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Date of birth : Octobre 15, 1970
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Positions held:

- From 2007 Assistant professor - School of Medicine, Université Libre de Bruxelles (U.L.B.)
- From 2002 Researcher, project leader "Mechanisms of GPCRs activation – Functional consequences of GPCRs dimerization"

***Institut de Recherche Interdisciplinaire en Biologie Humaine et Moléculaire
I.R.I.B.H.M. (U.L.B.)***

- 1999 - 2002 Leader of a SPIN-OFF project supported by the *Region Wallonne* with the aim of producing novel yeast-derived antioxydant molecules for pharmaceutical companies

Unité de Physiologie et d'Ecologie Microbienne U.P.E.M. (U.L.B.)

Education:

- 2000 - 2001 : IACE, *Solvay* Business school (U.L.B.)
- 1993 - 1999 : Ph. D. Sciences - Biochemistry - Summa cum Laude (U.L.B.)
- 1988 - 1993 : B. Sc. Chemistry - Biochemistry - Cum Laude (U.L.B.)

Publications

1. Sohy D., Yano, H., de Nadai, P, Urizar, E., Guillabert A., Javitch, J.A., Parmentier, M. and **Springael, J.Y.** Hetero-oligomerization of CCR2, CCR5, CXCR4 and the protean effects of "selective"-antagonists J. Biol. Chem., (2009)
2. Richter, R., Casarosa, P., Ständker, L., Münch, J., **Springael, J.Y.**, Nijmeijer, S., Forssmann, W.G., Vischer, H.F., Vakili, J., Detheux, M., Parmentier, M, Leurs, R. and Smit M.J. Significance of N-Terminal Proteolysis of CCL14a to Activity on the Chemokine Receptors CCR1 and CCR5 and the Human Cytomegalovirus-Encoded Chemokine Receptor US28. J. Immunol. (2009)
3. Gouwy, M. Struyf, S., Noppen, S. Schutyser, E., **Springael, J.Y.**, Parmentier, M., Proost, P. and Van Damme, J. *Synergy between Coproduced CC and CXC Chemokines in Monocyte Chemotaxis through Receptor-Mediated Events.* Mol. Pharmacol. (2008) 74 : 485-495
4. Gaertner, H., Lebeau, O., Borlat, I., Cerini, F., Dufour, B., Kuenzi, G., Melotti, A., Fish, R., Offord, R., **Springael, J.Y.**, Parmentier, M. and Hartley, O. *Highly potent HIV inhibition: engineering key structures from PSC-RANTES into MIP-1 β /CCL4.* Protein Eng Des Sel. (2008) 21: 65-72
5. **Springael, J.Y.**, Urizar E. Costagliola, S, Parmentier, M. and Vassart G. *Allosteric properties of G-protein coupled receptor (GPCR) oligomers.* Pharmacology and Therapeutics (2007) 115:410-418
6. Boudry, C., Markine-Goriaynoff, N., Delforge, C., **Springael, J.Y.**, de Leval, L., Drion, P., Russel, G., Haig, D.M., Vanderplasschen, A.F., and Dewals, B.. *The A5 gene of alcelaphine herpesvirus 1 encodes a constitutively active G-protein-coupled receptor that is non-essential for the induction of malignant catarrhal fever in rabbits.* J. Gen. Virol., (2007) 88: 3224-3233
7. Sohy, D., Parmentier, M., and **Springael, J.Y.** *Allosteric transinhibition by specific antagonists in CCR2/CXCR4 heterodimers.* J. Biol. Chem., (2007).282: 30062-30069.
8. **Springael, J.Y.***, de Poorter, C.*, Deupi, X., Van Durme, J., Pardo, L. and Parmentier, M. *The activation mechanism of chemokine receptor CCR5 involves common structural changes but a different network of interhelical interactions relative to rhodopsin.* Cell. Signal. (2007) 19: 1446-1456
9. Kellenberger, E., **Springael, J.Y.**, Parmentier, M., Hachet-Haas, M., Galzi, J.L., and Rognan, D. (2007). *Identification of nonpeptide CCR5 receptor agonists by structure-based virtual screening.* J. Med. Chem., 50: 1294-1303.
10. Twizere, J.C., **Springael, J.Y.**, Boxus, M., Burny, A, Dequiedt, F., Dewulf, J.F., Duchateau, J., Portetelle, D., Urbain, P., Van Lint, C., Green, P.L, Mahieux, R., Parmentier, M., Willems, L. and Kettmann, R. *Human T-cell leukemia virus type-1 Tax oncoprotein regulates G protein signaling.* Blood. (2006) 109, 1051-1060.
11. **Springael, J.Y.**, Le Minh, P. N., Urizar E., Costagliola, S., Vassart, G. and Parmentier, M. *Allosteric modulation of binding properties between units of chemokine receptor homo- and hetero-oligomers.* Mol. Pharmacol. (2006) 69:1652-61
12. **Springael, J.Y.**, Urizar E. and Parmentier, M. *Dimerization of chemokine receptors and its functional consequences.* Cytokine Growth Factor Rev. (2005) 16: 611-623.
13. El-Asmar, L.* , **Springael, J.Y.***, Ballet, S., Urizar, E., Vassart, G. and Parmentier, M., *Evidence for negative binding cooperativity within CCR5-CCR2b heterodimers.* Mol. Pharmacol. (2005) 67 : 460-469
14. Govaerts, C., Bondue, A., **Springael, J.Y.**, Olivella, M., Deupi, X., Le Poul, E., Wodak, S.J., Parmentier, M., Pardo, L. and Blanpain C., *Activation of CCR5 by chemokines involves an aromatic cluster between transmembrane helices 2 and 3.* J. Biol. Chem. (2003) 278: 1892-1903.
15. Le Poul, E., Loison, C., Struyf, S., **Springael, J.Y.**, Lannoy, V., Decobecq, M.E., Brezillon, S., Dupriez, V., Vassart, G., Van Damme, J., Parmentier, M. and Detheux, M., *Functional characterization of human receptors*

for short chain fatty acids and their role in polymorphonuclear cell activation. *J. Biol. Chem.* (2003) 278: 25481-9

16. **Springael, J.Y.** and Penninckx MJ. Nitrogen-source regulation of yeast gamma-glutamyl transpeptidase synthesis involves the regulatory network including the GATA zinc-finger factors *Gln3*, *Nil1/Gat1* and *Gzf3*. *Biochem J.* (2003) 371: 589-95.
17. Nagy, M.A., Emri, T., Fekete, E., Sandor, E., **Springael, J.Y.**, Penninckx, M.J., Pocsi, I., *Glutathione metabolism of Acremonium chrysogenum in relation to cephalosporin C production: is gamma-glutamyltransferase in the center?* *Folia Microbiol* (2003) 48: 149-55
18. **Springael, J.Y.**, Nikko, E., Andre, B. and Marini, A.M., *Yeast Npi3/Bro1 is involved in ubiquitin-dependent control of permease trafficking.* *FEBS Lett.* (2002) 517: 103-9.
19. Marini, A.M., **Springael, J.Y.**, Frommer, W. and André, B. *Cross-talk between ammonium transporters in yeast and interference by soybean SAT1 protein.* *Mol. Microbiol.* (2000) 38: 552-564
20. **Springael, J.Y.**, De Crane, J.O. and André, B., *The yeast Npi1/Rsp5 ubiquitin ligase lacking its N-terminal C2 domain is competent for ubiquitination but not for subsequent endocytosis of the Gap1 permease.* *Biochem. Biophys. Res. Commun.* (1999) 257: 561-566
21. **Springael, J.Y.**, Galan, J.M., Haguenaer-Tsapis, R. and André, B., *NH₄⁺-induced down-regulations of the Saccharomyces Gap1p permease involves its ubiquitination with lysine-63-linked chains.* *J. Cell Sci.* (1999) 112 : 1375-1383
22. **Springael, J.Y.** and André, B., *Nitrogen regulated ubiquitination of the Gap1 permease of Saccharomyces cerevisiae.* *Mol. Biol. Cell.* (1998) 9: 1253-1263
23. Hein, C.*, **Springael, J.Y.***, Volland, C., Haguenaer-Tsapis, R. and André, B., *NPI1, a essential yeast gene involved in induced degradation of Gap1 and Fur4 permeases, encodes the Rsp5 ubiquitin-protein ligase.* *Mol. Microbiol.* (1995) 18: 77-87
24. André, B. and **Springael, J.Y.**, *WWP, a new amino acid motif present in single or multiple copies in various proteins including dystrophin and the SH3-binding Yes-associated protein Yap65.* *Biochem. Biophys. Res. Commun.* (1994) 205: 1201-1205

(*) co-first authors

Publications without peer reviewing

Nikko,E.; **Springael,J.Y.**; Andre,B.; Marini,A.M. Npi3/Bro1, a novel factor involved in ubiquitin-dependent control of permease trafficking, *Yeast*, (2001) 18, S256

Springael, J.Y. and André, B. NH₄⁺-induced down-regulation of the general amino acid permease Gap1 requires ubiquitin-ligase Npi1/Rsp5, ubiquitin-hydrolase Npi2/Doa4 and several sequences within the C-terminal tail of Gap1, *Yeast* (1998).

Marini, A.M., **Springael, J.Y.** and André, B. Contribution of the Mep NH₄⁺ transporters to the NH₄⁺-induced down-regulation of the general amino-acid permease Gap1 of *Saccharomyces cerevisiae*, *Arch. Inter. Physiol. Bioch. Biophys.* (1998) 106, B12

Springael, J.Y. and André, B. NH₄⁺-induced down-regulation of the general amino-acid permease Gap1 requires ubiquitin protein ligase Npi1/Rsp5 and several sequences within the C-terminal tail of Gap1, *Arch. Inter. Physiol. Bioch. Biophys.* (1998) 106, B15

Springael, J.Y. and André, B. NH₄⁺-induced ubiquitination and down-regulation of the general amino-acid permease Gap1 requires ubiquitin hydrolase Npi2/Doa4. *Arch. Inter. Physiol. Bioch. Biophys.*, (1998) 106, B16

Springael, J.Y. and André, B. Both Npi1/Rsp5 ubiquitin ligase and Npi2/Doa4 ubiquitin hydrolase are required for the NH₄⁺-triggered ubiquitination and endocytosis of the general amino-acid permease Gap1 of *Saccharomyces cerevisiae*, *Arch. Inter. Physiol. Bioch. Biophys.*, (1997) 105, B17

Hein,C., **Springael, J.Y.**, Volland, C., Haguenaer-Tsapis, R. and André, B. Npi1, an essential yeast protein related to human E6-AP ubiquitin-protein ligase, is required for induced degradation of Gap1 and Fur4 permeases, *Yeast* (1995) 11, 12-2B

Springael, J.Y. and André, B. Npi1, a yeast protein required for regulated degradation of Gap1 permease, contains a new repeat motif and is related to the human E6-AP ubiquitin-ligase component, Arch. Inter. Physiol. Bioch. Biophys. (1994) 102, B93

Meetings

Innochem Meeting (2009) Ermenonville, France: **Talk**
Keystone symposium (2008) Killarney, Irland : **poster**
Innochem Meeting (2007) El-Escorial, Spain: **poster**
Gordon Conference (2006) Aussois, France : **poster**
Innochem Meeting (2006) Bellinzona, Switzerland: **Talk**
Keystone symposium (2006) Keystone, U.S.A. : **poster**
FEBS meeting (2003) Bruxelles, Belgium: **poster**
Colloque Levure, Modèle et Outil (V) (2001) Bruxelles, Belgium: **poster**
XIX International Conference on Yeast Genetics and Molecular Biology (1999) Rimini, Italy: **poster**
Colloque Levure, Modèle et Outil (IV) (1998) Arcachon, France: **poster**
Société Belge de Biochimie et de Biologie Moléculaire (1998) Bruxelles, Belgium: **poster**
15th Small Meeting on Yeast Transport and Energetics (1997) Cuernavaca, Mexico: **Talk**
Société Belge de Biochimie et de Biologie Moléculaire (1997) Bruxelles, Belgium: **poster**
Colloque ULB-Lille (1997) Bruxelles, Belgium: **poster**
14th Small Meeting on Yeast Transport and Energetics (1996) Bonn, Germany: **Talk**
Colloque Levure, Modèle et Outil (III) (1996) Strasbourg, France: **poster**
Colloque Lille-ULB (1995) Lille, France: **poster**
European Cell Biology Meeting (1995) Heidelberg, Germany: **poster**
Société Belge de Biochimie et de Biologie Moléculaire (1994)Gent, Belgium: **poster**
12th Small Meeting on Yeast Transport and Energetics (1994) Karpacz, Poland: **Talk**