

## Supplementary material

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Sochal M, Ditmer M, Małeczka-Wojcieszko E, et al. Relation between serum interleukin 33 concentration, depressive symptoms, and sleep quality in inflammatory bowel disease. *Pol Arch Intern Med.* 2023; 133: 16549. doi:10.20452/pamw.16549

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**Table S1.** Baseline characteristics of study participants.

Parameter	IBD	HC	P
n	30	22	-
CD (n, %)	16, 53.3%	-	-
UC (n, %)	14, 46.7%	-	-
Women (n,%)	17, 56.7%	13, 59.1%	0.91
Age (median, IQR)	31.5 (25.0-39.0)	31.5 (25.0-44.0)	0.47
BMI, kg/m <sup>2</sup>	22.27 (20.52-25.10)	24.19 (20.24-27.10)	0.60
Smoker (n,%)	3, 10.0%	1, 4.5%	0.63
Chronic diseases (n,%)	7, 23.3%	2, 9.1%	0.27

<b>BDI&gt;10 (n,%)</b>	7, 23.3%	3, 13.6%	0.49
<b>ESS&gt;10 (n,%)</b>	4, 13.3%	1, 4.5%	0.38
<b>PSQI&gt;5 (n,%)</b>	14, 46.7%	8, 36.4	0.65
<b>AIS&gt;5 (n,%)</b>	14, 46.7%	7, 31.8	0.43

Abbreviations: AIS- Athens insomnia scale, BMI- Body Mass Index, BDI- Beck's Depression Inventory, CD- Crohn's Disease, ESS- Epworth Sleepiness Scale, HC- Healthy Controls, IBD- Inflammatory Bowel Diseases, PSQI- Pittsburgh Sleep Quality Index, UC- Ulcerative Colitis. The term 'chronic diseases' here denotes any non-inflammatory chronic conditions such as type II diabetes mellitus, or hypertension.

**Table S2.** Correlations between questionnaire scores and IL-33 serum concentration.

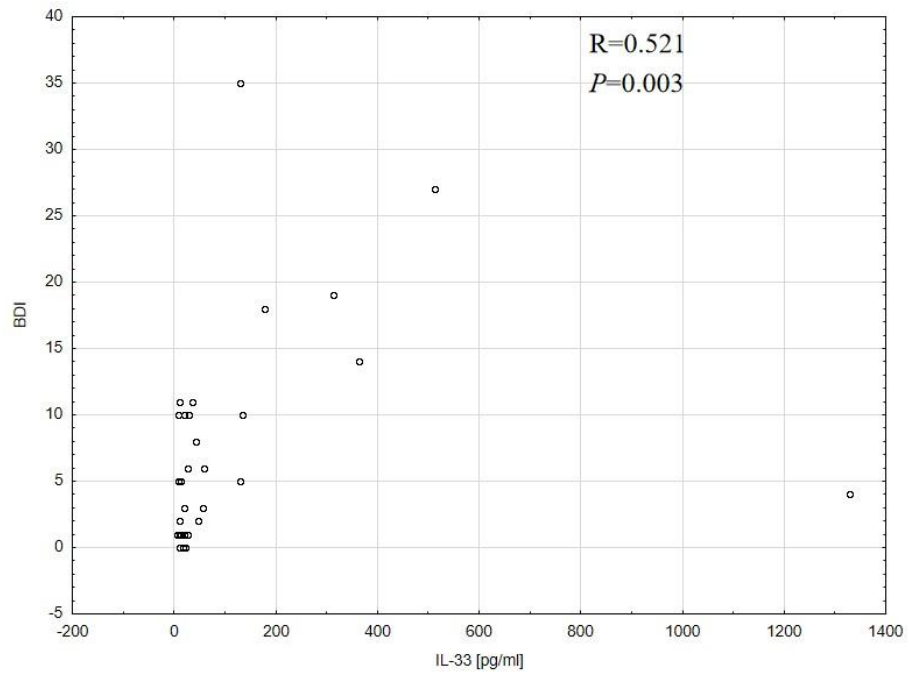
			<b>BDI</b>	<b>PSQI</b>	<b>AIS</b>	<b>ESS</b>	<b>SE</b>
<b>Serum IL-33 concentration</b>	HC	<b>R</b>	0.017	0.215	0.321	-0.041	0.230
		<b>P</b>	0.94	0.34	0.15	0.86	0.30
	IBD	<b>R</b>	0.521	0.458	0.398	0.208	-0.475
		<b>P</b>	<b>0.003</b>	<b>0.01</b>	<b>0.03</b>	0.27	<b>0.008</b>
	CD	<b>R</b>	0.581	0.531	0.418	0.281	-0.667

	<i>P</i>	<b>0.02</b>	<b>0.03</b>	0.11	0.29	<b>0.005</b>
UC	<b>R</b>	0.474	0.387	0.344	0.114	-0.475
	<i>P</i>	0.09	0.17	0.23	0.70	0.09
Ex	<b>R</b>	0.528	0.478	0.492	0.182	-0.512
	<i>P</i>	<b>0.03</b>	0.052	<b>0.045</b>	0.48	<b>0.04</b>
Re	<b>R</b>	0.770	0.671	0.651	0.232	-0.440
	<i>P</i>	<b>0.002</b>	<b>0.01</b>	<b>0.02</b>	<b>0.44</b>	0.13

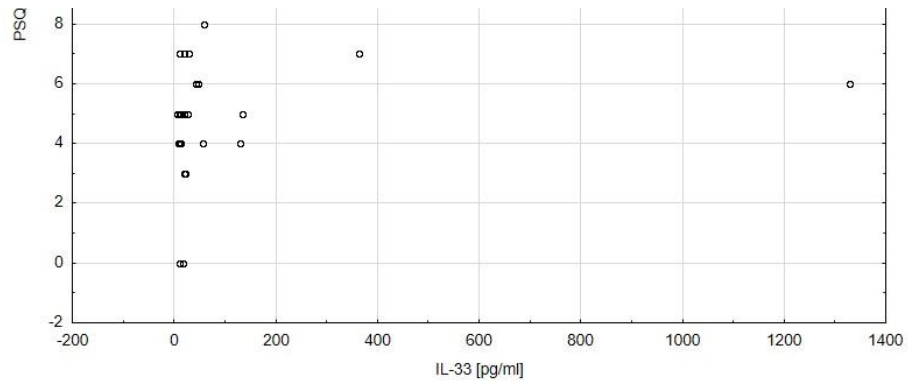
Abbreviations: AIS- Athens Insomnia Scale, BDI- Beck Depression Inventory, ESS- Epworth Sleepiness Scale, Ex- Exacerbation, HC- Healthy Controls, IBD- Inflammatory Bowel Diseases, IL-33- Interleukin 33, PSQI- Pittsburgh Sleep Quality Index, UC- Ulcerative Colitis, Re- Remission, SE- Sleep Efficiency. Bolded text indicates statistically significant differences ( $P < 0.05$ ).

**Figure S1.** Correlation between IL-33 serum concentration, questionnaire scores, and sleep efficiency.

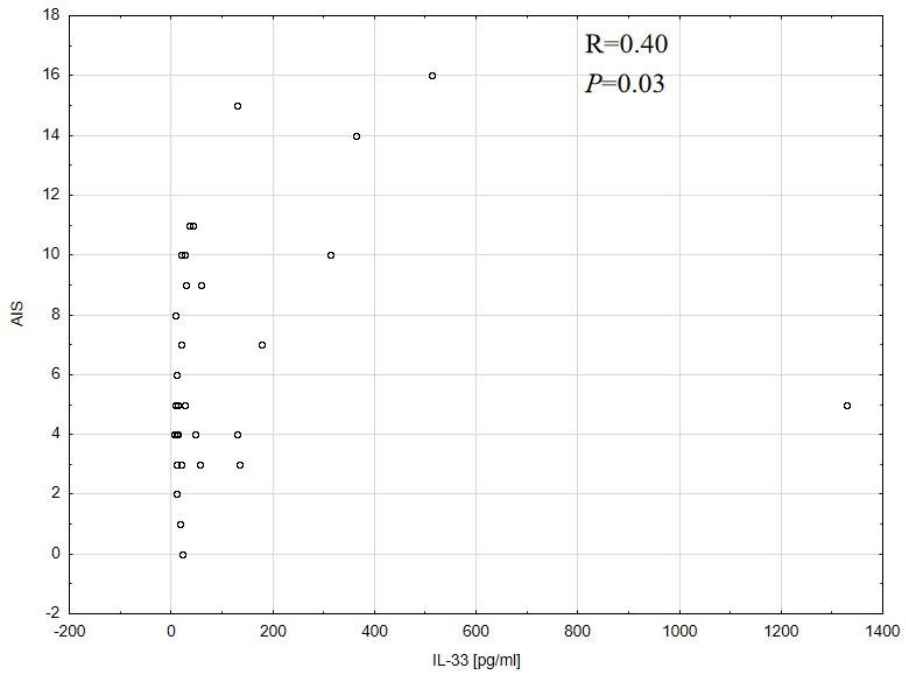
**A**



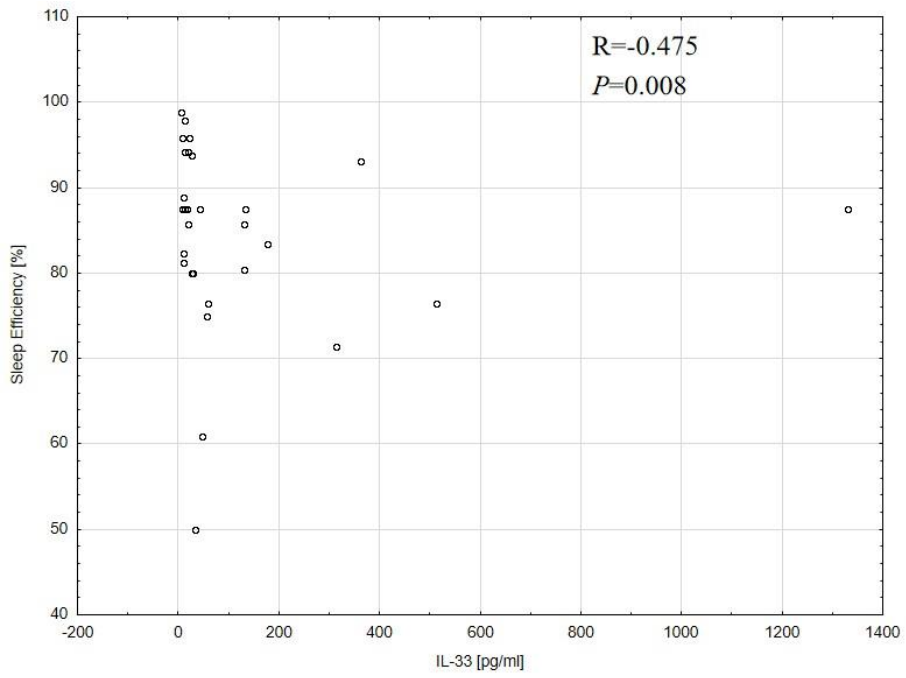
**B**



**C**



**D**



**A** Correlation between IL-33 serum concentration and BDI in IBD.

**B** Correlation between IL-33 serum concentration and PSQI in IBD.

**C** Correlation between IL-33 serum concentration and AIS in IBD.

**D** Correlation between IL-33 serum concentration and sleep efficiency in IBD.

Abbreviations: AIS- Athens Insomnia Scale, BDI- Beck's Depression Inventory, IL-33- Interleukin 33, PSQI- Pittsburgh Sleep Quality Inventory.