

Integrating the Social and the biological

- experiences from NCDS
- strategies for promoting interdisciplinary research

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Experiences from NCDS

Biomedical study of NCDS – age 45 (2002-3)

Blood pressure, pulse

Standing and sitting height

Weight, waist and hip circumferences

Respiratory symptoms, ventilatory function (FEV1 and FVC)

Visual acuity (near and distant), refractive error

Hearing thresholds

Depression and anxiety disorder (CIS-R)

Blood samples for lipids, clotting factors, inflammatory markers, total/specific serum IgE

Salivary cortisol

DNA (and immortalized cell lines)

Chronic widespread pain

Use of medications

Alcohol use (AUDIT)

Food frequency questionnaire, exercise habits

Experiences from NCDS – recent papers

BARTLEY, M, KELLY, Y and SACKER, A. (2012) Early life financial adversity and respiratory function in mid-life: prospective birth cohort study. *American Journal of Epidemiology*, 175(1), 33-42.

BOYNTON-JARRETT, R and HARVILLE, E.W. (2012) A prospective study of childhood social hardships and age at menarche. *Annals of Epidemiology*, 22(10), 731-737.

CIPRIANI, V, LEUNG, H-T, PLAGNOL, V, BUNCE, C, KHAN, J.C, SHAHID, H, MOORE, A.T, HARDING, S.P, BISHOP, P.N, HAYWARD, C, CAMPBELL, S, ARMBRECHT, A M, DHILLON, B, DEARY, I.J, CAMPBELL, H, DUNLOP, M, DOMINICZAK, A.F, MANN, S.S, JENKINS, S.A, WEBSTER, A.R, BIRD, A.C, LATHROP, M, ZELENKA, D, SOUIED, E.H, SAHEL, J-A, LÉVEILLARD, T , FRENCH AMD INVESTIGATORS , CREE, A.J , GIBSON, J, ENNIS, S, LOTERY, A.J, WRIGHT, A.F, CLAYTON, D.G and YATES,

J.R.W. (2012) Genome-wide association study of age-related macular degeneration identifies associated variants in the TNXB–FKBPL–NOTCH4 region of chromosome 6p21.3. *Human Molecular Genetics*, 21(18), 4138-4150.

Experiences from NCDS – recent papers

- GEOFFROY, M-C, HERTZMAN, C, LI, L and POWER, C. (2012) Morning salivary cortisol and cognitive function in mid-life: evidence from a population-based birth cohort. *Psychological Medicine*, 42(8), 1763-1773.**
- GHOSH, R.E., CULLINAN, P., FISHWICK, D., HOYLE, J., WARBURTON, C.J. and STRACHAN, D.P. (2013) Asthma and occupation in the 1958 birth cohort. *Thorax*, 68(4), 365-371.**
- PINTO PEREIRA, S.M, KI, M and POWER, C. (2012) Sedentary Behaviour and Biomarkers for Cardiovascular Disease and Diabetes in Mid-Life: The Role of Television-Viewing and Sitting at Work. *PLoS One*, 7(2), e31132.**
- POULIOU, T, KI, M, LAW, C, LI, L and POWER, C. (2012) Physical activity and sedentary behaviour at different life stages and adult blood pressure in the 1958 British cohort. *Journal of Hypertension*, 30(2), 275–283.**
- VIMALESWARAN, K.S, CAVADINO, A and HYPPONEN, E. (2012) Evidence for a genetic interaction in allergy-related responsiveness to vitamin D deficiency. *Allergy*, 67(8), 1033-1040.**

Consent and Ethical issues

Challenge of ‘future proofing’ consent in longitudinal studies

Advances in technology raise issues about whether there is a duty of care to feedback clinically significant findings

Re-consent is sometimes suggested as a solution – but practically can be very difficult (and expensive)

Richards, M. (2011). [An ethical review of the use of functional MRI](#) and DNA analysis in birth cohort studies. CLS Working Paper 2011/4. London: Centre for Longitudinal Studies.

Susan Wallace (University of Leicester is also working on this area)

Strategic use of resources

Issue of how to govern access to depletable resources (e.g. Blood samples)

- How to prioritise research proposals?
- How long to wait for new technologies?
- How long to wait for measurements/assays to become cheaper?

- For the 1958 Cohort Naveed Satar is developing a strategy for discussion at the Governing Board meeting in May in collaboration with Helen Colhoun and Sue Ring.

Funders' strategies for promoting interdisciplinary research

**ESRC has recently convened a Biosocial Research Advisory group
Role is to shape the development of an ESRC Strategy for Biosocial Research**

Chair: Neil Serougi

Issues to cover; funding, impact, collection, curation and analysis, legal and ethical issues, capacity building, opportunities for collaborative research

The screenshot shows a web browser displaying the CLOSER website. The browser's address bar shows the URL 'www.closer.ac.uk'. The website header features the CLOSER logo, which consists of the word 'closer' in lowercase black font next to a graphic of four overlapping circles in purple, orange, green, and blue. Below the logo, the text 'Cohort & Longitudinal Studies Enhancement Resources' is displayed. A navigation menu includes links for 'Home', 'About us', 'The studies', 'Areas of work', 'News & Events', 'Blog', and 'Contact us'. A prominent red banner with white text reads 'Data linkage' and states: 'CLOSER is helping to link data from longitudinal studies to other records, such as hospital admissions information, so we can better understand how different aspects of people's lives affect each other'. Below the banner, the text 'You are here: Home' is visible. The 'About CLOSER' section describes the UK's largest and longest-running longitudinal studies programme, launched on October 1, 2012. A search box and a 'Latest news & events' section are also present. The bottom of the page shows a Twitter tweet: 'RT @UKDataArchive: Just 3...'. The browser's taskbar at the bottom displays icons for Internet Explorer, Google Chrome, and other applications.

**Further information via the Website:
www.closer.ac.uk**