

Methodology in research articles

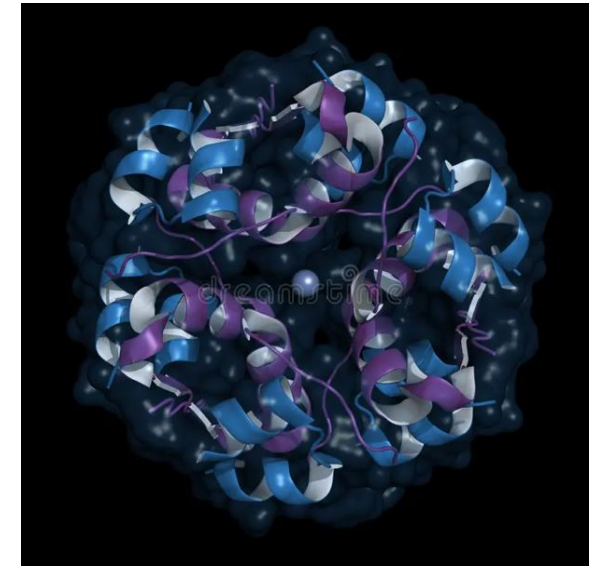
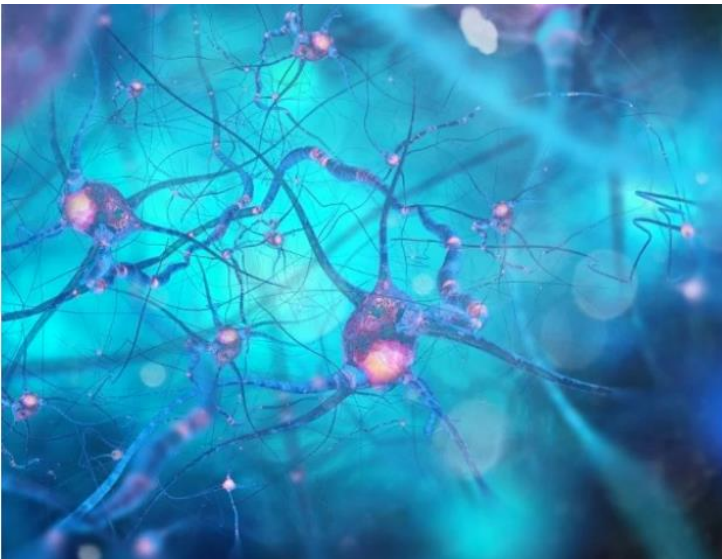
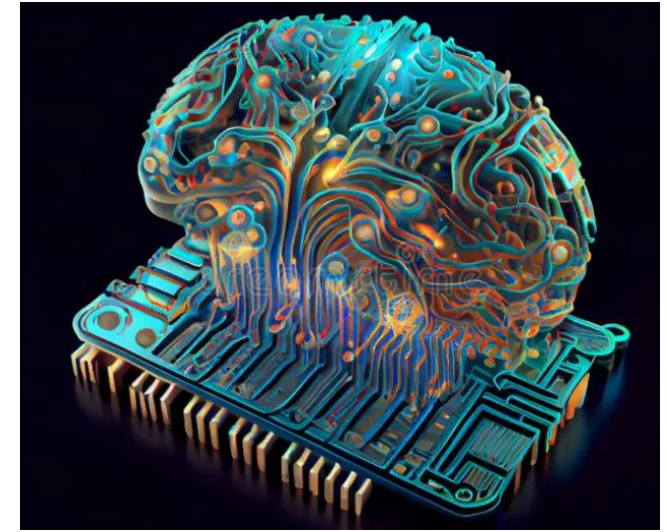
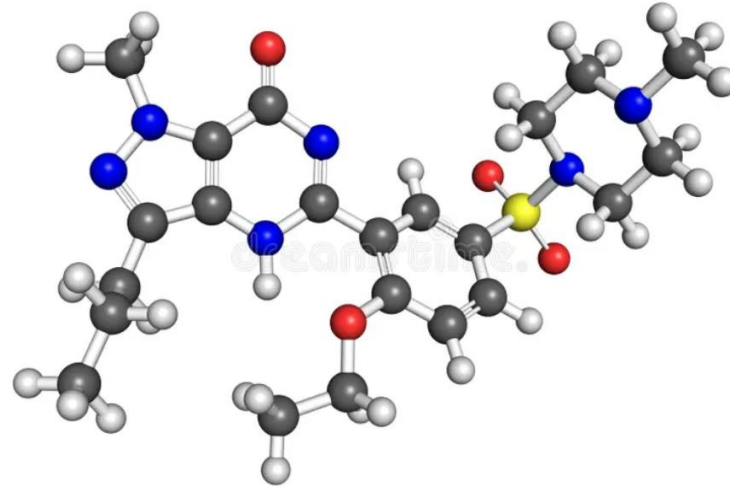


Responsables: Clotilde Billottet clotilde.billottet@u-bordeaux.fr

Mikhail Raskin mikhail.raskin@u-bordeaux.fr

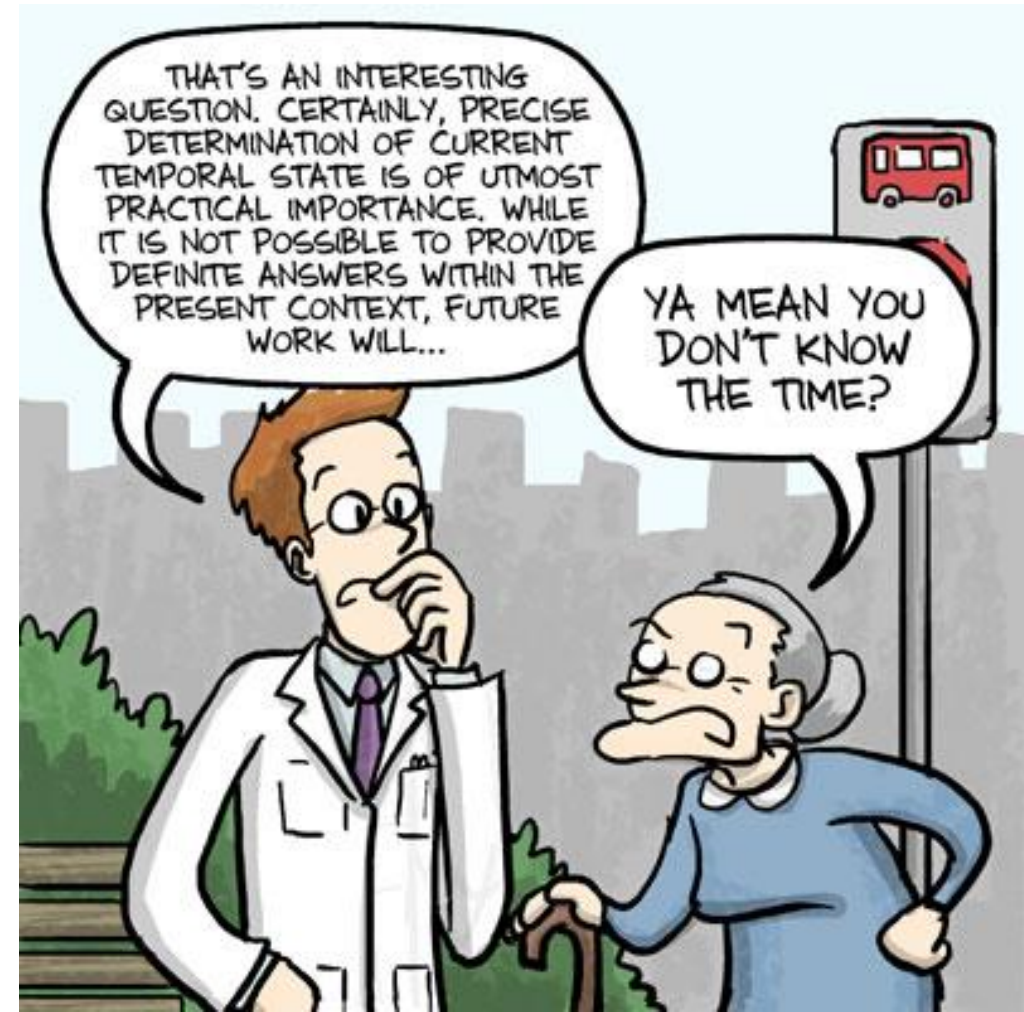
Autres intervenants: Karine Massé ; Raluca Uricaru, Patricia Thebault

Scientific research: a pluridisciplinary approach



Communicating as a Scientist

- Communicating is an integral part of being a scientist. But this is not easy!
- **Effective communication** is about getting your message across. It bridges the gap between the knowledge and interest of the audience and the content of the document or presentation
- Through the presentation you will have to give at the end of this course, you will learn how to communicate a scientific project to a broad audience of specialists and non-specialists alike



❖ Course organisation and content ?

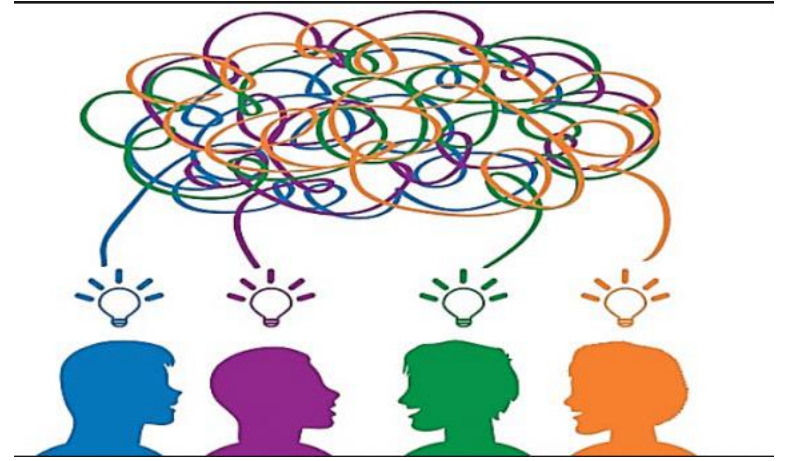
- **Flipped classroom**: You are the driving force of this course and you will be working on a project along scientists of pluridisciplinary fields (biology, informatics, mathematics, physics, chemists....

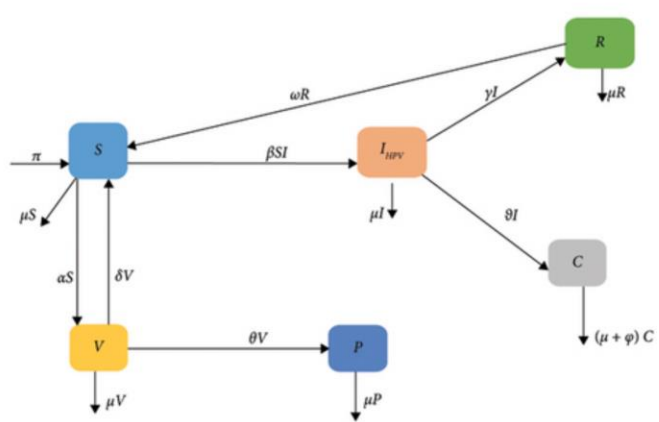
- **Project** : Work in a small subgroup on a research scientific biological topic

Bibliography : Search and Read about recent research publication on this topic

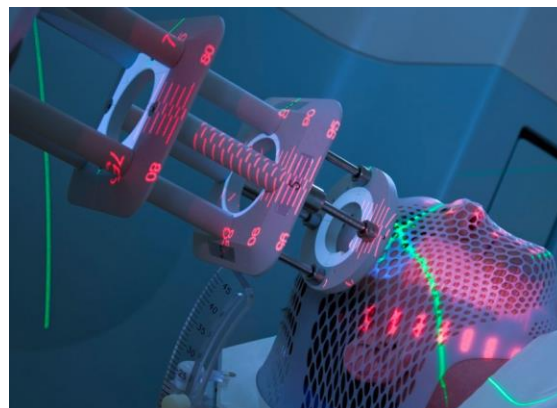
Build an **oral presentation** on this topic

- **Peer learning**

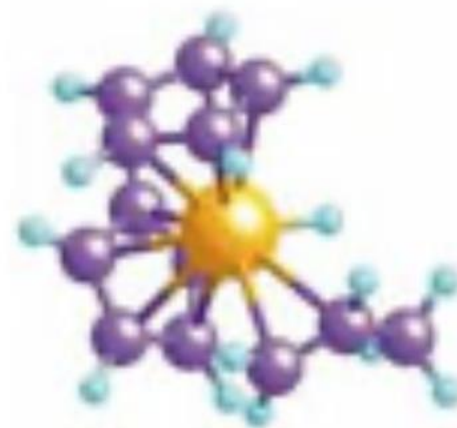




Mathematic modeling



Medical Physics



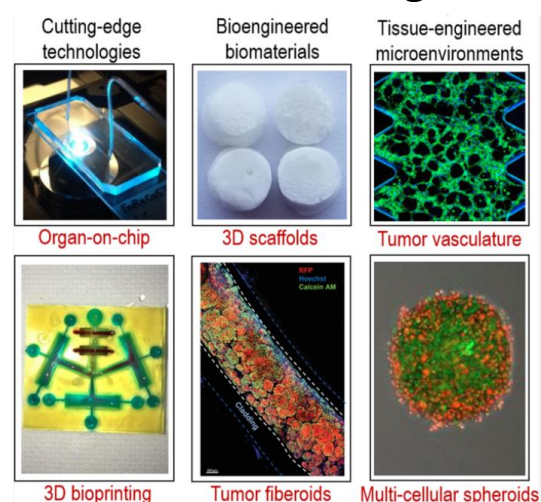
Chemistry



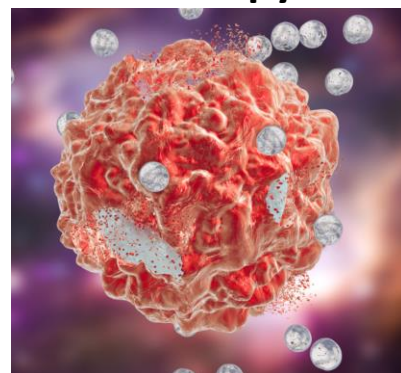
Cell Biology

Understanding Cancer?

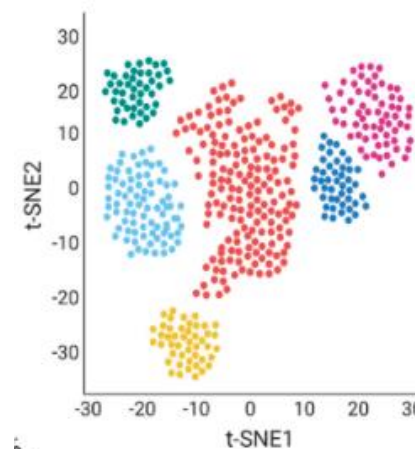
Bioengineering



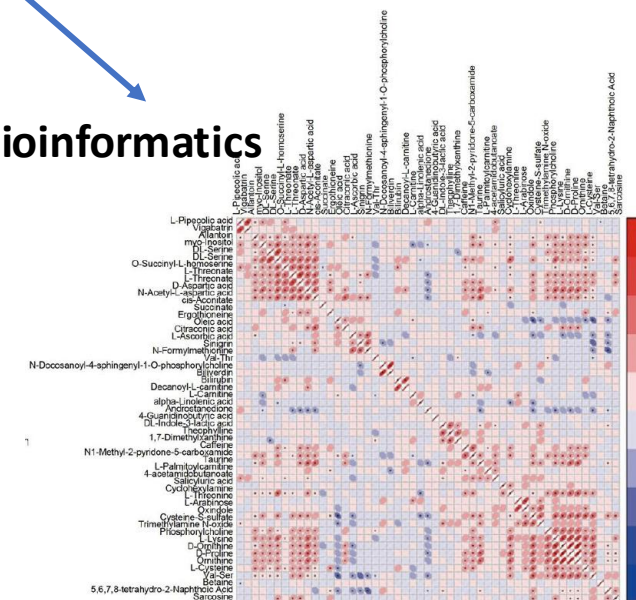
Nanoparticles based therapy



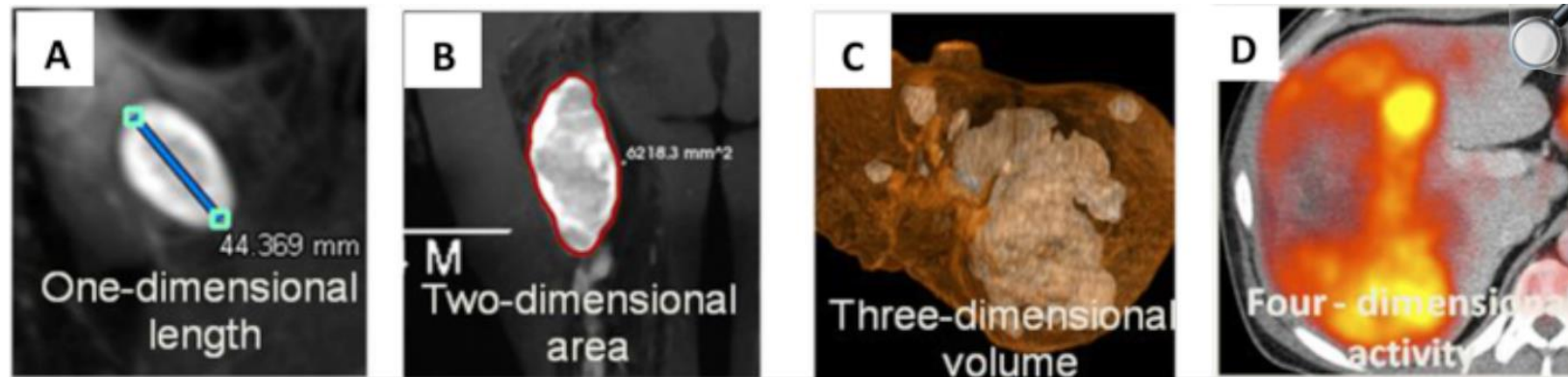
Genetics



Bioinformatics



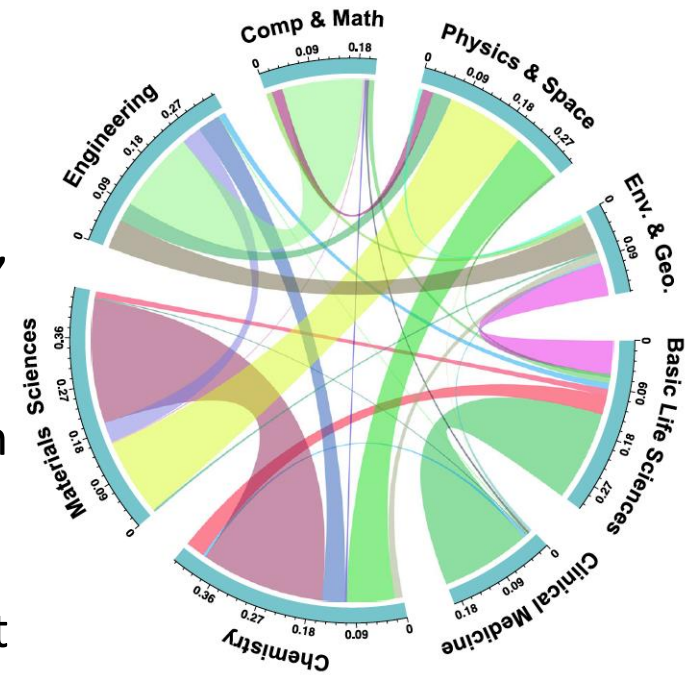
How to perform accurate and reproducible measurements of tumor burden?



Oncologic therapy?

❖ Skills gained?

- **Pluridisciplinarity** – develop deeper understanding of pluridisciplinary science, learn how to effectively interact within a multidisciplinary research team
- **Understanding a research articles across disciplines** – identify the research question, its significance, how it was addressed and what was learned
- **Research methodology** – understand methodological approaches in different disciplines w.r.t. data collection, processing, modeling, validation and interpretation
- **Critical reading** - evaluate reproducibility and robustness of methods, assess the validity of the assumptions, the relevance of the models, and the rigor of evaluation and interpretation
- **Scientific communication** – understand how scientific knowledge is communicated and develop skills to communicate effectively to diverse audiences



❖ Evaluation?

- Continuous Assessment

40% Assessment during the semester (various forms, written, oral..)

60% Project presentation: (Presentation and Discussion)

