

SCIENTIFIC CURRICULUM VITAE
COMMUNI DIDIER

NAME, First Name	COMMUNI, Didier
Nationality	Belgian
Place and date of birth	Vilvorde, 10 th 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.Sc. Biochemistry, Free University of Brussels (U.L.B.) <u>Undergraduate project:</u> Study of the contribution of P_{2U} and P_{2Y} receptors to the activation of endothelial cells by extracellular ATP. <u>Graduated with:</u> Grande Distinction <u>Directed by :</u> Jean-Marie Boeynaems</p>
1993-1998	<p>Ph.D. Biochemistry, Free University of Brussels <u>Ph.D. project:</u> Molecular characterization of three novel receptors activated by extracellular nucleotides. <u>Graduated with:</u> La Plus Grande Distinction et les félicitations du jury <u>Directed by :</u> 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**, 10th June 1999 (Brussels, Belgium), for the Ph.D. thesis.
- **“Best Oral Communication” prize**, 24th May 1998 (Ferrara, Italy), 6th International Symposium on Adenosine and Adenine Nucleotides.

PUBLICATIONS

I. International publications

a) Articles:

1°) First or last author:

1. Coexpression of P_{2Y} and P_{2U} 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_{2Y6} receptor. Communi, D., Parmentier, M., Boeynaems, J.M. *Biochem. Biophys. Res. Commun.*, 222 (1996), 303-308.
4. Pharmacological characterization of the human P_{2Y4} receptor. Communi, D., Motte, S., Boeynaems, J.M., Piroton, S. *Eur. J. Pharmacol.*, 317 (1996), 383-389.
5. Slow desensitization of the human P_{2Y6} 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_{2Y5} 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_{2Y} 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_{2Y} 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 P2Y₁₁ 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 P2Y₁₁ 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_i. 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⁺ T lymphocytes activation: role of the P2Y₁₁ 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 P2Y₁ 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. P2Y₆ 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- α 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 P2Y₁₃ 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 P₂: 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 P2Y₁₁ 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 P₂-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 P2Y₄ receptor. Communi, D., Boeynaems, J.M., Piroton, S. *Drug Development Research*, 37 (1996), 126.

3. Cloning and tissue distribution of the human P2Y₁ 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 P2Y₅-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 P2Y₁₁ receptors in hematopoiesis. Communi, D., Janssens, R., Robaye, B., Boeynaems, J.M. *Drug Development Research*, 50 (2000), 17

d) Book chapters:

1. P₂ 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 P₂ 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 P2Y₄ receptor:** Receptor and nucleic acid molecule encoding said receptor. Communi, D., Piroton, S., Parmentier, M., Boeynaems, J.M. 21th November 1995.

2) **Human P2Y₁₁ receptor:** G-coupled receptor showing selective affinity for ATP and nucleic acid molecule encoding said receptor. Communi, D., Parmentier, M., Boeynaems, J.M. 9th July 1997.

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

4) **GPCRx10:** Communi, D., Lannoy, V., Govaerts, C., Parmentier, M. 5th 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. 7th Augustus 2001.