

## *Curriculum vitae*

<i>Last Name:</i>	<b>Forest</b>
<i>First name:</i>	<b>Eric</b>

### *University education at the Joseph Fourier University in Grenoble, France*

1995:	Ability to supervise research (HDR) in biology, University Joseph Fourier, Grenoble, France.
1983:	PhD, University Joseph Fourier, Grenoble, France. Laboratoire d'Energétique Electrochimique.
1980:	Ecole Nationale Supérieure d'Electrochimie et d'Electrometallurgie de Grenoble (State college of advanced engineering).

### *Scientific career*

1992-:	Institut de Biologie Structurale CEA-CNRS-UJF, Grenoble, group leader (LSMP). Set up and support of a quality control platform for PSB (Partnership for Structural Biology). Methods development based on mass spectrometry and application in structural biology studies.
1990:	Creation of LSMP. Development of the first applications of mass spectrometry in the field of proteins.
1987-1990:	Responsible for an organic analysis group.
1984:	CEA (French Atomic Energy Commission) recruitment in Service d'Etudes Analytiques.
1982-1983:	Scientific Military Service (Characterization of materials for magnetic bubble memories).
1980-1982:	Research ministry grant; Laboratoire d'Energétique Electrochimique, Grenoble.

### *Present research interests*

Development and application of advanced analytical methods combining hydrogen/deuterium exchange or chemical cross-linking with mass spectrometry to obtain information on the structure of difficult proteins (modular, membrane or in complexes), in the field of cancer and host-pathogen interactions, in complement with the classical techniques used in structural biology.

#### **Specialized techniques**

- Protein mass spectrometry.
- Protein chemistry.
- Protein Quality Control (EF is responsible for the Quality Control platform of the Partnership for Structural Biology at the IBS).

### *Teaching*

- Teaching activities in mass spectrometry in Grenoble, Lyon and Clermont-Ferrand Universities.
- Since 2005, supervision and co-supervision of 6 PhD students and post-docs.

## *Other achievements and responsibilities*

### **Memberships**

2009-:	French Society for Mass Spectrometry, President.
2008:	25e Journées Françaises de Spectrométrie de Masse. Organizing committee, President.
2007-2009:	French Society for Mass Spectrometry, Secretary.
2006-:	Rapid Communications in Mass Spectrometry. Editorial Board, Member.
2005-:	FEBS Journal. Editorial Advisory Board, Member.
1998-2000:	French Society for Mass Spectrometry, Secretary.

### **Evaluations**

Expert for AERES, ANR, ARC, AFM, FRM, Canada Foundation for Innovation, Research Ministry.

Reviewer for journals: Biochemistry, FEBS J., Rapid Commun. Mass Spectrom., J. Mol. Biol., Nat. Struct. Biol., Protein Science, J. Am. Chem. Soc., J. Am. Soc. Mass Spectrom., J. Mass Spectrom., Angew. Chem., la Recherche, Anal. Chem., Proteomics.

**Award:** John Beynon Prize in 2004.

Prize awarded to the authors of the article published in Rapid Communications in Mass Spectrometry in the two years 2002-2003 (Cravello et al. 2003) that describes an innovative advance in mass spectrometric instrumentation or methodology that had the greatest immediate impact.

## *Scientific production*

80 articles in peer reviewed international journals, 2 book chapters and 2 international patents; H index: 24.

### **Selection of 5 articles since 2005:**

- Loiseau, L., Ollagnier-de Choudens, S., Lascoux, D., Forest, E., Fontecave, M., and Barras, F. (2005) Analysis of the heteromeric CsdA-CsdE cysteine desulfurase, assisting Fe-S cluster biogenesis in Escherichia coli. *J Biol Chem* 280: 26760-26769.
- Brier, S., Lemaire, D., Debonis, S., Forest, E., and Kozielski, F. (2006) Molecular Dissection of the Inhibitor Binding Pocket of Mitotic Kinesin Eg5 Reveals Mutants that Confer Resistance to Antimitotic Agents. *J Mol Biol* 360: 360-376.
- Man P, Montagner C, Vernier G, Dublet B, Chenal A, Forest E and Forge V (2007) Defining the interacting regions between apomyoglobin and lipid membrane by hydrogen/deuterium exchange coupled to mass spectrometry. *J Mol Biol* 368(2): 464-472.
- Lascoux, D, Paramelle, D, Subra, G, Heymann, M, Geourjon, C, Martinez, J, and Forest, E (2007) Discrimination and selective enhancement of signals in the MALDI mass spectrum of a protein by combining a matrix-based label for lysine residues with a neutral matrix, *Angew Chem Int Ed* 46, 5594-5597.
- Marcoux J, Man P, Castellan M, Vivès C, Forest E and Fieschi F (2009) Conformational changes in p47phox upon activation highlighted by mass spectrometry coupled to hydrogen/deuterium exchange and limited proteolysis. *FEBS Lett* 583(4): 835-840.