

**Renard Denis, 53 years**

Married – 3 children

***Education and academic degrees***

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**2008 Accreditation to research management and supervision of PhD students**Subject: "Towards an integrative physical chemistry approach of biological protein assemblies"  
Nantes University**1994 PhD thesis** Unit of Macromolecular Physical Chemistry (INRA Nantes)Subject: "Study of aggregation and gelation of globular proteins. Case of  $\beta$ -lactoglobulin"  
Nantes University. PhD supervisors: Jacques Lefebvre and Monique Axelos***Current position***

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Senior Research Scientist (Director of Research) – Research Unit 1268 Biopolymers Interactions Assemblies – INRA Nantes

Member of Neutron French Society (SFN), Bioencapsulation Research Group (BRG), French Synchrotron Radiation Users (AFURS)

***Other experiences***

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**1994-1996 Post-doc** at Léon Brillouin Laboratory (CEA Saclay)Subject: "Small angle neutron scattering study of protein-polysaccharide mixtures under shear" Supervisor: François Boué**1996-2008 Academic teaching** (40 h) 3<sup>rd</sup> year school engineers (INA-Paris-Grignon, ENITIAA Nantes); Masters 2 (Angers, Nantes)**1998-2007 Professional training** (30 h) CIIA, ARCHIMEX, INRA-CNRS Group of Research "Plant Molecules Assemblies"***Total number of publications***

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Author or co-author of **55** peer-reviewed international **publications**, 7 proceedings, **10 book chapters**, **130 communications in national and international congresses*****Coordinating experiences***

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**2016** Book co-editing "Advances in PhysicoChemical Properties of Biopolymers" M. Masuelli et D. Renard, eds, Bentham eBooks**2015** Member of the local organizing committee of DOF 2015 Paris (Delivery Of Functionality in complex food systems)**2013** Microfluidics workshop in the framework of the Training School on Bioencapsulation (organizers: Oniris, BIA)**2009-2010** Member of the ESRF selection committee for "Soft condensed matter & biological materials"

Coordination of the "Medium throughput physical chemistry" workgroup for BIA unit (~500 keuros financial grants)

**2007** Co-organizer of the Large West Biology-Physics Meetings (Batz/mer)**2006** Training courses on small angle scattering "for dummies" organized for members of GDR INRA-CNRS "Plant Molecules Assembly"**2004** Professor (M. Ngassoum Ngaoundere University) sabbatical stay coordination**2002-today** Member of the scientific comitee SOLEIL – CEPIA (INRA department)**2000-2002** Member of the Scientific Council of Nantes INRA Center**2001** Book editing "Plant Biopolymer Science" and co-organizer of the "Plant Biopolymer science" international congress**2000** Assistant-professor (C. Sanchez ENSAIA Nancy) sabbatical stay coordination**1998-today** Co-direction of 15 PhD students, 2 post-doc, 15 students***Scientific assessment***

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**2011** Member of "Nanostructured Assemblies" group of BIA Unit - Nantes**2009-2010** Head of "Plant Proteins Assembly" group of BIA Unit - Nantes**2005-2006** Research teams evaluation for the annual prize of *La Recherche* french magazine

- 2004** "Dynamics of biopolymer networks and textures" research project evaluation for the Wageningen Center for Food Science
- 2000** "Biopolymer dispersions and gels" research project evaluation for the Wageningen Center for Food Science
- 1998-today** Referee (~450 papers) for different peer-reviewed international journals (J. Am. Chem. Soc., Langmuir, Biomacromolecules, JAF, IJBM, J. Phys. Chem., Carb. Polym., Carb. Research, Food Hydrocoll.,...)

### ***Publications (short list)***

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- E. Martins, **D. Renard**, J. Davy, M. Marquis, D. Poncelet (2015) Oil core microcapsules by alginate inverse gelation technique. *J. Microencapsulation* (IF 1.585), **32**(1), 86-95.
- M. Marquis, J. Davy, B. Cathala, A. Fang, **D. Renard** (2015) Microfluidics assisted generation of innovative polysaccharide hydrogel microparticles. *Carb. Polym.* (IF 4.074), **116**, 189-199.
- C. Karakasyan, J. Mathos, S. Lack, J. Davy, M. Marquis, **D. Renard** (2015) Microfluidics-assisted generation of stimuli-responsive hydrogels based on alginates incorporated with thermo-responsive and amphiphilic polymers as novel biomaterials. *Colloids and Surfaces B* (IF 4.152), **135**, 619-629.
- D. Renard**, L. Lavenant-Gourgeon, A. Lapp, M. Nigen, C. Sanchez (2014) Enzymatic hydrolysis studies of arabinogalactan-protein structure from Acacia gum: the self-similarity hypothesis of assembly from a common building block. *Carb. Polym.*, **112**, 648-661.
- A. Schmit, L. Courbin, M. Marquis, **D. Renard**, P. Panizza (2014) A pendant drop method for the production of calibrated double emulsions and emulsion gels. *RSC Advances*, **4**, 28504-28510.
- M. Marquis, J. Davy, A. Fang, **D. Renard** (2014) Microfluidics-assisted diffusion self-assembly: toward the control of the shape and size of pectin hydrogel microparticles. *Biomacromolecules*, **15**, 1568-1578.
- M. Marquis, **D. Renard**, B. Cathala (2012) Microfluidic generation and selective degradation of biopolymer-based Janus microbeads. *Biomacromolecules* **13**, 1197-1203.
- D. Renard**, C. Garnier, A. Lapp, C. Schmitt, C. Sanchez (2012). The Structure of Arabinogalactan-Protein from Acacia gum: From porous ellipsoidal conformations to supramolecular architectures. *Carb. Polym.* **90**, 322-332.
- J. Beneteau, **D. Renard**, L. Marche, E. Douville, L. Lavenant, Y. Rahbé, F. Vilaine, S. Dinant (2010). A role for high mannose N-glycans and O-linked N-acetylglucosamine binding PP2-A1 lectin in *Arabidopsis thaliana*, *Plant Physiol.* **153**, 1345-1361.
- C. Sanchez, A. Lapp, C. Schmitt, C. Gaillard, E. Kolodziejczyk, **D. Renard** (2008). Acacia gum arabinogalactan-peptide is a thin disk: a new model based on SANS and *ab initio* model calculation, *Biophysical J.* **94** 629-639.