

Curriculum vitae

Name: Martin WEIK

Date of birth:

Place of birth:

Nationality:

Marital status:

Work address: Institut de Biologie Structurale (IBS)
71, avenue des Martyrs
38044 Grenoble, France

Personal address:

Positions

03/22 – 06/22	Visiting Professor, University of Parma, Italy
2011 - present	Chairman of the research group Dynamics and kinetics of molecular processes (currently 12 members) at the <i>Institut de Biologie Structurale</i> (IBS), Grenoble, France
2010 - 2013	Co-appointment at the European Synchrotron Radiation Facility (ESRF) in Grenoble (responsible for combining X-ray crystallography and online microspectrophotometry)
2009 - present	CEA Research Director at the IBS
1/07 – 12/09	Visiting Scientist at the ESRF, Grenoble
01/01 – 12/06	Visiting Scientist at the Institut Laue-Langevin, Grenoble
1/01 - present	Research team (currently 8 members) leader at the IBS
1/00 – 12/00	Postdoctoral Position (Fellow of the European Molecular Biology Organization), Weizmann Institute of Science, Rehovot, Israel, in the laboratoires of Profs. I. Silman and J. Sussman and Bijvoet Center, Utrecht, The Netherlands, in the laboratory of Prof. J. Kroon. Subject: ‘ <i>Use of Temperature-dependent X-ray Crystallography to Study the Dynamics of Acetylcholinesterase</i> ’

6/98 – 12/99 Postdoctoral Position, Bijvoet Center, Utrecht, The Netherlands, in the laboratory of Prof. J. Kroon. Subject: ‘*Acetylcholinesterase: Structure and Function*’

Education

07/06 ‘Habilitation à Diriger des Recherches’ in Biophysics, Université Joseph Fourier, Grenoble

9/94 – 4/98 Ph.D. in Biophysics. Institut de Biologie Structurale, Grenoble, Supervisor: Dr. J. Zaccai. Subject: ‘*Rôles des Glycolipides et de l’Hydratation dans la Membrane Pourpre : Etude par Diffraction de Neutrons et Détermination Spécifiques*’, honor: ‘Très Honorable avec les Félicitations de Jury’

9/93 – 6/94 Université Joseph Fourier, Grenoble, France. ‘Diplôme d’Etudes Approfondies’ (equivalent to M.Sc.) in Material Sciences, honor: ‘bien’

10/89 – 11/95 Universität Karlsruhe, Germany. Study of Physics. ‘Diplom-Physiker’, honor: ‘sehr gut’

Prize and previous scholarships

- 2003 European Biophysical Societies Association (EBSA) Prize
- Minerva Short-Term Research Grant, July 2004
- European Molecular Biology Organization (EMBO Longterm Fellowship), January 2000 – December 2000
- Bourse de thèse MRT, October 1994 – October 1997
- Collège Franco-Allemand, September 1992 - September 1994

Full publication list (~6500 citations, h-index 44, Google Scholar)

Original and review papers (peer reviewed)

107. Adam, V., K. Hadjidemetriou, N. Jensen, R. L. Shoeman, J. Woodhouse, A. Aquila, A. S. Banneville, T. R. M. Barends, V. Bezchastnov, S. Boutet, M. Byrdin, M. Cammarata, S. Carbajo, N. Eleni Christou, N. Coquelle, E. De la Mora, M. El Khatib, T. Moreno Chicano, R. Bruce Doak, F. Fieschi, L. Foucar, O. Glushonkov, A. Gorel, M. L. Grunbein, M. Hilpert, M. Hunter, M. Kloos, J. E. Koglin, T. J. Lane, M. Liang, A. Mantovanelli, K. Nass, G. Nass Kovacs, S. Owada, C. M. Roome, G. Schiro, M. Seaberg, M. Stricker, M. Thepaut, K. Tono, K. Ueda, L. M. Uriarte, D. You, N. Zala, T. Domratcheva, S. Jakobs, M. Sliwa, I. Schlichting, J. P. Colletier, D. Bourgeois and M. Weik (2022). "Rational Control of Off-State Heterogeneity in a Photoswitchable Fluorescent Protein Provides Switching Contrast Enhancement." *ChemPhysChem* 23: e202200192.

106. Hadjidemetriou, K., N. Coquelle, T. R. M. Barends, E. De Zitter, I. Schlichting, J.-P. Colletier and M. Weik (2022). "Time-resolved serial femtosecond crystallography on fatty-acid photodecarboxylase: lessons learned." *Acta Crystallographica Section D* **78**: 1131-1142.
105. Uriarte LM, Vitale R, Nizinski S, Hadjidemetriou K, Zala N, Lukacs A, Greetham GM, Sazanovich IV, Weik M, Ruckebusch C, Meech SR, Sliwa M (2022) Structural Information about the trans-to-cis Isomerization Mechanism of the Photoswitchable Fluorescent Protein rsEGFP2 Revealed by Multiscale Infrared Transient Absorption. *The journal of physical chemistry letters* **13**: 1194-1202
104. Tetreau G, Sawaya MR, De Zitter E, Andreeva EA, Banneville AS, Schibrowsky NA, Coquelle N, Brewster AS, Grunbein ML, Kovacs GN, Hunter MS, Kloos M, Sierra RG, Schiro G, Qiao P, Stricker M, Bideshi D, Young ID, Zala N, Engilberge S et al. (2022) De novo determination of mosquitocidal Cry11Aa and Cry11Ba structures from naturally-occurring nanocrystals. *Nature communications* **13**: 4376
103. Sorigue, D., K. Hadjidemetriou, S. Blangy, G. Gotthard, A. Bonvalet, N. Coquelle, P. Samire, A. Aleksandrov, L. Antonucci, A. Benachir, S. Boutet, M. Byrdin, M. Cammarata, S. Carbajo, S. Cuine, R. B. Doak, L. Foucar, A. Gorel, M. Grunbein, E. Hartmann, R. Hienerwadel, M. Hilpert, M. Kloos, T. J. Lane, B. Legeret, P. Legrand, Y. Li-Beisson, S. L. Y. Moulin, D. Nurizzo, G. Peltier, G. Schiro, R. L. Shoeman, M. Sliwa, X. Solinas, B. Zhuang, T. R. M. Barends, J. P. Colletier, M. Joffre, A. Royant, C. Berthomieu, M. Weik, T. Domratcheva, K. Brettel, M. H. Vos, I. Schlichting, P. Arnoux, P. Muller and F. Beisson (2021). "Mechanism and dynamics of fatty acid photodecarboxylase." *Science* **372**(6538).
102. Pounot K, Grime GW, Longo A, Zamponi M, Noferini D, Cristiglio V, Seydel T, Garman EF, Weik M, Fodera V, Schiro G (2021) Zinc determines dynamical properties and aggregation kinetics of human insulin. *Biophys J* **120**: 886-898
101. Poddar H, Heyes DJ, Schiro G, Weik M, Leys D, Scrutton NS (2021) A guide to time-resolved structural analysis of light-activated proteins. *FEBS J*
100. Garman EF, Weik M (2021) Radiation damage to biological samples: still a pertinent issue. *Journal of Synchrotron Radiation* **28**: 1278-1283
99. Schirò G, Fichou Y, Brogan APS, Sessions R, Lohstroh W, Zamponi M, Schneider GJ, Gallat F-X, Paciaroni A, Tobias DJ, Perriman A, Weik M (2021) Diffusivelike Motions in a Solvent-Free Protein-Polymer Hybrid. *Physical Review Letters* **126**: 088102
98. Woodhouse J, Nass Kovacs G, Coquelle N, Uriarte LM, Adam V, Barends TRM, Byrdin M, De la Mora E, Doak RB, Feliks M, Fieschi F, Guillon V, Hilpert M, Hunter MS, Jakobs S, Joti Y, Macheboeuf P, Motomura K, Nass K, Owada S, Roome CM, Ruckebusch C, Schirò G, Shoeman RL, Thepaut M, Togashi T, Tono K, Yabashi M, Cammarata M, Foucar L, Bourgeois D, Sliwa M, Colletier J-P, Schlichting I, Weik M. (2020) Photoswitching mechanism of a fluorescent protein revealed by time-resolved crystallography and transient absorption spectroscopy. *Nature communications* **11**: 741
97. de la Mora E, Coquelle N, Bury CS, Rosenthal M, Holton J, Carmichael I, Garman EF, Burghammer M, Colletier JP, Weik M (2020) Radiation damage and dose limits in serial synchrotron crystallography at cryo- and room temperatures. (2020) *Proc Natl Acad Sci U S A* **117**: 4142
96. Pounot K, Chaaban H, Fodera V, Schiro G, Weik M, Seydel T (2020) Tracking Internal and Global Diffusive Dynamics During Protein Aggregation by High-Resolution Neutron Spectroscopy. *The Journal of Physical Chemistry Letters* **11**: 6299-6304
95. Meineke J, Weik M, Zaccai G, Fragneto G (2020) Behavior of Hydrated Lipid Bilayers at Cryogenic Temperatures. *Frontiers in Chemistry* **8**: 455
94. Halgand F, Houee-Levin C, Weik M, Madern D (2020) Remote oxidative modifications induced by oxygen free radicals modify T/R allosteric equilibrium of a hyperthermophilic lactate dehydrogenase. *J Struct Biol* **210**: 107478
93. Tetreau G, Banneville AS, Andreeva EA, Brewster AS, Hunter MS, Sierra RG, Teulon JM, Young I, Burke N, Gruenewald T, Beaudouin J, Snigireva I, Fernandez-Luna MT, Burt A, Park HW, Signor L, Bafna JA,

Fenel D, Bacia M, Zala N, Laporte F, Després L, Weik M, Boutet S, Rosenthal M, Coquelle N, Burghammer M, Cascio D, Sawaya MR, Winterhalter M, Gutsche I, Federici B, Pellequer JL, Sauter NK, Colletier JP (2020) *In vivo* crystallization pathway and toxicity mechanism of mosquitocidal Cyt1Aa. *Nature communications* 11:1153

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86. Heyes DJ, Hardman SJO, Pedersen MN, Woodhouse J, De La Mora E, Wulff M, Weik M, Cammarata M, Scrutton NS, Schirò G (2019) Light-induced structural changes in a full-length cyanobacterial phytochrome probed by time-resolved X-ray scattering. *Communications biology* 2: 1

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76. Garman, EF, Weik, M (2017) X-ray radiation damage to macromolecules: further insights *J Synchrotron Radiat* 24: 1 – 6.
75. Colletier JP, Sliwa M, Gallat FX, Sugahara M, Guillon V, Schiro G, Coquelle N, Woodhouse J, Roux L, Gotthard G, Royant A, Uriarte LM, Ruckebusch C, Joti Y, Byrdin M, Mizohata E, Nango E, Tanaka T, Tono K, Yabashi M, Adam V, Cammarata M, Schlichting I, Bourgeois D, Weik M (2016) Serial femtosecond crystallography and ultrafast absorption spectroscopy of the photoswitchable fluorescent protein IrisFP. *The journal of physical chemistry letters*: 882-887.
74. Campbell E, Kaltenbach M, Correy GJ, Carr PD, Porebski BT, Livingstone EK, Afriat-Jurnou L, Buckle AM, Weik M, Hollfelder F, Tokuriki N, Jackson CJ (2016) The role of protein dynamics in the evolution of new enzyme function. *Nat Chem Biol* 12: 944-950.
73. Zaccai G, Bagyan I, Combet J, Cuello GJ, Deme B, Fichou Y, Gallat FX, Galvan Josa VM, von Gronau S, Haertlein M, Martel A, Moulin M, Neumann M, Weik M, Oesterhelt D (2016) Neutrons describe ectoine effects on water H-bonding and hydration around a soluble protein and a cell membrane. *Sci Rep* 6:31434.
72. Correy GJ, Carr PD, Meirelles T, Mabbitt PD, Fraser NJ, Weik M, Jackson CJ (2016) Mapping the accessible conformational landscape of an insect carboxylesterase using conformational ensemble analysis and kinetic crystallography. *Structure* 24: 977-987.
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70. Fichou Y, Heyden M, Zaccai G, Weik M, Tobias DJ (2015) Molecular dynamics simulations of a powder model of the intrinsically disordered protein tau. *J Phys Chem B* 119, 12580.
69. Fichou, Y, Gallat, FX, Schiro, G, Laguri, C, Moulin, M, Combet, J, Zampouni, M, Härtlein, M, Picart, C, Forsyth, T, Lortat-Jacob, H, Colletier, JP Tobias, D. & Weik, M. (2015) Hydration water mobility is enhanced around tau amyloid fibers. *PNAS* 112, 6365.
68. Garman, EF, Weik, M (2015) Radiation damage to macromolecules: kill or cure? *J Synchrotron Radiat* 22: 195-200
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64. Jackson, CJ, Coppin, CW, Carr, PD, Aleksandrov, A, Wilding, M, Sugrue, E, Ubels, J, Paks, M, Newman, J, Peat, TS, Russell, RJ, Field, M, Weik, M, Oakeshott, JG and Scott C (2014). 300-Fold increase in production of the Zn²⁺-dependent dechlorinase TrzN in soluble form via apoenzyme stabilization. *Applied and Environmental Microbiology*, 80 : 4003
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56. Trapp, M., Trovaslet, M., Nachon, F., Koza, M., van Eijck, L., Hill, F., Weik, M., Masson, P., Tehei, M. and Peters, J. (2012) The energy landscapes of human acetylcholinesterase and its huperzine A-inhibited counterpart. *J. Phys. Chem. B* 116, 14764.
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Contributions to books

4a. Wood, K. & Weik, M. (2009) Bio-macromolecule and hydration water dynamics. In *Dynamics of Soft Matter: Neutron Applications* (Eds. V. Garcia Sakai, C. Alba-Simionesco, S-H. Chen), in press.

3a. Bourgeois, D. & Weik, M. (2005). New perspectives in kinetic crystallography using caged compounds. In *Dynamic Studies in Biology: Phototriggered, Photoswitches and Caged Biomolecules* (Eds. M. Goeldner, R. Givens), Wiley-vch, Germany, 410 – 435.

2a. Lehnert, U. & Weik, M. (2005). Relating protein dynamics to function and structure – the purple membrane. In *Neutrons in Biology - Techniques and Applications* (Eds. J. Fitter, T. Gutberlet, J. Katsaras), Springer Verlag, Berlin, 419-434.

1a. Weik, M., Lehnert, U. & Zaccai, G. (2001). Super-cooled water flows between biological membranes at 200 K, ILL Annual Report 2001 (Scientific Highlights).

Supervision of students and postdoctoral researchers: (12 PhD students, 7 postdoctoral researchers)

- PhD supervision of Ronald Rios-Santacruz, since September 2020. Molecular movie of light-sensitive proteins by time-resolved serial femtosecond crystallography at X-ray free electron lasers and synchrotrons.
- Advisor of Tadeo Moreno (Postdoctoral Researcher), September 2019 – October 2020. Structural dynamics of acetylcholinesterase.
- Advisor of Nicolas Foos (Postdoctoral Researcher), September 2019 – September 2021. Serial X-ray crystallography.
- PhD supervision of Kyprianos Hadjidemetriou, October 2017 – May 2022. Time-resolved serial femtosecond crystallography to study light-sensitive proteins at X-ray free electron lasers.
- PhD supervision of Kevin Pounot, November 2016 – June 2020. Dynamics of pathological protein aggregates and fibers.
- Advisor of Eugenio de la Mora (Postdoctoral Researcher), January 2015 – February 2019. Structural dynamics of acetylcholinesterase.
- PhD supervision of Joyce Woodhouse, October 2014 – October 2018. Studying light-sensitive proteins at work with X-ray free electron lasers.
- Advisor of Giorgio Schiro (Postdoctoral Researcher), January 2013 – October 2016. Coupling between protein and hydration-water dynamics.
- PhD supervision of Yann Fichou, October 2011 – March 2015. Structural dynamics of intrinsically disordered proteins.
- PhD supervision of Gianluca Santoni, April 2011 – January 2015. Structural dynamics of acetylcholinesterase.

- PhD co-supervision of Chady Nasrallah, September 2010 – January 2014. Structural dynamics of porins.
- Advisor of Eugénie Carletti (Postdoctoral Researcher), November 2009 – December 2011. Structural dynamics of acetylcholinesterase.
- Advisor of Colin Jackson (Postdoctoral Researcher), January 2009 – April 2011. Relation between directed evolution and protein dynamics.
- PhD supervision of François-Xavier Gallat, September 2008 – September 2011. Dynamics of intrinsically unfolded proteins.
- Advisor of Kathleen Wood (Postdoctoral Researcher), March 2007 – January 2008. Coupling between protein and hydration-water dynamics.
- Advisor of Andreas Frölich (Practical course, level ‘Masters’), March-July 2007. Coupling between protein and hydration-water dynamics.
- PhD supervision of Benoit Sanson, September 2005 – October 2009. Structure-dynamics-function relationships in cholinesterases.
- Advisor of Emanuela Fioravanti (Postdoctoral Researcher), November 2004 – January 2006. X-ray radiation damage to crystalline proteins.
- Advisor of Benoit Sanson (Practical course, level ‘Masters’), February-July 2005. Structure-dynamics-function relationships in cholinesterases.
- PhD supervision of Jacques Colletier, September 2002 – July 2006. Structure-dynamics-function relationships in cholinesterases as studied by X-ray crystallography and neutron scattering.
- PhD co-supervision (with Dr. G. Zaccai) of Kathleen Wood, 2004 – February 2007. Dynamical heterogeneity of the purple membrane : a study combining isotope labelling, neutron scattering and molecular dynamics simulations.
- Advisor of Jakob Meineke (Practical course, level ‘Licence’), April-July 2004. The study of water in lipid membranes at cryo-temperatures.
- Advisor of Jacques Colletier (Practical course, level ‘DEA’), January-June 2002. Structure-dynamics-function relationships in cholinesterases as studied by X-ray crystallography.
- Advisor of Petra Neff (Practical course, level ‘DEA’), August-September 2001. Super-cooled water in stacks of purple membranes from Halobacterium salinarum.
- Advisor of Daniela Stoica (Practical course, level ‘Licence’), July-August 2001, Temperature-dependent fluorescence studies on crystals of halophilic malate dehydrogenase.

- PhD co-supervision (with Dr. G. Zaccai) of Frank Gabel, January 2001 – October 2003. The effect of solvent composition, inhibition, and structure on cholinesterase molecular dynamics: A neutron scattering study.

List of invited presentations (113 lectures at international meetings, 38 seminars)

Invited lectures at international meetings

153. LINXS Time-Resolved Structural Biology workshop (26 – 28 October 2022)
Lund, Sweden
152. 5th International Workshop on Dynamics in Confinement (11 – 13 October 2022)
Grenoble, France
151. SNI2022 - German Conference for Research with Synchrotron Radiation, Neutrons and Ion Beams at Large Facilities (5 – 7 September 2022)
Berlin, Germany
150. *Structure and dynamics of light-sensitive proteins using time-resolved X-ray scattering and crystallography at synchrotrons and XFELs*
Protein2022 (18 – 20 May 2022)
Pisa, Italy (online)
149. International Workshop on Protein Dynamics (May 2022)
Les Houches, France
148. FEBS advanced course – Lost in Integration (May 2022)
Spetses Island, Greece
147. *X-ray radiation damage to crystalline proteins*
HERCULES lecture on X-ray radiation damage (March 2022)
Grenoble, France (online)
146. *Structural dynamics of a new photoenzyme by combining experimental and computational approaches*
Annual CNRS – UIUC LIA meeting (January 2022)
Hauteluce, France (online)
145. *Time-resolved serial crystallography at synchrotrons and XFELs*
Keynote lecture at the 34th Rhine-Knee Regional Meeting on Structural Biology (September 2021)
Blaubeuren, Germany
144. *Time-resolved X-ray crystallography at XFELs and synchrotrons*
DiSVA-MaSBiC Annual Symposium - From structure to function: unveiling the role of proteins in health and disease (September 2021)
Ancona, Italy (online)
143. *Studying protein structural dynamics by time-resolved serial femtosecond crystallography*
TSRC Protein Dynamics Meeting (July 2021)
Telluride, USA (online)
142. *X-ray radiation damage to crystalline proteins*
HERCULES lecture on X-ray radiation damage (March 2021)
Grenoble, France (online)
141. *Cinéma moléculaire d'une nouvelle photoenzyme par cristallographie résolue en temps aux lasers à électrons libres*
Science autour des FEL - XFEL (15 December 2020)
Paris, France (online)

140. *Studying the structural dynamics of proteins by neutron and X-ray scattering*
MLZ User Meeting (10 – 11 December 2020)
Garching, France (online)
139. *Time-resolved X-ray crystallography at XFELs and synchrotrons*
Applications of X-ray and neutron scattering in biology (27 – 31 January 2020)
Venice, Italy
138. *Coupling between protein and hydration water dynamics*
MLZ User Meeting (10 – 11 December 2019)
Grenoble, France
137. *Radiation damage in serial crystallography at cryo- and room-temperatures*
Sample modulation workshop at ESRF (11 – 13 December 2019)
Grenoble, France
136. *Excited-state dynamics of photoswitchable fluorescent proteins as measured by time-resolved serial femtosecond crystallography*
Nature Conference - Functional dynamics, visualizing molecules in action (6 – 8 November 2019)
Tempe, USA
135. *Watching proteins at work with kinetic X-ray crystallography*
5th Meeting of the Italian and Spanish Crystallographic Associations (4 – 7 September 2019)
Naples, Italy
134. *Excited-state dynamics of photoswitchable fluorescent proteins as measured by time-resolved serial femtosecond crystallography*
6th Ringberg Workshop on Structural Biology with FELs (27 February – 3 March 2019)
Tegernsee, Germany
133. X-ray radiation damage to macromolecular crystals
ESRF User Meeting (4 – 6 February 2019)
Grenoble, France
132. *Excited-state dynamics of photoswitchable fluorescent proteins as measured by time-resolved serial femtosecond crystallography*
6th International BioXFEL conference (12 – 14 February 2019)
San Diego, USA
131. *Coupling between protein and hydration water dynamics*
12th International IUPAC Conference on Polymer-Solvent Complexes (4 – 7 September 2018)
Grenoble, France
130. *Ultra-fast photoswitching in fluorescent proteins observed by time-resolved serial femtosecond crystallography*
Protein Society's 32nd Annual Symposium (9 – 12 July 2018)
Boston, USA
129. *Kinetic crystallography to watch proteins in action*
31th European Crystallographic Meeting (21 – 27 August 2018)
Oviedo, Spain
128. *Kinetic crystallography: from cryo-trapping to time-resolved XFEL studies*
School on Synchrotron and Free-Electron-Laser Methods for Multidisciplinary Applications (7 – 18 May 2018)
Trieste, Italy
127. *Protein structure and dynamics using X-ray free electron lasers*
iNEXT Annual User Meeting (19 – 21 March 2018)

Grenoble, France

126. *Time-resolved serial femtosecond crystallography on photoswitchable fluorescent proteins*
Telluride Science Research Center Workshop on Protein Dynamics (31 July – 4 August 2017)
Telluride, USA

125. *Coupling between protein and hydration-water dynamics*
8th International Discussion Meeting on Relaxations in Complex Systems (23 – 28 July 2017)
Wisla, Poland

124. *Coupling between protein and hydration-water dynamics*
Neutrons in Structural Biology (7 – 9 June 2017)
Grenoble, France

123. *Picosecond dynamics of photoswitchable fluorescent proteins revealed by time-resolved serial femtosecond crystallography*
61st American Biophysical Society Meeting (11 – 15 February 2017)
New Orleans, USA

122. *Photoswitching mechanism of fluorescent proteins addressed by time-resolved SFX, transient absorption spectroscopy and computational methods*
4th Ringberg Workshop on Structural Biology with FELs (8 – 11 February 2017)
Tegernsee, Germany

121. *Time-resolved serial femtosecond crystallography*
XXI International School of Pure and Applied Biophysics (9 - 13 January 2017)
Venice, Italy

120. Keynote lecture: *Opportunities for using X-ray free electron lasers in structural biology*
Annual Congress of the French Biophysical Society (13 – 16 December 2016)
Obernai, France

119. *Neutron scattering and structural biology*
French-Swedish school on Neutron Scattering: Applications to Softmatter (6 – 9 December 2016)
Uppsala, Sweden

118. *Time-resolved serial femtosecond crystallography on photoswitchable fluorescent proteins*
30th European Crystallographic Meeting (28 August – 1 September 2016)
Basel, Switzerland

117. *Time-resolved serial femtosecond crystallography on photoswitchable fluorescent proteins*
Workshop on Protein Structural Dynamics (30 - 31 May 2016)
Rome, Italy

116. *Time-resolved serial femtosecond crystallography on photoswitchable fluorescent proteins*
International Workshop on Protein Dynamics (3 - 8 April 2016)
Les Houches, France

115. *Dynamic mapping of acetylcholinesterase for structural-dynamics based reactivator design*
251st American Chemical Society Meeting (13 – 17 March 2016)
San Diego, USA

114. *Time-resolved serial femtosecond crystallography on photoswitchable fluorescent proteins*
3rd Ringberg Workshop on Structural Biology with FELs (10 – 13 February 2016)
Tegernsee, Germany

113. *Time-resolved serial femtosecond crystallography on photoswitchable fluorescent proteins*
3rd International BioXFEL conference (12 – 14 January 2016)
San Juan, Puerto Rico

112. *Coupling between protein and hydration-water dynamics*
23e Journées de la Diffusion Neutronique (5 – 8 October 2015)
Evian, France
111. *Dynamic mapping of acetylcholinesterase for structural-dynamics based reactivator design*
12th International Meeting on Cholinesterases (27 September – 2 October 2015)
Alicante, Spain
110. *Coupling between protein and hydration-water dynamics*
Frontiers in Water Biophysics (7 – 12 September 2015)
Erice, Italy
109. *Coupling between protein and hydration-water dynamics studied by neutron scattering*
61st Benzon Symposium - Structural Biology on the Move (24 – 27 August 2015)
Copenhagen, Denmark
108. *Protein and hydration water dynamics studied by neutron spectroscopy*
Telluride Science Research Center Workshop on Protein Dynamics (3 – 7 August 2015)
Telluride, USA
107. *Combining deuterium labelling and neutron spectroscopy to study protein and hydration-water dynamics*
Advanced Isotopic Labelling Methods for Integrated Structural Biology (2 – 5 February 2015)
Grenoble, France
106. *Structural dynamics of acetylcholinesterase as studied by kinetic crystallography*
EMBO Conference on Enzyme Mechanisms by Biological Systems (1 – 4 June 2014)
Manchester, UK
105. *Protein and hydration water dynamics*
QENS/WINS (11 – 16 May 2014)
Autrans, France
104. *Radiation-induced decarboxylation*
Eighth International Workshop on X-ray Damage to Crystalline Biological Samples (10 – 12 April 2014)
Hamburg, Germany
103. *Combining incoherent neutron scattering and selective labelling to study protein and hydration water dynamics*
Neutrons in Biology and Biotechnology (19 – 21 February 2014)
Grenoble, France
102. *The benefit of room temperature X-ray crystallography for studying protein dynamics*
Workshop on synchrotron serial crystallography (4 February 2014)
Grenoble, France
101. *Proteins need it wet – dont't they ?*
Telluride Science Research Center Workshop on Protein Dynamics (5 – 9 August 2013)
Telluride, USA
100. *Structural dynamics of acetylcholinestérase as studied by kinetic crystallography*
FEBS Congress 2013 (6 – 11 July 2013)
St Petersburg, Russia
99. *Structural dynamics of acetylcholinestérase as studied by kinetic crystallography*
XIV International Symposium on Cholinergic Mechanisms (5-9 May 2013)
Hangzhou, China
98. *Proteins need it wet – dont't they ?*
Water at Interfaces (15 – 26 April 2013)
Les Houches, France

97. *Proteins need it wet – dont't they ?*
4th JSPS-CNRS Japan-France Joint Seminar:
Protein Dynamics and its Relation to Protein Function (6 – 11 January 2013)
Spring-8, Japan
96. *Radiation damage – online UV-vis absorption applications*
Complementary Optical Spectroscopies in Macromolecular Crystallography (19 – 21 September 2012)
Grenoble, France
95. *Coupling between protein and hydration-water dynamics as studied by neutron scattering*
BioDynamics (24 – 26 July 2012)
Buffalo, USA
94. *Structural dynamics of acetylcholinesterase as studied by kinetic crystallography*
11th International Meeting on Cholinesterases (4 - 9 June, 2012)
Kazan, Russia
93. Final workshop summary : Seventh International Workshop on X-ray Damage to Crystalline Biological Samples (14 – 16 March 2012)
Oxford, UK
92. *Coupling between protein and hydration-water dynamics*
Telluride Science Research Center Workshop on Protein Dynamics (1 – 6 August, 2011)
Telluride, USA
91. Selected participant of the 5th Japanese-French Frontier of Science Symposium (20 - 24 January 2011)
Otsu, Japan
90. Discussion leader of session: The role of water molecules and hydration in protein dynamics
Challenges of Water in Biological Systems (13 - 17 September 2010)
Chicago, USA
89. *Radiation damage in macromolecular crystallography: what's new ?*
Gordon Research Conference on Diffraction Methods in Structural Biology (20 – 25 July, 2010)
Lewiston, USA
88. *Protein and hydration-water dynamics of intrinsically disordered proteins*
Gordon Research Conference on Intrinsically Disordered Proteins (11 – 17 July, 2010)
Davidson, USA
87. *The coupling between hydration-water and protein dynamics as assessed by neutron scattering and perdeuteration*
Second NMI3 General Assembly (10 - 12 March, 2010)
Barcelona, Spain
86. *Specific radiation damage and enzyme radiation inactivation*
Sixth International Workshop on X-ray Damage to Crystalline Biological Samples (11 – 13 March 2010)
Stanford, USA
85. *Structural dynamics of acetylcholinesterase*
10th International Meeting on Cholinesterases (20 – 25 September, 2009)
Sibenik, Croatia
84. *The coupling between hydration-water and protein dynamics as assessed by neutron scattering and perdeuteration of a globular, an intrinsically unfolded and a membrane protein*
6th International Discussion Meeting on Relaxations in Complex Systems (30 August - 5 September 2009)
Rome, Italy
83. *The coupling between hydration-water and protein dynamics*

Telluride Science Research Center Workshop on Protein Dynamics (3 – 7 August, 2009)
Telluride, USA

82. *Solvent behaviour and radiation damage in protein crystals at cryo-temperatures*
EMBO workshop 'Electron Tomography in Life Science' (1 - 6 June, 2009)
Leiden, The Netherlands

81. *Temperature-controlled crystallography and radiation damage to probe structural protein dynamics*
BCA Annual Spring Meeting (21 - 23 April 2009)
Loughborough, UK

80. *X-ray radiation damage to crystalline proteins*
ESRF new users school (2 February 2009)
Grenoble, France

79. *Specific radiation damage to probe structural protein dynamics*
CCP4 Study Weekend (3 - 5 January 2009)
Nottingham, UK

78. *The coupling between hydration-water and protein dynamics as assessed by elastic incoherent neutron scattering and perdeuteration of a soluble protein and a biological membrane*
Neutron Scattering Workshop on Biomolecular Dynamics and Protein-Water Interactions (24 – 26 September, 2008)
Feldafing, Germany

77. *Structural protein dynamics by crystallography and complementary methods*
Tandem Workshop "Intrinsically Unfolded Proteins in Structural Biology" and "Complementary Methods in Structural Biology" (4 – 5 September, 2008)
Hamburg, Germany

76. *The coupling between hydration-water and protein dynamics*
22nd General Conference of the Condensed Matter Division of the European Physical Society (25 – 29 August, 2008)
Rome, Italy

75. *Temperature-controlled cryo-crystallography to study the structural dynamics of proteins*
Gordon Research Conference on Diffraction Methods in Structural Biology (13 – 18 July, 2008)
Lewiston, USA

74. *Shoot-and-trap: use of specific X-ray damage to study structural protein dynamics by temperature-controlled cryo-crystallography*
40th Erice course: From Molecules to Medicines: Integrating Crystallography in Drug Discovery (29 May – 8 June 2008)
Erice, Italy

73. *X-ray damage to crystalline proteins*
Workshop 'Micro-imagerie synchrotron de rayons X pour la recherche biomédicale' (26 – 27 March 2008)
Paris, France

72. *Shoot-and-trap: use of specific X-ray damage to study structural protein dynamics by temperature-controlled cryo-crystallography*
Fifth International Workshop on X-ray Damage to Crystalline Biological Samples (3 – 5 March 2008)
Villingen, Switzerland

71. *The coupling between hydration-water and protein dynamics as studied by neutron scattering*
AVS 54th International Symposium (14-17 October, 2007)
Seattle, USA

70. *Protein and hydration-water dynamics as studied by neutron scattering and kinetic X-ray crystallography*
Telluride Science Research Center Workshop on Protein Dynamics (29 July – 3 August, 2007)

Telluride, USA

69. *Specific radiation damage and protein dynamics*

Annual Meeting of the American Crystallographic Association (21 – 26 July, 2007)
Salt Lake City, USA

68. *Protein and hydration-water dynamics as studied by neutron scattering and kinetic X-ray crystallography*

Proteins at Work 2007 (28 – 30 May, 2007)
Perugia, Italy

67. *Crystallographic snapshots: acetylcholinesterase at work?*

9th International Meeting on Cholinesterases (6 – 10 May, 2007)
Suzhou, China

66. *Dynamics of crystalline proteins investigated by diffraction and spectroscopy*

Spectroscopic approaches around crystallography of biological macromolecules at synchrotron radiation sources (6 – 8 February 2007)
Grenoble, France

65. First Annual Symposium on Japanese-French Frontiers of Science 2007 (27 – 29 January 2007)

Kanagawa, Japan

64. *Hydration-water and protein dynamics in biological membranes*

Ecole: L'eau dans les milieux biologiques (25 – 28 October 2006)
Roscoff, France

63. *Specific radiation damage to acidic amino acid residues in protein crystals*

Fourth International Workshop on X-ray Damage to Crystalline Biological Samples (7 – 8 March 2006)
Spring-8, Japan

62. *X-ray radiation damage to crystalline proteins*

ESRF new users school (8 February 2006)
Grenoble, France

61. *Water and protein dynamics in purple membranes*

4th World Congress on Cellular and Molecular Biology (7-12 October 2005)
Poitiers, France

60. *The relation between protein and solvent dynamics as studied by neutron scattering and X-ray crystallography*

Telluride Science Research Center Workshop on Protein Dynamics (1 – 5 August 2005)
Telluride, USA

59. *Protein and solvent dynamics as studied by temperature-controlled X-ray crystallography*

ESBF Workshop: Crystal and Solution Structures of Proteins (12 – 13 November 2004)
Frankfurt, Germany

58. *Substrate binding sites and traffic in cholinesterases – dynamic and static approaches*

8th International Meeting on Cholinesterases (26 – 30 September, 2004)
Perugia, Italy

57. Hydration and dynamics of purple membranes studied by neutron scattering

Symposium on Neutron Protein Crystallography (16 - 17 February 2004)
Tokai, Japan

56. *Temperature-dependent radiation damage*

Third International Workshop on X-ray Damage to Crystalline Biological Samples (13 – 14 November 2003)
Grenoble, France

55. Co-chair of a session entitled: *Synchrotron radiation and radiation damage*

21th European Crystallographic Meeting (24 - 29 August 2003)
Durban, South Africa.

54. *Solvent behaviour and radiation damage in protein crystals at cryo-temperatures*
Annual Meeting of the American Crystallographic Association (26 – 31 July, 2003)
Cincinnati, USA

53. Plenary EBSA Prize Lecture: *Protein and solvent dynamics as studied by neutron scattering and temperature-controlled X-ray crystallography*
4th European Biophysics Congress (5 – 9 July, 2003)
Alicante, Spain

52. *Temperature-dependent solvent behaviour and radiation damage in proteins*
EMBO course: Macromolecular Structure Determination at 3rd Generation Synchrotron Sources (17 – 24 June, 2003)
Grenoble, France

51. *Behaviour of water confined by biological macromolecules*
2nd International Workshop on Dynamics in Confinement (22 – 25 January 2003)
Grenoble, France

50. *Experimental approaches to study the dynamics of cholinesterases*
7th International Meeting on Cholinesterases (8 – 12 November, 2002)
Pucon, Chile

49. *Radiation damage to proteins studied by temperature-controlled cryo-crystallography*
IUCr 19th World Crystallography Congress (6 – 15 August 2002)
Geneva, Switzerland

48. *The relation between protein and solvent dynamics as studied by neutron scattering and X-ray crystallography*
International Workshop on Slow Dynamics of Soft-matter and Biological Macromolecules Studied by Neutron Scattering,
High Energy Accelerator Research Organization (7 – 8 March 2002)
Tsukuba, Japan

47. *The Temperature-dependence of Specific Radiation Damage to Proteins*
Second International Workshop on X-ray Damage to Crystalline Biological Samples,
Advanced Photon Source (1 – 2 December 2001)
Argonne, USA

46. *Neutron Diffraction Studies on Native Purple Membranes*
Protons in Proteins, ILL (25 – 27 January 2001)
Grenoble, France

45. *Specific Radiation Damage to Proteins Produced by Synchrotron Radiation*
NAIST Biophysics International Symposium:
Physical Aspects of Protein Functioning, Dynamics and Hydration (11 December 2000)
Nara, Japan

44. Solvent Effects in Studies on Protein Structure and Dynamics
JSPS-CNRS Japan-France Joint Seminar:
Protein Dynamics and its Relation to Protein Function (6 – 10 December 2000)
Kyoto, Japan

43. Solvent Effects on Function-Structure-Dynamics Relations in Proteins : SR and Neutron Studies
Biological Physics & Synchrotron Radiation, ESRF (11 – 14 October 2000)
Grenoble, France

42. *Functional Studies on Acetylcholinesterase: An Approach Combining Structural and Dynamical Aspects*

New Tools for Determining Structure and Functions of Cholinesterases (28 October 1999)
Grenoble, France

41. *Glass transition of water in protein crystals*
International EU Workshop on Structure and Function of Acetylcholinesterase (16 - 18 October 1999)
Neveh Ilan, Israel

40. *Temperature-dependent Structural Studies on Acetylcholinesterase : Towards a Structure – Function – Dynamics Relationship*
NVK-Meeting on Biomolecular Crystallography (4 June 1999)
Utrecht, The Netherlands

39. *Some Examples of Neutron Scattering Experiments on Purple Membranes*
8th International Conference on Retinal Proteins (31 May - 05 June 1998)
Awaji Island, Japan

Invited seminars

38. *Excited state dynamics of photoswitchable fluorescent proteins by time-resolved crystallography*
Dr. Ilme Schlichting (host), BMM MPI retreat (13 February 2020)
Tegernsee, Germany

37. *Structural dynamics of proteins by neutron and X-ray scattering*
Prof. Christian Back (host), TU Munich (6 December 2018)
Munich, Germany

36. *Watching proteins at work with X-ray free electron lasers*
Prof. Gerhard Stock (host), University Freiburg (22 October 2018)
Göttingen, Germany

35. *Time-resolved serial femtosecond crystallography on photoswitchable fluorescent proteins*
Prof. Stefan Jakobs (host), Max-Planck Institute for Biophysical Chemistry (7 December 2017)
Göttingen, Germany

34. *Time-resolved serial femtosecond crystallography on photoswitchable fluorescent proteins*
Prof. Gebhard Schertler (host), Paul Scherrer Institut (23 November 2017)
Villigen, Switzerland

33. *Opportunities for using X-ray free electron lasers in structural biology*
Dr. Frédéric Beisson (host), CEA (11 September 2017)
Cadarache, France

32. *Structural dynamics of acetylcholinesterase as studied by kinetic X-ray crystallography*
Prof. Z. Radic and Prof. P. Taylor (hosts), UC San Diego (15 March 2016)
San Diego, USA

31. *Opportunities for using X-ray free electron lasers in structural biology*
Dr. Yves Bourne (host), AFBM (1 June 2015)
Marseille, France

30. *The benefit of room temperature X-ray crystallography for studying protein dynamics*
Dr. Marcel Knossow (host), LEBS (20 June 2014)
Gif sur Yvette, France

29. *Proteins need it wet – dont't they ?*
Prof. Y. Xu, Shanghai Institute of Materia Medica (17 May 2013)
Shanghai, China

28. *X-ray radiation damage to crystalline macromolecules*

Prof. He (host), Shanghai Synchrotron Radiation Facility (13 May 2013)
Shanghai, China

27. *Coupling between protein and hydration-water dynamics*
Prof. M. Havenith (host), Bochum University (5 June 2013)
Bochum, Germany

26. *Towards molecular movies: Exploring structural protein dynamics by kinetic crystallography and complementary methods*
Prof. G. Schertler (host), Basel University (5 November 2012)
Basel, Switzerland

25. *Protein and solvent dynamics by kinetic X-ray crystallography and complementary methods*
Prof. M. Meuwly (host), Basel University (22 September 2010)
Basel, Switzerland

24. *Protein dynamics by neutron scattering*
Prof. W. Petry (host), TU München (21 Juni 2010)
Munich, Germany

23. *Structural protein dynamics by X-ray crystallography and complementary methods*
Dr. Clemens Schulze-Briese (host), Swiss Light Source (26 February 2010)
Villigen, Switzerland

22. *Protein structure and dynamics studied by X-ray crystallography, neutron scattering and microspectrophotometry*
Prof. U. Gross (host), Ulm University (8 February 2010)
Ulm, Germany

21. *The coupling between hydration-water and protein dynamics*
Dr. Arwen Pearson (host), Leeds University (20 April 2009)
Leeds, UK

20. *Structural dynamics of proteins as studied by X-ray crystallography, neutron scattering and microspectrophotometry*
Prof. Peter Pohl (host), Johannes Kepler Universität Linz (10 March 2009)
Linz, Austria

19. *The coupling between hydration-water and protein dynamics*
Dr. D. Laage (host), Ecole Normale Supérieure Paris (18 February 2009)
Paris, France

18. *Structural dynamics of acetylcholinesterase: kinetic protein crystallography and neutron scattering*
Prof. H. Dau (host), Freie Universität Berlin (3 March 2008)
Berlin, Germany

17. *Structural dynamics of acetylcholinesterase: combining kinetic protein crystallography, X-ray radiation damage, microspectrophotometry and neutron scattering*
Dr. A. Pautsch (host), Böhlinger Ingelheim (28 November 2007)
Biberach, Germany

16. *Structural dynamics of proteins as studied kinetic X-ray crystallography and neutron scattering*
Dr. J.-L. Popot (host), IBPC (12 June 2007)
Paris, France

15. *Proteins at work - towards understanding macromolecular dynamics and flexibility*
IBS Science Day (20 April 2007)
Grenoble, France

14. *Structural dynamics of biomolecules as studied by neutron scattering, kinetic X-ray crystallography and microspectrophotometry*
Prof. M. Rief (host), Technical University Munich (3 November 2006)
Munich, Germany
13. *Protein and solvent dynamics as studied by neutron scattering and X-ray crystallography*
Prof. A. Kidera (host), Yokohama City University (10 March 2006)
Yokohama, Japan
12. *Protein structure and dynamics studied by X-ray crystallography, neutron scattering and microspectrophotometry*
Prof. U. Nienhaus (host), Ulm University (2 December 2005)
Ulm, Germany
11. *Specific X-ray radiation damage to crystalline proteins*
Prof. Ch. Houée-Levin (host), Université Paris-Sud (16 June 2005)
Orsay, France
10. *Protein and solvent dynamics as studied by neutron scattering and X-ray crystallography*
Dr. F. Mulder (host), Lund University (15 November 2004)
Lund, Sweden
9. *Protein and solvent dynamics as studied by neutron scattering and X-ray crystallography*
Prof. J. Sussman (host), Weizmann Institute of Science (6 July 2004)
Rehovot, Israel
8. *Protein and solvent dynamics as studied by neutron scattering and X-ray crystallography*
Dr. Th. Hauss (host), Hahn-Meitner Institut (14 June 2004)
Berlin, Germany
7. *Protein and solvent dynamics as studied by neutron scattering and temperature-controlled X-ray crystallography*
Prof. A. Wittinghofer (host), Max-Planck Institut (16 July 2003)
Dortmund, Germany
6. *Radiation Damage to Proteins can be visualized by X-ray Crystallography*
Prof. S. Wakatsuki (host), Photon Factory (11 March 2002)
Tsukuba, Japan
5. *Solvent Effects on Protein Structure and Dynamics studied by X-ray Crystallography*
Prof. G. Büldt (host), Forschungszentrum Jülich (17 January 2001)
Jülich, Germany
4. *Solvent Effects in Studies on Protein Structure and Dynamics*
Prof. J. Sussman (host), Weizmann Institute of Science (21 November 2000)
Rehovot, Israel
3. *Specific Chemical and Structural Radiation Damage to Proteins*
Dr. J. Warman (host), Interfacultair Reactor Instituut (19 May 2000)
Delft, The Netherlands
2. *Neutron Diffraction Studies on Native Purple Membranes*
Prof. N. Niimura (host), Japan Atomic Energy Research Institute (29 May 1998)
Tokai, Japan
1. *Neutron Diffraction Studies on Native Purple Membranes*
Prof. J. Kroon (host), Bijvoet Center for Biomolecular Research (21 January 1998)
Utrecht, The Netherlands

External funding

- Agence Nationale de Recherche (Pseudoscav), Period: 2019 – 2022
Coordinator: Ludovic Jean, Funding for Weik group: 87 000 €
Title: Pseudo-catalytic bioscavengers of organophosphorous neurotoxic agents
- Agence Nationale de Recherche (Snapshots), Period: 2018 – 2021
Coordinator: Frederic Beisson, Funding for Weik group: 200 000 €
Title: Structural dynamics of fatty acid photodecarboxylase
- Agence Nationale de Recherche (Multidote), Period: 2017 – 2020
PI: Ludovic Jean, Funding for Weik group: 63 000 €
Title: Multi-target antidotes against organophosphate intoxications
- Agence Nationale de Recherche (BioXFEL), Period: 2015 – 2019
Coordinator: Martin Weik, Funding for Weik group: 300 000 €
Title: Elucidating structural intermediates of fluorescent proteins using X-ray free electron lasers and ultra-fast UV-visible and infrared spectroscopies
- CNRS PEPS SASLELX, Period: 2013 – 2015
Coordinator: Martin Weik, Funding for Weik group: 20 000 €
Title: Pioneering the use of XFELs for French Structural Biology
- Agence Nationale de Recherche, Astrid (ReCNS-AChE), Period: 2013 – 2015
Coordinator: Rachid Baati, Funding for Weik group: 95 316 €
Title: Réactivateurs de l'acétylcholinesterase centrale
- Agence Nationale de Recherche, Blanc (BIEAU), Period: 2012 – 2015
Coordinator: Martin Weik, Funding for Weik group: 366 000 €
Title: Structure and dynamics of protein hydration water
- US Defense Threat Reduction Agency, Period: 2011 - 2015
Coordinator: Martin Weik, Funding for Weik group: 570 000 €
Title: The dynamic personalities of cholinesterases and phosphotriesterases
- NRBC Programme of the Commissariat à l'Energie Atomique, Period: 2010 - 2017
Coordinator: Martin Weik, Funding for Weik group: 800 000 €
Title: Structural dynamics of acetylcholinesterase
- Agence Nationale de Recherche, Blanc (ReAChE), Period: 2009 – 2012
Coordinator: Pierre-Yves Renard, Funding for Weik group: 227 000 €
Title: New reactivators for poisoned acetylcholinesterase
- DGA - REI (#08C0087), Period: 2009 – 2011
Coordinator: Martin Weik, Funding for Weik group: 159 000 €
Title: Structural dynamics of acetylcholinesterase
- Institut Laue Langevin, one PhD grant, Period: 2008 – 2010
Coordinator: Martin Weik, Funding: 100 000 €
Title: Structural dynamics of an intrinsically unfolded protein involved in Alzheimer disease

- Agence Nationale de Recherche, PCV, Period: 2008 – 2010
Coordinator: Martin Blackledge, Funding for Weik group: 49 000 €
Title: Conformational dynamics in folded, partially folded and natively unfolded proteins
- French - Dutch bilateral research grant ‘Van Gogh’ (#18146PK), Period: 2008 - 2009
Coordinator: Martin Weik, Funding for Weik group: 6000 €
Title: Molecular dynamics of folded and intrinsically unfolded proteins: combining neutron scattering and nuclear magnetic resonance
- FP6 – NMI3 –DLAB (#RII3-CT-2003-505925), Period: 2005 - 2008
Coordinator: Trevor Forsyth, Funding for LBM: 134 000 €
Title: Methods for biological deuteration
- Agence Nationale de Recherche, Young Investigator Award (ANR-05-JCJC-0084)
Period: 2005 – 2008
Coordinator: Martin Weik, Funding for Weik group: 150 000 €
Title: Effects of ionizing radiation on the structure and function of proteins

Conference organization

- LINXS Time-Resolved Structural Biology workshop, October 2022, Lund, Sweden (Co-organizer within the LINXS working group)
- Protein Dynamics Workshop, May 2022, Aussois, France (Co-organizer with P. Schanda)
- LINXS Time-Resolved Structural Biology workshop, November 2020, Lund, Sweden (Co-organizer within the LINXS working group)
- Eleventh International Workshop on X-ray Radiation Damage to Biological Crystalline Samples, October 2020, Paul Scherer Institute, Switzerland (Co-organizer with E. Garman)
- Tenth International Workshop on X-ray Radiation Damage to Biological Crystalline Samples, September 2018, BNL Brookhaven, USA (Co-organizer with E. Garman)
- Protein Dynamics Workshop, 27 May - 1 June 2018, Les Houches, France (Main organizer)
- Protein Dynamics Workshop, 3 - 8 April 2016, Les Houches, France (Main organizer)
- Ninth International Workshop on X-ray Radiation Damage to Biological Crystalline Samples, March 2016, Max IV Lund, Sweden (Co-organizer with E. Garman)
- 12th International Meeting on Cholinesterases, September 2015, Alicante, Spain (Member of the Scientific Advisory Board)
- Protein Dynamics Workshop, 19 – 23 May 2014, Les Houches, France (Main organizer)

- Eight International Workshop on X-ray Radiation Damage to Biological Crystalline Samples, April 2014, Desy Hamburg, Germany (Co-organizer with E. Garman)
- Water at Interfaces, 15 – 26 April 2013, Les Houches, France (Member of the Local Organizing Committee)
- French – Japanese Seminar on Protein Dynamics, 6 – 11 January 2013, Spring-8, Japan (Co-organizer with M. Nakasako)
- SFBBM – SFB congress, 21-23 November 2012, Grenoble, France (Member of the Local Organizing Committee)
- XFEL School 2012, 4 – 8 June 2012, Annecy, France (Member of the Scientific Advisory Board)
- 11th International Meeting on Cholinesterases, 4 - 9 June 2012, Kazan, Russia (Member of the Scientific Advisory Board)
- Seventh International Workshop on X-ray Radiation Damage to Biological Crystalline Samples, 14 - 16 March 2012, Diamond Light Source, UK (Co-organizer with E. Garman)
- Sixth International Workshop on X-ray Radiation Damage to Biological Crystalline Samples, 11 - 13 March 2010, Stanford Synchrotron Radiation Laboratory, USA (Co-organizer)
- Telluride Science Research Center Workshop on Protein Dynamics, August 2009, Telluride, USA (Main organizer)
- French – Japanese Seminar on Protein Dynamics, 15 – 19 January 2007, Grenoble, France (Co-organizer with A. Kidera)
- Telluride Science Research Center Workshop on Protein Dynamics, July 2007, Telluride, USA (Co-organizer with A. Palmer, A. Markelz, Y. Mizutani)

Positions on advisory boards and referee activities

- Member of the expert committee of health related issues of the League of advanced European Neutron Sources (since 2020)
- Fellow of the Lund Institute of Advanced Neutron and X-ray Science (since 2019)
- Member of the Proposal Review Committee of the SwissFEL (since 2018)
- Member of the Scientific Council of the Institut Laue-Langevin (since 2017)
- Co Guest Editor of special issues on *Radiation Damage in Protein Crystallography* of the *Journal of Synchrotron Radiation* (May 2011, January 2013, January 2015, January 2017, July 2019, July 2021)

- Member of the International Advisory Board, Master in Bioinformatics, Universidad de Murcia, Spain (2012 - present)
- Nominated member of the Board of Directors, Telluride Science Research Center, Colorado, USA (2011 - present)
- Member of the Executive Committee of the European Division of Physics in Life Sciences (2009 - present)
- Elected board member of the French *Société Française de Biophysique* (2007 - 2016)
- Proposal evaluation committee of the FRMII neutron reactor in Munich (2010 - 2015)
- Proposal evaluation committee of the Laboratoire Léon Brillouin (2007 - 2010)
- Proposal evaluation committee of the Institut Laue-Langevin (2003-2006)
- Advisory Editorial Board *European Biophysics Journal* (2006 - present)
- *Ad hoc* referee for *Science*, *Nature Methods*, *Nature Commun.*, *PNAS*, *JACS*, *Phys Rev Lett*, *PLOS ONE*, *Structure*, *Biophys. J.*, *Biochemistry*, *Proteins*, *Eur. Biophys. J.*, *J. Synchrotron Radiat.*, *J. Appl. Cryst.*, *HFSP J.*, *BBA*
- *Ad hoc* referee for grant proposals: NSF (USA), HKUST (China), ANR (France), Royal Society (UK), NWO (The Netherlands), OTKA (Hungary), NSERC (Canada), FCT (Portugal)

Management courses taken

EMBO course: Negotiation for scientists (Heidelberg, 2017; 3 days)

EMBO course: Research Leadership for group leaders (Heidelberg, 2010; 4 days)

Formation de management pour chefs de laboratoire (Paris, 2007; 4 days)

Collaborations (past and present)

Dr. D. Bourgeois, Institut de Biologie Structurale, Grenoble, France

Dr. M. Blackledge, Institut de Biologie Structurale, Grenoble, France

Prof. D. Eisenberg, University of California, Los Angeles, USA

Prof. E. Garman, Lab. Molecular Biophysics, Oxford University, England

Prof. M. Havenith, Bochum University, Germany

Prof. C. Houée-Levin, Lab. Chimie Physique, Université Paris Sud, France

Prof. S. Marqusee, University of California, Berkeley, USA

Dr. F. Mulder, Aarhus University, Denmark
Dr. F. Nachon, CRSSA, La Tronche, France
Prof. D. Oesterhelt, Abt. Membranbiochemie, MPI Martinsried, Germany
Prof. J. Peters, ILL/IBS/UJF, France
Dr. R. Ravelli, Univ. Leiden, The Netherlands
Prof. P.-Y. Renard, Univ. Rouen, France
Dr. I. Schlichting, Max-Planck Institut, Heidelberg, Germany
Prof. I. Silman, Weizmann Institute of Science, Israel
Prof. J. Sussman, Weizmann Institute of Science, Israel
Prof. D. Tawfik, Weizmann Institute of Science, Israel
Prof. D. Tobias, University of California, Irvine, USA
Prof. J. Wand, University of Pennsylvania, USA
Dr. G. Zaccai, Institut Laue-Langevin, Grenoble, France