**Supplementary material**

Table S 1. Demographic parameters of patients with Combined pulmonary fibrosis and emphysema at Hemer and Greifswald

Table S 2. Functional parameters of patients with Combined pulmonary fibrosis and emphysema at Hemer and Greifswald

**Abbreviations**

AaDO2: alveolar–arterial oxygen difference

ATS: American Thoracic Society

BMI: body mass index

CPET: cardiopulmonary exercise testing

CPFE: combined pulmonary fibrosis emphysema

CT: computed tomography

CTEPH: chronic thromboembolic pulmonary hypertension

ERS: European respiratory society

FEV1: forced expiratory volume in one second

FVC: forced vital capacity

HR: heart rate

HR-CT: high-resolution computed tomography

IPF: idiopathic pulmonary fibrosis

MVV: maximum voluntary ventilation

PAH: pulmonary arterial hypertension

PAP: pulmonary arterial pressure

peak VO2: peak oxygen uptake

PaO2: partial pressure of oxygen

P(a-ET)CO2: arterial to end-tidal carbon dioxide gradient

PaCO2: partial pressure of carbon dioxide

PetCO2: end-tidal pressure of carbon dioxide

PECO2 mixed expiratory partial pressure of CO2

PH: pulmonary hypertension

RR: respiratory rate

RV: residual volume

SaO2: oxygen saturation

sPAP: systolic pulmonary artery pressure

SD: standard deviation

TLC: total lung capacity

TLCO: transfer factor of the lung for carbon monoxide

TLCO/VA: transfer factor of the lung for carbon monoxide per alveolar volume

UIP: usual interstitial pneumonia

VC: vital capacity

VE/VCO2 at VT1: ratio of ventilation to carbon dioxide output at ventilatory threshold 1

VE/VCO2 at peak: ratio of ventilation to carbon dioxide at peak exercise

VE/VO2 at VT1: ratio of ventilation to carbon dioxide output at ventilatory threshold 1

VE/VO2 at peak: ratio of ventilation to carbon dioxide output at peak exercise

VE/VCO2 slope: slope of the relation between ventilation and carbon dioxide output

VDf/VT rest: functional dead space ventilation at rest

VDf/VT VT 1: functional dead space ventilation at VT1

VDf/VT peak: functional dead space ventilation at peak exercise

VDm: system dead-space

VO2: oxygen uptake

VCO2: carbon dioxide production

VT: tidal volume

VT1: ventilatory threshold 1