

Figure S1: Data analysis flow chart

Supplementary table S1. Baseline characteristics of individual groups classified as ‘other ILDs’

	Asbestosis	RB-ILD	(C)OP	Drug-induced ILD	Unclassifiable ILD	GPA
	n = 1	n = 1	n = 6	n = 2	n = 4	n = 3
Mean age	81	54	68 ± 9	67 ± 12	75 ± 2	46 ± 26
Males (%)	1 (100)	1 (100)	4 (66.7)	2 (100)	3 (75)	3 (100)
Smoking history						
never	1 (100)	0 (0.0%)	1 (16.7%)	0 (0.0%)	1 (25.0%)	0 (0.0%)
stopped	0 (0.0%)	0 (0.0%)	5 (83.3%)	2 (100%)	3 (75.0%)	2 (66.7%)
current	0 (0.0%)	1 (100%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (33.3%)
Median pack years (IQR)	0.0	25.0	6.3 (2.3-17.2)	41.7	10.0 (1.0-20.5)	NA
Mean FVC (L)	3.16	4.80	3.67 ± 0.97	3.45 ± 1.01	2.21 ± 0.51	4.56 ± 1.20
Mean FVC (% predicted)	92	103	93 ± 25	71 ± 25	71 ± 11	87 ± 6
Mean DLCO (% predicted)	30	41	75 ± 19	46 ± 21	43 ± 19	76 ± 4
Pathology (%)	0 (0.0)	0 (0.0)	3 (50.0)	0 (0.0)	0 (0.0)	0 (0.0)
Food intake < 2 hours before measurement (%)	1 (100)	1 (100)	4 (66.7)	2 (100)	3 (75.0)	2 (66.7)

± standard deviation, RB-ILD: respiratory bronchiolitis-interstitial lung disease, (C)OP: (cryptogenic) organizing pneumonia, drug-induced ILD: drug-induced interstitial lung disease, unclassifiable ILD: unclassifiable interstitial lung disease, GPA: granulomatosis with polyangiitis, IQR: interquartile range, FVC: forced vital capacity, DLCO: diffusion capacity of the lungs for carbon monoxide

Supplementary table S2. Use of ILD-related medication

	Medication use (%)	Antifibrotic medication (%)	Corticosteroids (%)	Mycophenolate (%)	TNF- alpha inhibitors (%)	Azathioprine (%)	Methotrexate (%)	Hydroxychloroquine (%)
Sarcoidosis n=141	73 (51.8)	0 (0.0)	38 (27.0)	0 (0.0)	14 (9.9)	4 (2.8)	42 (29.8)	5 (3.5)
IPF n=85	59 (69.4)	59 (69.4)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
CTD-ILD n=33	29 (87.9)	0 (0.0)	12 (36.4)	13 (39.4)	9 (27.3)	3 (9.1)	0 (0.0)	0 (0.0)
CHP n=25	20 (80.0)	1 (4.0)	16 (64.0)	8 (32.0)	1 (4.0)	3 (12.0)	0 (0.0)	0 (0.0)
IPAF n=11	8 (72.7)	0 (0.0)	5 (45.5)	3 (27.3)	1 (9.1)	1 (9.1)	1 (9.1)	0 (0.0)
iNSIP n=10	4 (40.0)	0 (0.0)	3 (30.0)	1 (10.0)	0 (0.0)	2 (20.0)	0 (0.0)	0 (0.0)
Asbestosis n=1	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
RB-ILD n=1	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
(C)OP n=6	1 (16.7)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (16.7)	0 (0.0)	0 (0.0)
Drug-induced ILD n=2	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Unclassifiable ILD n=4	1 (25.0)	0 (0.0)	1 (25.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
GPA n=3	3 (100)	0 (0.0)	3 (100)	1 (33.3)	1 (33.3)	0 (0.0)	0 (0.0)	0 (0.0)

IPF = idiopathic pulmonary fibrosis, CTD-ILD = connective tissue disease-associated interstitial lung disease, CHP = chronic hypersensitivity pneumonitis, IPAF = interstitial pneumonia with autoimmune features, iNSIP = idiopathic non-specific interstitial pneumonia, RB-ILD: respiratory bronchiolitis-interstitial lung disease, (C)OP: (cryptogenic) organizing pneumonia, drug-induced ILD: drug-induced interstitial lung disease, unclassifiable ILD: unclassifiable interstitial lung disease, GPA: granulomatosis with polyangiitis

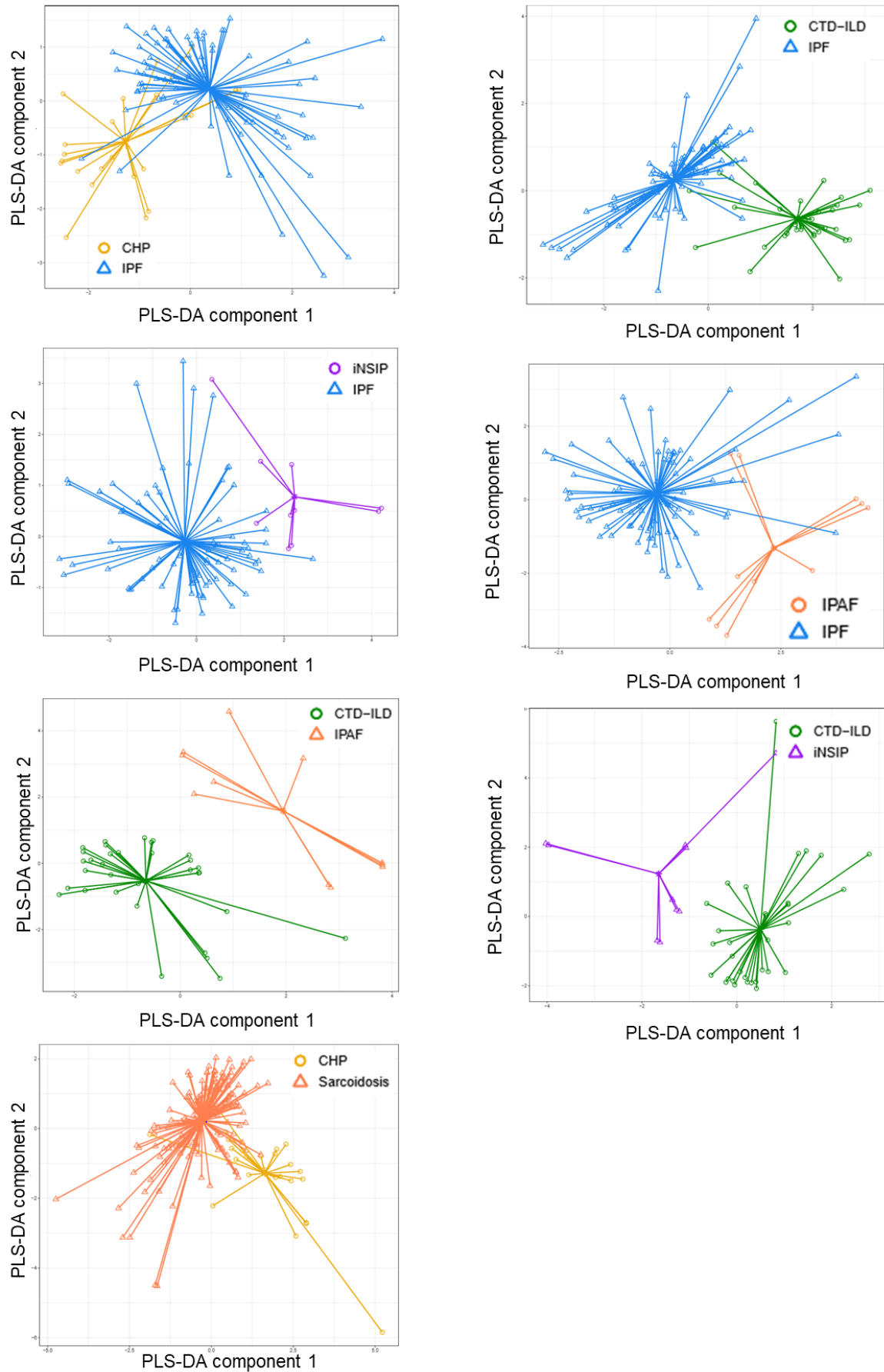
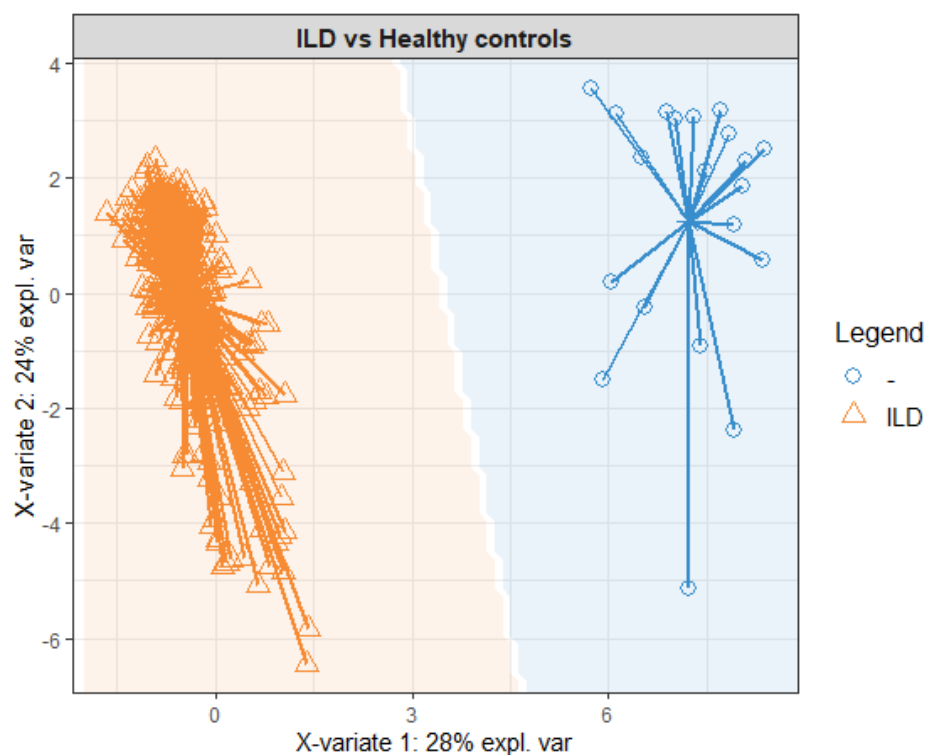


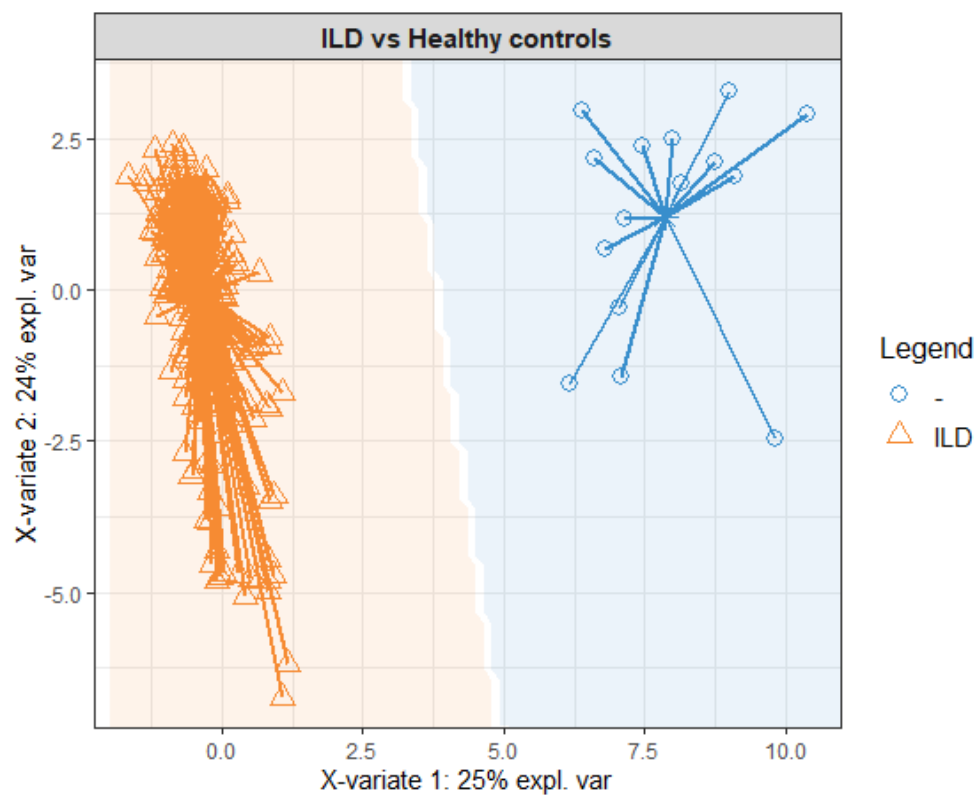
Figure S2: Results of the PLS-DA analysis for comparison of individual diseases

Additional analyses ILD vs healthy controls

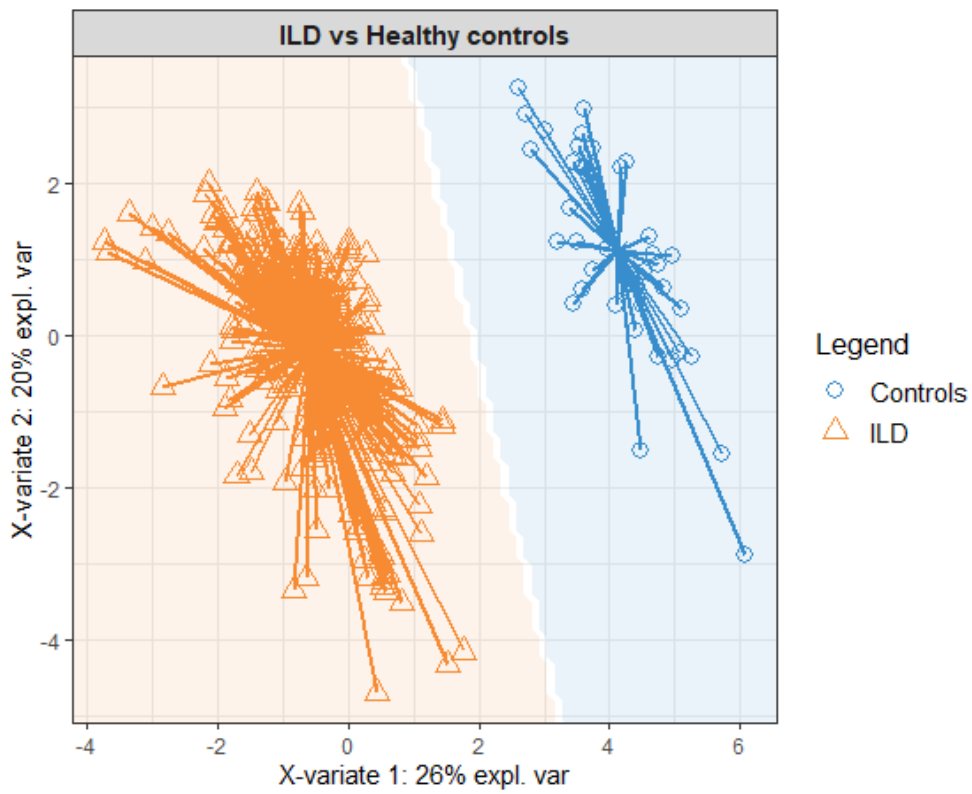
ILD (n=322) vs healthy controls (n=20) with a mean age of 50, all older than 40 years:



ILD (n=322) vs male healthy controls (n=15):

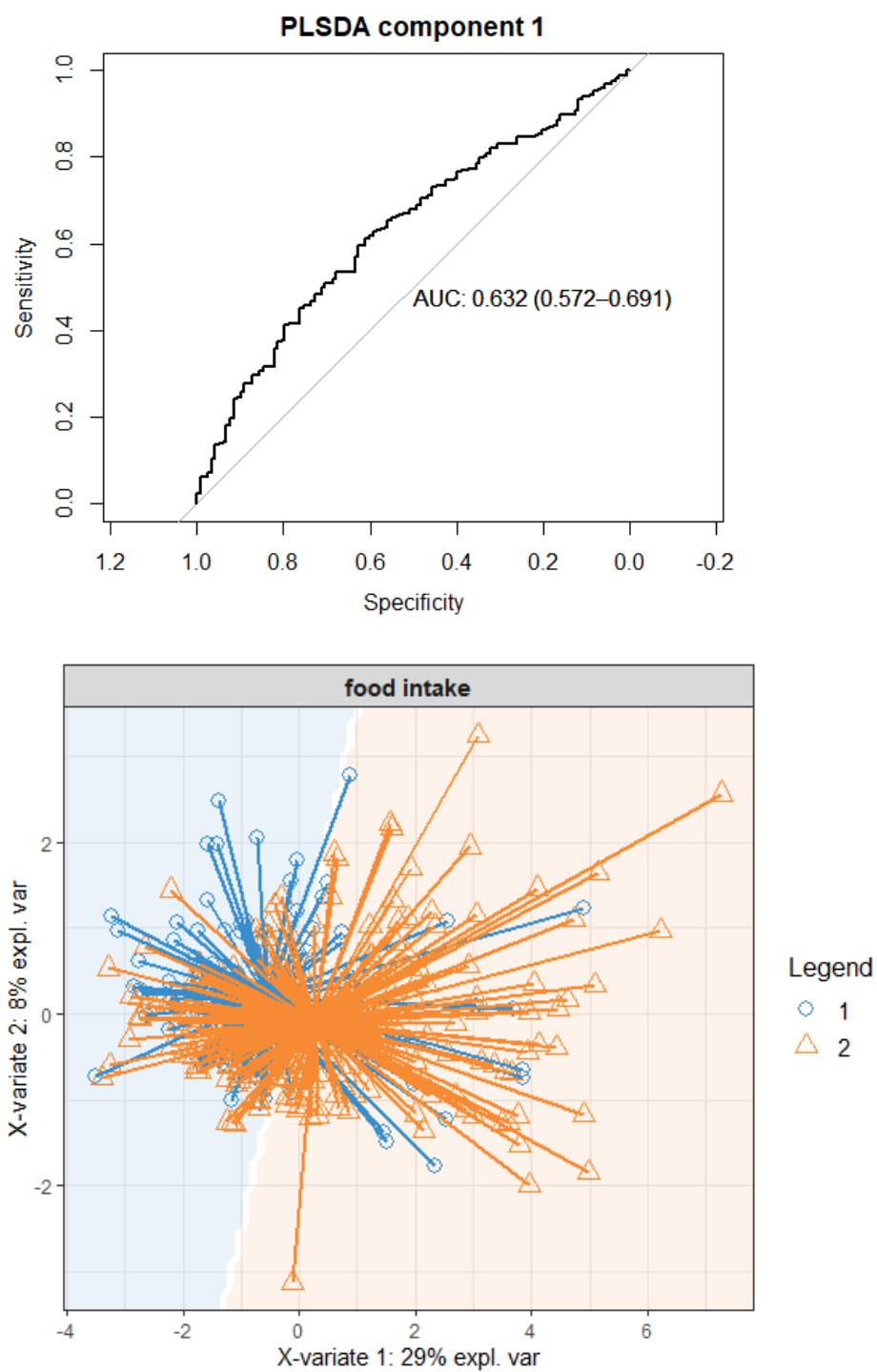


ILD (n=305) vs healthy controls (n=44), without smokers:

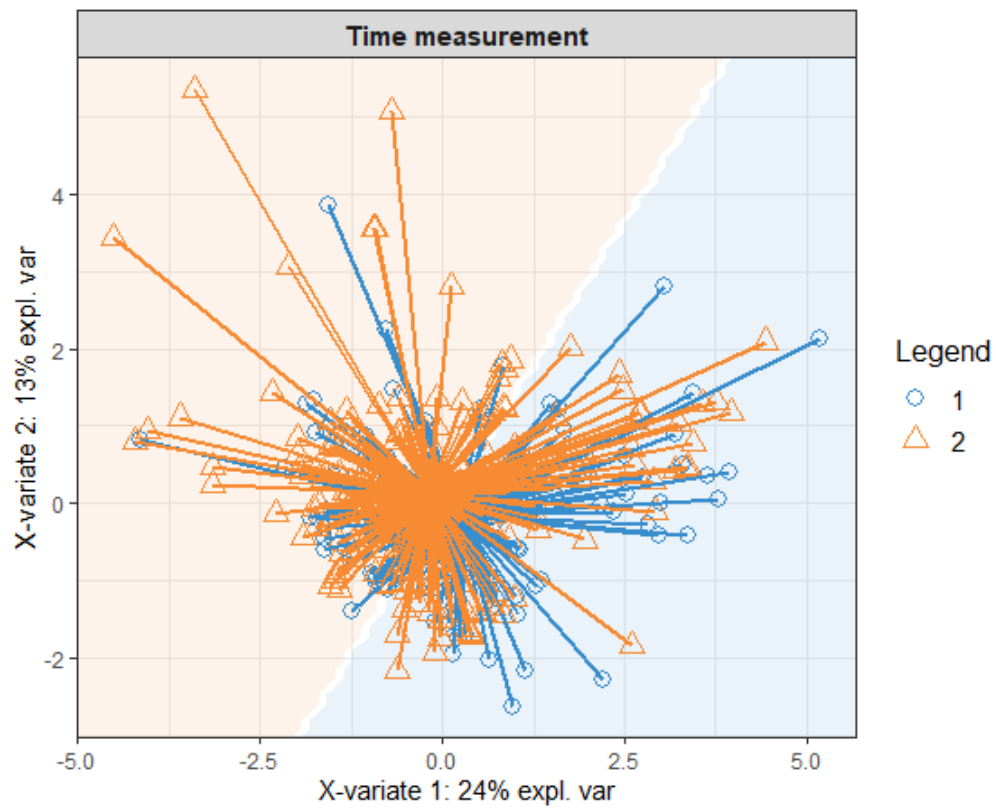


Additional analyses entire cohort

Food intake <2 hours before eNose measurement:



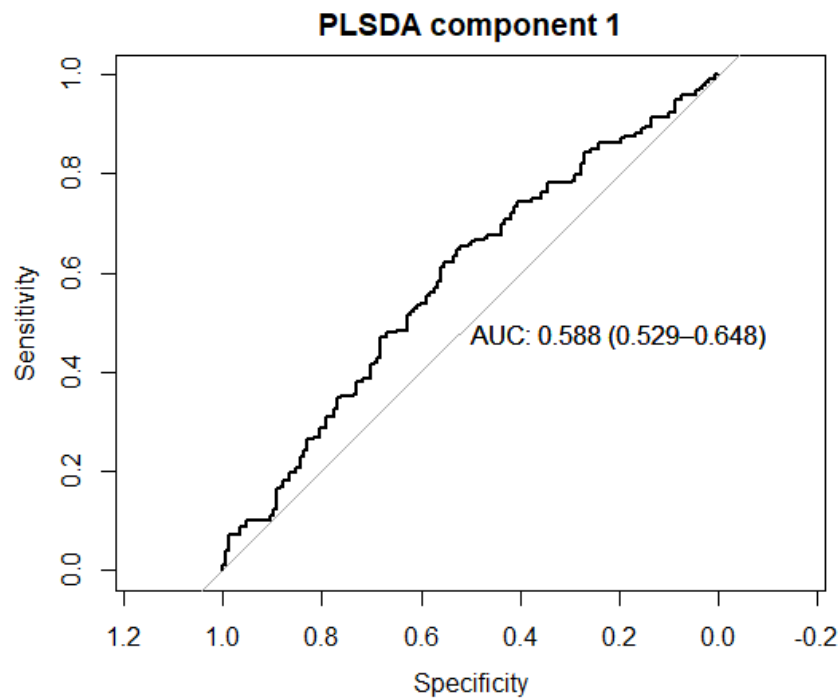
Difference between morning and afternoon measurements:



1 = morning (between 8 and 12 a.m.)

2 = afternoon (between 12 and 17 p.m.)

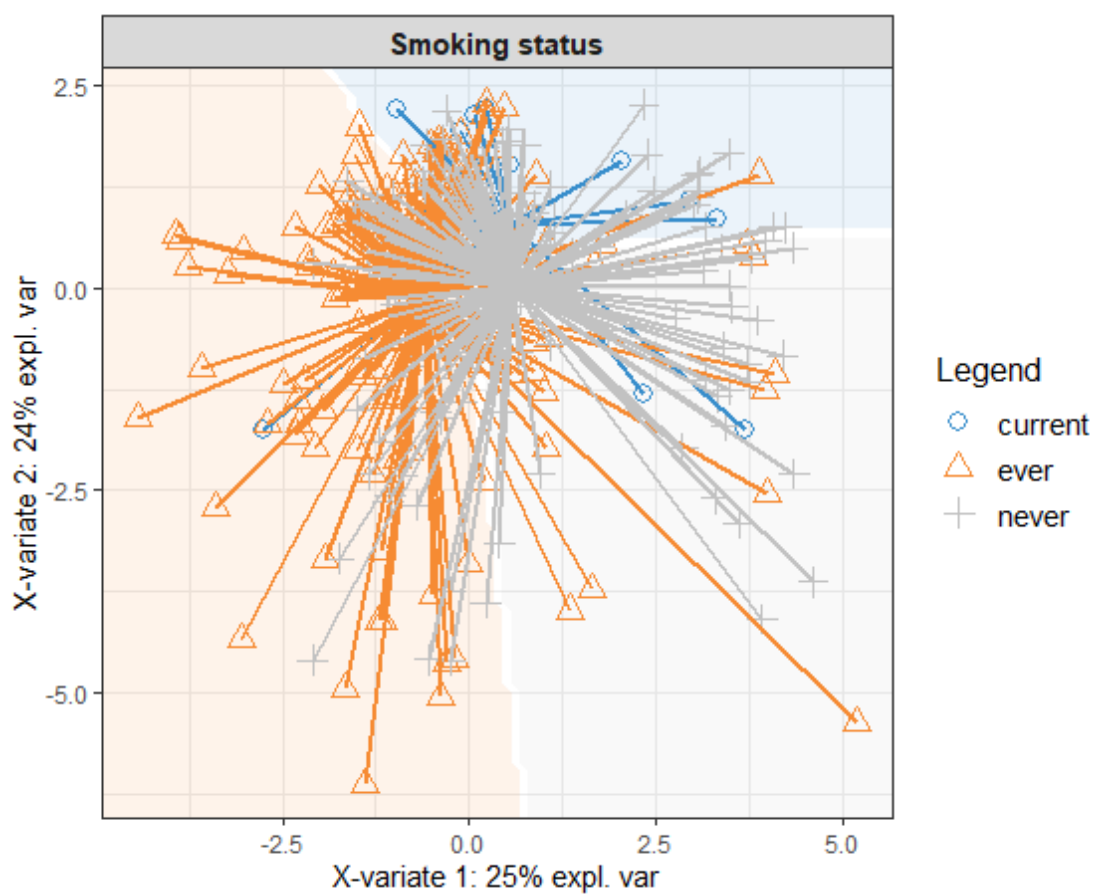
40% of measurements were in the morning (n=148), 60% in the afternoon (n=219)



Smoking status

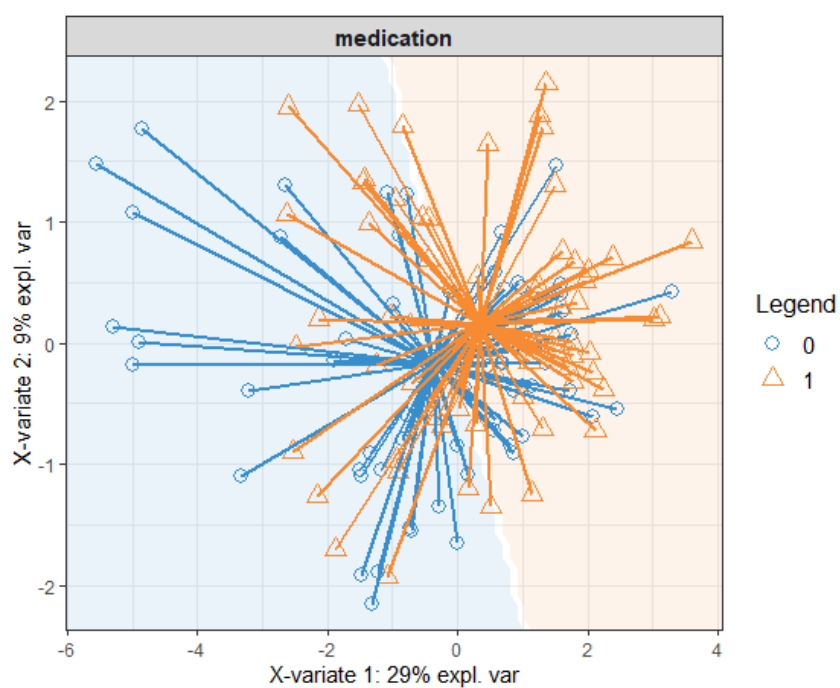
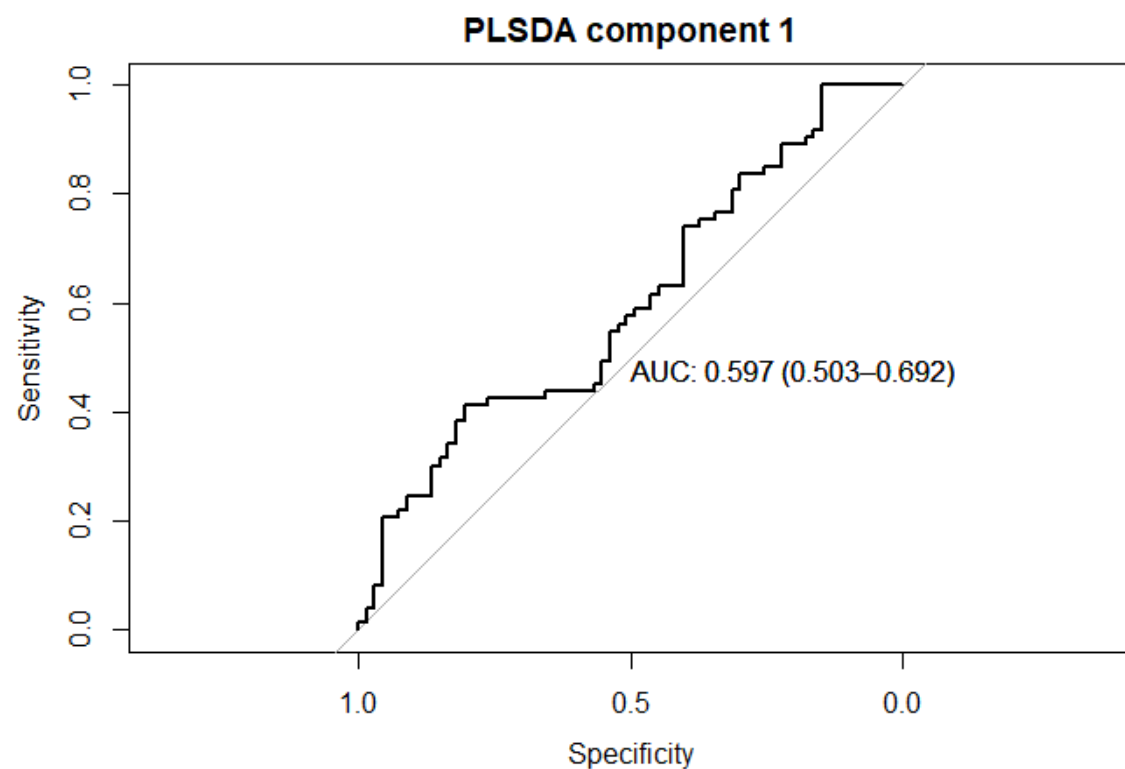
Never smoker: 167, ex-smoker: 182, current smoker: 21

AUC current vs ever smoker = 0.64

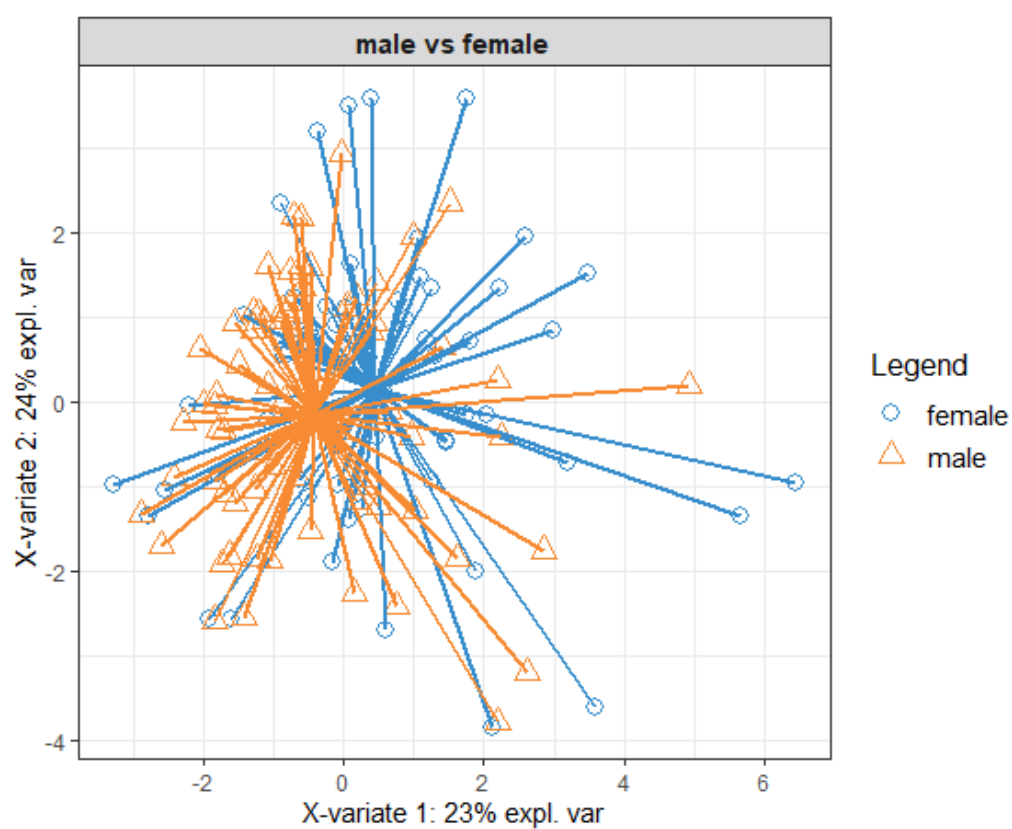
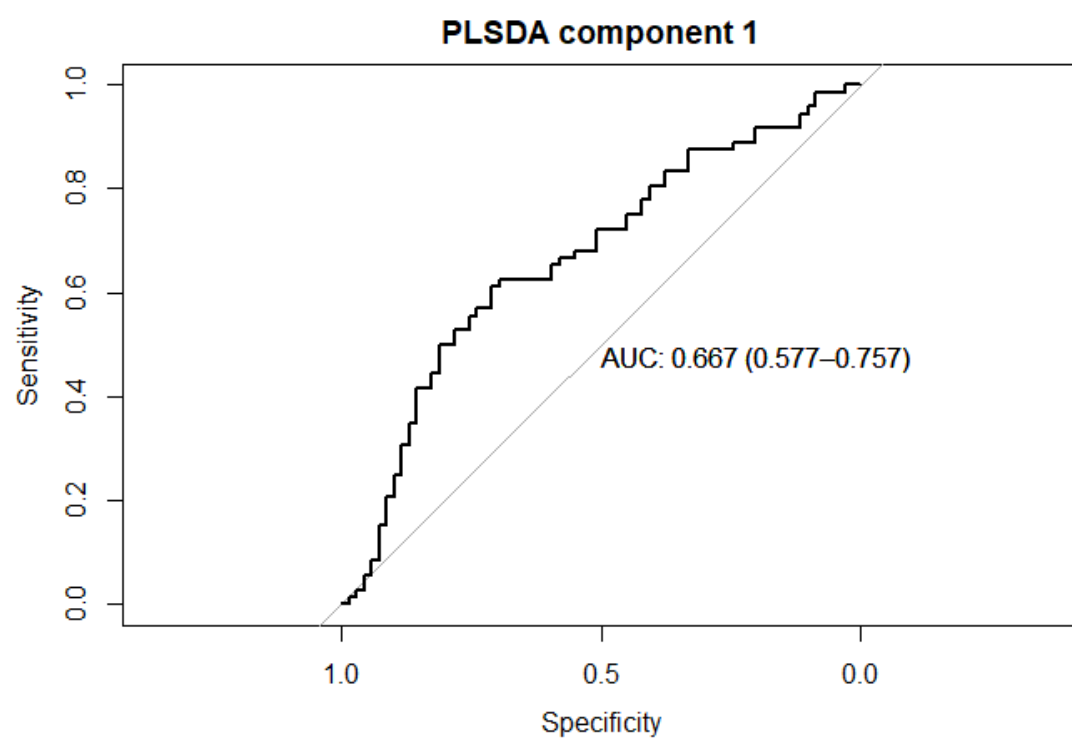


Sarcoidosis patients

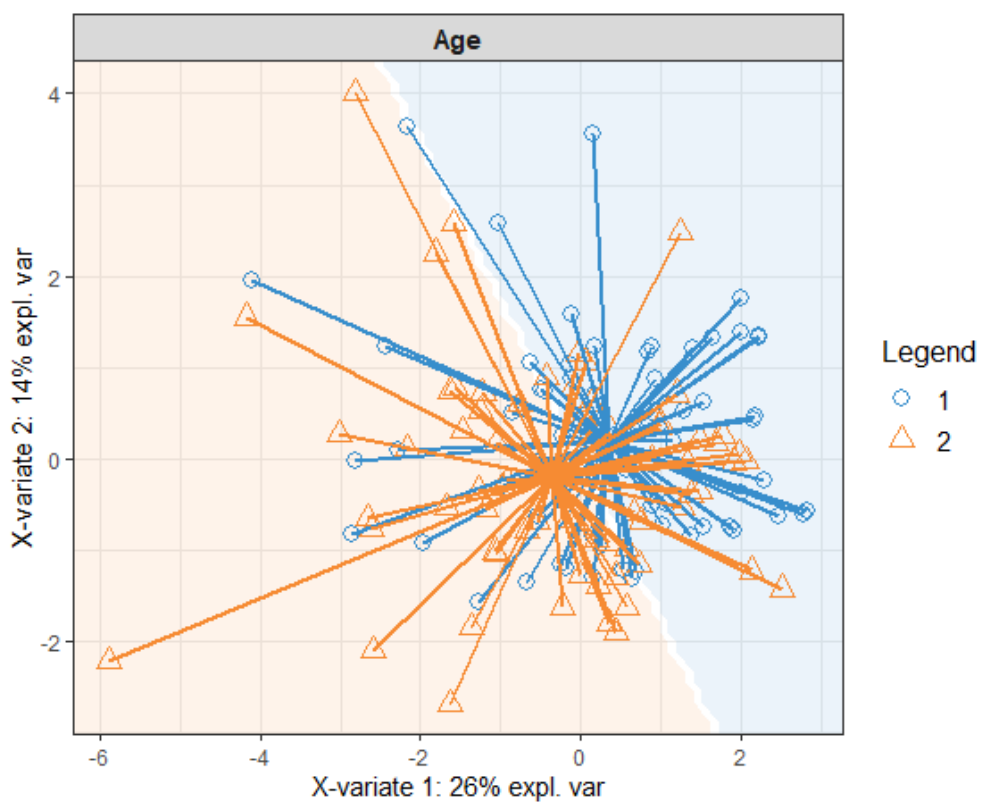
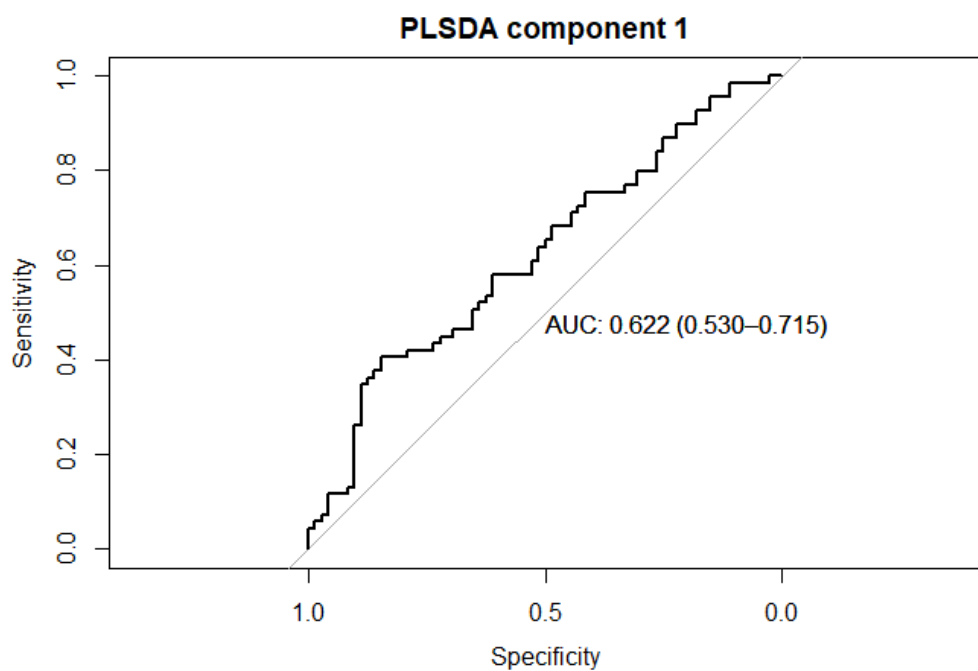
Use of medication vs no medication:



Gender:

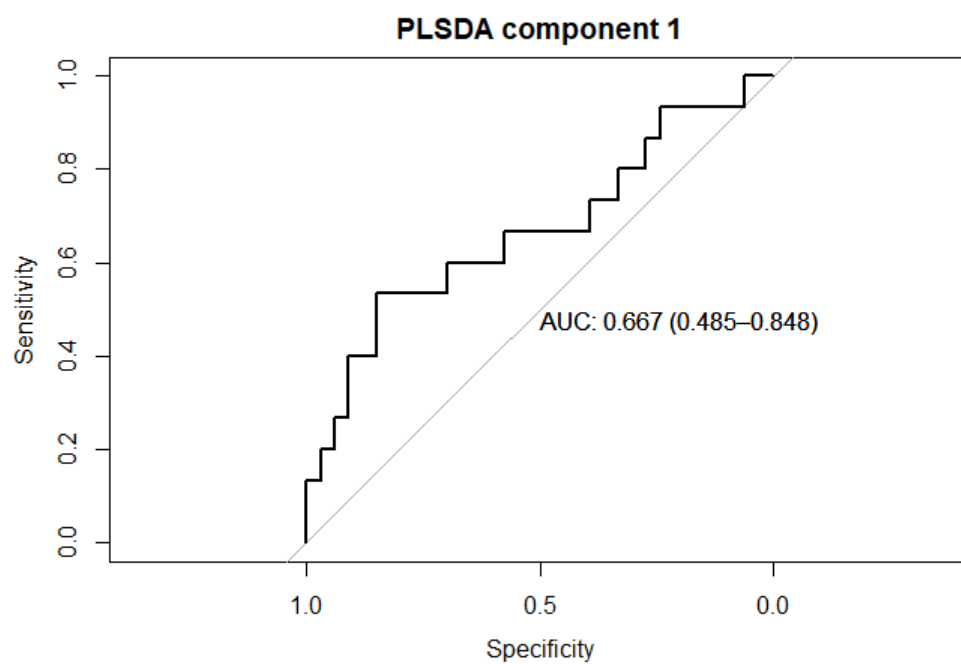


Age: cut-off on the median age (=53) in sarcoidosis patients



Healthy controls

Gender:



Age:

