



Prof Catherine Guette, Proteomics platform leader
Laboratoire d'oncopharmacologie
Centre INSERM Régional de Recherche sur le Cancer
Centre Régional de Lutte Contre le Cancer Paul Papin
Angers, France
Contact: catherine.guette@univ-angers.fr

SameSpots Case Study

Background Information

"Our proteomics platform offers services to other labs so it must be able to study different kinds of proteomic samples and perform different types of analysis. We set up a proteomics platform in May 2006 which developed quantitative proteomics based on the use of the two complementary technologies DIGE and ITRAQ™."

Our 2D experiment design

"We use both single stain (Deep Purple™ and Sypro™ Ruby) and DIGE. For DIGE experiments we label 4 biological replicates. We have the Ettan™ Dalt six electrophoresis system. Up to now the analysis which required the most gels was a DIGE experiment with 8 gels, 24 images, 4 classes of samples and 4 biological replicates."

The challenges we face in our 2D image analysis

"With our previous software, we experienced three major problems. Firstly, despite the time we spent disposing of many landmarks on the master gel, the software made many mistakes in alignment. Secondly, when a spot was missing on the gel master, it was not detected and analysed. Finally, the software was not friendly to use and the analysis was laborious."

How SameSpots helps us to meet the challenges

"SameSpots is so convivial and intuitive that it is a real pleasure to work with. The image alignment step makes us feel secure that we have one hundred percent matching and the additional statistical tools are perfectly designed for biologists who are not specialized in statistics. The development and improvement of SameSpots has been pleasing."

Future Plans

"We are really pleased we have chosen SameSpots for our proteomics platform. We have already recommended it and will actively continue to do so. We aim to do more research on proteomic biomarkers of toxicity or resistance to anticancer drugs."

About the Centre Régional de Lutte Contre le Cancer Paul Papin

"The Centre Paul Papin is a hospital specialized in cancer treatment and cancer research. To date we have analysed samples from cancer cell lines, mosquito stomachs, fungi and tumour tissues. We have also studied the influence of drug treatments, as well as the effect of the surexpression (transfection) of a particular protein."

"The Centre Paul Papin collaborates with the Plateforme technologique d'Angers which offers, among other things, services in proteomics to public laboratories and industry."