SUPPLEMENTARY TABLES

Supplementary Table 1. Correlation between short-chain fatty acids and BMI, depending on the diagnosis of BPH.

SCFAs (%)	Healthy volunteers (without BPH) (n=80)		Patients with BPH (n=103)	
	BMI			
	R	p	R	p
C 2:0	**-0.221**	**0.048***	0.061	0.546
C 3:0	0.010	0.931	-0.062	0.542
C 4:0 i	-0.015	0.894	-0.144	0.152
C 4:0 n	0.057	0.617	0.094	0.352
C 5:0 i	-0.006	0.960	-0.180	0.072
C 5:0 n	**0.287**	**0.010***	-0.129	0.201
C 6:0 i	0.000	0.997	**-0.246**	**0.014***
C 6:0 n	0.104	0.359	-0.040	0.690

BPH – benign prostatic hyperplasia; BMI – body mass index; SCFAs – short chain fatty acids; C2:0 - acetic acid; C3:0 - propionic acid; C4:0i - isobutyric acid; C4:0n - butyric acid; C5:0i - isovaleric acid; C5:0n - valeric acid; C6:0i – isocaproic acid; C 6:0n - caproic acid; R - correlation coefficient; p – statistical significance; * - statistical significant parameter.

Supplementary Table 2. Correlation between short chain fatty acids and BMI, depending on the occurrence of metabolic syndrome in all patients participating in the study (patients without BPH and with BPH).

SCFAs (%)	All participants			
	Without MetS (n=105)		With MetS (n=78)	
	BMI			
	R	p	R	p
C 2:0	-0.082	0.412	0.019	0.869
C 3:0	-0.014	0.890	**-0.265**	**0.020***
C 4:0 i	-0.126	0.203	0.040	0.730
C 4:0 n	0.155	0.118	0.044	0.702
C 5:0 i	-0.131	0.188	0.018	0.875
C 5:0 n	0.039	0.693	0.057	0.622
C 6:0 i	-0.053	0.592	-0.081	0.483
C 6:0 n	-0.017	0.861	0.206	0.072

MetS – metabolic syndrome; SCFAs – short chain fatty acids; C2:0 - acetic acid; C3:0 - propionic acid; C4:0i - isobutyric acid; C4:0n - butyric acid; C5:0i - isovaleric acid; C5:0n - valeric acid; C6:0i - isocaproic acid; C 6:0n - caproic acid; R - correlation coefficient; p – statistical significance; * - statistical significant parameter.

Supplementary Table 3. Correlation between short-chain fatty acids and BMI and the occurrence of metabolic syndrome in healthy volunteers and BPH patients.

SCFAs (%)	Healthy volunteers (without BPH) n=80				Patients with BPH (n=103)			
	Without MetS (n=44)		With MetS (n=36)		Without MetS (n=61)		With MetS (n=42)	
	BMI				BMI			
	R	p	R	p	R	p	R	p
C 2:0	-0.182	0.238	-0.199	0.245	-0.049	0.710	0.208	0.192
C 3:0	0.005	0.975	**-0.517**	**0.001***	-0.069	0.600	-0.128	0.424
C 4:0 i	0.026	0.864	0.193	0.260	-0.190	0.147	0.001	0.995
C 4:0 n	0.063	0.684	0.267	0.115	0.217	0.096	-0.074	0.646
C 5:0 i	0.038	0.807	0.158	0.356	-0.225	0.084	-0.022	0.890
C 5:0 n	0.205	0.183	0.168	0.329	-0.064	0.628	-0.099	0.539
C 6:0 i	0.071	0.645	0.046	0.791	-0.111	0.398	-0.220	0.167
C 6:0 n	0.043	0.782	**0.329**	**0.050***	-0.076	0.563	0.097	0.546

BPH – benign prostatic hyperplasia; MetS – metabolic syndrome; BMI – body mass index; SCFAs – short chain fatty acids; C2:0 - acetic acid; C3:0 - propionic acid; C4:0i - isobutyric acid; C4:0n - butyric acid; C5:0i - isovaleric acid; C5:0n - valeric acid; C6:0i – isocaproic acid; C 6:0n - caproic acid; R - correlation coefficient; p* - statistical significant parameter.