

Curriculum Vitæ

James Nathaniel STURGIS

Born 24 Decembre 1958

London England.

**Full Professor of Biochemistry and Molecular Biology
University of the Mediterranean**

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**Leader of the research group
«Assembly and Dynamics of Membrane Proteins»
in the laboratory UPR 9027 of the CNRS**

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Education

1977-1980	Natural Sciences, University of Cambridge (UK)
1980-1984	Biochemistry, University of Bristol (UK)
1985-1989	Molecular Biology and Biochemistry, Rutgers University (NJ, USA).

Employment

1989-1992	Assistant Professor, <i>Rutgers, the State University of New Jersey., USA :</i> <i>Department of Molecular Biology and Biochemistry.</i>
1993-1998	<i>Research in the laboratory of Dr. Bruno Robert in the CEA (Saclay).</i>
1993-1995	Marie-Curie Fellowship.
During this period I also spent:	
1995	4 months EMBO fellowship at the University of Geneva, Switzerland (Laboratory of Dr. R. Ghosh).
1997	3 months at the Institut Pasteur, Paris (Laboratory of Dr. N. Tandeau de Marsac).
1998-present	<i>Professor of Biochemistry in the Department of Molecular and Cellular Biology Faculty of Sciences of Luminy, University of the Mediterranean (promoted to 1st class 2004)</i>

Research Interests

I am interested in developing an interdisciplinary approach to the study of membrane protein interactions. In particular I have developed in the group an approach that combines molecular biology and biochemistry with modeling, imagery, and spectroscopy. We use this multidisciplinary approach to study several different systems, notably bacterial photosynthetic membranes, the *E. coli* membranes and single trans-membrane helix proteins such as tyrosine kinase associated receptors.

Teaching Responsibilities

Professor of Biochemistry in charge of the programme for biochemistry teaching at Licence and Master levels in the University of the Mediterranean. Representative for the Department of Molecular and Cellular Biology for the organisation of the programme in Biophysics, organised jointly by the departments of biology and physics.

I participate actively in the teaching of Biophysics and Biochemistry, in particular I give lecture courses in “Biochemistry 2” (mostly 2nd year students), Biochemistry and Molecular Machines (3rd year students), Physical chemistry of Biological Macromolecules (1st year masters students), Membrane proteins (2nd year masters students) and Methods for analysing protein-protein interactions (2nd year masters students). I also give occasional courses outside the university for researchers and others.

Scientific Production

More than 50 articles in Reviewed Journals including recently:

1. Simon Scheuring and **James N. Sturgis** (2006) Dynamics and diffusion in photosynthetic membranes from *Rhodospirillum photometricum*. *Biophys. J.* **91**: 3707-3717.
2. Emilien Etienne, Pierre-François Lenne, **James N Sturgis** and Hervé Rigneault (2006) Confined diffusion in tubular structures analyzed by fluorescence correlation spectroscopy on a mirror. *Applied Optics* **45**: 4497-4507
3. Simon Scheuring and **James N. Sturgis** (2005) Chromatic adaptation of photosynthetic membranes *Science* **309**: 484-487
4. Jaime Arce-Lopera, **James N. Sturgis** and Jean-Pierre Duneau (2005) Ptuba: A tool for the visualisation of helix surfaces in proteins. *J. Mol. Graphics and Modelling* **23**: 305-315.
5. Simon Scheuring, Jean-Louis Rigaud and **James N. Sturgis** (2004) Variable LH2 stoichiometry and core clustering in native membranes of *Rhodospirillum photometricum* *EMBO J.* **23**: 4127-4133
6. Fisher LE, Engelman DM, and **Sturgis JN.** (2003) Effects of detergents on the association of the glycoporphin a transmembrane helix *Biophys. J.* **85**: 3097-3105.
7. Ventre I, Ledgham F, Prima V, Lazdunski A, Foglino M, **Sturgis JN.** (2003) Dimerization of the quorum sensing regulator RhIR: development of a method using EGFP fluorescence anisotropy. *Mol Microbiol.* **48**: 187-98.

Reviewing and Evaluation

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| since 1998 | Regular article reviewer for many Academic Journals including:
<i>Biochemistry, FEBS Lett., Molecular Microbiology, EMBO J., Biophys J., J. Mol. Biol.</i> |
| since 1998 | Grant evaluations for SERC (UK), Wellcome Trust (UK), ANR (France), DFG (Germany), CEA (France), Rhone-Alps Region (France), CNRS (France). |
| since 2002 | President of the University Recruiting Commission (Commission de Spécialistes) for Biochemistry, Molecular Biology, Cellular Biology, Physiology and Neurosciences. |

Areas of Expertise

Expert in Molecular Biophysics and Biophysical Chemistry of Membrane Proteins in general but with a special interest in photosynthesis. With particular expertise in Optical Spectroscopy (Absorption and Fluorescence), Vibrational Spectroscopy (Infrared absorption and Raman) and the Biochemistry of Membranes.