Philippe PIERRE, PhD

Group leader: Dendritic Cell Biology

Background

2018-2023	Director, Centre d'Immunologie de Marseille-Luminy
2010-	Directeur de Recherche, 1st class, CNRS
2006-2008	Associate Director, Centre d'Immunologie de Marseille-Luminy
2000-	Group leader, Centre d'Immunologie de Marseille-Luminy
1996-1999	Associate research scientist, Yale University School of Medicine, USA
1994-1996	Postdoctoral fellow, Yale University School of Medicine, USA
1990-1994	Ph. D EMBL, Heidelberg, (Ger), Université de Genève, Geneva (CH)
1987-1990	Ingénieur en biotechnologies et DEA, ESBS, ULP Strasbourg (France)

Awards

2015	Laureate of the « J.M. Le Goff Price » for molecular immunology of the French Academy of Sciences
2005	Awardee of the France-Berkeley fund
2003	EMBO Young Investigator
2000	Lauréat de la Fondation Schlumberger pour l'Éducation et la Recherche

Membership

Member of the Henry Kunkel Society

Member of the French Society of Immunology (SFI)

Main achievements of Philippe PIERRE and Evelina GATTI

- Demonstration of DALIS function and linking antigen processing with autophagy. Demonstration that autophagy is regulated differently by TLR stimulation and that it consumes many substrates of the proteasome, therefore influencing antigen processing and presentation in different immune environments.
- Elucidation of MHC class I and II traffic in antigen presenting cells. Demonstration of the redistribution of MHC II molecules from late endosomal compartments to the cell surface upon LPS stimulation of dendritic cells. Study of MARCH E3 ubiquitin ligases during this process.

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- Dissemination of a novel non-radioactive technology to monitor protein synthesis and demonstration of the existence of nuclear protein synthesis.
- Demonstration of the importance for the immune response of different molecules (GADD34 and eIF2a) known to participate in the integrated stress pathways.
- Demonstration of the role of MARCH ubiquitin ligase in the regulation of MHC transport and different immune-receptors in DCs.

Selected publications

- Guanabenz inhibits TLR9 signaling through a pathway that is independent of eIF2α dephosphorylation by the GADD34/PP1c complex. Perego J, Mendes A, Bourbon C, Camosseto V, Combes A, Liu H, Manh TV, Dalet A, Chasson L, Spinelli L, Bardin N, Chiche L, Santos MAS, Gatti E and Pierre P. **Sci Signal**. 2018 Jan 23;11 (514). pii: eaam8104. doi: 10.1126/scisignal.aam8104
- BAD-LAMP controls TLR9 trafficking and signalling in human plasmacytoid dendritic cells. Combes A, Camossetto V, N'Guessan P., Argüello R.J., Mussard J., Caux C., Bendriss-Vermare N., *Pierre P. and *Gatti E. **Nat Commun**. 2017, 8: 913, doi: 10.1038/s41467-017-00695-1. * Co-last authors
- Guanabenz Prevents D-Galactosamine/Lipopolysaccharide-Induced Liver Damage and Mortality. Perego J., Bourbon C., Chasson L., Laprie C., Spinelli L., Camosseto V., Gatti E. and Pierre P. **Front. Immunol.**, 2017. doi.org/10.3389/fimmu.2017.00679
- MARCH9 mediated-ubiquitination regulates MHC I export from the TGN. De Angelis Rigotti F, De Gassart A, Pforr C, Cano F, N'Guessan P, Combes A, Camossetto V, Lehner P, Pierre P, Gatti E. **Immunol Cell Biol**. 2017 doi: 10.1038/icb.2017.44. PMID:28559542
- Protein synthesis inhibition and GADD34 control IFN-beta heterogeneous expression in response to dsRNA. Dalet A., Argüello R.J., Combes L., Spinelli L., Jaeger S., Fallet M., Vu Manh T-P, Mendes A., Perego J., Reverendo M., Camosseto V., Dalod M., Weil T., Santos M. A. S. Gatti E. and Pierre P. **EMBO J**. 2017 e201695000. doi: 10.15252/embj.201695000
- RUN and FYVE domain-containing protein 4 enhances autophagy and lysosome tethering in response to Interleukin-4. Terawaki S, Camosseto V, Prete F, Wenger T, Papadopoulos A, Rondeau C, Combes A, Rodriguez Rodrigues C, Vu Manh TP, Fallet M, English L, Santamaria R, Soares AR, Weil T, Hammad H, Desjardins M, Gorvel JP, Santos MA, Gatti E, Pierre P. **J. Cell Biol**. 2015 Sep 28;210(7):1133-52. doi: 10.1083/jcb.201501059
- PLEKHM1 Regulates Autophagosome-Lysosome Fusion through HOPS Complex and LC3/GABARAP Proteins. McEwan DG, Popovic D, Gubas A, Terawaki S, Suzuki H, Stadel D, Coxon FP, Miranda de Stegmann D, Bhogaraju S, Maddi K, Kirchof A, Gatti E, Helfrich MH, Wakatsuki S, Behrends C, Pierre P, Dikic I. **Mol Cell**. 2015 Jan 8;57(1):39-54