title/Function
2017	Present	Nantes	Inserm UMR1302/CNRS ERL 6001	Team director
2015	2017	Nantes	IN CELL ART	CEO & CSO Team director
2007	2015	Nantes	Inserm U1087	Team director
1999	2000	Marcy	Sanofi Pasteur	Team director
1995	1999	L'Etoile	Sanofi	Contingent scientific
1992	1993	Vitry sur Seine Bruyère le Chatel	Commissariat Energie atomique (CEA)	

Career Interruptions

N/A

Education

2003: Habilitation à Diriger des Recherches, University of Nantes (France)
1995: PhD thesis, University of Paris XI (France)
1991: Engineer, University of Technology of Compiègne (France)

Publications

Total Of 126 publications, h-index 37

5 major publications	Major contribution of this publication
<p>1 COLOMBANI T, HAUDEBOURG R, PITARD B. 704/DNA vaccines leverage cytoplasmic DNA stimulation to promote anti-HIV neutralizing antibody production in mice and strong immune response against alpha-fetoprotein in non-human primates. <i>Molecular Therapy: Nucleic acids</i> 32:743-757, 2023. PMID: 37251693</p>	<p>First proof of the mechanism of action of DNA vaccines delivered by revolutionary synthetic polymers. Strong activation of the innate immunity pathway with DNA and not mRNA.</p>
<p>2 LINDSAY KE, BHOSLE SM, ZURLA C, BEYERSDORF J, ROGERS KA, VANOVER D, XIAO P, ARAINGA M, SHIREFF LM, PITARD B, BAUMHOF P, VILLINGER F, SANTANGELO PJ. Visualization of early events in mRNA vaccine delivery in non-human primates via PET/CT and near-infrared imaging. <i>Nat Biomed Eng.</i> 3:371-380, 2019. PMID: 30936432</p>	<p>First proof that mRNA molecules formulated by cholesterol derivatives of amino sugars are transported in non-human primates in the draining lymph nodes located 10 cm from the injected muscles.</p>
<p>3 DESIGAUX L, SAINLOS M, LAMBERT O, CHEVRE R, LETROU-BONNEVAL E, LEHN P, LEHN JM AND PITARD B. Self-assembled lamellar complexes formed by lipidic aminoglycoside derivatives and siRNA promote efficient RNA interference. <i>Proc. Natl. Acad. Sci. USA</i> 104 : 16534-16539, 2007. PMCID: PMC2034216</p>	<p>Première preuve d'une nouvelle classe de vecteurs pour la délivrance spécifique de molécules d'ARN à l'aide de dérivés lipidiques de sucres aminés naturels</p>
<p>4 PITARD B, OUDRHIRI N, VIGNERON JP, HAUCHECORNE M, AGUERRE O, TOURY R, AIRIAU M, RAMASAWMY R, SCHERMAN D, CROUZET J, LEHN JM AND LEHN P. Structural characteristics of supramolecular assemblies formed by guanidinium-cholesterol reagents for gene transfection. <i>Proc. Natl. Acad. Sci. USA</i> 92: 2621-2626, 1999. PMID: 10077560</p>	<p>First evidence of a new class of vectors for specific delivery of RNA molecules using lipid derivatives of natural amino sugars</p>
<p>5 PITARD, B, AGUERRE, O, AIRIAU, M, LACHAGÈS, AM, BOUKHNIKACHVILI, T, BYK, G. DUBERTRET, C. HERVIOU, C, SCHERMAN, D, MAYAUX, JF AND CROUZET, J. Virus-sized self-assembling lamellar complexes between plasmid DNA and cationic micelles promote gene transfer. <i>Proc. Natl. Acad. Sci. USA</i> 94: 14412-14417. 1997. PMID: 9405626</p>	<p>First evidence of the lamellar structure of polycharged ionizable lipids and DNA molecules. Positively charged DNA complexes lead to highest transfection efficiency</p>

Valorization

Inventor of new concepts for intracellular delivery of macromolecular drugs, named Nanotaxi[®]. Holds 16 patents on the formulation of macromolecular drugs. Founded IN CELL ART in 2005 with a research team including a Nobel Prize winner. Several patents licensed to IN CELL ART. IN CELL ART has been part of several international consortia, including the \$33.1 million RNArmorvax project with Sanofi Pasteur/Curevac funded by the U.S. agency DARPA. IN CELL ART is a partner in a messenger RNA antibody production project supported by the Bill & Melinda Gates Foundation. IN CELL ART has advanced Nanotaxi[®] technology for clinical use and has validated that Nanotaxi[®] technology does not induce mortality or toxicity.

He has recently been awarded funding under the Impact Santé program as part of France 2030 for his project *ReNAissance*. Funded with €3 millions, ReNAissance aims to revolutionize antiviral treatments through messenger RNA technologies.

Patent VivAdju/INSERM filed in Europe in March 2023 (EP23305447.7). "Nucleic acid pVAX14 formulated with a nano-vehicle in combination with all-trans retinoic acid (ATRA) to activate immune responses." Inventors: Rose Ann Padua, Bruno Pitard, Christine Chomienne, Patricia Krief, and Marika Pla

Patent VivAdju/INSERM filed in Europe in March 2023 (EP23305449.3). "Combination of pVAX14 and all-trans retinoic acid (ATRA) with immune checkpoint inhibitor for cancer treatment." Inventors: Rose Ann Padua, Bruno Pitard, Christine Chomienne, Patricia Krief, and Marika Pla.