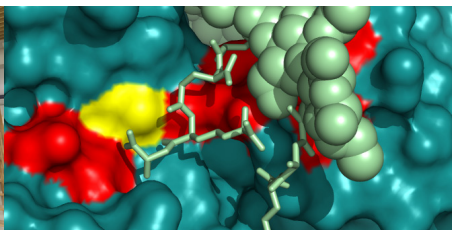


## Advanced solutions for biotech and pharmaceutical industries



*NMR spectrometers*



*Antibiotic inhibited enzyme by NMR*

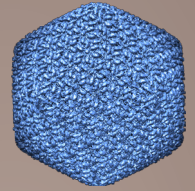


*Electron microscopy*

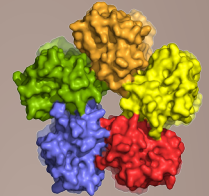
The Institut de Biologie Structurale: an internationally renowned institute providing knowledge and advanced technical solutions to the biotech and pharmaceutical industries.  
The IBS carries out structural biology related research in the fields of:

- immunity
- host-pathogen interactions
- cancer
- membrane proteins
- protein complexes requiring anaerobic conditions
- extremophilic biocatalysis
- glycobiology

together with the development of state of the art structural biology methods.



*Bacteriophage by electron microscopy*



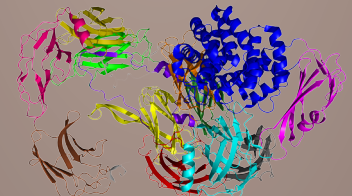
*Versatile switch for light-controlled cells*

## IBS: AN EFFICIENT PARTNER

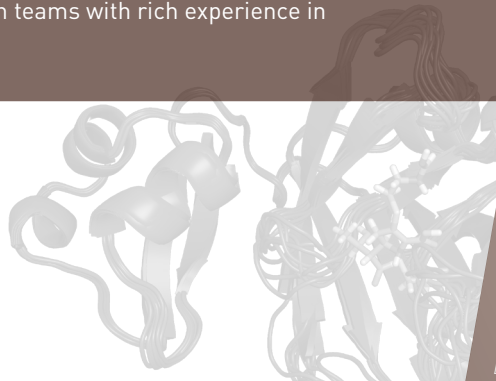
- Access to ISO 9001 certified technological platforms
- Timely and efficient preparation of contracts thanks to a team of dedicated legal specialists and a **single point of contact** for services or collaborations
- **Access to expertise** and scientific advice of research teams with rich experience in biochemistry and structural biology



*Setting-up a protein crystal on FIP beamline at ESRF*



*Bacterial mimicry of eukaryotic immunity by X-ray crystallography*





IBS provides access to high-tech instruments and cutting-edge know-how for structural biology studies. Our technical platforms are open to industry and to the international academic community.

### PROTEIN PRODUCTION AND MACROMOLECULAR CHARACTERIZATION

**We provide information related to proteins:**

- Expressability in *E. coli* and cell-free systems
- Purification
- Folding
- Integrity
- Stability
- Aggregation
- Post-translational modifications
- Membrane protein solubility in detergents

**by applying our expertise in:**

- Analytical ultracentrifugation
- SEC/MALS
- Thermal shift assay
- Mass spectrometry
- Electron microscopy
- Fluorescence spectroscopy
- Membrane protein biochemistry
- Automation of multi-step protein purification
- O<sub>2</sub> -free protein production and purification
- Studying proteins under high pressure

### MAPPING MOLECULAR INTERACTIONS

**We provide information related to  
proteins and glycans**

- Affinities of small molecules and macromolecules
- Epitope mapping
- Protein and protein-ligand complexes

**by applying our expertise in:**

- Surface plasmon resonance (Biacore)
- NMR spectroscopy
- Automated site-directed mutagenesis
- Protein modeling and dynamics
- High resolution 3D structure determination by X-ray and NMR
- Glycosaminoglycan sequencing

### 3D STRUCTURES OF CHALLENGING/COMPLEX PROTEINS

**We provide 3D structural information on  
challenging proteins:**

- Large protein complexes
- Integral membrane proteins
- Intrinsically disordered proteins
- Proteins in O<sub>2</sub> -free environments

**by applying our expertise in:**

- X-Ray crystallography
- NMR spectroscopy (950 MHz instrument)
- Protein modeling and dynamics
- Cryo-electron microscopy
- Automated protein crystal growth in lipidic phases



European Photon & Neutron Science Campus



Institut de Biologie Structurale

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Email: [ibs.industry@ibs.fr](mailto:ibs.industry@ibs.fr)



GPS coordinates of the  
EPN Campus entry:

45°12'30»N 5°41'46»E  
45.208208; 5.696234



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[www.ibs.fr](http://www.ibs.fr)