Resource Summary Report

Generated by NIF on May 15, 2025

Lifelines Biobank

RRID:SCR_010730
Type: Tool

Proper Citation

Lifelines Biobank (RRID:SCR_010730)

Resource Information

URL: http://www.lifelines.net/

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Description: Overall aim of the LifeLines Study is to unravel the interaction between genetic and environmental factors in the development of multifactorial diseases, their concurrent development in individuals and their complications as a complex trait. The LifeLines database contains questionnaire data, physical measurements and biological samples from different health examinations. Collaboration is encouraged as it helps to maximize the scientific value of the wealth of epidemiologic data made possible by the participation of more than 165,000 individuals in the LifeLines Cohort Study. Primary objectives of the LifeLines Cohort Study are: a. Which are the disease overriding risk factors which predict the development of a multifactorial disease during lifetime? b. How are these universal risk factors modified, or what determines the effect of a universal risk factor in an individual? Specific research questions will focus on risk factors and modifiers (genetic, environmental and combined or complex factors) for single and multiple diseases. In addition to co-morbidity, LifeLines focuses on co-determinants. The primary endpoints include measures of aging, metabolic and endocrine diseases, cardiovascular and renal diseases, pulmonary and musculoskeletal diseases, and psychopathology. Secondary aims include the assessment of the prevalence and incidence of multifactorial diseases, their risk factors and their treatment in individuals as well as in families. The burden of disease for the society will be quantified in terms of care needed, and total costs of care. Until November 3, 2011, almost 68,000 subjects have been included in the study. The 60,000th participant was screened in the beginning of September 2011. Recruitment rate at present is between 700 and 800 subjects per week. The laboratory measurements which are performed has changed. As of October 2011, LifeLines will continue to measure: hematologic parameters, including hemoglobin, white blood cells, platelets, WBC differentiation, blood glucose, cholesterol, HDL-cholesterol, triglycerides, serum creatinin and sodium/potassium. Liver enzymes, thyroid hormones, calcium, phosphate, albumin, uric acid and microalbuminuria will not be measured routinely.

The samples that are available for almost all participants, are: # serum (taken either with or without gel separator) # EDTA plasma # citrate plasma # DNA # early morning urine sample # urine samples of 24-hour urine collection Any researcher who is member of an internationally recognized academic institution and who is interested in utilizing the research possibilities, data and materials of LifeLines may apply for access. The applicant who is acting as Principal Investigator must be connected to a department or institution with the competence to carry out the research project to term. A contract will give the right to use the data for a pre-determined period of time. This contract also comprises the costs for the LifeLines Biobank which the investigator needs to reimburse. To apply for access, refer to the electronic application process.

Abbreviations: Lifelines Biobank

Synonyms: LifeLines Cohort and Biobank, LifeLines Cohort Biobank, LifeLines Cohort & Biobank

Resource Type: biomaterial supply resource, material resource

Keywords: blood, urine, plasma, serum, dna, edta plasma, citrate plasma, general population, clinical data, epidemiologic data, genetic factor, environmental factor, complex factor, multifactorial disease, risk factor, metabolic disease, endocrine disease, cardiovascular disease, renal disease, pulmonary disease, musculoskeletal disease, psychopathology, disease, nutrition, lifestyle, genetic epidemiology

Related Condition: General population, Aging

Funding:

Availability: Public: Any researcher who is member of an internationally recognized academic institution and who is interested in utilizing the research possibilities, Data and materials of LifeLines may apply for access. A LifeLines Scientific Project is a project which uses data or results of biological examinations and measurements in materials from LifeLines (when both are used, The term LifeLines materials will be used).

Resource Name: Lifelines Biobank

Resource ID: SCR_010730

Alternate IDs: nlx_93394

Record Creation Time: 20220129T080300+0000

Record Last Update: 20250514T061543+0000

Ratings and Alerts

No rating or validation information has been found for Lifelines Biobank.

No alerts have been found for Lifelines Biobank.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 27 mentions in open access literature.

Listed below are recent publications. The full list is available at NIF.

Mobach MP, et al. (2023) Workplace impact on employees: A Lifelines Corona Research Initiative on the return to work. PloS one, 18(1), e0279902.

Vrijsen J, et al. (2021) Association between dementia parental family history and mid-life modifiable risk factors for dementia: a cross-sectional study using propensity score matching within the Lifelines cohort. BMJ open, 11(12), e049918.

van Oostrom SH, et al. (2021) The mediating role of unhealthy behaviors and body mass index in the relationship between high job strain and self-rated poor health among lower educated workers. International archives of occupational and environmental health, 94(1), 95.

Collij V, et al. (2019) SLC39A8 missense variant is associated with Crohn's disease but does not have a major impact on gut microbiome composition in healthy subjects. PloS one, 14(1), e0211328.

van der Plaat DA, et al. (2019) Limited overlap in significant hits between genome-wide association studies on two airflow obstruction definitions in the same population. BMC pulmonary medicine, 19(1), 58.

Pranger IG, et al. (2019) Potential Biomarkers for Fat from Dairy and Fish and Their Association with Cardiovascular Risk Factors: Cross-sectional Data from the LifeLines Biobank and Cohort Study. Nutrients, 11(5).

Slagter SN, et al. (2018) Dietary patterns and physical activity in the metabolically (un)healthy obese: the Dutch Lifelines cohort study. Nutrition journal, 17(1), 18.

de F C Lichtenfels AJ, et al. (2018) Long-term Air Pollution Exposure, Genome-wide DNA Methylation and Lung Function in the LifeLines Cohort Study. Environmental health perspectives, 126(2), 027004.

Lieber S, et al. (2018) Prognosis of ovarian cancer is associated with effector memory CD8+ T cell accumulation in ascites, CXCL9 levels and activation-triggered signal transduction in T cells. Oncoimmunology, 7(5), e1424672.

Kuiper JS, et al. (2017) Comparison of cognitive functioning as measured by the Ruff Figural Fluency Test and the CogState computerized battery within the LifeLines Cohort Study. BMC psychology, 5(1), 15.

van Zanten A, et al. (2017) Presence of anticitrullinated protein antibodies in a large population-based cohort from the Netherlands. Annals of the rheumatic diseases, 76(7), 1184.

Müller F, et al. (2017) Chronic multimorbidity impairs role functioning in middle-aged and older individuals mostly when non-partnered or living alone. PloS one, 12(2), e0170525.

van den Berg EH, et al. (2017) Prevalence and determinants of non-alcoholic fatty liver disease in lifelines: A large Dutch population cohort. PloS one, 12(2), e0171502.

van Zon SKR, et al. (2017) The impact of low education and poor health on unemployment varies by work life stage. International journal of public health, 62(9), 997.

van Waateringe RP, et al. (2017) The association between various smoking behaviors, cotinine biomarkers and skin autofluorescence, a marker for advanced glycation end product accumulation. PloS one, 12(6), e0179330.

van Waateringe RP, et al. (2017) Skin autofluorescence, a non-invasive biomarker for advanced glycation end products, is associated with the metabolic syndrome and its individual components. Diabetology & metabolic syndrome, 9, 42.

de Kat AC, et al. (2017) Unraveling the associations of age and menopause with cardiovascular risk factors in a large population-based study. BMC medicine, 15(1), 2.

Zijlema W, et al. (2016) Road traffic noise, blood pressure and heart rate: Pooled analyses of harmonized data from 88,336 participants. Environmental research, 151, 804.

Nigatu YT, et al. (2016) The Combined Effects of Obesity, Abdominal Obesity and Major Depression/Anxiety on Health-Related Quality of Life: the LifeLines Cohort Study. PloS one, 11(2), e0148871.

van Waateringe RP, et al. (2016) Lifestyle and clinical determinants of skin autofluorescence in a population-based cohort study. European journal of clinical investigation, 46(5), 481.