

## Poster 02: Patients' trust and scientific usability – 25 Years of experience in biobanking on behalf of the HTCR Foundation

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### Introduction

Celebrating 25 years of experience in surgical biobanking under the administration of the non-profit foundation human tissue and cell research (HTCR), utilisation of human tissues has proven to be critical, not only for basic academic but also for commercial research and development, such as approval of drugs and diagnostics.

Contributing clinics are the Ludwig-Maximilians-University Hospital with the departments of General, visceral- and transplantation surgery, thorax-surgery, urology, ear, nose and throat, laboratory medicine and gynecology, the red cross clinic Munich with the department of general-, visceral- thorax and minimally invasive surgery as well as the St. Josef Caritas hospital, Regensburg with the department of plastic and aesthetic hand- and reconstruction surgery.

HTCR, acting as the patient's trustee, provides external governance within a legal and ethical framework.

### Sample collection & Portfolio

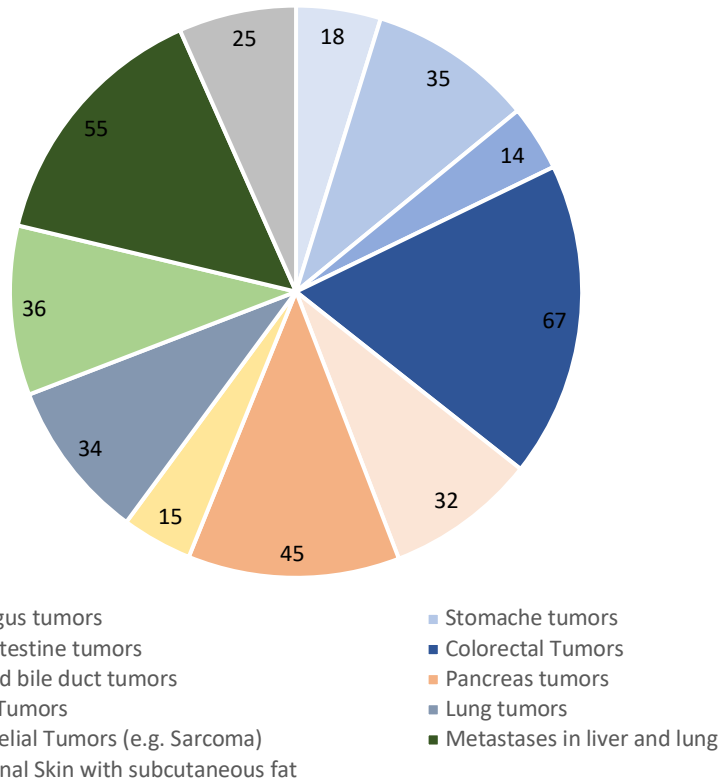
The biobank is collecting remnant tissues from nearly the whole spectrum of the clinics surgical interventions where tissues are resected for therapeutic purpose (Fig. 1). Meanwhile the collection has reached a size of 7000 Donors, which were collected under quality management guidelines according to DIN ISO 9001:2015. After pathological examination samples from tumor and corresponding normal tissues are processed for storage into different sample types (flash frozen w/o RNALater, formalin fixed paraffin embedded (FFPE) and cryo-blocks). To each donor additional blood samples are collected for serological testing (HIV, HBV, HCV) and remnant samples are stored at -80°C. But not only tissues, also primary cells are isolated and cryopreserved, e.g. cancer cells, Hepatocytes and non-parenchymal cells from liver tissues, Peripheral Blood Mononuclear cells (PBMCs) from whole blood samples, cells extracted from pleural effusion and intestine crypts for organoid cultures.

All samples are annotated with clinical data from routine patient records together with ischemia times.

### Usage (sample turnover)

Our biobank does not only focus on usage of archived material, but mainly on the provision of native "fresh" tissues, either for further processing (cell isolation and co-/cultivation, development of patient derived organoids) or assays investigating function and metabolism. This allows customized collections suiting each individual research project's needs. 51 projects could be supported last year (2024) with 543 tissue distributions, from which 64% went to academic research projects (Fig. 2).

**Fig. 1: Most asservated tissues in 2024**



**Fig. 2: Allocated samples to HTCR's cooperation partners 2024**

