

Frédéric Frézard – Curriculum Vitae

Personal data

Residential : Rua Fabio Couri 335, Apart. 801B, Luxemburgo
30380-560 Belo Horizonte, Minas Gerais, Brazil.
Tel# +55 31 32966112 – Cel# +55 31 984271132

Professional : Laboratory of Biophysics of Nanostructured Systems
Department of Physiology and Biophysics
Institute of Biological Sciences
Universidade Federal de Minas Gerais (UFMG)
Av. Antonio Carlos 6627, Pampulha
31270-901 Belo Horizonte, Minas Gerais, Brazil.
e-mails: frezard@icb.ufmg.br; frezardf@gmail.com
Tel# +55 31 34092940 – Fax# +55 31 34092924

Born: Melun (France), 1964, december 24
Citizenship: French

Education

1986 – DEUG in Biological & Physicochemical Sciences, Univ. Paris 6, France
1987 – DEA in Molecular Biophysics, Univ. Paris 6, France
1990 – Doctorate in Biophysics – Univ. Paris 6, France
1995 – Habilité à Diriger des Recherches – Univ. Paris 13, France

Professional experience

1987 – 90 **Doctorat in Biophysics** – Université Paris 6, France.
Title: “Nouvelle méthode d'analyse du transport des anthracyclines dans les cellules: application à l'étude des mécanismes de transport des anthracyclines dans les cellules sensibles et résistantes”. Advisor: Pr. Arlette Ganier-Suillerot

1990 – 91 **Post-doc at University of Florida**, Gainesville, FL, USA
Supervisor: Pr. Thomas Rowe

1992 – 93 **Post-doc CNRS/Industry** at Université de Nice, France
Supervisor: Pr. Jean Riess

1994 – 97 **Invited researcher**, Fundação Ezequiel Dias, Belo Horizonte, Brazil

1998 – 06 **Visiting Professor** at Université Paris Nord, France (6 invitations)

2007 **Post-doc at Virginia Commonwealth University**, VA, USA
Supervisor: Pr. Nicholas Farrell

1997- 12 **Associate Professor**
Departamento de Fisiologia e Biofísica – ICB
Universidade Federal de Minas Gerais, Belo Horizonte, Brazil

Since 2013 **Full Professor** at Universidade Federal de Minas Gerais

2017 - 19 **Laureate of the Chaire Jean d’Alembert**, Université Paris-Saclay, France

2020 – 22 **Laureate of the Chaire d’Excellence DIMIHealth**, France.

Academic administration

2009-11 Head of the Postgraduate Program in Biological Sciences, Physiology and Pharmacology, Universidade Federal de Minas Gerais

2013-19 Head of the Professional Master in Biopharmaceutical Innovation, Universidade Federal de Minas Gerais

2013 - 17 Coordinator of the Nanobiotechnology Network of the state of Minas Gerais

2013 - 17 Treasurer of the Brazilian Biophysical Society

Personal Statement

He's a professor at Department of Physiology and Biophysics, Universidade Federal de Minas Gerais (UFMG), Brazil, since 1997. He was head of the Graduate Program in Physiology and Pharmacology (UFMG) from 2009 to 2011, and head of the Professional Master in Biopharmaceutical Innovation (UFMG) from 2013 to 2019. His expertise is in the fields of membrane biophysics, drug delivery systems and metallodrugs. From 1987 to 1991, his main research interest has been the transport mechanisms involved in cellular multidrug resistance. From 1992 until now, he developed several innovative lipid-based delivery strategies for drugs and bioactive peptides, looking mainly for therapeutics and vaccines against infectious diseases. Since 2000, he also made significant contributions to the pharmacology of antimonial drugs and the improvement of their delivery through chemical and nanotechnological approaches. His Lab has received continuous financial support from Brazilian research funding agencies (CNPq, FAPEMIG and CAPES) since 1995 (23 project grants as principal investigator and a Senior Investigator Award). He has authored 140 peer-reviewed publications and mentored 23 graduate students (11 MSc and 12 PhD) and several undergraduate students. In 2020, he was cited among the most influential scientists in the World (Top 2% in Pharmacology & Pharmacy - <https://doi.org/10.1371/journal.pbio.3000918>). He also authored 08 international patents applications and 15 national patent applications. He's an inventor of a liposome-based dermocosmetics that reached the Brazilian market in 2018.

Contributions to Science and Technology

Number of scientific paper in refereed journals: 140 - **Book chapters:** 9

h-index: 33; **Times cited:** 2962 (Web of Science)

h-index: 41; **Times cited:** 4904; **ih10:** 97 (since 2016: 61) (Google Scholar)

Patent applications: 22 (including 8 PCT) – **Granted patents:** 12

Licensed technologies: 3 – **Marketed product :** 1

Co-founder of 2 Start-up: Labfar Pesquisa&Serviços LTDA; Alamantec P&D LTDA

Selected publications (five selected in the last five years, out of 140):

Ramos, G.S.; Vallejos, V.M.R. ; Ladeira, M.S. ; Reis, P.G. ; Souza, D.M. ; Machado, Y.A. ; Ladeira, L/O. ; Pinheiro, M.B.V. ; Melo, M.N. ; Fujiwara, R.T. ; Frézard, F. Antileishmanial activity of fullerol and its liposomal formulation in experimental models of visceral leishmaniasis. **Biomedicine & Pharmacotherapy** 134, 111120, 2021.

Dos Santos, C.C.P. ; Ramos, G.S. ; De Paula, R.C. ; Faria, K.F. ; Moreira, P.O.L. ; Pereira, R.A. ; Melo, M.N. ; Tafuri, W.L. ; Demicheli, C. ; Ribeiro, R.R. ; Azevedo, E.G. ; Do Monte-Neto, R. ; Da Silva, S.M. ; Frézard, F. Therapeutic Efficacy of a Mixed Formulation of Conventional and PEGylated Liposomes Containing Meglumine Antimoniate, Combined with Allopurinol, in Dogs Naturally Infected with *Leishmania infantum*. **Antimicrobial Agents Chemotherapy** 64(7):e00234-20, 2020.

Lanza, J.S.; Pomel, S.; Loiseau, P.M.; Frézard, F. Recent advances in amphotericin B delivery strategies for the treatment of leishmaniases. **Expert Opinion on Drug Delivery** 16:1063-1079, 2019.

Fontes, M.A.P.; Vaz, G.C.; Cardoso, T.Z.D.; de Oliveira, M.F.; Campagnole-Santos, M.J.; Dos Santos, R.A.S.; Sharma, N.M.; Patel, K.P.; Frézard, F. GABA-containing liposomes: neuroscience applications and translational perspectives for targeting neurological diseases. **Nanomedicine** 14, 781-8, 2018.

Lanza, J.S.; Fernandes, F.R.; Corrêa-Júnior, J.D.; Vilela, J.M.; Magalhães-Paniago, R.; Ferreira, L.A.; Andrade, M.S.; Demicheli, C.; Melo, M.N.; Frézard, F. Polarity-sensitive nanocarrier for oral delivery of Sb(V) and treatment of cutaneous leishmaniasis. **International Journal of Nanomedicine** 11, 2305-18, 2016.