

### Supplementary Material

#### Bowel preparation for colonoscopy changes serum composition as detected by Thermal Liquid Biopsy (TLB) and Fluorescence Spectroscopy. Pre-analytical potential flaw for diagnosis.

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**Table S1.** Summary of characteristics data of patients from colorectal cancer (CRC) screening program, with fecal immunochemical test positive.

|   |  |
|---|--|
| Age (years; Q2 [Q1-Q3])   | 60 [56-64]   |
| Sex   | 60.70 % male<br>39.30 % female   |
| Colonoscopy   | 48.05 % normal<br>14.79 % non-advanced polyp<br>32.10 % advanced polyp<br>5.06 % CRC |
| Hemoglobin concentration in fecal immunoassay (ng Hb/mL Buffer; Q2 [Q1-Q3]) | 381 [200.8-829.5]  |
| Cancer diagnosis  | 91.63 % no<br>8.37 % yes (from 1984 to 2019)   |
| Mellitus Diabetes diagnosis   | 84.44 % no<br>15.56 % yes  |
| Autoimmune Disease diagnosis  | 84.24 % no<br>15.76 % yes  |
| Autoimmune treatment  | 97.08 % no<br>2.92 % yes   |

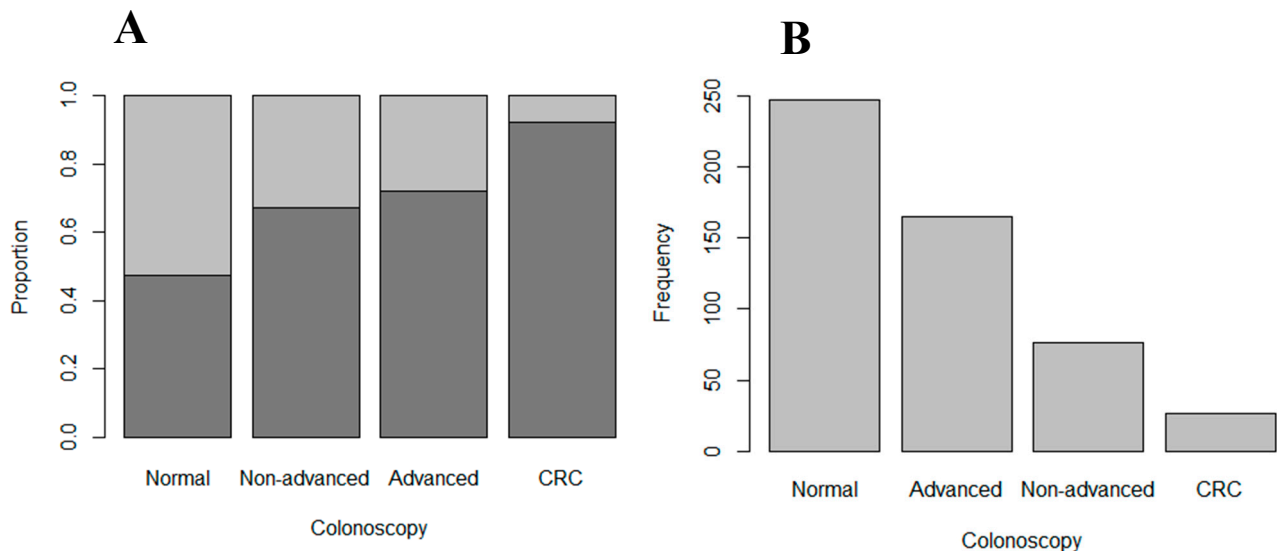
**Table S2.** Age distribution for patients from (CRC) screening program according to the sex and to the colonoscopy findings.

| Sex          | n (%)         | Minimum | Q1    | Q2    | Average | Q3    | Maximum |
|--------------|---------------|---------|-------|-------|---------|-------|---------|
| Male         | 311 (60.51 %) | 49.00   | 56.00 | 60.00 | 59.60   | 63.00 | 70.00   |
| Female       | 203 (39.49 %) | 49.00   | 55.50 | 60.00 | 60.44   | 65.50 | 70.00   |
| Total        | 514           | 49.00   | 56.00 | 60.00 | 59.93   | 64.00 | 70.00   |
| Colonoscopy  | n (%)         | Minimum | Q1    | Q2    | Average | Q3    | Maximum |
| Normal       | 247 (48.05 %) | 49.00   | 55.00 | 60.00 | 59.75   | 64.00 | 70.00   |
| Pathological | 267 (51.95 %) | 49.00   | 56.00 | 60.00 | 60.10   | 64.00 | 70.00   |
| Non-advanced | 76 (28.46 %)  | 50.00   | 57.50 | 61.00 | 60.60   | 65.00 | 70.00   |
| Advanced     | 165 (61.80 %) | 49.00   | 57.50 | 60.00 | 60.11   | 64.00 | 70.00   |
| CRC          | 26 (9.74 %)   | 51.00   | 54.00 | 58.00 | 58.50   | 61.75 | 70.00   |

**Table S3.** Descriptive of sex for patients from (CRC) screening program depending on colonoscopy result.

| Sex                      | Colonoscopy              |                                | <i>p</i> -value |
|--------------------------|--------------------------|--------------------------------|-----------------|
|                          | Normal ( <i>n</i> = 247) | Pathological ( <i>n</i> = 267) |                 |
| Male ( <i>n</i> = 311)   | 117 (47.37 %)            | 194 (72.66 %)                  | < 0.001         |
| Female ( <i>n</i> = 203) | 130 (52.63 %)            | 73 (27.34 %)                   |                 |

**Notes:** *p*-value were calculated according to Pearson Chi-squared test.



**Figure S1:** **A)** Proportion of males (dark grey) and females (light grey) according to the colonoscopy result, for patients from CRC screening program. **B)** Distribution of colonoscopy results for patients from CRC screening program.

**Table S4.** Descriptive of sex for patients from (CRC) screening program depending on each category of colonoscopy result.

| Sex                      | Colonoscopy   |              |               |              |
|--------------------------|---------------|--------------|---------------|--------------|
|                          | Normal        | Non-advanced | Advanced      | CRC          |
| Male ( <i>n</i> = 311)   | 117 (47.37 %) | 51 (67.11 %) | 119 (72.12 %) | 24 (92.31 %) |
| Female ( <i>n</i> = 203) | 130 (52.63 %) | 25 (32.89 %) | 46 (27.88 %)  | 2 (7.69 %)   |
| Total ( <i>n</i> = 514)  | 247           | 76           | 165           | 26           |

**Table S5.** Age distribution for patients from (CRC) screening program with normal colonoscopy result and without colonoscopy preparation (CNR, *n* = 55) according to the gender.

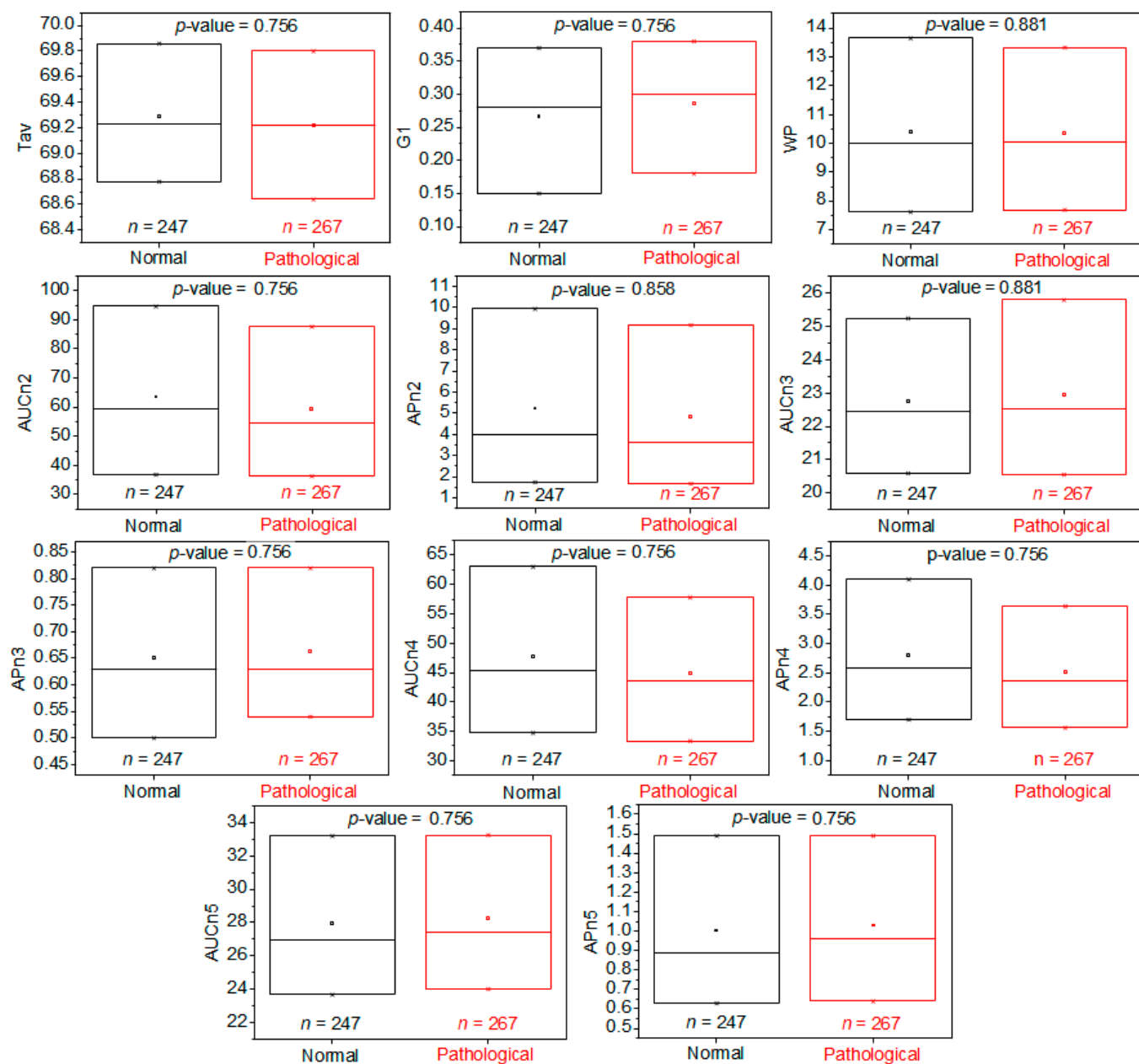
| Sex    | <i>n</i> (%) | Minimum | Q1    | Q2    | Average | Q3    | Maximum |
|--------|--------------|---------|-------|-------|---------|-------|---------|
| Male   | 27 (49.10 %) | 52.00   | 58.50 | 60.00 | 59.93   | 62.00 | 67.00   |
| Female | 28 (50.90 %) | 51.00   | 55.50 | 60.00 | 60.07   | 64.25 | 68.00   |
| Total  | 55           | 51.00   | 57.50 | 60.00 | 60.00   | 62.00 | 68.00   |

**Table S6.** Age distribution for healthy blood donors (BD,  $n = 55$ ) according to the sex.

| Sex    | $n$ (%)      | Minimum | Q1    | Q2    | Average | Q3    | Maximum |
|--------|--------------|---------|-------|-------|---------|-------|---------|
| Male   | 47 (85.45 %) | 50.00   | 54.00 | 58.00 | 57.96   | 62.00 | 68.00   |
| Female | 8 (14.55 %)  | 50.00   | 51.50 | 57.00 | 55.75   | 59.00 | 62.00   |
| Total  | 55           | 50.00   | 53.50 | 58.00 | 57.64   | 61.50 | 68.00   |

**Table S7:** Main descriptive indexes for the eleven TLB-associated parameters in patients with normal colonoscopy result (CN,  $n = 247$ ) and pathological colonoscopy result (CP,  $n = 267$ ).

| Normal       | Minimum | Q1    | Q2    | Average | Q3    | Maximum  |
|--------------|---------|-------|-------|---------|-------|----------|
| Tav          | 66.68   | 68.78 | 69.23 | 69.32   | 69.86 | 62.17    |
| G1           | -0.37   | 0.15  | 0.28  | 0.26    | 0.37  | 0.64     |
| WP           | 3.96    | 7.62  | 9.99  | 11.19   | 13.65 | 36.34    |
| AUCn2        | 15.82   | 36.80 | 59.32 | 123.75  | 94.57 | 3937.97  |
| APn2         | 0.23    | 1.75  | 4.02  | 164.43  | 9.94  | 20042.62 |
| AUCn3        | 15.72   | 20.59 | 22.45 | 34.34   | 25.25 | 1041.45  |
| APn3         | 0.19    | 0.50  | 0.63  | 5.48    | 0.82  | 538.88   |
| AUCn4        | 17.97   | 34.72 | 45.44 | 56.56   | 63.04 | 394.19   |
| APn4         | 0.35    | 1.70  | 2.59  | 4.33    | 4.10  | 84.11    |
| AUCn5        | 18.72   | 23.67 | 26.98 | 31.26   | 33.21 | 270.45   |
| APn5         | 0.17    | 0.63  | 0.89  | 1.47    | 1.49  | 42.25    |
| Pathological | Minimum | Q1    | Q2    | Average | Q3    | Maximum  |
| Tav          | 66.89   | 68.64 | 69.22 | 69.29   | 69.80 | 73.70    |
| G1           | -0.34   | 0.18  | 0.30  | 0.27    | 0.38  | 0.72     |
| WP           | 4.34    | 7.69  | 10.04 | 12.66   | 13.33 | 437.67   |
| AUCn2        | 15.91   | 36.26 | 54.47 | 105.62  | 87.64 | 5891.25  |
| APn2         | 0.31    | 1.68  | 3.64  | 100.38  | 9.17  | 21190.15 |
| AUCn3        | 17.40   | 20.55 | 22.52 | 25.79   | 25.80 | 118.34   |
| APn3         | 0.17    | 0.54  | 0.63  | 0.96    | 0.82  | 18.67    |
| AUCn4        | 18.17   | 33.35 | 43.52 | 52.55   | 57.81 | 338.08   |
| APn4         | 0.44    | 1.56  | 2.36  | 3.86    | 3.64  | 67.55    |
| AUCn5        | 17.05   | 24.01 | 27.45 | 32.82   | 33.26 | 221.76   |
| APn5         | 0.15    | 0.64  | 0.96  | 1.92    | 1.49  | 68.11    |



**Figure S2:** Box-plot for each individual TLB-parameter illustrating the distribution of the p-values between patients with normal (CN) or pathological colonoscopy (CP) diagnosis.

**Table S8:** Bivariate analysis of TLB parameters of patients with normal colonoscopy result (CN) and patients with pathological colonoscopy result (CP).

| Parameter | Colonoscopy              |                                | <i>p</i> -value |
|-----------|--------------------------|--------------------------------|-----------------|
|           | Normal ( <i>n</i> = 247) | Pathological ( <i>n</i> = 267) |                 |
| Tav       | 69.23 [68.78;69.86]      | 69.22 [68.64;69.80]            | 0.756           |
| G1        | 0.28 [0.15;0.37]         | 0.30 [0.18;0.38]               | 0.756           |
| WP        | 9.99 [7.62;13.65]        | 10.04 [7.69;13.33]             | 0.881           |
| AUCn2     | 59.32 [36.80;94.57]      | 54.47 [36.26;87.64]            | 0.756           |
| APn2      | 4.02 [1.75;9.94]         | 3.64 [1.68;9.17]               | 0.858           |
| AUCn3     | 22.45 [20.59;25.25]      | 22.52 [20.55;25.80]            | 0.881           |
| APn3      | 0.63 [0.50;0.82]         | 0.63 [0.54;0.82]               | 0.756           |
| AUCn4     | 45.44 [34.72;63.04]      | 43.52 [33.35;57.81]            | 0.756           |
| APn4      | 2.59 [1.70;4.10]         | 2.36 [1.56;3.64]               | 0.756           |
| AUCn5     | 26.98 [23.67;33.21]      | 27.45 [24.01;33.26]            | 0.756           |
| APn5      | 0.89 [0.63;1.49]         | 0.96 [0.64;1.49]               | 0.756           |

**Note:** median [Q1;Q3]; *p*-values were calculated according to Wilcoxon test for independent samples. P-values are adjusted according to FDR method.

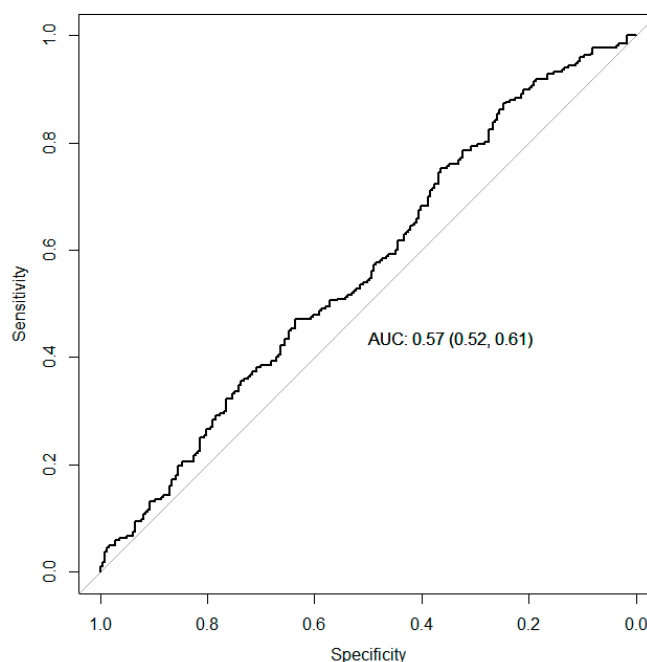
**Table S9:** Summary of the application of multivariate Binomial Generalized Linear Model with Logistic Regression (GLM).

| Parameter | <i>z</i> -value | <i>p</i> -value |
|-----------|-----------------|-----------------|
| Tav       | 0.558           | 0.577           |
| G1        | 0.855           | 0.393           |
| WP        | -0.490          | 0.624           |
| AUCn2     | -0.181          | 0.856           |
| APn2      | 0.042           | 0.966           |
| AUCn3     | 0.996           | 0.319           |
| APn3      | -1.070          | 0.285           |
| AUCn4     | -1.548          | 0.122           |
| APn4      | 1.340           | 0.180           |
| AUCn5     | -1.286          | 0.198           |
| APn5      | 1.315           | 0.188           |

**Note:** A cut-off value of 1.96 for *z*-value (which approximately corresponds to a two-sided hypothesis test with a significance level of  $\alpha = 0.05$ ) indicates whether the corresponding parameters are statistically meaningful in the model. In other words, if the absolute value of the *z*-value is larger than 1.96, then its corresponding GLM coefficient is non-negligible, i.e., not null, and the parameter is important and meaningful for the prediction of the presence/absence of pathological colonoscopy finding.

**Table S10:** Contingency table for predict risk of pathological colonoscopy finding.

| Colonoscopy                | TLB-score |        |
|----------------------------|-----------|--------|
|                            | < 0.50    | > 0.50 |
| Normal ( $n = 247$ )       | 64        | 183    |
| Pathological ( $n = 267$ ) | 39        | 228    |

**Figure S3:** ROC curve illustrating the statistical performance of the TLB-score and its AUC (95 % CI) for discriminating patients with CN diagnosis from patients with CP diagnosis .**Table S11:** Main descriptive indexes for the eleven TLB-associated parameters in healthy blood donors (BD,  $n = 55$ ).

| Parameter | Minimum | Q1    | Q2    | Average | Q3    | Maximum |
|-----------|---------|-------|-------|---------|-------|---------|
| Tav       | 67.01   | 68.02 | 68.41 | 68.35   | 68.81 | 69.29   |
| G1        | 0.31    | 0.37  | 0.43  | 0.44    | 0.49  | 0.80    |
| WP        | 5.93    | 9.35  | 10.92 | 11.87   | 13.95 | 26.47   |
| AUCn2     | 15.58   | 20.62 | 34.00 | 41.48   | 52.73 | 174.90  |
| APn2      | 0.19    | 0.50  | 1.61  | 3.40    | 3.81  | 46.77   |
| AUCn3     | 14.62   | 21.19 | 23.07 | 30.06   | 27.15 | 214.14  |
| APn3      | 0.33    | 0.60  | 0.74  | 1.95    | 0.98  | 55.89   |
| AUCn4     | 22.85   | 32.00 | 38.94 | 52.75   | 54.97 | 223.13  |
| APn4      | 0.29    | 1.36  | 2.21  | 5.06    | 3.49  | 52.40   |
| AUCn5     | 23.42   | 33.36 | 38.32 | 47.44   | 51.58 | 307.68  |
| APn5      | 0.50    | 1.35  | 2.15  | 3.56    | 3.52  | 43.28   |

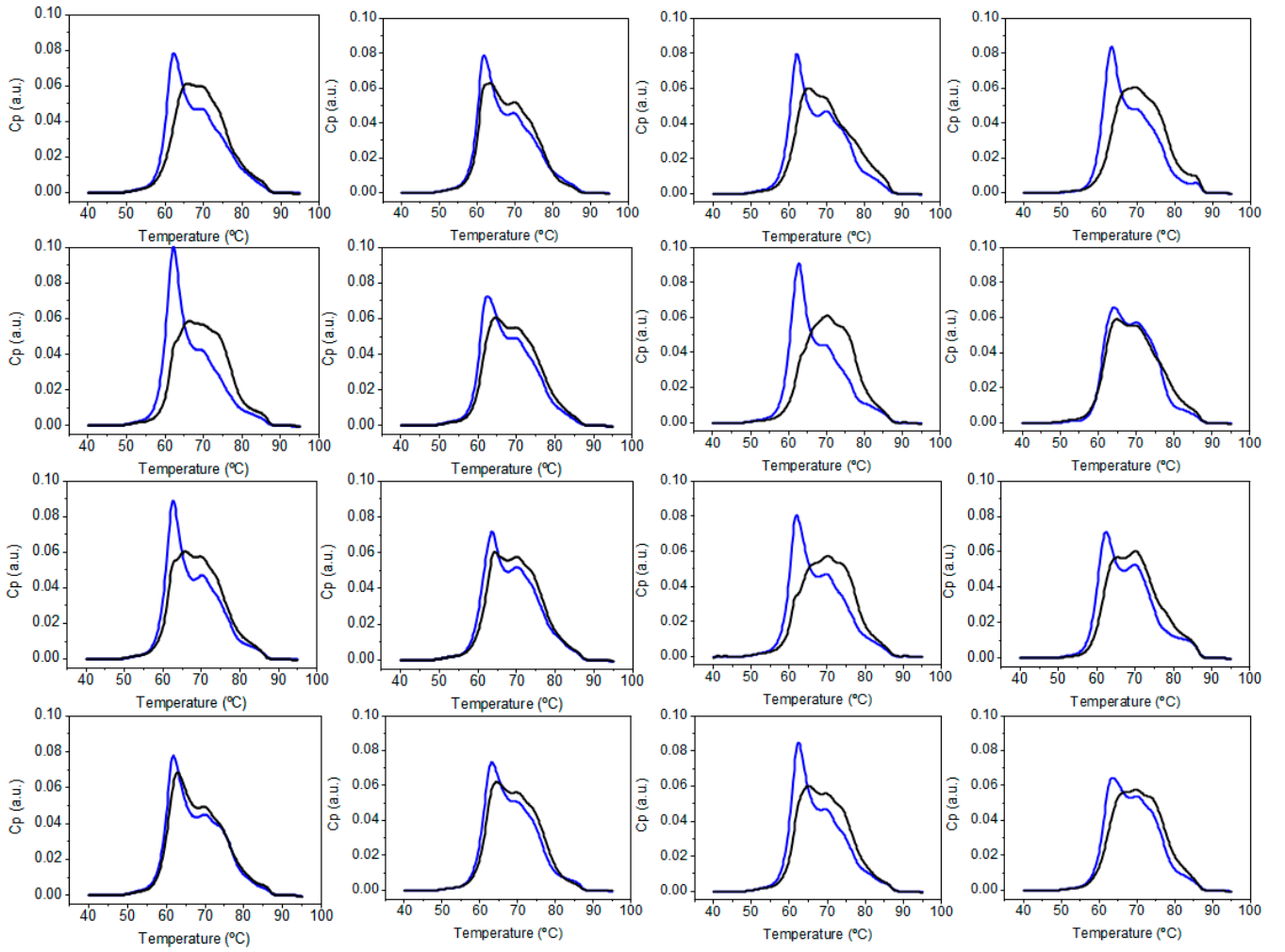
**Table S12:** Bivariate analysis of TLB parameters between patients with normal colonoscopy result (CN) and healthy blood donors (BD).

| Parameter | Normal Colonoscopy (n = 247) | Healthy (n = 55)    | p-value      |
|-----------|------------------------------|---------------------|--------------|
| Tav       | 69.23 [68.78;69.86]          | 68.41 [68.02;68.81] | <b>0.002</b> |
| G1        | 0.28 [0.15;0.37]             | 0.43 [0.37;0.49]    | <b>0.002</b> |
| WP        | 9.99 [7.62;13.65]            | 10.92 [9.35;13.95]  | <b>0.044</b> |
| AUCn2     | 59.32 [36.80;94.57]          | 34.00 [20.62;52.73] | <b>0.002</b> |
| APn2      | 4.02 [1.75;9.94]             | 1.61 [0.50;3.81]    | <b>0.002</b> |
| AUCn3     | 22.45 [20.59;25.25]          | 23.07 [21.19;27.15] | 0.289        |
| APn3      | 0.63 [0.50;0.82]             | 0.74 [0.60;0.98]    | <b>0.002</b> |
| AUCn4     | 45.44 [34.72;63.04]          | 38.94 [32.00;54.97] | 0.084        |
| APn4      | 2.59 [1.70;4.10]             | 2.22 [1.36;3.49]    | 0.257        |
| AUCn5     | 26.98 [23.67;33.21]          | 38.32 [33.36;51.58] | <b>0.002</b> |
| APn5      | 0.89 [0.63;1.49]             | 2.15 [1.35;3.52]    | <b>0.002</b> |

**Note:** median [Q1;Q3]; p-values were calculated according to Wilcoxon test for independent samples (normal approximation). P-values are adjusted according to FDR method.

**Table S13:** Main descriptive indexes for the eleven TLB-associated parameters in patients with normal colonoscopy result and without colonoscopy preparation (C<sub>NR</sub>, n = 55).

| Parameter | Minimum | Q1    | Q2    | Average | Q3    | Maximum |
|-----------|---------|-------|-------|---------|-------|---------|
| Tav       | 66.63   | 67.83 | 68.25 | 68.47   | 68.95 | 71.10   |
| G1        | 0.01    | 0.24  | 0.38  | 0.37    | 0.48  | 0.69    |
| WP        | 5.74    | 7.02  | 7.93  | 9.23    | 10.21 | 10.11   |
| AUCn2     | 14.98   | 21.69 | 34.26 | 69.81   | 67.04 | 1115.48 |
| APn2      | 0.30    | 0.73  | 1.98  | 25.81   | 6.01  | 1074.47 |
| AUCn3     | 17.90   | 19.64 | 21.35 | 24.40   | 25.79 | 110.19  |
| APn3      | 0.35    | 0.57  | 0.70  | 0.95    | 0.92  | 10.41   |
| AUCn4     | 18.30   | 30.04 | 36.28 | 63.32   | 47.52 | 1038.33 |
| APn4      | 0.38    | 1.55  | 2.21  | 10.00   | 3.49  | 364.06  |
| AUCn5     | 18.17   | 27.61 | 34.60 | 36.78   | 40.26 | 135.04  |
| APn5      | 0.11    | 1.08  | 1.78  | 2.37    | 2.70  | 20.93   |



**Figure S4:** Comparison of individual examples of 16 patient thermograms with normal colonoscopy diagnosis. Samples were drawn in two different conditions: under colonoscopy preparation (CN, black) and under standard analytical conditions (CNR, blue).

**Table S14:** Main descriptive indexes for the eleven TLB-associated parameters in patients with normal colonoscopy result and with colonoscopy preparation ( $CN_N$ ,  $n = 55$ ).

| Parameter | Minimum | Q1    | Q2    | Average | Q3    | Maximum |
|-----------|---------|-------|-------|---------|-------|---------|
| Tav       | 67.67   | 68.81 | 69.17 | 69.31   | 69.86 | 70.96   |
| G1        | 0.001   | 0.15  | 0.27  | 0.26    | 0.34  | 0.57    |
| WP        | 4.31    | 7.11  | 9.11  | 10.04   | 12.38 | 21.20   |
| AUCn2     | 21.56   | 40.86 | 62.85 | 111.13  | 95.21 | 1079.64 |
| APn2      | 0.23    | 1.73  | 4.45  | 28.15   | 10.34 | 750.19  |
| AUCn3     | 18.58   | 20.16 | 21.48 | 42.08   | 24.52 | 1041.45 |
| APn3      | 0.25    | 0.44  | 0.57  | 10.46   | 0.79  | 538.88  |
| AUCn4     | 24.26   | 36.25 | 48.12 | 58.96   | 62.11 | 393.11  |
| APn4      | 0.79    | 1.80  | 2.65  | 4.53    | 3.68  | 70.84   |
| AUCn5     | 19.14   | 23.27 | 26.43 | 28.98   | 31.44 | 57.11   |
| APn5      | 0.17    | 0.53  | 0.88  | 1.11    | 1.43  | 4.20    |



**Table S15:** Bivariate analysis of TLB parameters of patients with normal colonoscopy result with (CN) and without (CNR) colonoscopy preparation.

| Parameter | Preparation         |                      | <i>p</i> -value |
|-----------|---------------------|----------------------|-----------------|
|           | No ( <i>n</i> = 55) | Yes ( <i>n</i> = 55) |                 |
| Tav       | 68.47 (0.87)        | 69.31 (0.80)         | <b>0.002</b>    |
| G1        | 0.37 (0.15)         | 0.26 (0.12)          | <b>0.002</b>    |
| WP        | 7.93 [7.02;10.21]   | 9.11 [7.11;12.38]    | 0.524           |
| AUCn2     | 34.26 [21.69;67.04] | 62.85 [40.86;95.21]  | <b>0.002</b>    |
| APn2      | 1.98 [0.73;6.01]    | 4.45 [1.73;10.34]    | <b>0.005</b>    |
| AUCn3     | 21.35 [19.64;25.79] | 21.48 [20.16;24.52]  | 0.575           |
| APn3      | 0.70 [0.57;0.92]    | 0.57 [0.44;0.79]     | <b>0.015</b>    |
| AUCn4     | 36.28 [30.04;47.52] | 48.12 [36.25;62.11]  | <b>0.002</b>    |
| APn4      | 2.21 [1.55;3.49]    | 2.65 [1.80;3.68]     | 0.072           |
| AUCn5     | 34.60 [27.61;40.26] | 26.43 [23.27;31.44]  | <b>0.002</b>    |
| APn5      | 1.78 [1.08;2.70]    | 0.88 [0.53;1.43]     | <b>0.002</b>    |

**Note:** average (standard deviation) and median [Q1;Q3] are provided depending on the normality character of the parameter distribution; *p*-values were calculated according to T-Student or Wilcoxon test, both for dependent samples, depending on the normality character of the parameter distribution. *P*-values are adjusted according to FDR method.

**Data Analysis.** We have developed a phenomenological model in which the complex thermogram was deconvoluted in several individual transitions or components, modelling each individual transition by the logistic peak or Hubbert function:

$$C_P(T) = C_{P,0} + \frac{4A \exp\left(-\frac{T-T_c}{w}\right)}{\left(1 + \exp\left(-\frac{T-T_c}{w}\right)\right)^2} \quad (S1)$$

where *A* is the height of the transition (equivalent to the maximal unfolding heat capacity  $C_{P,max}$ ),  $T_c$  is the center of the peak (equivalent to the mid-transition temperature  $T_m$ ), and *w* is the width of the peak ( $C_P(T_c \pm w) = 0.8A$  and  $C_P(T_c \pm 2w) = 0.4A$ ). The offset parameter  $C_{P,0}$  (found to be always very close to 0 in the experimental data analysis), was included as an adjustable parameter to counterbalance errors from baseline correction of the thermogram.

From our experience, a minimum set of six individual curves was necessary for reproducing the serum thermograms:

$$C_P(T) = C_{P,0} + \sum_{i=1}^6 \frac{4A_i \exp\left(-\frac{T-T_{c,i}}{w_i}\right)}{\left(1 + \exp\left(-\frac{T-T_{c,i}}{w_i}\right)\right)^2} \quad (S2)$$

Therefore, for any given serum thermogram eighteen parameters ( $A_i$ ,  $T_{c,i}$  and  $w_i$ , for each of the six individual transitions) were obtained after data analysis.

The area under the curve, AUC, and the average temperature,  $T_{av}$ , were defined according to the following expressions:

$$\begin{aligned} AUC &= \sum_j C_P(T_j) \\ T_{av} &= \frac{\sum_j C_P(T_j) T_j}{\sum_j C_P(T_j)} \end{aligned} \quad (S3)$$

where  $j$  runs over the entire range of experimental points in the thermogram.

From  $T_{av}$ , which is the first raw moment ( $\mu_1$ ) of the thermogram considered as a distribution, two other moments about  $T_{av}$ ,  $m_2$  and  $m_3$ , were defined as:

$$\begin{aligned} m_k &= \frac{\sum_j C_P(T_j) (T_j - T_{av})^k}{\sum_j C_P(T_j)} \\ G_1 &= \frac{m_3}{m_2^{3/2}} \end{aligned} \quad (S4)$$

where  $G_1$  is the skewness of the thermogram (i.e., the asymmetry of the thermogram with respect to  $T_{av}$ ).

The parameter WP, the area of the width-polygon, is the area of the 6-side polygon constructed with the widths of the six individual components:

$$WP = \sum_{s=1}^6 \frac{\sqrt{3}}{4} w_s w_{s+1} \quad (S5)$$

where  $w_7 = w_1$ .

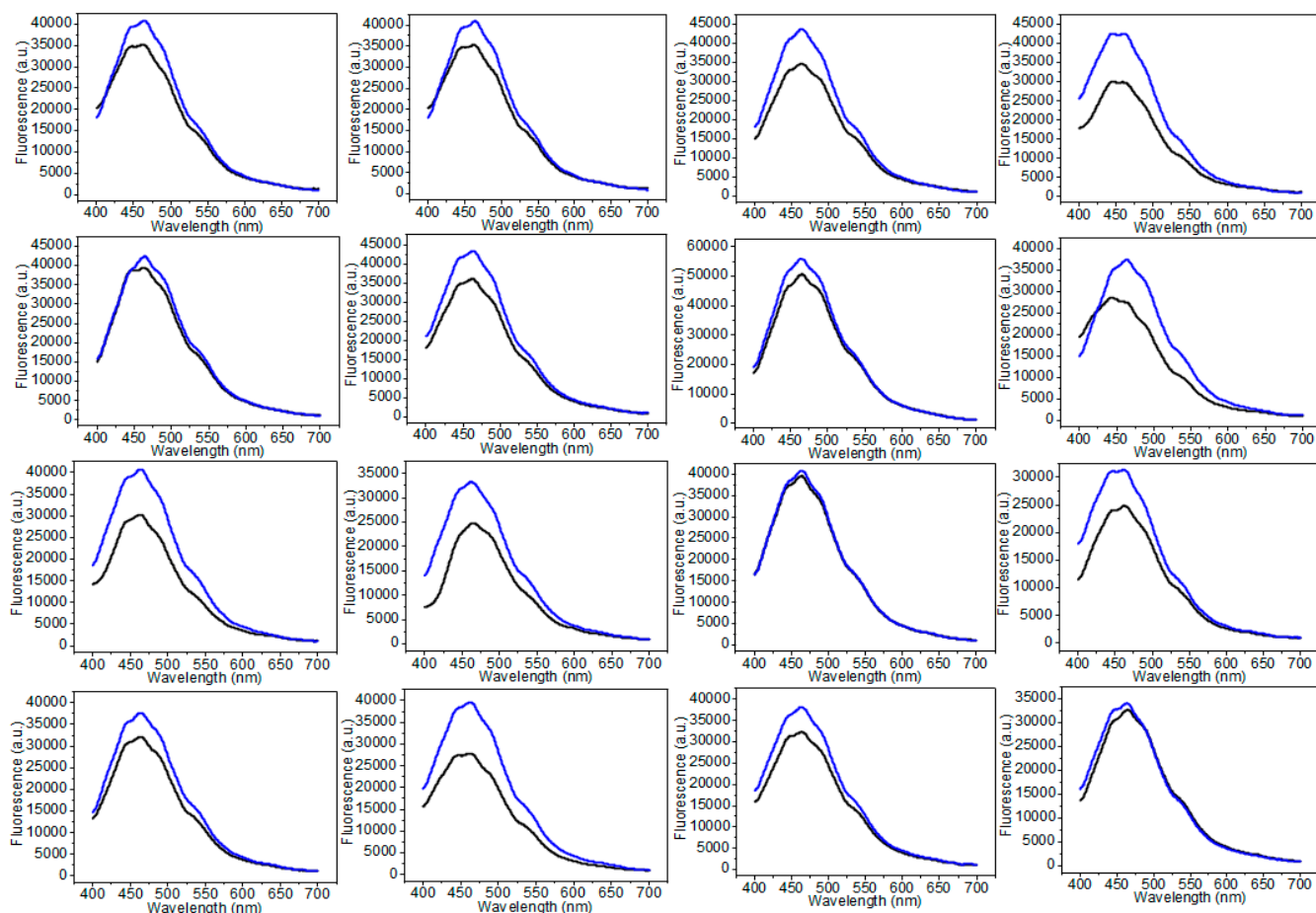
The height-normalized area under the curve,  $AUC_{n,i}$  was defined as:

$$AUC_{n,i} = \sum_j \frac{C_P(T_j)}{A_i} \quad (S6)$$

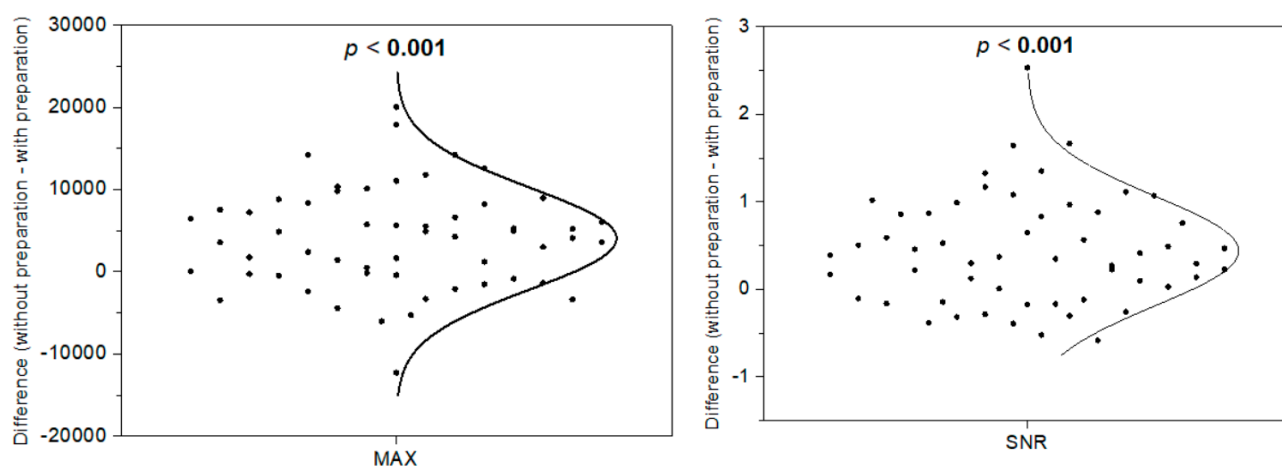
where the normalization is done with respect to  $A_i$  ( $i = 2-5$ ).

And the area of the height-normalized polygon,  $AP_{n,i}$ , is the area of the 6-side polygon constructed with the heights of the six individual components normalized by  $A_i$  ( $i = 2-5$ ):

$$AP_{n,i} = \sum_{s=1}^6 \frac{\sqrt{3}}{4} \frac{A_s A_{s+1}}{A_i^2} \quad (S7)$$



**Figure S5:** Comparison of individual examples of 16 patient fluorescence spectra with normal colonoscopy diagnosis. Samples were drawn in two different conditions: under colonoscopy preparation (CN, black) and under standard pre-analytical conditions (CNR, blue).



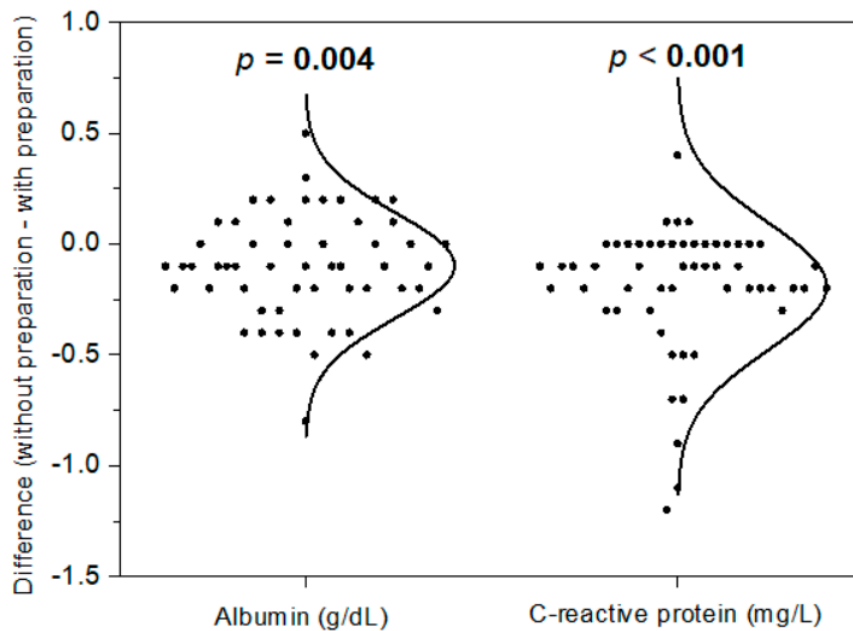
**Figure S6:** Plot and distribution of the difference in MAX and SNR between samples without preparation and samples with preparation.

**Note:**  $p$ -values were calculated according to T-Student test for dependent samples.

**Table S16:** Bivariate analysis of Fluorescence Spectrum parameters (Max and SNR) of patients with normal colonoscopy result with (CN) and without (CNR) colonoscopy preparation.

| Parameter | Preparation         |                      | <i>p</i> -value |
|-----------|---------------------|----------------------|-----------------|
|           | No ( <i>n</i> = 55) | Yes ( <i>n</i> = 55) |                 |
| Max       | 39346.13 (7462.28)  | 35305.68 (7393.88)   | < <b>0.001</b>  |
| SNR       | 7.67 (0.46)         | 7.238 (0.64)         | < <b>0.001</b>  |

**Note:** average (standard deviation); *p*-values were calculated according to T-Student test for dependent samples.



**Figure S7:**Plot and distribution of the difference in albumin concentration and C-reactive protein concentration between samples without preparation and samples with preparation.

**Note:** *p*-values were calculated according to T-Student or Wilcoxon test, both for dependent samples , depending on the normality character of the parameter distribution.

**Table S17:** Bivariate analysis of albumin and C-reactive protein concentration of patients with normal colonoscopy result with (CN) and without (CNR) colonoscopy preparation.

| Parameter                 | Preparation         |                      | <i>p</i> -value |
|---------------------------|---------------------|----------------------|-----------------|
|                           | No ( <i>n</i> = 55) | Yes ( <i>n</i> = 55) |                 |
| Albumin (g/dL)            | 4.48 (0.29)         | 4.58 (0.27)          | <b>0.004</b>    |
| C-Reactive Protein (mg/L) | 0.20 [0.10;0.30]    | 0.30 [0.20;0.50]     | < <b>0.001</b>  |

**Note:** average (standard deviation) and median [Q1; Q3] are provided depending on the normality character of the parameter distribution; *p*-values were calculated according to T-Student or Wilcoxon test , both for dependent samples , depending on the normality character of the parameter distribution.