

# Des compétences techniques au service de la recherche

Livret des plateformes





## Le mot du directeur

Les plateformes du Département SBM jouent un rôle majeur pour le développement de la recherche des différentes UMR. Elles sont le creuset de compétences multiples indispensables à de nombreux projets de recherche et des espaces d'innovations technologiques à la base des projets de demain. Elles sont nées des efforts de mutualisation des équipes du Département et proposent l'accès de leurs compétences et de leurs équipements aux équipes locales des autres Départements. Elles sont de plus pour certaines d'entre elles sollicitées par de nombreux groupes sur toute la France.

La plateforme multi-technologique TBMCORE labellisée plateforme de l'Université de Bordeaux a été classée comme UAR par le CNRS et US par l'Inserm. Elle offre notamment des compétences d'imagerie du petit animal, de manipulation des cellules et des tissus et un équipement L3 pour la manipulation des virus et germes dangereux.

La plateforme de bio-informatique CBiB est utilisée par l'ensemble des sciences du vivant de l'université et fait partie de la plateforme nationale multi-sites IFB gérée par le CNRS. On trouve aussi dans le Département les plateformes PAP de purification et analyse des protéines, Poetic qui maîtrise le criblage à haut débit, XenoFish spécialisée dans la manipulation du poisson zèbre et XenUB qui développe le modèle expérimental xénope.

Le Département SBM soutient fortement le fonctionnement de toutes ces plateformes et participe dans la limite de ses moyens à leur développement.





# cbib

BIOINFORMATIQUE

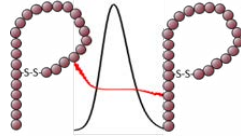
## CBiB – Bordeaux BioInformatic Center

Head: Macha Nikolski  
Manager: Alexis Groppi

 macha.nikolski@u-bordeaux.fr


 <https://www.cbib.u-bordeaux.fr/>


- Analysis and integration of "omics" data
- Development and implementation of specialized analyses
- Access to its storage and compute servers
- Implementation of bioinformatics methods, pipelines and webportals
- Custom biological data analyses for omics and bioimaging data
- Consulting services for bioinformatics and biostatistics projects
- Establishment of research collaborations with experimental and biomedical groups




## Purification et Analyse des Protéines (PAP)

Head: Mathieu Métifiot  
Manager: Christophe Velours

 mathieu.metifiot@u-bordeaux.fr

 05 57 57 17 47

 <https://www.mfp.cnrs.fr/wp/facility/pap>

- Protein expression and Purification
- Molar mass determination by light scattering: SEC-RALS
- Macromolecular thermal stability by DSC
- Protein-protein interaction analysis
- Recombinant protein portfolio produced in-house (polymerases, proteases, Cas, etc.)



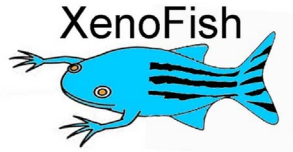
**POETIC**  
Head: Delphine Fessart

@ delphine.fessart@inserm.fr

☎ 05 56 33 04 29

🌐 [http:// www.bricbordeaux.com/  
technologies-et-cellule-de-transfert/](http://www.bricbordeaux.com/technologies-et-cellule-de-transfert/)

- Our mission is to support basic and translational research in cancer.
- POETIC carries out large-scale drug tests and studies the impact of protein depletion and/or overexpression based on cellular phenotype. It makes it possible to monitor cell growth, cell death, cell proliferation, to carry out toxicity tests, senescence tests, etc...



**XenoFish**  
Head: Majid Khatib  
Manager: Géraldine Siegfried

@ xenofish22@gmail.com  
geraldine.siegfried@inserm.fr  
majid.khatib@inserm.fr


☎ 06 75 24 31 64


- Microinjection of mRNA, DNA or morpholinos (antisense oligonucleotides) into larva or adult zebrafish
- Injection of tumor cells, (xenografts, invasion)
- Drug screening (toxicology and therapy)
- In vivo angiogenesis models (larvae/adult zebrafish)
- Caudal fin regeneration model
- Functional study by the CRISPR-Cas9 technique (soon)




## **XenUB**

Head: Pierre Thiebaud  
Manager: Sandrine Fedou

 pierre.thiebaud@u-bordeaux.fr

 06 18 43 42 63

 [https://u1035-inserm.fr/fr/projet/X1\\_Plateforme-Xenope](https://u1035-inserm.fr/fr/projet/X1_Plateforme-Xenope)

- Assistance in the preparation of scientific research programs
- Implementation of the programs
- Gain-Of-Function Strategy (mRNA injection)
- Loss-Of-Function Strategy (Morpholinos injection)
- Transgenesis: establishment of transgenic lines
- CRISPR-Cas9 editing
- Gene expression analysis
- In situ hybridization
- Immunohistology
- Pharmacological screening
- Toxicity screening (FETAX: Frog Embryo Teratogenesis Assay-Xenopus)
- Oocyte microinjection
- Supply of embryos at different developmental stages
- Supply of oocytes

The following platforms are grouped together in a Support and Research Unit (UAR), the TBMCore unit, accredited by the University of Bordeaux, CNRS and Inserm





## CRISP'edit

Head: Béatrice Turcq

Manager: Valérie Prouzet-Mauléon

@ valerie.prouzet-mauleon@u-bordeaux.fr

☎ 05 57 57 45 47

🌐 <http://www.tbmcore.cnrs.fr/crisp-edit/>

- Design and realization of KO/KI/point mutations
- Design of sgRNA library experiments, screen selection, sgRNA sequencing, bioinformatics analysis
- Selection of the appropriate CRISPR system
- Design of sgRNA, of recombination templates
- Delivery strategy according to the cellular model
- Efficacy screening strategy



## FACSility, Flow cytometry

Head: Julie Dechanet Merville

Manager: Vincent Pitard

@ vpitard@u-bordeaux.fr

☎ 05 57 57 57 05

🌐 <https://www.tbmcore.cnrs.fr/cytometrie-bordeaux/>

- Training for autonomous Immuno-phenotyping or sorting biological samples or particles in suspension on a selection of flow cytometer analyzers and sorter
- Sorting biological samples or particles
- Panel design and advices for labelling your samples





## HISTOPATHOLOGIE

### Histopathologie

Head: Thomas Daubon

Manager: Nathalie Dugot-Senant

@ nathalie.senant@inserm.fr

☎ 05 57 57 48 78

[www. https://www.tbmcore.cnrs.fr/histopathologie-bordeaux/](https://www.tbmcore.cnrs.fr/histopathologie-bordeaux/)

Training in the various devices and provision of the following devices:

- Paraffin impregnation
- Inclusion bench
- Microtome sections
- Cryostat sections
- Autostainer for histological staining
- Autostainer for IHC and IF
- Briedfield microscope
- Confocal microscope



CelloXia

### CelloXia Core Facility

Head: Jean-Max Pasquet

Manager: Arnaud Villacreces

@ arnaud.villacreces@u-bordeaux.fr

☎ 05 57 57 15 81

[www. https://www.tbmcore.cnrs.fr/celloxia/](https://www.tbmcore.cnrs.fr/celloxia/)

- Perform experiments under controlled atmospheric conditions (alone or with the engineer)
- Expertise of hypoxic experiments



## OncoProt

Head: Frédéric Saltel

Manager: Anne-Aurélié Raymond

@ anne-aurelie.raymond@inserm.fr

☎ 05 57 57 17 07

🌐 <https://www.tbmcore.u-bordeaux.fr/oncoprot/>

- FFPE/Frozen Tissue proteomic analysis to identify new biomarkers/tumor signatures of diagnostic/prognostic/prediction of treatment response interest
- Proteomic profiling on only 1mm<sup>2</sup> of a 5µ thick cut (compatible with biopsies)
- Targeted quantification of biomarkers of interest
- Subcellular and single-cell proteomic analysis after laser microdissection
- Analysis of protein expression or post-translational modifications in cellular or tissue models
- Creation of proteomic databases from patient collections
- Statistical and integrative analyses of proteomic data
- Support for biological interpretation



## OneCell

Head: Myriam Capone

Manager: Xavier Gauthereau

@ Xavier.gauthereau@u-bordeaux.fr

☎ 05 57 57 57 05

🌐 <https://www.tbmcore.cnrs.fr/onecell/>

- Qualification of nucleic acids (RNA/DNA Integrity Number)
- Panels and primer design, qRT-PCR
- Automated preparation of 384 well qPCR plates
- Analysis of relative and absolute gene expression levels
- Library construction for Single Cell analysis 10x Genomics
- Collaboration with UB'Facility/Bordeaux for cell sorting, with Get-Plage/Toulouse Integragen/Evry for NGS, with CBiB/ Bordeaux for DATA analysis



## Service d'Analyses Métaboliques

Head: Benoît Pinson

@ sam@ibgc.cnrs.fr

☎ 06 5190 98 81/05 5699 90 19

🌐 <https://www.tbmcore.cnrs.fr/sam-service-d-analyses-metaboliques-bordeaux/>

- Guide you in your metabolic project scientific design and in its technical implementation
- Provide quantitative and reproducible metabolic data for water-soluble metabolites
- Assist you in the interpretation of your metabolic data from both our service or other metabolic services
- Train you in diverse scientific and technical aspects of sample preparation and metabolic analyses



## Laboratoire L3

Head: Marie-Line Andreola

Manager: Patricia Pinson

@ marie-line.andreola@u-bordeaux.fr

☎ 05 57 57 17 40

🌐 <https://www.tbmcore.cnrs.fr/laboratoire-l3-bordeaux/>

- Production of Class 3 viruses
- Study of infection on relevant cellular models
- Screening or evaluation of molecules (HIV, ZIKA, SARS-CoV-2, HCV)
- Sanger or NGS sequencing, whole genomes or targeted genes
- Preparation of samples for their observation in optical or electron microscopy
- Practical training for experimentation in Biosafety Level 3 laboratory
- Development and assistance in the implementation of your project on your model or on existing models
- Making available fully equipped premises
- Accessible to academic and private laboratories for collaborative/paid projects



# Vect'UB

## Vect'UB

Head: François Moreau-Gaudry  
Manager: Véronique Guyonnet-Dupérat

@ vect'UB@u-bordeaux.fr

☎ 05 57 57 16 02

🌐 <https://www.tbmcore.cnrs.fr/vectorologie-bordeaux/>

- Advice and assistance for gene transfer
- Construction of recombinant vectors
- Plasmid amplification (Maxiprep)
- Production of defective lentiviral particles
- Production of AAV particles
- Production of gRetroviral particles
- Purification of Adenovirus
- Titration (Facs, qPCR, p24)
- Generation of stable cell lines
- Gene overexpression in cell lines
- KI or KO cell lines (shRNA or CRISPR)
- Cell immortalization



## VIVOPTIC

Head: Stéphane Mornet  
Manager: Coralie Genevois

@ coralie.genevois@u-bordeaux.fr

☎ 05 57 57 47 50

🌐 <https://www.tbmcore.cnrs.fr/vivoptic/>

- Access to optical imagers and therapeutic equipments
- Mouse models generation, cell lines
- Practical advice for the experimentation and analysis part
- Collaboration on your research project



## **VoxCell**

Head: Laetitia Andrique

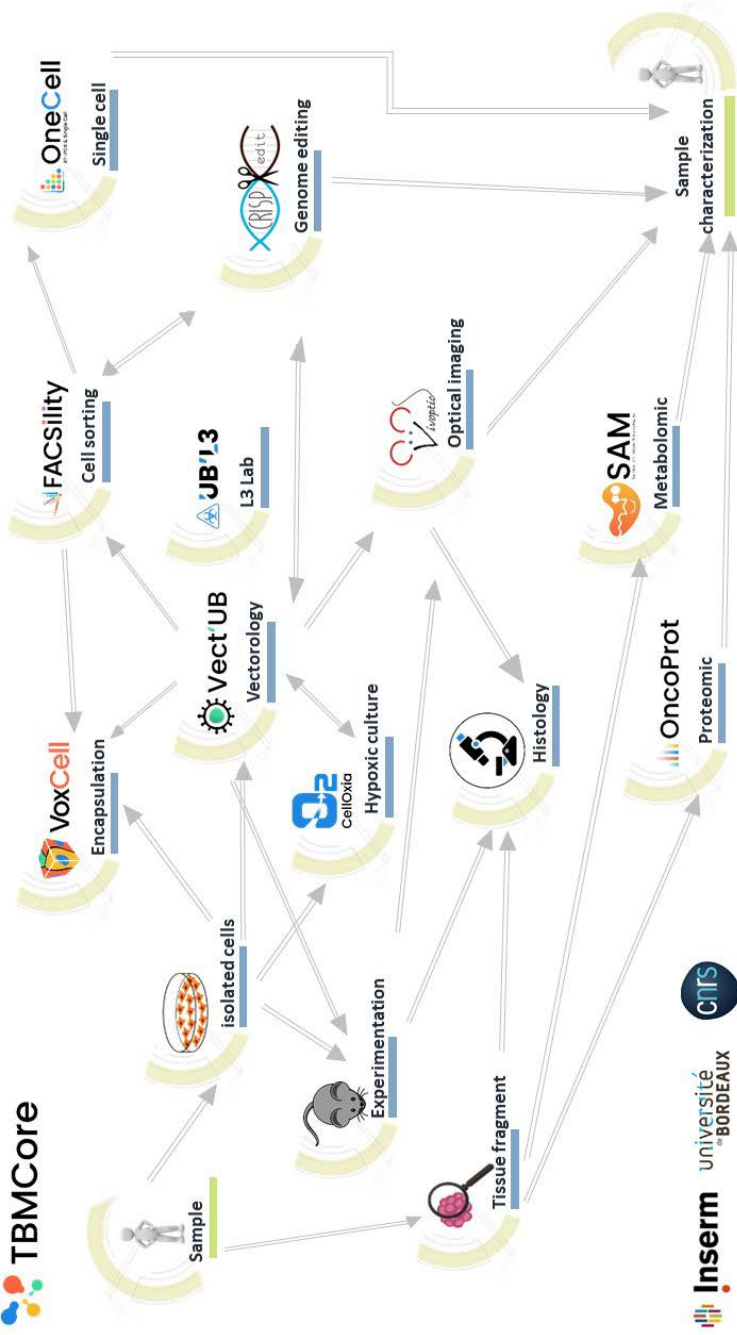
@ laetitia.andrique@u-bordeaux.fr

☎ 06 63 21 33 50

🌐 <http://www.tbmcore.cnrs.fr/voxcell/>

- Cell encapsulation
- Spherical (capsules) or cylindrical (tubes)

3D cell models



## Université de Bordeaux | Campus Carreire

146, Rue Leo Saignat  
33076 Bordeaux

### Bordeaux Biologie Santé Building

3<sup>rd</sup> floor :

- PAP

4<sup>th</sup> floor :

- CelloXia, *Office N.4032*
- CRISP'edit, *Office N.4025*
- XenUB

5<sup>th</sup> floor :

- Vect'UB
- OncoProt
- VoxCell
- Histopathologie
- UB'L3
- FACSility
- OneCell

---

### IBIO Building

- Vivoptic

---

### Centre de Génomique Fonctionnelle Bordeaux

- CBiB

---

### IBGC Building

- SAM

## Université de Bordeaux | Campus Talence

Allée Geoffroy St Hilaire  
33600 Pessac

### B2 Building| Université de Bordeaux

- XenoFish

---

### Institut Bergonié

229 cours de l'Argonne  
33076 Bordeaux

- Poetic
- 

Département de recherche  
SBM | Sciences  
biologiques et médicales / Université  
de BORDEAUX

En savoir +

<https://sbm.u-bordeaux.fr/>