Dear applicant,

This form applies to an application for the use of Lifelines data, biomaterials and linkage. It can also be used for the application for additional data or biomaterial collection in the Lifelines population. The completed form can be submitted via the [Lifelines data catalogue](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=aa8fe728-2f29-4511-8125-6f7fd3fbf7f1) together with the requested data items. For questions please contact our Research Office ([research@lifelines.nl](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=728a5d60-6d63-451e-bc41-ab6d7a923197) ). The Lifelines Research Office will contact you upon receiving your application.

# General information

1. **Title of the project**

1. **Date**

1. **Details of the primary applicant**

*The primary applicant has to be a senior researcher, i.e. holding a PhD degree or similar qualification. The primary applicant will be contacted for the financial issues and contractual agreements.*

|  |  |
| --- | --- |
| Name |  |
| Position / Function |  |
| Institute / Organization |  |
| Address |  |
| ZIP or Postal code & City |  |
| Country |  |
| Telephone Number |  |
| Email |  |

1. **Details of the contact person**

*(The contact person is the researcher conducting the research and may therefore be a junior researcher. The contact person will be contacted for practical issues regarding the project. Main applicant and contact person can be the same person).*

|  |  |
| --- | --- |
| Name |  |
| Position / Function |  |
| Institute / Organization |  |
| Address |  |
| ZIP or Postal code & City |  |
| Country |  |
| Telephone Number |  |
| Email |  |

1. **Other Members of the Project Group**

*Max. 6 other members*

|  |  |
| --- | --- |
| Name |  |
| Position / Function |  |
| Institute / Organization |  |
| Telephone Number |  |
| Email |  |

1. **Is the proposal linked with previous submitted Lifelines proposal?**

*If linked to a previous proposal, please specify the application number (OV…) and the nature of the linkage.*

No

Yes, Lifelines project: OV

Please specify:

1. **Project implementation**

*Describe the planned scientific output of this research, i.e. number of publications in peer-reviewed journals, other publication types, government-issued report etc.*

1. **Timeline**

*Please indicate the timing of the various project stages from the initial outset, such as the start of the project, data-collection (if applicable), data analysis and the reporting of findings.*

1. **Responsibilities of the project team**

*Please describe how the proposal fits into the line of research and expertise of the primary applicant and the other members of the research group (max 500 words) and the specific role of each project member in this research project. In particular, indicate the project member who will primarily be involved in conducting the research and/or data analysis (i.e. contact person).*

     

1. **Research communication**

*Describe in max 100 words your research in layman's terms in English. This information will be used to inform other researchers and the general public about your research project through our website and social media channels.*

     

1. **Communications with Lifelines-participants**

*Describe in max 100 words your research in layman’s terms in Dutch. This information will be used to inform the Lifelines’ participants and the other Dutch about your research project through our website and social media channels.*

Not possible, no member of our project team speaks Dutch

Geef een korte beschrijving:

Proposal number: OV (to be completed by Lifelines)

# Relevance & Approach

1. **Scientific background**

*The scientific background should be a short introduction to the available literature and the scientific gap that the current proposal is going to fill. Please note that the maximum number of words for this section is 1500.*

1. **Research questions**

*Please be specific regarding the research questions.*

1. **How does the project contribute to the central aims of Lifelines and fit within the research theme “Healthy Ageing”**

1. **Description of the required study population**

*Describe the study population based, for example, on age, phenotype, etc. and the number of subjects needed. If you request biomaterials (analyses), please make sure that a detailed description of the criteria to select the study population is given here.*

1. **Methods**

*Describe the data, measures, analysis plan and statistical methods (including a power calculation if applicable) intended to analyze the data in order to answer the research question(s).*

1. **Infrastructure**

*Describe the computational and analytical infrastructure required for this project and indicate what kind of data services you require. If this is your first Lifelines project, or your project relies on novel and/or heavy-duty computational/analytical power, you are encouraged to discuss this with one of our data managers before the start of the project.*

# Finance

1. **Please name the intended sources of project funding**

1. **Invoice address**

|  |  |
| --- | --- |
| Institute |  |
| Attn. |  |
| Projectnumber / Cost center |  |
| Adress / P.O. Box |  |
| Zippcode and City |  |
| Country |  |
| Email address |  |

**Grants**

1. Are you employed at or via the University Medical Center Groningen?

No

Yes

1. If yes, is your project part of a EU grant?

No

Yes

1. If yes, is the UMCG partner in this grant?

No

Yes (Lifelines will be seen as ‘Linked third party’ by the grant provider)

# Data selection

Important information

Select and submit the requested data items from the [Lifelines data catalogue](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=ddb9d380-a93c-4e9f-855d-2f72585cf44b) together with this application form. The proposal will only be reviewed if a matching catalogue selection is included. An exception is made when the requested data is not yet available in the catalogue or if this application includes a request for implementation of an add-on study.

1. **Requesting available genetic data** (SNPs and/or WGS (including WES))

No

Yes , please describe:

*Please provide a rationale for all the requested data needed for your study. For example, when you request WGS data, please provide an explanation why you need this specific data to answer your research question(s).*

1. **Requesting available data (non-genetic)**

No

Yes , please describe:

*Please provide a rationale for all the requested data needed for your study. For example, when you request ECG data, please provide an explanation why you need this specific data to answer your research question(s).*

1. **Requesting additional questionnaire data to be collected**

*If you want to send out additional questionnaires not already included in the Lifelines database, please specify here.*

No

Yes , please describe

1. **Requesting additional measures to be collected**

*If you want to perform additional measurements that are not already available in the Lifelines database, please specify here.*

No

Yes, please describe

# Requesting available biomaterial(s)

If you want to perform or have Lifelines perform additional analyses on the available biomaterials, please specify here. Please note that a detailed description of the criteria to select the study population for the sample (analyses) should be clearly described in the general section.

1. Who will perform the selection of the study population?

Lifelines

Applicant

1. Who will perform the bio analyses of the biomaterials?

1. This request is for biomaterial collected during:

Baseline assessment (1st screening)

Second assessment (2nd screening)

Please specify the details of your requested biomaterials and analyses below.

**Baseline assessment biomaterials only**

1. Urine (Early Morning Sampling, native)

*Available for adults >= 18 yrs*

1. Describe the additional analysis needed:
2. Number of biomaterials:
3. Volume of biomaterials:
4. Urine (Early Morning Sampling, mixed with Ascorbic acid)

*Available for adults >= 18 yrs*

1. Describe the additional analysis needed:
2. Number of biomaterials:
3. Volume of biomaterials:

**Baseline and Second assessment biomaterials**

1. Serum derived from Septum Separated Tube
2. Describe the additional analysis needed:
3. Number of *Baseline* assessment biomaterials:
4. Number of *Second* assessment biomaterials:
5. Volume of biomaterials:
6. Serum derived from Tube with Clot activator
7. Describe the additional analysis needed:
8. Number of *Baseline* assessment biomaterials:
9. Number of *Second* assessment biomaterials:
10. Volume of biomaterials:
11. Plasma derived from k2-EDTA tube
12. Describe the additional analysis needed:
13. Number of *Baseline* assessment biomaterials:
14. Number of *Second* assessment biomaterials:
15. Volume of biomaterials:
16. Plasma derived from Citrate tube
17. Describe the additional analysis needed:
18. Number of *Baseline* assessment biomaterials:
19. Number of *Second* assessment biomaterials:
20. Volume of biomaterials:
21. Urine collected by 24h sampling (native)

*Available for adults >= 18 yrs*

1. Describe the additional analysis needed:
2. Number of *Baseline* assessment biomaterials:
3. Number of *Second* assessment biomaterials:
4. Volume of biomaterials:
5. Urine (24h sampling, mixed with Ascorbic acid)

*Available for adults >= 18 yrs*

1. Describe the additional analysis needed:
2. Number of *Baseline* assessment biomaterials:
3. Number of *Second* assessment biomaterials:
4. Volume of biomaterials:
5. Urine (Timed Overnight sampling, native)

*Available for children <18 yrs*

1. Describe the additional analysis needed:
2. Number of *Baseline* assessment biomaterials:
3. Number of *Second* assessment biomaterials:
4. Volume of biomaterials:
5. Urine (Timed Overnight sampling, mixed with Ascorbic acid)

*Available for children <18 yrs*

1. Describe the additional analysis needed:
2. Number of *Baseline* assessment biomaterials:
3. Number of *Second* assessment biomaterials:
4. Volume of biomaterials:
5. DNA (standard concentration = 100ng/ul ±10%)
6. Describe the additional analysis needed:
7. Number of *Baseline* assessment biomaterials:
8. Number of *Second* assessment biomaterials *(mainly buffy coat)*:
9. Volume of biomaterials:
10. **Requesting additional biomaterials to be collected**

*If you want to collect additional biomaterials that are not already available in the Lifelines database, please specify here.*

No

Yes, please describe

# COVID-19 questionnaire data

A submitted application will within two weeks subsequently be reviewed by the Lifelines Research Office and representatives of the domains covering the LL-Covid-19 study. The evaluation involves whether the proposed research group, research questions and requested data/biomaterial selection are compatible with the aim of Lifelines and the LL-Covid-19 study. The LL-Covid-19 study aims to gain insight into the role of both genetic and environmental risk factors on Covid-19 infection. In addition, the study focuses on how the pandemic affects society at large including those who have not become ill due to the virus. And fourth the study aims to track how Covid-19 develops within the three northern provinces in the Netherlands.

1. **If data has to be released in existing workspace, please specify the application number (OV..)**

No

Yes, Lifelines project:

1. **Items from COVID-19 questionnaire**

*Information about all COVID-19 questionnaire data can be found at the Lifelines Wiki (*[http://wiki-lifelines.web.rug.nl/doku.php?id=covq](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=a1369211-83bf-4525-ab1e-57c77892f4be))

COVQ assessed variables in the following sections and subsections. *Please select the items* *you need.*

[Demographics](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=3a65c5fa-55c9-40ae-8281-fbe69c7581ff): [Family composition](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=f95a7a1a-5312-477e-aae8-ab9ba5c483b6) (1 item on pregnancy)

[Demographics](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=175ac6be-fafc-41fe-9fe1-ac3f0cf3bced): [Household composition](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=e1c0ac76-ad16-40ce-9499-28d546b9b5fb) (children living at home)

[Demographics](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=fa85a08e-03ea-45de-8235-f2b5626458f9): [Employment status](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=8a69f714-dc98-42d5-98cd-f6dae3dd80c9) (7 items)

[Diseases & symptoms](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=1032a8c1-cbdb-48ae-99be-9b6922d603ea): [Physical health (Covid-19)](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=4f7b50d6-d338-42e8-a3ce-beb40b31f089)

[Diseases & symptoms](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=fa4f2349-4741-4073-bbd0-71b2011c7c0c): [Symptoms (SCL-90)](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=0b0799dd-e77e-4d10-818e-08ca9a381815) (complete)

[Lifestyle & environment](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=84e1e61c-729e-4b50-b311-8499a7af2f7d): [Physical activity (general)](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=325d168a-bc0e-4c19-b417-c842669bfd8e) (3 items)

[Lifestyle & environment](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=cb5bb64b-d297-4c40-8908-2f16c404e57a): [Smoking & Tobacco use](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=ecdadea1-2804-43cf-9368-c8c550296312) (1 item)

[Medical treatment](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=fe556b74-5a8d-4e6e-92fe-fb6f3737582e): [Medication](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=12573493-3c6a-432e-ba41-876c2bd8e1a4)

[Medical treatment](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=518d14c0-230f-4ecd-ae6c-75a8865a1eb8): [Vaccination](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=30397beb-a9a1-4ffb-8c08-f75276aa7d3a) (3 items)

[Mental health](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=4a916a16-939c-44bd-a7b0-e1584eebe9e3): [Depression & anxiety (MINI)](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=fdfecb81-36b7-4ad9-9bc0-06db81d45961) (14 items)

[Mental health](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=9ab54155-2389-4591-8c27-5eaf3b8f4658): [Social functioning (Covid-19)](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=78747ec2-af98-43cd-ade6-311334c71823) (9 items)

[Nutrition](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=59db3807-559e-4e41-904e-111e3e48fbcb): [Eating behavior](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=ffacce3a-60fd-4fe3-948c-f023526065f8) (3 items + 1 on alcohol use)

[Physical state](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=a8d2a2f8-1b77-45c8-9aac-bcbd4a04bcdd): [Anthropometry (Self-reported)](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=c2ed1c3b-ba01-480f-a220-ee284ff0dfc1) (2 items)

[Wellbeing & subjective health](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=7f2904a9-6f1e-4829-817f-cc426e7b4e46): [Wellbeing (Covid-19)](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=eee8c7d1-d772-4738-80c1-027c00b40f77) (22 items)

[Wellbeing & subjective health](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=d4275d00-ffff-453b-9547-fd38efbaaea0): [Quality of Life (RAND)](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=14e062d0-5842-4a12-9ce8-45ec59594b7b) (1 item)

Home & work address postal codes were collected for the purpose of future [linking of environmental data](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=eeb18440-fa7c-4975-8b44-0cf2ac4b0158)

Please select **one** research domain:  
*(Your application will be reviewed by a Covid-19 reviewer)*

Health Disparities & Lifestyle

Labor & economy

Health psychology & social psychology

Genetics

Medical microbiology, distribution in the Northern Netherlands

Psychiatry

Intensive Care

Pulmonary medicine

Infectious diseases

Other

1. **Procedure**

*A submitted application will within two weeks subsequently be reviewed by the Lifelines Research Office and representatives of the domains covering the LL-Covid-19 study. The evaluation involves whether the proposed research group, research questions and requested data/biomaterial selection are compatible with the aim of Lifelines and the LL-Covid-19 study. The LL-Covid-19 study aims to gain insight into the role of both genetic and environmental risk factors on Covid-19 infection. In addition, the study focuses on how the pandemic affects society at large including those who have not become ill due to the virus. And fourth the study aims to track how Covid-19 develops within the three northern provinces in the Netherlands.*

# Linkage

1. **Requesting linkage with an external data source**

*If you want to link data from the Lifelines database to another data source, e.g. CBS, IADB, PALGA, GIS data or other data sources, please specify the data and describe the intended way to link these data to the Lifelines database.*

No

Yes, please describe:

# How can we help?

If questions remain about this application form, please contact the Lifelines Research Office by email at [research@lifelines.nl](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=ef4d140b-7f9f-43ff-8ecd-eee70899a817) or by phone at +31 50 36 15 803.

**After applying**

The Lifelines Research Office ([research@lifelines.nl](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=897cb93a-b324-44eb-a0a0-c3ed02d87056)) will contact you within a few days after receiving your application.

**Stay updated about Lifelines**

Feel free to follow Lifelines (@LifelinesNL) on [Twitter](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=d50fcd36-abbe-41b0-a715-c368a883d3a5) and [LinkedIn](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=c56efcc9-8366-4e4b-ad35-ab75108b9802) to keep up to date with our latest news and updates. Also we invite you to subscribe now to our [newsletter](https://DocPortal.umcg.nl/management/hyperlinkloader.aspx?hyperlinkid=5d35a83a-e31d-4e35-98f6-40dcb292d44b), in this way we inform researchers about usefull developments within Lifelines, possibilities and invitations for events.