



**LBC
1921**

LBC1921 Christmas Newsletter



Merry Christmas from the Lothian
Birth Cohort 1921 Research Team

We hope you are well and have had an enjoyable year since our newsletter last Christmas. Throughout 2006, the study team have been kept busy analysing the information you've given us over previous years and we would like to take this opportunity to share some of this work with you. We also have some news about what we plan to do next year, and hope you will be interested to find out more about this. Firstly, we have some very good news to share.

Best research in Scotland

The Lothian Birth Cohort 1921 Study has been recognised by the medical research charity Tenovus Scotland for its scientific contribution. Every 2 years, Tenovus Scotland presents the Margaret



MacLellan Award for the best piece of research conducted in Scotland on a chosen subject. For this year's award, the field of brain research was chosen. As you will know, the aim of the LBC1921 Study is to find out how people maintain their mental abilities into old age. This research is directly linked to understanding the brain and its functions,

and how these change with age. It is for this work that the directors of the study – Professors Deary and Whalley and Dr John Starr – were awarded. The LBC1921 project has therefore been highlighted as the most important research project investigating aspects of the brain in Scotland. This recognition for the study is as much for you, as a participant. We would not have been able to carry out this work without your cooperation and so thank you again for your continued enthusiasm and support.

Plans for 2007

Beginning in Spring next year, we hope to be able to invite you to take part in the next stage of the study. This would be similar to previous visits and would include taking some thinking and memory type tests and also updating the physical and health information we have. This follow-up is very important as we are interested in studying your continued health and well-being. It was encouraging that so many of you were able to come along to our last session and we look forward to seeing many of you again. Over the coming year, Alison will contact you to let you know more about this so you do not need to do anything just yet. It would be a pleasure to be able to welcome you back once more, and we are very thankful for your continued enthusiasm and cooperation.



Many thanks again

From the team, may we again extend our thanks for your support. We look forward

to speaking with you again soon and throughout 2007.

Merry Christmas, and best wishes for a happy New Year.

Yours sincerely, **Professor Ian J. Deary, Dr John M. Starr & Professor Lawrence J. Whalley**, Study Directors

Mrs Alison Pattie, Dr Martha Whiteman & Mr Alan Gow, Research Staff

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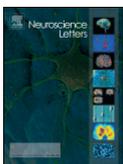


Latest research publications

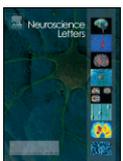
During 2006, we published a number of papers based on the information you have supplied. The LBC1921 and related studies continue to contribute to major scientific journals. As in previous years, a short summary of a selection of these is listed, which we hope are of interest to you. Please get in touch with us if you would like a copy of any of these articles.



Deary, I. J., Bastin, M. E., Pattie, A., Clayden, J. D., Whalley, L. J., Starr, J. M., & Wardlaw, J. M. (2006). White matter integrity and cognition in childhood and old age. *Neurology*, 66, 505-512. **This paper examined the link between brain parameters and mental abilities in childhood and at age 83.**



Deary, I. J., Hayward, C., Permana, P. A., Nair, S., Whalley, L. J., Starr, J. M., Chapman, K. E., Walker, B. R., & Seckl, J. R. (2006). Polymorphisms in the gene encoding 11 β -hydroxysteroid dehydrogenase type 1 (HSD11B1) and lifetime cognitive change. *Neuroscience Letters*, 393, 74-77. **A certain form of the HSD11B1 gene was related to changes in mental ability across the lifespan.**



Harris, S. E., Deary, I. J., MacIntyre, A., Lamb, K. J., Radhakrishnan, K., Starr, J. M., Whalley, L. W. & Shiels, P. G. (2006). The association between telomere length, physical health, cognitive ageing, and mortality in non-demented older people. *Neuroscience Letters*, 406; 260-264. **Telomere length (the part which protects the end of chromosomes) was not related to physical or cognitive health.**



Harris, S. E., Fox, H., Wright, A. F., Hayward, C., Starr, J. M., Whalley, L. J., & Deary, I. J. (2006). The brain derived neurotrophic factor polymorphism is associated with age-related change in reasoning skills. *Molecular Psychiatry*, 11, 505-513. **In this paper, a form of the BDNF gene was associated with changes in reasoning skills.**



Deary, I. J., Whalley, L. J., Batty, G. D., & Starr, J. M. (2006). Physical fitness and lifetime cognitive change. *Neurology*, 67, 1195-1200. **At age 79, physical fitness (including lung function, walking speed and grip strength) was related to better mental ability.**