

## BIOGRAPHICAL SKETCH

NAME <b>VIVIEN, Denis</b>		POSITION TITLE Director, INSERM UMR_S U919 "serine proteases and pathophysiology of the neurovascular unit"	
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Paris XI, Orsay University (Paris, France)	PhD	1992	Molecular and cell biology
Sloan Kettering Howard Hughes Institute (New York, U.S.)	Post-doctoral	1993-94	Cancer research/ molecular biology
Caen Lower Normandy University ( )France	HDR	1997	Neurosciences

### Professional appointments:

2008- Director, INSERM UMR\_S U919 "serine proteases and pathophysiology of the neurovascular unit"  
 2007- Head of the dept of cellular and molecular biology, Cyceron centre (Caen)  
 2005-08 INSERM-Avenir "tPA in the working brain" award  
 2004-05 Vice-Director of UMR CNRS 6185  
 2001- Full Professor in Neurosciences, Université de Caen Basse-Normandie  
 1995-01 Assistant professor in molecular biology, Université de Caen Basse-Normandie  
 1993-94 Research Associate, Sloan Kettering Cancer Center, Howard Hughes Institute, New York.

### Representative expertises and responsibilities :

\* scientific : President of the Neuroscience university national committee (2012-..), CSS1 INSERM (2007-12), AERES, ANR, AFSSAPS, FRM, FRC, ARC, MRC (GB), NIH (USA), Spanish Ministry of Research, Israel Ministry of Research, Polish Ministry of Research, Australia Ministry of Research, ....  
 \* private consulting : PAION GmbH (germany), Lundbeck (Danemark), Theraprot (France).  
 \* editorial duties : Nat Med, J Clin Invest, Circulation, J Neurosci, Stroke ,J Cereb Blood Flow Metab, ... Editorial board: Current Alzheimer's Diseases, Cerebrovascular Diseases, Experimental and Translational Stroke Medicine.  
 \* University : head of the master degree « Neurosciences and health imaging » (2008-12)  
 \* Programs and contracts :  
 2005-10 : partner in the european consortium "Diagnosis In Molecular Imaging", 6th FPRTD  
 2008-13 : Group leader in the european consortium "Eurostroke", 7th FPRTD

2012-15 : coordinator of the european consortium ERANET-Neuron "Protea", 7th FPRTD

Awards and Honours:

Senior member of the Institut Universitaire de France

Award: "medical innovation" (Fondation de France-Matmut)

Patent: **Vivien D**, Ali C, Macrez R. European Patent Application 09011149.3; EP 2 289 542 A1; International Application No.: PCT/EP2010/000544 (Treatment of neurological or neurodegenerative disorders)

A. Recent publications (10 from more than 100)

- 1: Montagne A, Gauberti M, Macrez R, Jullienne A, Briens A, Raynaud JS, Louin G, Buisson A, Haelewyn B, Docagne F, Defer G, **Vivien D**, Maubert E. Ultra-sensitive molecular MRI of cerebrovascular cell activation enables early detection of chronic central nervous system disorders. *Neuroimage*. In press
- 2: Cassé F, Bardou I, Danglot L, Briens A, Montagne A, Parcq J, Alahari A, Galli T, **Vivien D**, Docagne F. Glutamate Controls tPA Recycling by Astrocytes, Which in Turn Influences Glutamatergic Signals. *J Neurosci*. 2012;32(15):5186-5199.
- 3: Parcq J, Bertrand T, Montagne A, Baron AF, Macrez R, Billard JM, Briens A, Hommet Y, Wu J, Yepes M, Lijnen HR, Dutar P, Anglés-Cano E\* **Vivien D**\* Unveiling an exceptional zymogen: the single-chain form of tPA is a selective activator of NMDA receptor-dependent signaling and neurotoxicity. *Cell Death Differ*. In press
- 4: Macrez R, Obiang P, Gauberti M, Roussel B, Baron A, Parcq J, Cassé F, Hommet Y, Orset C, Agin V, Bezin L, Berrocoso TG, Petersen KU, Montaner J, Maubert E, **Vivien D**, Ali C. Antibodies preventing the interaction of tissue-type plasminogen activator with N-methyl-D-aspartate receptors reduce stroke damages and extend the therapeutic window of thrombolysis. *Stroke*. 2011;42(8):2315-22.
- 5: Correa F, Gauberti M, Parcq J, Macrez R, Hommet Y, Obiang P, Hernangómez M, Montagne A, Liot G, Guaza C, Maubert E, Ali C, **Vivien D**, Docagne F. Tissue plasminogen activator prevents white matter damage following stroke. *J Exp Med*. 2011;208(6):1229-42.
- 6: Macrez R, Ali C, Toutirais O, Le Mauff B, Defer G, Dirnagl U, **Vivien D**. Stroke and the immune system: from pathophysiology to new therapeutic strategies. *Lancet Neurol*. 2011;10(5):471-80.
- 7: Macrez R, Bezin L, Le Mauff B, Ali C, **Vivien D**. Functional occurrence of the interaction of tissue plasminogen activator with the NR1 Subunit of N-methyl-D-aspartate receptors during stroke. *Stroke*. 2010;41(12):2950-5.
- 8: Baron A, Montagne A, Cassé F, Launay S, Maubert E, Ali C, **Vivien D**. NR2D-containing NMDA receptors mediate tissue plasminogen activator-promoted neuronal excitotoxicity. *Cell Death Differ*. 2010;17(5):860-71.
- 9: Roussel BD, Macrez R, Jullienne A, Agin V, Maubert E, Dauphinot L, Potier MC, Plawinski L, Castel H, Hommet Y, Munuera J, Montaner J, Yepes M, Ali C, **Vivien D**. Age and albumin D site-binding protein control tissue plasminogen activator levels: neurotoxic impact. *Brain*. 2009;132(Pt 8):2219-30.
- 10: Yepes M, Roussel BD, Ali C, **Vivien D**. Tissue-type plasminogen activator in the ischemic brain: more than a thrombolytic. *Trends Neurosci*. 2009;32(1):48-55.

B. Current and anticipated grant support

2012 : Université de Caen-Basse Normandie (32 kE per year)

2012 : INSERM (100 KE per year)

2008-2013 : FP7 eurostroke(1180 KE)

2012-2015 : FP7 EraNet Neuron (96 kE + 35 kE)

2010-2013 : ANR Biotecs (220 kE)

2012-2015: ANR optilyse (250 KE)

2010-2012 : COPoc Inserm-Transfert Thrombosafe (120 kE)

2009-1014 : Institut Universitaire de France (100 kE)

2011-2012 : Conseil Régional de Basse Normandie, Projet Emergence (200 kE + 150 kE)  
2012-2015 : Conseil Régional de Basse Normandie, Retour Post-Doc (100 kE)  
2010-2012 : INSERM TRANSFER/PAION (80 kE)  
2012-2014 : ARSEP (100 kE)  
2012-2014: LUNDBECK (115 kE)

C. Previous experience in collaborative research

As testified in my list of publications, I have had the opportunity to build up fruitful collaborations during my career. I have a solid knowledge of scientific networks, as exemplified by my participation in several European networks, either as a partner, a work package leader or a coordinator.