The UGLMC-Gießen Biobank is located at the Medical Clinic II of the Justus-Liebig University Gießen and collects, processes, stores and distributes biomaterials for facilitation of translational research activities within UGMLC with a main focus on lung fibrosis, pulmonary hypertension, COPD and lung cancer.

Next to a large collection of liquid biomaterials (BAL-fluid, EDTA-blood, plasma and serum) from >1000 patients in the field of DPLD (mainly lung fibrosis, sarcoidosis, hypersensitivity pneumonitis), PH, ARDS/ALI and pneumonia, the biobank provides a large collection of tissue from explanted lungs and isolated cells. Within the last 10 years >450 explanted lungs (fibrosis ~180, PH ~80, COPD ~80, Donors ~30, other entities ~60) have been worked up according to standardized protocols. We collect fresh frozen and FFPE lung tissue, pieces of arteries, veins and bronchi, and isolate cells (interstitial fibroblasts, pulmonary artery smooth muscle cells, adventitial fibroblasts). The Biobank-team develops further protocols for isolation of other cell types (vascular endothelial and lung epithelial cells).

In addition, a collection of biopsied tissue from lung cancer patients has recently been established (tumors from >40 lungs, isolated tumor cells from 10 lungs)

The UGLMC-Gießen Biobank also hosts the biobank of the European IPF registry (eurIPFreg) that was funded in frame of the European IPF network (FP7) in 2008 and enrolled >800 patients with IIPs (idiopathic interstitial pneumonia) so far. The eurIPFreg biomaterial collection comprises the following specimens: BAL, serum, plamsa, EDTA-blood, PAXgene-blood, exhaled breath condensates, electric nose samples, and tissue from transbronchial biopsies or explanted lungs.

Equally important to the collection of biomaterial is the acquisition of phenotyping data. The UGLMC-Gießen Biobank therefore developed a Secutrial®-based patients registry that allows the acquisition and storage of clinical data as well as integration of radiographic data and imaging data.