## Bernard KLOAREG

Dr. es Sciences, Professor (PRCE), Université Pierre et Marie Curie Born : December 19, 1953 Married, 4 children

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## Education

- 1973-1976: Institut National Agronomique, Paris-Grignon, France (majoring in Biochemistry applied to Agronomy).
- 1975-1978: Université Paris XI, Orsay, France. DEA and M Sc. Thesis in plant genetic improvement.
- 1978-1984: Thèse d'état, Université de Bretagne Occidentale: Structure and physicochemistry of the cell walls of marine algae.

## Positions and responsabilities

- 1992-1998: Director of GDR 1002 " Biology, biochemistry and genetics of marine macroalgae" (CNRS-IFREMER).
- 1999-2003: Director of UMR 1931 "Oligoaccharides, defense and development in plants" (CNRS-Laboratoires Goëmar), then of UMR 7139 (CNRS-Goëmar-UPMC) "Marine plants and biomolecules".
- 2003-2007, Director of the GIS « Institut de la Génomique Marine ».
- 2004-present, Director of the Roscoff Marine Biological Station (CNRS and UPMC).

## <u>Memberships</u>

- Comité National de la Recherche Scientifique, Plant Biology panel, 1992-2000;
- Academy of Sciences, France, Integrative Biology (corresponding member), 1999present;
- Conseil National des Universités, Ecology panel, 2000-2003;
- Génoscope (French National Sequencing Center, IBiSa), member of the Scientific Council, 2003-2012).

**Bernard KLOAREG** (59), Dr. Sci, has been employed by the CNRS for 30 years. He now is Professor at the Université Pierre et Marie Curie.

He was trained in agronomy, biochemistry and genetics (Institut National Agronomique, Paris-Grignon, and Université Paris XI, Orsay). His research interests (over 140 publications) were first the structure and functions of plant cell walls, using marine macroalgae as experimental systems. He then addressed various other aspects of basic plant biology, such as the origin and evolution of plastids and mitochondria, again using marine algae as models. He is also interested in technology transfer and he created and directed, from 1999-2003, a joint laboratory with a SME, The Goëmar Laboratories (St Malo, France), to develop the use of oligosaccharides for disease control in agricultural crops (12 patents, one product on the market).

More recently he has participated in the development of genomics in marine algae, specifically in the contexts of understanding the origin and evolution of carbohydrate metabolism in eukaryotes, and delineating the molecular basis of the emergence of multi-cellularity in the Phaeophytes and the Rhodophytes. He has also participated in studies on the genomics and biochemistry of various bacteria associated to these seaweeds in view of understanding, at the structural biology level, the mode of action of the enzymes that degrade marine algal polysaccharides.

From 2003-2007, he was Director of the Scientific Interest Group (GIS) « Institut de la génomique Marine », where he promoted the development of marine genomics in France.

He represented France in the FP6 Network of Excellence "Marine Genomics Europe" (2004-2009, Director C. Boyen), which fostered the integration of marine biology in Europe, using genomics as a de-fragmentation scaffold.

He currently coordinates the participation of France in the implementation phase of the "European Marine Biological Resource Centre" (EMBRC), an ESFRI infrastructure project. The French node, EMBRC-France, was recently accepted to become an "Infrastructure Nationale en Biologie et Santé" (programme "Investissements d'Avenir"), in order to implement the participation of France in EMBRC. He also leads the H2020 Research and Innovation action "European Marine Biological Resources Infrastructure Cluster" (EMBRIC, INFRADEV-4-1).