Why we focus on Cancer Bioinformatics

Bioinformatics is a new interdisciplinary area involving biological, statistical and computational sciences. Bioinformatics will enable cancer researchers not only to manage, analyse, mine and understand the currently accumulated, valuable, high-throughput data, but also to integrate these in their current research programmes. The need for bioinformatics will become ever more important as new technologies increase the already exponential rate at which cancer data are generated.

What we do

• We work alongside clinical and basic scientists to support the cancer projects within the BCI. This is an ideal partnership between scientific experts, who know the research questions that will be relevant from a cancer biologist or clinician’s perspective, and bioinformatics experts, who know how to develop the proposed methods to provide answers.

• We also conduct independent bioinformatics research, focussing on the development of computational and integrative methods, algorithms, databases and tools to tackle the analysis of the high volumes of cancer data.

• We are actively involved in the development of bioinformatics educational courses at the BCI. Our courses offer a unique opportunity for biologists to gain a basic understanding in the use of bioinformatics methods to access and harness large complicated high-throughput data and uncover meaningful information that could be used to understand molecular mechanisms and develop novel targeted therapeutics/diagnostic tools.

For more details, please visit: www.bci.qmul.ac.uk/study-with-us/bioinformatics.html
Key Publications

- Froeling et al. Retinoic Acid-Induced Pancreatic Stellate Cell Quiescence Reduces Paracrine Wnt-<beta>-Catenin Signaling to Slow Tumor Progression. Gastroenterology 2011; 141(4):1486-97.

Who does the research

Dr. Claude Chelala Senior Lecturer in Bioinformatics

Major Funders

- Barts and The London Charity
- Breast Cancer Campaign
- Cancer Research UK

http://www.bci.qmul.ac.uk/research/lab-facilities/bioinformatics