



## **A Virtual Tumour as a Tool for Computer-Assisted Therapeutic Strategies (CATS)**

Angélique Stéphanou

CNRS, Computational Biology Laboratoire TIMC-IMAG, UMR 5525

<http://membres-timc.imag.fr/Angelique.Stephanou/>

The progress realised in cancer research showed that the evolution of the disease is much more complex than initially thought, with the occurrence of resistance to treatment. At the same time, this progress contributed to develop and acquire new means to fight and diagnose. But even though the range of therapeutic weapons is still growing, it remains very difficult to make an optimized or relevant use of them. An integrated approach as permitted by theoretical modelling, is more than ever necessary to manage the complexity of the problem and to rationalize and optimize the use of the existing therapeutic means of action. In this context, I will present a computational model representing a virtual tumour build from a mouse model and show how it can be a useful tool, tuned to integrate each individual specificities, in order to define an optimum and individualized therapeutic strategy.