Radiological, cognitive and dynamic behavioural phenotyping of offspring from longlived siblings and their partners

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The objective of this study is to phenotype (radiological, cognitive, and dynamic behavourial) offspring of long-living subjects of the Leiden Longevity Study and their partners.

Ethical review	Approved WMO
Status	Recruiting
Health condition type	Other condition
Study type	Observational invasive

Summary

ID

NL-OMON33064

Source
ToetsingOnline

Brief title
Further phenotyping of offspring from longlived siblings and their partners

Condition

- Other condition

Synonym
NA

Health condition

het betreft gezonde proefpersonen zonder aandoeningen

Research involving
Human

Sponsors and support

Primary sponsor: Leids Universitair Medisch Centrum
Source(s) of monetary or material Support: Netherlands Genomics Initiative

Intervention

Keyword: ageing, cognition, observational study, radiology

Outcome measures

Primary outcome

The outcomes of the study are

• Magnetic Resonance Imaging (MRI) of the brain and abdomen

• CT-heart

• X-ray hands (only subjects > 65 years)

• Cognitive testing

• Dynamic Behavioural Phenotyping

• various blood-related measurements

Secondary outcome

None.

Study description

Background summary

In the IOP genomics project (IGE01014A) *The genetic determination of longevity and disease in old age* (CME protocol P01.113) we have enrolled 450 families into the Leiden Longevity Study based on their extreme longevity. We recruited sibling pairs aged 90 years (generation F1), the children from the long-living subjects (generation F2) and the partners of the children of the long-living subjects (generation F2). The recruitment algorithm we used in that study has resulted in families enriched for genetic factors for longevity. The children from the long-living subjects (F2 generation) are therefore genetically predisposed to become long-lived, while their partners have a mortality risk

comparable to the general population. In the IOP project (IGE5007, CCMO-number NL11749.058.06) *Biomarkers of the rate of ageing* (LUMC CME protocol P06.059) we focussed on biochemical and cellular characteristics of the F2 generation. A total of 340 couples (children of the long-living subjects and their partners) were characterised by a genome wide association study, serum levels of key metabolic and endocrine parameters, metabolomic and glycomic profiles, and a genome wide gene expression array. Amongst others, we found that children of the long-living subjects had better metabolic control compared to their spouses. In 2008, the Netherlands Consortium of Healthy Ageing (NCHA), a collaborative effort of Erasmus Medical Center Rotterdam and Leiden University Medical Center, was founded. In the realm of this consortium, F2 subjects of the Leiden Longevity Study will be phenotyped for signs and symptoms of age-related diseases. This will enable us to link the already available biochemical and cellular characteristics to these ageing phenotypes. Furthermore, this will also create the possibility of validation of significant associations obtained in the Rotterdam Study within the Leiden Longevity Study.

Study objective

The objective of this study is to phenotype (radiological, cognitive, and dynamic behavourial) offspring of long-living subjects of the Leiden Longevity Study and their partners.

Study design

Cross-sectional case-control study

Study burden and risks

This is an observational study in which subjects undergo a CT-heart (radiation exposure approximately 2 mSv) and a X-ray of the hands (Radiation exposure less than 0.001 mSv).

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

Offspring of long-living siblings and their partners. There are no further inclusion criteria.

Exclusion criteria

None.

Study design

Design

Study type:	Observational invasive
Intervention model:	Other
Allocation:	Non-randomized controlled trial
Masking:	Open (masking not used)
Control:	Active
Primary purpose:	Basic science

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	01-09-2009
Enrollment:	680
Type:	Actual

Ethics review

Approved WMO

Application type:	First submission
Review commission:	METC Leids Universitair Medisch Centrum (Leiden)

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
CCMO	NL28688.058.09