The **German COPD and Systemic Consequences - Comorbidities Network (COSYCONET)** biomaterial bank on COPD

**Contact person:**

Prof. Dr. Dr. Robert Bals

**Contact information:**

Prof. Dr. med. Dr. rer. nat. Robert Bals
Universitätsklinikum des Saarlandes (UKS)
Klinik für Innere Medizin V,
Pneumologie, Allergologie, Beatmungs- und Umweltmedizin, Geb.91
D-66421 Homburg/Saar

☎: +49 6841-16-23601
✉: +49 6841-16-23602
em@il: robert.bals@uks.eu
🔗: www.asconet.net/html/cosyconet/teilprojekt4

**Biobank-characteristics:**

**Main focus:** COPD represents a serious global health problem and the knowledge about the comorbidities (e.g. diabetes, cardiovascular diseases, lung cancer, pulmonary hypertension, muscle dysfunction, etc.) of COPD is incomplete. Within COSYCONET (German COPD and Systemic Consequences - Comorbidities Network) an extensive biomaterial bank (BMB) has been built up and is continuously expanded in order to make biomaterial available for research.

**Process:** Biomaterial samples of 2.745 patients from 30 study centers are sent to the BMB at the Saarland University. The specimens are collected at longitudinal patient visits. The pseudonymised samples are processed by robot and stored at -80°C or -150°C. All processes within the BMB are standardized by SOPs.

**Collected Samples:** Urine, EDTA (-blood, -plasma, -pellet), serum, citrate plasma, Paxgene, P100, sputum and pharyngeal washings. The BMB is listed in the German Biobank Registry (TMF e.V.) and in the catalogue of European biobanks (BBMRI), that include the current detailed sample quantity.

**Specific characteristics:** Large existing cohort of well-characterized COPD patients of different severity. All pseudonymised samples are associated with numerous clinical data at long-term follow-up.

**Research objectives:** The primary aims are the identification of genetic factors and the understanding of the pathogenic link between COPD and its comorbidities, potentially mediated by chronic systemic and pulmonary inflammation. An exploration of new biomarkers is required to develop early diagnostic tests and novel therapeutic interventions.