

Monday 7 October

- 10:00 – 14:00 Welcome and registration
14:00 – 14:20 Inaugural and welcome speeches

Invited Speaker

- Chairperson: Lionel Mourey (IPBS, Toulouse)
14:20 – 14:50 Jean-Paul Renaud, Urania Therapeutics, Strasbourg
The evolving role of structural biology and biophysics in drug discovery

Session I: Drug design

- Chairpersons: Vanessa Delfosse (CBS, Montpellier), Laurent Maveyraud (IPBS, Toulouse)
14:50 – 15:10 Marc Ruff, IGBMC, Illkirch
HIV-1 pre-integration complexes. Structures, functions and drug design
15:10 – 15:30 Elizabeth Ramos Morales, IGBMC, Illkirch
The challenge of inhibiting selectively histone deacetylases (HDAC) from eukaryotic pathogens
15:30 – 15:50 Gilles Labesse, CBS, Montpellier
Fragment linking yields the first NAD kinase inhibitor active against *Staphylococcus aureus in vivo*
15:50 – 16:10 Simon Veyron, McGill Center for Structural Biology and Department of Pharmacology and Therapeutics, Montreal, Canada
Structure-based design of small-molecule activators of parkin
16:10 – 16:25 Sponsor
16:25 – 17:05 **Coffee break/Posters**

Invited Speaker

- Chairperson: Bruno Kieffer (IGBMC, Illkirch)
17:05 – 17:35 Cameron Mackereth, IECB, Bordeaux
Protein recognition of RNA by sequence and shape

Session II: DNA & RNA biology

- Chairpersons: Virginie Gervais (IPBS, Toulouse), Jean-Baptiste Charbonnier (I2BC, Gif-sur-Yvette)
17:35 – 17:55 Joanna Timmins, IBS, Grenoble
A key player for nucleoid organization and compaction in *Deinococcus radiodurans*
17:55 – 18:15 Clément Charenton, MRC-LMB, Cambridge, UK
Mechanism of 5' splice site transfer for human spliceosome activation

- 18:15 – 18:35 Carine Tisné, IBPC, Paris
m1A modification in tRNAs
- 18:35 – 18:55 Pierre Damien Coureux, École Polytechnique, Palaiseau
Cryo-EM structure of an archaeal translation initiation complex at 3.1 Å resolution

19:00 – 22:00 **Welcome dinner cocktail**

Tuesday 8 October

Invited Speaker

- Chairperson: Claude Sauter (IBMC, Strasbourg)
- 09:15 – 09:45 Charlotte Uetrecht, Heinrich Pette Institute, Leibniz Institute for Experimental Virology, Hamburg, Germany
Flying viruses – from biophysical to structural characterization
- 09:45 – 10:40 **Coffee break/Posters**

Session IIIa: Combining methods for the study of supramolecular assemblies

- Chairpersons: Aurélie Albertini (I2BC, Gif-sur-Yvette), Wim Burmeister (IBS, Grenoble)
- 10:40 – 11:00 Stéphanie Petrella, Institut Pasteur, Paris
Overall structures of *Mycobacterium tuberculosis* DNA gyrase reveal the role of a Corynebacteriales GyrB specific insert in ATPase activity
- 11:00 – 11:20 Adrien Favier, IBS, Grenoble
Integrated NMR and cryo-EM atomic-resolution structure determination of a half-megadalton enzyme complex
- 11:20 – 11:40 Benjamin Bardiaux, Institut Pasteur, Paris
Integrative structural biology of bacterial type IV pili and pseudopili
- 11:40 – 12:00 Guillaume Tétreau, IBS, Grenoble
An integrative approach to unravel the *in vivo* crystallization pathway and mechanism of toxicity of Cyt1Aa – a naturally crystalline mosquitocidal toxin
- 12:00 – 13:30 **Lunch**

Invited Speaker

- Chairperson: Jean-Denis Pedelacq (IPBS, Toulouse)
- 13:30 – 14:00 Marcello E. Guerin, CIC bioGUNE, Derio, Spain
Structural basis of glycosyl transfer reactions

Session IV: Molecular interactions and diseases

- Chairpersons: Sonia Fieulaine (I2BC, Gif-sur-Yvette), Laurent Terradot (IBCP, Lyon)

14:00 – 14:20	Paloma Varela, I2BC, Gif-sur-Yvette Macromolecules interactions in vitro, comparing classical and innovative approaches
14:20 – 14:40	Valérie Guillet, IPBS, Toulouse Structural basis of the addiction of toxin-antitoxin systems to molecular chaperones
14:40 – 15:00	Florian Malard, ICSN, Gif-sur-Yvette The molecular mechanism of the interaction between TCTP and the Bcl-2 proteins (Bcl-xL, Mcl-1) in the context of tumor reversion
15:00 – 15:20	Stefan Arold, StruBE/KAUST, Thuwal, Saudi Arabia HX repeat motifs and their role in a novel neurocognitive syndrome
15:20 – 16:15	Coffee break/Posters
16:15 – 16:30	Sponsor

Session IIIb: Combining methods for the study of supramolecular assemblies

Chairpersons:	Isabelle Billas (IGBMC, Illkirch), Alain Roussel (AFMB, Marseille)
16:30 – 16:50	Julie Ménétrey, I2BC, Gif-sur-Yvette Structural characterization of the RH1-LZI tandem of JIP3/4 highlights RH1 domains as a cytoskeletal motor-binding motif
16:50 – 17:10	Maxime Bourguet, LSMBO, Strasbourg Benefits of MS-based approaches for the structural characterization of the specific association between the coactivator Med1 with the VDR-RXR heterodimer
17:10 – 17:30	Julien Henri, LBMCE, Paris Supramolecular organization of the Calvin-Benson cycle
17:30 – 17:50	Antoine Loquet, CBMN, Pessac Solid-state NMR-based structural biology of functional amyloid fibrils

Keynote conference

Chairperson:	Julien Marcoux (IPBS, Toulouse)
17:50 – 18:35	Justin Benesch, University of Oxford, UK Weighing the evidence for molecular chaperone function

Wednesday 9 October

Invited Speaker

Chairperson:	Emmanuel Margeat (CBS, Montpellier)
09:15 – 09:45	Claus A.M. Seidel, Heinrich Heine University, Düsseldorf, Germany Integrative dynamic structural biology with multi-parameter fluorescence spectroscopy and super-resolution FRET microscopy
09:45 – 10:40	Coffee break/Posters

Session V: Technological/methodological innovations

Chairpersons:	Nathalie Colloc'h (ISTCT, Caen), Eric Ennifar (IBMC, Strasbourg)
10:40 – 11:00	Dominique Bourgeois, IBS, Grenoble Mechanistic investigation of a fluorescent protein reveals a strategy to reduce track interruptions in single particle tracking PALM
11:00 – 11:20	Igor Chaussavoine, SOLEIL, Gif-sur-Yvette Microfluidic positioning of biological macromolecular crystals for serial X-ray diffraction on the PROXIMA-1 beamline
11:20 – 11:40	Dominique Housset, IBS, Grenoble Structural studies of proteins and peptide by cryo-electron diffraction of 3D nano-crystals
11:40 – 12:00	Léonard Chavas, SOLEIL, Gif-sur-Yvette New access modes for integrated biology at synchrotron SOLEIL
12:00 – 13:30	Lunch

Invited Speaker

Chairperson:	Joanna Timmins (IBS, Grenoble)
13:30 – 14:00	Malene E. Jensen, IBS, Grenoble Revealing the mechanism of action of a temperate bacteriophage by an integrated structural biology approach

Session VI: Multi-scale dynamics in biology

Chairpersons:	Carine Van Heijenoort (ICSN, Gif-sur-Yvette), Guy Lippens (TBI, Toulouse)
14:00 – 14:20	Elena Andreeva, IBS, Grenoble Towards a better understanding of the Orange Carotenoid Protein (OCP) photoactivation mechanism
14:20 – 14:40	Annalisa Pierro, BIP, Marseille Probing NarJ structural dynamics inside <i>E. coli</i> cells by EPR spectroscopy
14:40 – 15:00	Emmanuel Margeat, CBS, Montpellier Structural dynamics of single metabotropic glutamate
15:00 – 15:20	Kyprianos Hadjidemetriou, IBS, Grenoble Time-resolved serial femtosecond crystallography
15:20 – 16:15	Coffee break/Posters
16:15 – 16:30	Sponsor

Session VII: Cellular regulatory mechanisms

- Chairpersons: Pascale Marchot (AFMB, Marseille), Marc Delarue (Institut Pasteur, Paris)
- 16:30 – 16:50 Bouchra Attia, LISM, Marseille
Structural characterization of the GtlJ protein and its interactions with the cytoplasmic platform during the adventurous motility of *Myxococcus xanthus*
- 16:50 – 17:10 Laurence Blanchard, BIAM/CEA, Saint Paul-lez-Durance
Novel structure of a XRE family transcriptional regulator: insight into the metalloprotease/repressor-controlled radiation response in *Deinococcus*
- 17:10 – 17:30 Yves Bourne, AFMB, Marseille
Structural insights into substrate binding and catalytic mechanism of heparan sulfate D-glucuronyl C5 epimerase
- 17:30 – 17:50 Julien Marcoux, IPBS, Toulouse
Hydrogen-deuterium eXchange coupled to Mass Spectrometry highlights a reciprocal crosstalk between the inner and outer rings of the 20S proteasome

Keynote conference

- Chairperson: Célia Plisson-Chastang (CBI-LBME, Toulouse)
- 17:50 – 18:35 Helen Saibil, Birkbeck College, London, UK
Protein aggregation in cells and machinery for disaggregation

Thursday 10 October

Invited Speaker

- Chairperson: Eva Pebay-Peyroula (IBS, Grenoble)
- 09:15 – 09:45 Nathalie Reuter, University of Bergen, Norway
How do soluble proteins bind to lipid membranes? Computational approaches for mapping and predicting protein-membrane interfaces
- 09:45 – 10:40 **Coffee break/Posters**

Session VIII: Computational methods and modeling

- Chairpersons: Marc Bergdoll (IBMP, Strasbourg), Matthieu Chavent (IPBS, Toulouse)
- 10:40 – 11:00 Julie Cornet, LPT, Toulouse
Monte Carlo and molecular dynamics simulations to explain biomembrane meso-patterning by a composition-curvature coupling mechanism
- 11:00 – 11:20 Florence Tama, Department of Physics and ITbM, Nagoya University, Japan
Integrative modeling to characterize structure and dynamics of biomolecules from single molecule experiments

- 11:20 – 11:40 Jérémie Topin, Institut de Chimie de Nice, Nice
Numerical modeling of odorant receptors activation dynamics
- 11:40 – 12:00 Jérôme de Ruyck, UGSF, Lille
How can oncoprotein Ets-1 interact with DNA repair enzyme PARP-1? A molecular modelling approach to design cancer progression inhibitors
- 12:00 – 13:30 **Lunch**

Invited Speaker

- Chairperson: Eva Pebay-Peyroula (IBS, Grenoble)
- 13:30 – 14:00 Anna Moroni, University of Milan, Milano, Italy
Relating structure to function in HCN channels

Session IX: Structural organization in membrane and in cellular context

- Chairpersons: Coralie Bompard (UGSF, Lille), Alain Dautant (IBGC, Bordeaux)
- 14:00 – 14:20 Vincent Chaptal, MMSB, Lyon
Cryo-EM and X-ray structures of the multidrug transporter BMRA: revisiting the transport mechanism
- 14:20 – 14:40 Isabelle Broutin, CiTCom, Paris
New insights into the assembly and opening mechanism of the OprM-MexAB efflux pump from *Pseudomonas aeruginosa*
- 14:40 – 15:00 Julie Bouckaert, UGSF, Lille
Glycoprotein binding enhances bacterial entry at epithelial membranes
- 15:00 – 15:20 Arpita Tawani, IECB, Pessac
Nanodomain targeting during bacterial division investigated by solid-state NMR
- 15:20 – 16:15 **Coffee break/Posters**
- 16:15 – 16:30 Sponsor

French Infrastructure in Structural Biology

- Chairperson: Julie Ménétrey (I2BC, Gif-sur-Yvette)
- 16:30 – 16:55 Members of the FRISBI executive committee
Present and future perspectives
- 16:55 – 17h15 Round table

17:15 – 18:35 General assemblies of AFC and SFB

20:00 – 24:00 Gala dinner

Friday 11 October

09:45 – 10:40 **Coffee break/Posters**

Talks selected from posters

Chairpersons:	Philippe Dumas (IGBMC, Illkirch), Alain Milon (IPBS, Toulouse)
10:40 – 10:50	Jérémy Buratto, CBMN, Pessac Structural insights into hdm2 protein recognition by oligourea foldamers
10:50 – 11:00	Amin Sagar, CBS, Montpellier Chemometric decomposition of multiple SAXS datasets to study transient protein-protein complexes
11:00 – 11:10	Paulo Esperito Santo, IBET, Lisboa, Portugal Structural insights into the R2TP complex
11:10 – 11:20	Anna Sartori-Rupp, Institut Pasteur, Paris 3D Ultrastructural Studies of Tunnelling Nanotubes by Correlative Cryo-Microscopy
11:20 – 11:35	Poster prizes
11:35 – 12:00	Conclusions
12:00 – 13:30	Lunch

Structural Biology at SOLEIL today and tomorrow (or visit)

Chairperson:	Andrew Thompson, SOLEIL, Gif-sur-Yvette
13h30 – 16h00	Presentations and round table
Alternatively:	Visit