



## Giovanna CHIMINI, MD, PhD

International exchanges & partnerships

### Background

- Born in Genoa, Italy, University of Genoa Medical School
- Medical doctorate magna cum laude in 1981 and PhD in thyreology, magna cum laude in 1984
- Post doctorate at the UCSD, US and at the CIML
- Recruited in 1989 at the CNRS and Group Leader at the CIML from 1992 to 2010
- Director of research since 1997
- Member of ELSO databases of Expert Women in the Molecular Life Sciences
- In charge of International exchanges and Institutional Partnerships at CIML since 2010
- Associated Dean for research and international affairs at Aix-Marseille University , School of Sciences since 2015

### Director of Institut d'Études Scientifiques de Cargèse from 2008 to 2018

Located in Cargèse Corsica, the Institut d'Études Scientifiques de Cargèse (IESC) is devoted to organization of high level scientific conferences, summer schools and workshops. Historically nucleation of ideas leading to major scientific advancements has happened at the institute. The high-quality scientific program is selected from spontaneous proposals to foster exchange of ideas at the frontiers of any scientific field. Fundamental research or technology is privileged with particular attention to emerging fields at the leading edge of science.

Several scientific areas are covered: from physics and mathematics to biology and environmental sciences

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### Main research activity and scientific achievements

- Main research interests focused on the discovery and dissection of the structural complexity and function of the family of ATP Binding cassette Transportes in mammals
- Nomenclature and classification of ATP binding cassette transporter family in mammals.
- Highlights on the function of several ABC-A members
- Molecular assessments of control steps in cellular cholesterol homeostasis, rheostat for blood HDL levels and risk for cardiovascular disease.
- Dissection of phagocytosis of dead cells by macrophages in mammals, the downstream arm of the genetic control of cell turnover.

## Selected publications

- T. Lhermusier, S. Séverin, J. Van Rothem, C. Garcia, J. Bertrand-Michel, P. Le Faouder, B. Hechler, C. Broccardo, P. Couvert, G.Chimini, P. Sié , B. Payrastre, ATP-binding cassette transporter 1 (ABCA1) deficiency decreases platelet reactivity and reduces thromboxane A2 production independently of hematopoietic ABCA1. J Thromb Haemost. 2016 Mar;14(3):585-95
- Bocer T., Zarubica A, Roussel A, Flis K, Trombik T, Goffeau A, Ulaszewski S, Chimini G. The mammalian ABC transporter ABCA1 induces lipid-dependent drug sensitivity in yeast. BBA - Molecular and Cell Biology of Lipids (2012 Mar;1821(3):373-80
- Zarubica A., Plazzo A.P., Stockl M., Korte T., Hamon Y., Pomorski T., Hermann A., G. Chimini. Functional implication of the influence of ABCA1 in lipid microenvironment at the plasma membrane. A biophysical study. 2009, FASEB J. Jun;23(6):1775-85
- COMBES V. , COLTEL N. , ALIBERT M. , VAN ECK M., RAYMOND C., JUHAN-VAGUE I. , GRAU G.E., G. CHIMINI. ABCA1 gene deletion protects against cerebral malaria: potential pathogenic role of microparticles in neuropathology Am J. Pathol. 2005, 166: 295-302
- CHIMINI, G. Apoptosis: Repulsive encounters. Nature 2002,418:139-41
- HAMON Y, BROCCARDO C, CHAMBENOIT O, LUCIANI MF, TOTI F, CHASLIN S, FREYSSINET JM, DEVAUX P, MCNEISH J, MARGUET D, CHIMINI G. ABC1 promotes engulfment of apoptotic cells, specific release of membrane lipids and transbilayer redistribution of phosphatidylserine. Nat Cell Biol. 2000 2:399-406.
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- ORSO E, BROCCARDO C, KAMINSKI WE, BOTTCHER A, LIEBISCH G, DROBNIK W, GOTZ A, CHAMBENOIT O, DIEDERICH W, LANGMANN T, SPRUSS T, LUCIANI MF, ROTHE G, LACKNER KJ, CHIMINI G. SCHMITZ G. Transport of lipids from golgi to plasma membrane is defective in tangier disease patients and Abc1-deficient mice. Nat Genet. 2000 2:192-6.
- LUCIANI,M.F., CHIMINI,G. (1996) The ATP binding cassette transporter, ABC1, is required for the engulfment of corpses generated by apoptotic cell death. EMBO J. 15,2226-35