



# Célia Bonnet

Centre de Biophysique Moléculaire  
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## Current appointment and research interests

Since **2010**-Centre de Biophysique Moléculaire (CBM) **Orléans**: CNRS researcher

**Research interest** : Design of Magnetic Resonance Contrast Agents responsive to physiological ions and other stimuli (enzymatic activities...)

## Education

2018 **Habilitation degree** (French HDR), Université d'**Orléans**  
2002-2006 **PhD and Monitorat**. Université Joseph Fourier (UJF) **Grenoble**.  
2001-2002 **Master Degree in Physical Chemistry (DEA)**. UJF **Grenoble**.  
2000-2001 **Agrégation** (French highest competitive exam for teaching). ENS **Lyon**

## Career and employment

2010- Centre de Biophysique Moléculaire (CBM) **Orléans**: CNRS researcher  
2008-2010 CBM **Orléans**: Postdoctoral research associate, *dir. E. Jakab-Toth*  
2006-2008 Trinity College **Dublin** : Postdoctoral research associate, *dir. T. Gunnlaugsson*  
2002-2006 CEA **Grenoble**, PhD in chemistry, *dir. P. Delangle and P. Fries*

## Responsibilities, panel membership, editorial activities

**2021-now** : co-leader of the team "Metal complexes and MRI"  
**2021-now**: Treasurer of the scientific association "Centre des Terres Rares et des Actinides"  
**2016-2021**: Member of the CNRS commission (Comité National) section 16 (chemistry for biology)  
**2018-now**: Leader of the work package MRI in the French GDR Molecular Imaging agents  
**2020-now**: Elected member of the section comitee CNU section 32 of Orleans' university  
**2018**: Member of French HCERES evaluation  
**2016-2021**: Member of the COST Action CA15209 Eurelax (management committee for the second period)  
**2012**: Member of a jury committee for the selection of a MCF  
**Since 2012**: 15 PhD defense committees  
**Member of the editorial board** of "Results in Chemistry" (Elsevier) and Inorganics (MDPI)

## Publications

56 publications in peer-reviewed journals; 5 book chapters; 1 patent; Guest editor of a special issue "MRI contrast agents" for Inorganics (MDPI) ; 20 invited national and international conferences/seminars

### 5 major publications:

1. Wang G., Martin H., Amézqueta S., Rafols C., Bonnet C.S.\*, Angelovski G.\*, **2022**, *Inorg. Chem.*, accepted. « Insights into the responding modes of highly potent gadolinium-based MRI probes sensitive to zinc ions" (Front Cover)

2. Bödenler M., Malikidogo K.P., Morfin JF, Aigner CS, Toth E., Bonnet C.S.\*, Scharfetter H.\*, Chem. Eur. J., **2019**, 25, 8236-8239. « High-Field Detection of Biomarkers with Fast Field-Cycling MRI: The Example of Zinc Sensing» (Hot Paper)
3. Malikidogo K.P., Da Silva I., Morfin J.F., Lacerda S., Barantin L., Sauvage T., Sobilo J., Lerondel S., Toth E.\*, Bonnet C.S.\*, Chem. Comm. **2018**, 54, 7597-7600. « A cocktail of  $^{165}\text{Er}(\text{III})$  and  $\text{Gd}(\text{III})$  complexes for quantitative detection of zinc by SPECT and MRI » (Cover)
4. Isaac M., Pallier A., Szeremeta F., Bayle P.-A., Barantin L., Bonnet C.S.\*, Sénèque O.\*, Chem. Comm. **2018**, 54, 7350-7353. « MRI and luminescence detection of  $\text{Zn}^{2+}$  with a lanthanide complex-zinc finger conjugate”
5. He J, Bonnet CS., Eliseeva SV, Lacerda S, Chauvin T, Retailleau P, Szeremeta F, Badet B, Petoud S, Toth E., Durand P, J. Am. Chem. Soc., **2016**, 138, 2913. « Prototypes of Lanthanide(III) agents responsive to enzymatic activities in three complementary imaging modalities : visible/near\_infrared luminescence, PARACEST-, and  $T_1$ -MRI » (Front Cover)