

Highlighting the Biological Resources through Cohort Profiles

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Introduction

Comprehensive annotation of a biobank's available sample collection is important to increase the (secondary) use and finally the impact of such a collection on health-related research. In this context, Biobank Graz, in cooperation with the Principal Investigators' (PIs), started to thoroughly describe the currently accessible cohorts and to publish these, so called *cohort profiles* on the website. The long-term objective of this initiative is to draw attention of internal and external users, for the benefit of biomedical research.

Methods

After agreement with the cohort's PI, a standardised form was completed containing meaningful, summarizing information on the cohort such as: brief description of the cohort, ICD10/O codes if applicable, cohort size, gender distribution, inclusion criteria, collected material, etc. The PI has also been asked to write a comprehensive description of the cohort that is displayed in parallel in newsletters.

Results

So far, seven cohorts have been catalogued and published on the website of Biobank Graz:



- **BioPersMed Cohort**

Keywords: *biomarker, metabolism, cardiology, diabetes, osteoporosis, fatty liver disease, cardiovascular diseases, endocrinology*

- **Blood bank Collection**

Keywords: *blood bank, healthy subjects*

- **Emmy Study**

Keywords: *myocardial infarction, Empagliflozin, , randomized controlled trial, placebo, SGLT-2 inhibitor, heart failure*

- **Interfast Study**

Keywords: *alternate day fasting, intermittent fasting, healthy subjects, randomized controlled trial*

- **KIWI Collection**

Keywords: *fertility, reproductive medicine, in vitro fertilisation, follicular fluid, cumulus cells*

- **PERFORM Collection**

Keywords: *infection, febrile illness in childhood*

- **PoCOsteo Study**

Keywords: *osteoporosis, osteoporotic fracture, metabolic bone disease*

Profile of the Interfast Cohort

| BioBank GRAZ | | O-FIS Qualitätsmanagementsystem Formblatt Collection and Cohort Profile | | CL312 Seite 1 von 1 | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|---------------------------------------------|--------------------------------|---------------------------------------------|
| 1. General Information | | | | | |
| Biobank project number | 5010_14 | | | | |
| Title (Study Name) | Intermittent Fasting Cohort Study - "Interfast" | | | | |
| Principal investigator | Assoc.-Prof. Dr. Harald Sourj | | | | |
| Contact information | am-biobank@medunigraz.at | | | | |
| Funding agency | | | | | |
| 2. Description | | | | | |
| Intermittent fasting is a dietary regimen by alternating fasting and "feeding" cycles. In addition to caloric restriction only, intermittent fasting seems to activate cell autophagy, which potentially increases cellular stress resistance and removes accumulated molecules that are potentially toxic. This cohort study with embedded pilot randomized control-trial investigates the effects of repeating fasting periods in healthy subjects on human physiology, aging process and molecular-cellular processes in humans. We will be able to study long term effects (subjects, who already practise ADF for a defined time period) and short term effects (subjects randomized to the ADF group) of this nutritional intervention. | | | | | |
| 3. Details | | | | | |
| ICD 10/O codes / Healthy | Healthy | | | | |
| Key words | Alternate day fasting, intermittent fasting, healthy subjects, RCT | | | | |
| Collection / Cohort size (subjects / visits) | 30 subjects cohort - 2 study visits 60 subjects RCT - 4 study visits 90 subjects in total | | | | |
| Informed Consent (IC) | <input checked="" type="checkbox"/> Broad Biobank IC <input checked="" type="checkbox"/> Specific Study IC | | | | |
| Status | <input type="checkbox"/> Completed <input type="checkbox"/> In progress / compl. date: 04/19 | | | | |
| Age distribution | 35 - 65 years | | | | |
| Sex distribution | ratio f:m = 57:43 | | | | |
| Inclusion criteria | - Body mass index in the range of 22.0 - 30.0 kg/m ² - Fasting blood glucose <110mg/dL (without medication) - LDL-cholesterol <180 mg/dL (without medication) - Blood pressure <140/90 mmHg (without medication) - Stable weight (change <= 10%) for 3 months immediately prior to the study => Details see article | | | | |
| Access type | <input type="checkbox"/> Cooperation only <input checked="" type="checkbox"/> Cooperation preferred | | | | |
| Earliest access | 02/2019 | | | | |
| Quality-standards | <input type="checkbox"/> CEIVIS <input checked="" type="checkbox"/> ISO 9001:2015 (SOPs) | | | | |
| Associated publications / references | Purnmes: "Intermittent Fasting (Alternate Day Fasting) in Healthy, Non-obese Adults: Protocol for a Cohort Trial with an Embedded Randomized Controlled Pilot Trial" (Advances in Therapy, August 2018, Volume 35, Issue 8) | | | | |
| 4. Material available (aliquot size) and storage conditions | | | | | |
| Material | <input checked="" type="checkbox"/> Serum (µl) | <input type="checkbox"/> -80°C | <input type="checkbox"/> 1q, N ₂ | <input type="checkbox"/> -80°C | <input type="checkbox"/> 1q, N ₂ |
| | <input type="checkbox"/> Plasma (µl) | <input type="checkbox"/> -80°C | <input type="checkbox"/> 1q, N ₂ | <input type="checkbox"/> -80°C | <input type="checkbox"/> 1q, N ₂ |
| | <input type="checkbox"/> Urine (µl) | <input type="checkbox"/> -80°C | <input type="checkbox"/> 1q, N ₂ | <input type="checkbox"/> -80°C | <input type="checkbox"/> 1q, N ₂ |
| Inhaltlich geprüft von: Karine Sargsyan CL312_Collection_and_Cohort_Profile | | | | | |
| Kontakt: Annemarie Marold Letzte Änderung: 28.05.2018 | | | | | |

Conclusion

We aim to further continue the "cohort profiles" with the objective to display a comprehensive set of cohorts covering different pathologies, organs and other scientifically-relevant sample groups'. Monitoring the number of outgoing samples in the upcoming years, will undoubtedly tell us about the impact of this "access-stimulating" approach on secondary use of cohorts.