



Welcome to the LBC1921 newsletter for 2010! The team would like to send their best wishes to you at this time, and we hope that you have had a good year. We are already making plans for 2011 which will be another busy and productive one for the study. You'll hear more about those plans in this year's update, as well as what the team have been doing over the past year. This includes the latest scientific results which you have contributed to.

Everything in this newsletter has come about as a direct result of your involvement. We hope you are interested to hear what's been happening, and we want to take this opportunity to thank you again. If you wish to get in touch for any further information, our contact details can be found at the end of the newsletter. We are always delighted to hear from you. Thank you again for your continued interest in, and enthusiasm for, the LBC1921 study.

Another very special anniversary

You may remember that Alison Pattie celebrated 10 years with the LBC1921

study last year. Well, this year Professor Ian Deary clocked up 25 years with the Department of Psychology. To mark the occasion, the LBC team hosted a reception, with Ian as somewhat surprised guest of honour. A number of colleagues past and present came to offer their best wishes, which were generally summarised by "here's to the next 25".

Ian has spent much of that time building the LBC studies, and is looking forward to welcoming you back for a fourth assessment when you also celebrate a very special milestone.



Ian Deary's Silver Jubilee

Ian cutting the cake at his 25 years celebration.

Happy 90th Birthday

Throughout 2011, you, the members of the LBC1921, will celebrate your 90th birthday. Firstly, best wishes from all the team, and a very happy birthday!

We should like to invite as many of you to complete another set of assessments as close to that special day as possible. As you know, our ongoing aim in the

LBC1921 study is to find out how people maintain their health and thinking skills into old age. We can only do this by assessing the same people on a number of occasions, which is exactly what you have allowed us to do. Most of you have completed up to three assessments, at ages 79, 83 and 87 years old. From January, we will begin welcoming you back at age 90, and Alison is looking forward to seeing many of you again. This latest wave is being funded by the Scottish Government and you may be interested to know that the independent scientists who reviewed and approved the funding strongly supported the study because it is so rare to have information about people at age 90, and unique to have information on thinking skills from childhood in people of this age.

You don't need to do anything at the moment, except update your address if you have moved house or are about to do so. The next assessment will be very similar to the previous sessions, and we will invite you to the clinic or arrange to visit you, whichever would suit you best.



Thank you in advance for your cooperation. We have always been delighted with the level of enthusiasm for taking part, and we hope you continue to do so. For now though, Happy 90th Birthday!

Latest results

By being part of the LBC1921, you are taking part in one of the longest studies of ageing in the world! As a result, the very detailed information you have provided has produced an ever-growing list of

scientific papers. Below is a short summary of some of the main findings from this year, followed by a selected list of the scientific papers from throughout 2010 at the end of the newsletter. We hope you are interested to read about these latest results; remember, you have directly contributed to all of them. For example, this year Dr Lorna Houlihan, one of the LBC geneticists, had a paper published in the prestigious *American Journal of Human Genetics*. The paper is one of the first to come from the genome-wide association study which includes you (the LBC1921) and our other cohort of individuals, the group born in 1936. The analysis discovered that people's differences in 3 genes are related to activated partial thromboplastin time (aPTT), a measure of blood clotting that might link to thrombosis. Ian Deary said, "I am very pleased with the team for making this discovery. Few single groups are now finding large GWAS [genome-wide association study] effects, and this one is important and impressive". The findings were reported on BBC online. If

The screenshot shows a BBC News article with the following content:

Blood-clotting genes in the news

NEWS | LIVE BBC NEWS CHANNEL

Page last updated at 21:15 GMT, Thursday, 18 March 2010

Share this story: Facebook, Twitter, Print, Email

Scientists find key genes which control blood-clotting

Scientists in Edinburgh have identified key genes which could help shed light on the causes of deep vein thrombosis and some types of stroke.

The Edinburgh University team has discovered three genes which control how long it takes blood to clot.

The findings could help patients who have suffered strokes.

It is hoped this could help to improve the understanding of causes of blood-clotting disorders.

Research leader Professor Ian Deary said the discovery was a first in the genetics of blood clotting.

The study looked for associations between half a million genetic markers and the time taken for blood to clot.

The findings showed three particular genes are responsible for a substantial amount of the variation in speed of blood clotting in different healthy people.

Research teams working on conditions such as heart attacks, thrombosis and stroke, will be

SEE ALSO

- Leaky blood vessels stroke link
- Old study could aid mental health
- Elderly happiness not IQ related

RELATED INTERNET LINKS

- University of Edinburgh
- Lothian Birth Cohort studies
- American Journal of Human Genetics

TOP EDINBURGH, EAST AND FIFE STORIES

- Shooting victim's brother jailed
- Religious teacher in sex charge
- Firefighter plague to be unveiled

MOST POPULAR STORIES NOW

SHARE: NEWS | WATCH | LISTEN

The discovery of 3 key genes linked to blood clotting by LBC researchers was reported by the BBC.

you are interested in accessing the full research paper, the reference is given below, or you can contact the research team to obtain a copy.

Houlihan, L.M. et al. (2010). Common variants of large effect in F12, KNG1 and HRG are associated with activated partial thromboplastin time. *American Journal of Human Genetics*, 86, 626-631.

Another of the interesting findings from this year was produced by Professor John Starr. He reported that measures of your mental ability and your height were linked, and that those who showed the most decline on the thinking tests, also lost more height across time. This is interesting as it suggests that many of the changes associated with age might have 'common causes'. If we can identify these underlying causes, then we might be able to help slow down some of these changes. The full reference is:

Starr, J.M., Kilgour, A., Pattie, A., Gow, A.J., Bates, T.C. & Deary, I.J. (2010). Height and intelligence in the Lothian Birth Cohort 1921: a longitudinal study. *Age and Ageing*, 39, 272-275.

You can find a selected list of the other publications from this year, with short summaries, at the end of the newsletter.

Spreading the word

As well as the scientific publications the LBC1921 team continue to take the results to meetings and events, in the UK and internationally, and sometimes these attract interest from the media. For example, the LBC studies were featured in the *Edinburgh Evening News* in March in which Ian talked in detail about the ongoing work. Ian also talked about the



The feature article in the *Edinburgh Evening News* about the LBC studies.

LBC studies as part of the 'Ageing' programme in BBC Radio 4's 'Am I Normal?' series. You can listen to that programme online at: www.bbc.co.uk/programmes/b00r60gp

In April, many of the team were involved in the Edinburgh International Science Festival. The team helped with the Discover Science activities, the University of Edinburgh's contribution to the science festival, which introduces much of the work we do to children, young people, and proper grown-ups too! Ian also gave a sell-out talk at the festival.

And finally...

Just before we go, there are a few final things we thought you would be interested to hear about. The team bid a sorrowful and fond farewell to Caroline Brett who is pursuing further study at the University of Stirling working towards a Masters in Health Psychology. Many of you will have met Caroline at the third assessment, and we wish her every success in her future studies.

We are also pleased to welcome a new arrival to the research team. In May, Dr

René Mõttus joined us from the University of Tartu in Estonia. He will be based in Edinburgh for the next 2 years, and will be analysing data collected from the LBC studies, specifically in relation to lifestyle factors and well-being. You'll hear more as this progresses in future newsletters.

Thank you!

We could not continue the LBC1921 study without your participation, so our sincere thanks for your ongoing support.



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

Yours sincerely,

Professors Ian J. Deary, John M. Starr & Lawrence J. Whalley, Study Directors;
Mrs Alison Pattie & Dr Alan Gow, Research Staff.

Would you like to talk to us? We are here:
Department of Psychology,
The University of Edinburgh,
7 George Square,
Edinburgh,
EH8 9JZ

Telephone: 0131 651 1682

Email: Alison.Pattie@ed.ac.uk

www.lothianbirthcohort.ed.ac.uk

Some of the many new research publications

Throughout 2010, the LBC1921 team have published many scientific papers. We know how interested you are in these findings so the references and short summaries of a few of these are given below (a couple are also described in more detail on pages 2-3). Do get in touch if you would like a copy of any of these.

No associations were found between measures of personality and face symmetry, suggesting that personality might not play a role in general fitness. *Hope, D., Bates, T., Penke, L., Gow, A.J., Starr, J.M. & Deary, I. J. (2010). *Fluctuating asymmetry and personality. Personality and Individual Differences, 50, 49-52.*



This analysis used 3 generations of information: yours, your parents and your children. Your parent's social class predicted your level of education. That and your age 11 test score together predicted your social class.

*Johnson, W., Brett, C.E. & Deary, I.J. (2010). *The pivotal role of education in the association between ability and social class attainment: a look across three generations. Intelligence, 38, 55-65.*



Genes which might predict an individual's level of personality, anxiety and depression were examined, and although no genes remained significant, the results will be important when pooled with other studies. *Luciano, M., Houlihan, L.M., Harris, S.E., Gow, A.J., Hayward, C., Starr, J.M. & Deary, I.J. (2010). *Association of existing and new candidate genes for anxiety, depression and personality traits in old people. Behavior Genetics, 40, 518-532.*

