

A gateway to the CHRIS Study for researchers around the world.













A portal for the CHRIS study

The CHRIS study is an ongoing longitudinal, population-based cohort study aimed at assessing molecular, environmental, and lifestyle contributions to human health through the involvement of participants from the general population of the Val Venosta/Vinschgau district (South Tyrol, Italy). Baseline biological, molecular, genetic, and health data and samples were collected between 2011 and 2018 from more than 13,000 participants aged 18 and over.

The CHRIS portal allows users to browse a description of the data and samples generated by the CHRIS study and to submit project proposals to conduct scientific research using these resources.





CHRIS Portal: the concept

The CHRIS portal is a dynamic infrastructure financed by the European Regional Development Fund with the aim of facilitating scientific research using CHRIS study data and samples.

New data generated by this research will then be returned to the CHRIS study, expanding the CHRIS resource available to the scientific community for further research projects. Because of this, scientists who conduct research using CHRIS data or samples can also be considered collaborators of the CHRIS study.

In this way, the CHRIS portal realizes the mission of the CHRIS study to maximize the collected resources and their use for the progress of biomedical science.





Available resources: data and samples



CHRIS Data

The CHRIS resource includes data from over 13,000 participants. Data are divided into modules based on how they are collected during the study visit or derived from these original data or samples.

Interview and self-administered questionnaires: responses on education level, occupational history, environmental exposures, smoking, alcohol use, nutrition, physical activity, mental health, chronic diseases, and

other major health events.

Clinical traits: height, weight, and body fat percentage, resting blood pressure and electrocardiograms measured at study center.

Biochemical traits: selected blood and urine parameters.

Drugs: ATC codes scanned at the study center from packaging of all medications taken by participants at the time of the study visit.

Genetics: genotypes for all participants; whole exome sequencing for a sub-set of participants.

Neurological tests: results from validated tests of cognitive function, olfaction, tremor, and pain sensitivity performed at the study center.

Metabolomics: approximately 180 metabolite concentrations for a subset of participants.



CHRIS Samples

The CHRIS biobank contains about one million biological samples from more than 13,000 participants. The samples are divided into the following aliquots of different types and sizes in order to maximize the use and quality of the samples by minimizing manipulation.

Serum

EDTA plasma

Citrate plasma

EDTA buffy coat RNA

Citrate buffy coat+DMSO

Citrate whole blood

Urine

Saliva for a subset of participants



How to apply



Online registration

Applicants first submit a request for registration, providing a current CV, their affiliation, and additional legal information depending on the type of institution. The CHRIS Access Committee approves the registration or requests additional information or clarification from applicants.



Access Committee decision on research project proposal

The Access Committee may approve the proposal, approve subject to changes, request further information, or reject the proposal. This decision is then communicated to the Applicant.



Submission of research project proposal

Using fixed templates, applicants submit a scientific project proposal involving access to specified CHRIS data and/or samples. The project proposal should follow the principle of data and sample minimization given the purpose of the project.



Access Committee reviews research project

The CHRIS Access Committee assesses if the access request fulfills all the mandatory legal requirements, the CHRIS study protocol, whether an ethics approval is required and if the research project may cause stigmatisation or discrimination of the CHRIS study participants or the reference population. If all requirements are met the research project is approved.



Drafting and signing of transfer agreements

For approved proposals data and/ or material transfer agreements will be prepared and submitted to the legal representative of the applicant's institution for review and signature.



Data / samples release

The requested data and/or samples will be made available to the applicant via secure, legally compliant channels once all required transfer agreements have been fully signed.



Research dissemination

17

Any resulting publication or dissemination (journals, pre-prints, book chapters, theses, abstracts, conference submissions) must be approved through the CHRIS portal prior to publication to ensure there is no risk of identification, discrimination, or stigmatization of participants, that the CHRIS study is correctly cited, and that analyses presented are in line with the approved research project proposal.

Return of data derived from the resource

Data that have been derived from the provided CHRIS data and/or samples must be documented and returned to the Eurac Research upon completion of the project. These new data will further enrich the resource, being made available to other researchers via the CHRIS Portal.



Confirmation of deletion and/or destruction of data/samples

At the end of the research project, all data and samples that have been provided must be deleted and/or returned. Signed confirmation of deletion and/or destruction must be provided to Eurac Research. Find out more on the CHRIS Portal webpage





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