

Dr Pascale DELANGLE

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Researcher at CEA Grenoble since 1997

Leader of the group "metal-peptide interactions" since 2005.

Research topics: Peptide design for selective metal ion chelation

- **Cu(I) selective chelators**, inspired from proteins involved in copper homeostasis and targeted at the hepatocytes, to treat localized copper accumulation in the rare Wilson's disease.
- **Lanthanide-binding peptides** as magnetic or luminescent probes for DNA recognition.
- **Actinide-binding peptides** to mimic actinide's interaction with proteins to understand the molecular mechanisms responsible for their toxicity and to design peptide-based detoxification agents.

Education

2005 Habilitation à Diriger des Recherches (University of Grenoble)

"Selective complexation of metal ions: key-parameters for affinity and selectivity"

1996 PhD in Chemistry (Ecole Normale Supérieure de Lyon)

"Design and study of novel receptors for metal cations: phosphorous hemispherand and cavitand"

PhD supervisor: Dr Jean-Pierre Dutasta

1989-1993 Student at the Ecole Normale Supérieure de Lyon

5 selected publications

- Pujol, A. M., M. Cuillel, A.-S. Jullien, C. Lebrun, D. Cassio, E. Mintz, C. Gateau and P. Delangle (2012). "A sulfur tripod glycoconjugate releases a high affinity copper chelator in hepatocytes." *Angewandte Chemie International Edition* **51**: 7445-7448.
- Pujol, A. M., M. Cuillel, O. Renaudet, C. Lebrun, P. Charbonnier, D. Cassio, C. Gateau, P. Dumy, E. Mintz and P. Delangle (2011). "Hepatocyte targeting and intracellular copper chelation by a thiol-containing glycocyclopeptide." *Journal of the American Chemical Society* **133**: 286-296.
- Jullien, A.-S., C. Gateau, I. Kieffer, D. Testemale and P. Delangle (2013). "X-Ray Absorption Spectroscopy Proves the Trigonal Planar Sulfur-Only Coordination of Cu(I) with High Affinity Tripodal Pseudopeptides ." *Inorganic Chemistry* **52**: 9954-9961.
- Ancel, L., C. Gateau, C. Lebrun and P. Delangle (2013). "DNA Sensing by a Eu-Binding Peptide Containing a Proflavine Unit." *Inorganic Chemistry* **52**: 552-554.
- Bonnet, C. S., P. H. Fries, S. Crouzy, O. Sénèque, F. Cisnetti, D. Boturyn, P. Dumy and P. Delangle (2009). "A Gadolinium-Binding Cyclodecapeptide with a Large High-Field Relaxivity Involving Second-Sphere Water." *Chemistry-a European Journal* **15**: 7083-7093.

Other professional experiences

1993-1997 Teacher at the Ecole Normale Supérieure de Lyon

1998- 2014 Teacher in Licence and master at Grenoble University

2012-2013 Organisation of two international conferences (IMBG 2012 and ICBC16)