

LIVERPOOL LUNG PROJECT

NEWSLETTER

University of Liverpool Cancer Research Centre



INTRODUCTION

Welcome to the second Liverpool Lung Project (LLP) newsletter. We hope that you found the previous edition useful. In this edition, we are pleased to announce reaching a major milestone in our population cohort recruitment and also to give you an overview of the exciting work of the Molecular Biomarkers Group.

POPULATION COHORT RECRUITMENT

We have reached a major milestone in the project and have now recruited over 7,000 participants into the LLP. At the end of May, there were 7,390 participants recruited. Only another 110 participants to recruit, to meet our target of 7,500, for which we are still on target to achieve by the end of June 2006.

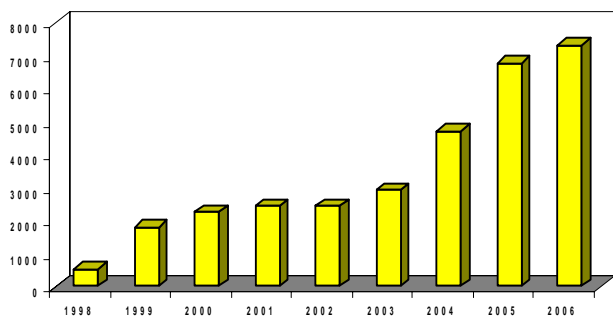


Figure 1: Cumulative recruitment into the population cohort arm of the LLP since 1998

MOLECULAR PROFILING

The Molecular Biomarkers Group has significantly advanced in the DNA methylation analysis area. This concerns alterations at the DNA of cancer cells that can be utilised in order to produce early detection tests from samples such as sputum and blood. We have developed tests for more than 20 genes and we are now in the process of screening the LLP population in a 5-phase approach as recommended by the Early Detection Research Network (EDRN) of the US National Cancer Institute (NCI). We have collaborated with a leading biotech company, Sequenom (Palo Alto, USA) to profile methylation in lung tumours and we demonstrated that outcome can be predicted on the basis of such classification.

In collaboration with 6 Universities around the globe, we have produced some very important results concerning the very early stages of lung carcinogenesis, published in Nature¹.

Overall, our group has been established for its expertise in molecular analysis of lung cancer and especially in DNA methylation. Our results have been published in high ranking scientific journals and presented in national and international research meetings²⁻⁴.



Figure 2: The Molecular Biomarkers Group

In collaboration with Oxford Gene Technologies (OGT) we are now, studying the expression of thousands of genes in lung cancer searching for molecular signatures that can help us in the clinical management of the disease.

REFERENCES

- 1 Liloglou *et al.* (2005) *Nature* **434**: 907-913.
- 2 McRonald *et al.* (2006) *Hum Mol Gen* **15**: 1271-7.
- 3 Shaw *et al.* (2006) *Br J Cancer* **94**: 561-568.
- 4 Cassidy *et al.* (2006) *Int J Oncol* **28**: 1295-1301.

ACKNOWLEDGEMENT

The Director of Research Professor John Field and the whole research team would like to thank all those involved in the project.

CONTACT

If you have anything you would like to discuss about the LLP please look on our website at www.liverpoollungproject.co.uk or call Dr Dawn Smith (Project Manager) on 0151 794 8952.

"Reducing the burden of lung cancer through the development of early detection techniques"