

**SCIENTIFIC CURRICULUM VITAE**  
**COMMUNI DIDIER**

NAME, First Name	COMMUNI, Didier
Nationality	Belgian
Place and date of birth	Vilvorde, 10 <sup>th</sup> June 1971
Professional address	I.R.I.B.H.M., Campus Erasme U.L.B., Faculté de Médecine 808 Route de Lennik 1070 Brussels - Belgium
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**STUDIES**

1989-1993	<p><b>B.Sc. Biochemistry, Free University of Brussels (U.L.B.)</b> <b><u>Undergraduate project:</u></b> Study of the contribution of P<sub>2U</sub> and P<sub>2Y</sub> receptors to the activation of endothelial cells by extracellular ATP. <b><u>Graduated with:</u></b> Grande Distinction <b><u>Directed by :</u></b> Jean-Marie Boeynaems</p>
1993-1998	<p><b>Ph.D. Biochemistry, Free University of Brussels</b> <b><u>Ph.D. project:</u></b> Molecular characterization of three novel receptors activated by extracellular nucleotides. <b><u>Graduated with:</u></b> La Plus Grande Distinction et les félicitations du jury <b><u>Directed by :</u></b> Jean-Marie Boeynaems</p>

## **ACADEMIC CAREER**

- 1993-1995** Ph.D. student financially supported by the I.R.S.I.A., Institute of Interdisciplinary Research (I.R.I.B.H.M., Pr. J.M. Boeynaems), School of Medicine, Free University of Brussels, Belgium
- 1995-1997** Ph.D. student financially supported by the F.R.I.A., Institut de Recherche Interdisciplinaire (I.R.I.B.H.M., Pr. J.M. Boeynaems), School of Medicine, Free University of Brussels, Belgium
- 1997-1998** Researcher financially supported by the Pôles d'Attraction Interuniversitaires, Institute of Interdisciplinary Research (I.R.I.B.H.M., Pr. J.M. Boeynaems), School of Medicine, Free University of Brussels, Belgium
- 1998-2001** Post-doctoral Reseacher at the F.N.R.S., Institute of Interdisciplinary Research (I.R.I.B.H.M., Pr. J.M. Boeynaems), School of Medicine, Free University of Brussels, Belgium
- 2001-2002** Post-doctoral Reseacher at the F.W.O., Center for Transgene Technology and Gene Therapy (C.T.G., Pr. P. Carmeliet et Pr. D. Collen), School of Medicine, Free University of Brussels, Belgium
- 2002-...** Research associate at the F.N.R.S., Institute of Interdisciplinary Research (I.R.I.B.H.M., Pr. Vassart), School of Medicine, Free University of Brussels, Belgium

## AWARDS

- **PRIX GALIEN 1998**, 10<sup>th</sup> June 1999 (Brussels, Belgium), for the Ph.D. thesis.
- **“Best Oral Communication” prize**, 24<sup>th</sup> May 1998 (Ferrara, Italy), 6<sup>th</sup> International Symposium on Adenosine and Adenine Nucleotides.

## PUBLICATIONS

### I. International publications

#### a) Articles:

##### 1°) First or last author:

1. Coexpression of P<sub>2Y</sub> and P<sub>2U</sub> receptors on aortic endothelial cells: comparison of cell localization and signaling pathways. Communi, D., Raspé, E., Piroton, S., Boeynaems, J.M. *Circ. Res.*, 76 (1995), 191-198.
2. Cloning and functional expression of a human uridine nucleotide receptor. Communi, D., Piroton, S., Parmentier, M., Boeynaems, J.M. *J. Biol. Chem.*, 270 (1995), 30849-30852.
3. Cloning, functional expression and tissue distribution of the human P<sub>2Y6</sub> receptor. Communi, D., Parmentier, M., Boeynaems, J.M. *Biochem. Biophys. Res. Commun.*, 222 (1996), 303-308.
4. Pharmacological characterization of the human P<sub>2Y4</sub> receptor. Communi, D., Motte, S., Boeynaems, J.M., Piroton, S. *Eur. J. Pharmacol.*, 317 (1996), 383-389.
5. Slow desensitization of the human P<sub>2Y6</sub> receptor. Robaye, B., Boeynaems, J.M., Communi, D. *Eur. J. Pharmacol.*, 329 (1997), 231-236.
6. Cloning of a human heptahelical receptor closely related to the P<sub>2Y5</sub> receptor. Janssens, R., Boeynaems, J.M., Godart, M., Communi, D. *Biochem. Biophys. Res. Commun.*, 226 (1997), 106-112.
7. Cloning of a human purinergic P<sub>2Y</sub> receptor coupled to phospholipase C and adenylyl cyclase. Communi, D., Govaerts, C., Parmentier, M., Boeynaems, J.M. *J. Biol. Chem.*, 272 (1997), 31969-31973.
8. Expression of P<sub>2Y</sub> receptors in cell lines derived from the human lung. Communi, D., Paindavoine, P., Place, G.A., Parmentier, M., Boeynaems, J.M. *Br. J. Pharmacol.*, 127 (1999), 562-568.

9. Pharmacological characterization of the human P2Y<sub>11</sub> receptor. Communi, D., Robaye, B., Boeynaems, J.M. *Br. J. Pharmacol.*, 128 (1999), 1199-1206.
10. Rapid up-regulation of P2Y messengers during granulocytic differentiation of HL-60 cells. Communi, D., Janssens, R., Robaye, B., Zeelis, N., Boeynaems, J.M. *FEBS Letters*, 475 (2000), 39-42.
11. Cloning, genomic organization and tissue distribution of human Ssf-1. Suarez-Huerta, N., Boeynaems, J.M., Communi, D. *Biochem Biophys Res Commun.*, 275 (2000), 37-42.
12. Cotranscription and intergenic splicing of human P2Y<sub>11</sub> and SSF1 genes. Communi, D., Suarez-Huerta, N., Dussossoy, D., Savi, P., Boeynaems, J.M. *J. Biol. Chem.*, 276 (2001), 16561-16566.
13. Identification of a novel human ADP receptor coupled to G<sub>i</sub>. Communi, D., Suarez Gonzalez, N., Detheux, M., Brézillon, S., Lannoy, V., Parmentier, M., Boeynaems, J.M. *J. Biol. Chem.*, 276 (2001), 41479-41485.
14. Adenine nucleotides inhibit human CD4<sup>+</sup> T lymphocytes activation: role of the P2Y<sub>11</sub> receptor. Duhant, X., Schandené, L., Bruyns, C., Suarez Gonzalez, N., Goldman, M., Boeynaems, J.M., Communi, D. *J. Immunol.*, 169 (2002), 15-21.
15. Role of PIGF in the intra- and intermolecular cross talk between the VEGF receptors Flt1 and Flk1. Autiero, M.\*, Waltenberger, J.\*, Communi, Didier\* (\*: first co-authors), Kranz, A., Moons, L., Lambrechts, D., Kroll, J., Plaisance, S., De Mol, M., Bono, F., Kliche, S., Fellbrich, G., Ballmer-Hofer, K., Maglione, D., Mayr-Beyrle, U., Dewerchin, M., Dombrowski, S., Stanimirovic, D., Van Hummelen, P., Dehio, C., Hicklin, D.J., Persico, G., Herbert, J.-M., Communi, David, Shibuya, M., Collen, D., Conway, E.M., Carmeliet, P. *Nature Medicine*, 9 (2003), 936-943.

## **2°) Co-author:**

1. Cloning and tissue distribution of the human P2Y<sub>1</sub> receptor. Janssens, R., Communi, D., Piroton, S., Samson, M., Parmentier, M., Boeynaems, J.M. *Biochem. Biophys. Res. Commun.*, 221 (1996), 588-593.
2. Coexpression of several types of metabotropic nucleotide receptors in single cerebellar astrocytes. Jimenez, A.I., Castro E., Communi D., Boeynaems J.M., Delicado E.G., Miras-Portugal M.T. *J. Neurochem.*, 75 (2000), 2071-2079.

3. P2Y<sub>6</sub> nucleotide receptor mediates monocyte interleukin-8 production in response to UDP or lipopolysaccharide. Warny, M., Aboudola, S., Robson, S.C., Sévigny, J., Communi, D., Soltoff, S.P., Kelly, C.P. *J. Biol. Chem.*, 276 (2001), 26051-26056.
4. Extracellular mRNA induces dendritic cell activation by stimulating TNF- $\alpha$  secretion and signaling through a nucleotide receptor. Ni, H., Capodici, J., Cannon, G., Communi, D., Boeynaems, J.M., Kariko, K., Weissman, D. *J. Biol. Chem.*, 277 (2002), 12689-12696.
5. Pharmacological characterization of the human P2Y<sub>13</sub> receptor. Marteau, F., Le Poul, E., Communi, David, Communi, Didier, Labouret, C., Savi, P., Boeynaems, J.-M., Suarez Gonzalez, N. *Mol. Pharmacol.*, 64 (2003), 104-112.

## **b) Reviews:**

### **1°) First or last author:**

1. Les récepteurs P<sub>2</sub>: une famille en pleine expansion. Communi, D., Parmentier, M., Boeynaems, J.M. *Médecine/sciences*, 12 (1996), 614-619.
2. Receptors responsive to extracellular pyrimidine nucleotides. Communi, D., Boeynaems, J.M. *Trends Pharmacol. Sci.*, 18 (1997), 83-86.
3. Receptors responsive to extracellular uracil nucleotides. Communi, D., Robaye, B., Janssens, R., Parmentier, M., Boeynaems, J.M. *Drug Development Research*, 45 (1998), 130-134.
4. Advances in signalling by extracellular nucleotides: the role and transduction mechanisms of P2Y receptors. Communi, D., Janssens, R., Suarez-Huerta, N., Robaye, B., Boeynaems, J.M. *Cell. Signal.*, 12 (2000), 351-360.
5. Role of P2Y<sub>11</sub> receptors in hematopoiesis. Communi, D., Janssens, R., Robaye, B., Boeynaems, J.M. *Drug Development Research*, 52 (2001), 156-163.

### **2°) Co-author:**

1. Involvement of multiple receptors in the actions of extracellular ATP: the example of vascular endothelial cells. Motte, S., Communi, D., Piroton, S., Boeynaems, J.M. *Int. J. Biochem. Cell Biol.*, 27 (1995), 1-7.
2. Endothelial P<sub>2</sub>-purinoceptors: subtypes and signal transduction. Piroton, S., Communi, D., Motte, S., Janssens, R., Boeynaems, J.M. *J. Auton. Pharmacol.*, 16 (1996), 353-356.
3. P2Y receptors: in the middle of the road. Boeynaems, J.M., Communi, D., Savi, P., Herbert, J.M. *Trends Pharmacol. Sci.*, 21 (2000), 1-3.

4. P2Y receptors. Boeynaems, J.M., Communi, D., Suarez-Huerta, N., Janssens, R., Robaye, B. *Haematologica*, 85 (2000), 15-21.

5. Les récepteurs P2Y des nucléotides extracellulaires: du clonage à la physiologie. Boeynaems, J.M., Communi, D., Suarez Gonzalez, N., Hechler, B., Léon, C., Gachet, C. *Médecine/sciences*, 18 (2002), 965-973.

**c) Abstracts:**

1. Cloning of human pyrimidineric receptors. Communi, D., Piroton, S., Parmentier, M., Boeynaems, J.M. *Drug Development Research*, 37 (1996), 111.

2. Pharmacological characterization of the human P2Y<sub>4</sub> receptor. Communi, D., Boeynaems, J.M., Piroton, S. *Drug Development Research*, 37 (1996), 126.

3. Cloning and tissue distribution of the human P2Y<sub>1</sub> receptor. Janssens, R., Communi, D., Piroton, S., Samson, M., Parmentier, M., Boeynaems, J.M. *Drug Development Research*, 37 (1996), 119.

4. Receptors responsive to extracellular pyrimidine nucleotides. Boeynaems, J.M., Communi, D. *Drug Development Research*, 43 (1998), 1.

5. Cloning and characterization of the P2Y<sub>5</sub>-like receptor. Janssens, R., Boeynaems, J.M., Godart, M., Communi, D. *Drug Development Research*, 43 (1998), 4.

6. Cloning of a human purineric P2Y receptor coupled to phospholipase C and adenylyl cyclase. Communi, D., Parmentier, M., Boeynaems, J.M. *Drug Development Research*, 43 (1998), 4.

7. Role of P2Y<sub>11</sub> receptors in hematopoiesis. Communi, D., Janssens, R., Robaye, B., Boeynaems, J.M. *Drug Development Research*, 50 (2000), 17

**d) Book chapters:**

1. P<sub>2</sub> purinoceptors: localization, function and transduction mechanisms. Chapitre: Involvement of distinct receptors in the actions of extracellular uridines nucleotides. Boeynaems, J.M., Communi, D., Piroton, S., Motte, S., Parmentier, M.; John Wiley, John Wiley & Sons Ltd, Chichester, England (1996), 266-274; discussion 274-277.

2. The P<sub>2</sub> nucleotide receptors. Chapitre: Nucleotide receptors coupling to the phospholipase C signaling pathway. Boeynaems, J.M., Communi, D., Janssens, R., Motte, S., Robaye, B., Piroton, S.; John T. Turner, Gary Weisman and Jeffrey Fedan, The Humana Press Inc., Totowa, USA (1998), 169-183.

## PATENTS

1) **Human P2Y<sub>4</sub> receptor:** Receptor and nucleic acid molecule encoding said receptor. Communi, D., Piroton, S., Parmentier, M., Boeynaems, J.M. 21<sup>th</sup> November 1995.

2) **Human P2Y<sub>11</sub> receptor:** G-coupled receptor showing selective affinity for ATP and nucleic acid molecule encoding said receptor. Communi, D., Parmentier, M., Boeynaems, J.M. 9<sup>th</sup> July 1997.

3) **P2Y like receptors :** Communi, D., Lannoy, V., Govaerts, C., Parmentier, M. 11<sup>th</sup> July 2000.

4) **GPCRx10:** Communi, D., Lannoy, V., Govaerts, C., Parmentier, M. 5<sup>th</sup> December 2000.

5) **GPR86:** The natural ligand for orphan G protein coupled receptor GPR86 and methods of use. Communi, D., Suarez Gonzalez, N., Detheux, M., Brézillon, S., Lannoy, V., Parmentier, M., Boeynaems, J.M. 7<sup>th</sup> Augustus 2001.