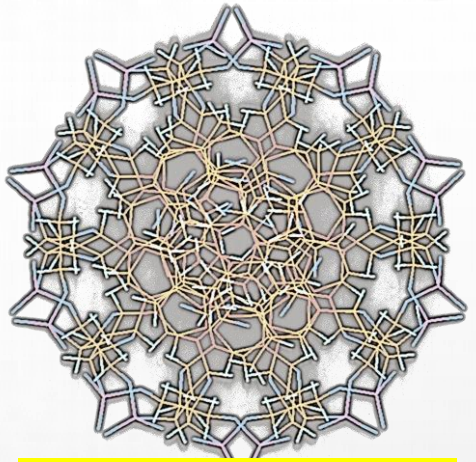
Programme structurant

MODELIFE



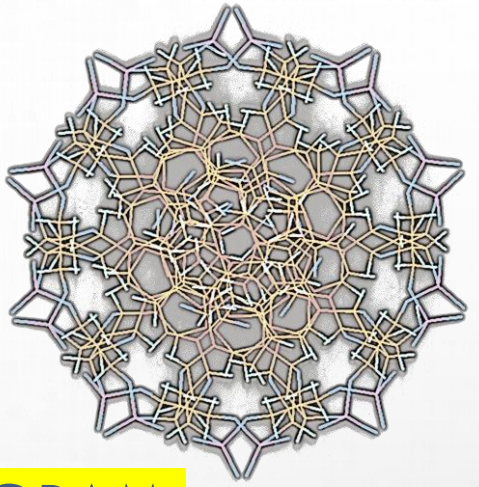
- Favoriser et structurer une communauté pluridisciplinaire de chercheurs autour de la Modélisation du Vivant.
- Favoriser la formation de haut niveau en modélisation pour la Biologie et la Santé.
- Actions:
  - Conférences
  - Séminaires
  - Colloquia
  - Ecoles de recherche
  - Msc QCSBD
  - Liste de diffusion: modelife@listes.univ-cotedazur.fr

Contact: elisabeth.pecou@univ-cotedazur.fr

Comité d'animation :

Elisabeth Pécou
Agnese Seminara
Franck Delaunay
JA Sepulchre
JP Comet
B Mauroy
R Gautier

Msc QCSBD
Quantitative and Computational Sciences for Biomedical Data



OBJECTIVE

Train the next generation of scientists experts in computational biology and biomedical data science.

- Manage mathematical and computational methods in computational biology
- Master a wide panel of modeling approaches of biochemical and biophysical processes in cells and tissues.
- Master concepts and methods in data sciences for the analysis and interpretation of big data sets produced in modern biology ("omics" data, images, signals, measurements)

PROGRAM

M1:

Fundamental courses in:

- cell and tissue biology
- bioinformatics
- data science
- systems biology
- biophysics

3 months internship and/or lab immersion on modeling and data analysis projects on biological topics.

M2:

- Advanced cell and tissue biology
- Cancer systems biology
- Computational biology for biology of aging
- Formal and computational approaches for single cell biology
- 6 months internship

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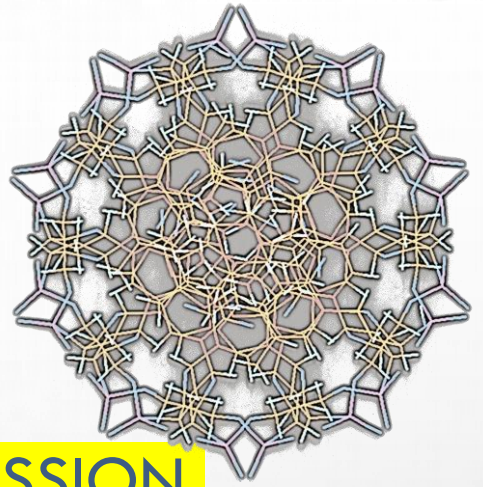

FUTURE CAREER

- Ph. D programs in bioinformatics, biophysics, systems biology
- Research Engineer in private R&D sector of pharma companies, software companies, hospitals, CRO, Diagnosis companies, whose activities address:
  - Human genomics, Personalized and precision medicine, Regenerative medicine, Single cell data analysis, Cancer systems biology, Metagenomics, Bioengineering, Synthetic biology, Bioimaging

ADMISSION

Student with a Bachelor (180 ECTS) in Mathematics, Computer Science, Physics, or Sciences and Technologies with a strong motivation to work at the interface with Biology.

CONTACT

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