

**Supplementary Table 1. PBC-40 in PBC patients from Larissa and Crete**

| Domain             | Larissa (n = 300) | Crete (n = 74) | P value |
|--------------------|-------------------|----------------|---------|
| Symptoms           | 11 (1-26)         | 13 (5-26)      | <0.001  |
| Itch               | 3 (0-30)          | 44.5 (0-13)    | 0.001   |
| Fatigue            | 22 (11-49)        | 27.5 (13-53)   | <0.001  |
| Cognition          | 7 (6-28)          | 12 (6-27)      | <0.001  |
| Emotional          | 8.27 ± 4.09       | 9 ± 3.48       | 0.06    |
| Social             | 19 (3-46)         | 21 (7-43)      | 0.04    |
| Total PBC-40 score | 71 (8-145)        | 89 (32-151)    | <0.001  |

PBC: primary biliary cholangitis.

**Supplementary Table 2. Pearson's correlation between PBC-40 and SF-36 in PBC patients from Larissa**

|           | PF                                  | RP                                  | RE                                  | VT                                  | MH                                  | SF                                  | BP                                  | GH                                  |
|-----------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Symptoms  | <i>r</i> =-0.290<br><i>P</i> =0.013 | <i>r</i> =-0.389<br><i>P</i> <0.001 | <i>r</i> =-0.457<br><i>P</i> <0.001 | <i>r</i> =-0.441<br><i>P</i> <0.001 | <i>r</i> =-0.215<br><i>P</i> =0.041 | <i>r</i> =-0.424<br><i>P</i> <0.001 | <i>r</i> =-0.460<br><i>P</i> <0.001 | <i>r</i> =-0.285<br><i>P</i> =0.015 |
| Itch      | <i>r</i> =-0.303<br><i>P</i> =0.030 | <i>r</i> =-0.185<br><i>P</i> <0.001 | <i>r</i> =-0.278<br><i>P</i> =0.041 | <i>r</i> =-0.261<br><i>P</i> =0.035 | <i>r</i> =-0.257<br><i>P</i> =0.031 | <i>r</i> =-0.279<br><i>P</i> =0.023 | <i>r</i> =-0.270<br><i>P</i> =0.023 | <i>r</i> =-0.279<br><i>P</i> =0.030 |
| Fatigue   | <i>r</i> =-0.490<br><i>P</i> <0.001 | <i>r</i> =-0.500<br><i>P</i> <0.001 | <i>r</i> =-0.478<br><i>P</i> <0.001 | <i>r</i> =-0.689<br><i>P</i> <0.001 | <i>r</i> =-0.495<br><i>P</i> <0.001 | <i>r</i> =-0.538<br><i>P</i> <0.001 | <i>r</i> =-0.583<br><i>P</i> <0.001 | <i>r</i> =-0.571<br><i>P</i> <0.001 |
| Cognition | <i>r</i> =-0.375<br><i>P</i> <0.001 | <i>r</i> =-0.468<br><i>P</i> <0.001 | <i>r</i> =-0.525<br><i>P</i> <0.001 | <i>r</i> =-0.402<br><i>P</i> <0.001 | <i>r</i> =-0.444<br><i>P</i> <0.001 | <i>r</i> =-0.596<br><i>P</i> <0.001 | <i>r</i> =-0.473<br><i>P</i> <0.001 | <i>r</i> =-0.583<br><i>P</i> <0.001 |
| Emotional | <i>r</i> =-0.317<br><i>P</i> =0.007 | <i>r</i> =-0.403<br><i>P</i> <0.001 | <i>r</i> =-0.480<br><i>P</i> <0.001 | <i>r</i> =-0.273<br><i>P</i> <0.001 | <i>r</i> =-0.348<br><i>P</i> <0.001 | <i>r</i> =-0.507<br><i>P</i> <0.001 | <i>r</i> =-0.445<br><i>P</i> <0.001 | <i>r</i> =-0.351<br><i>P</i> =0.002 |
| Social    | <i>r</i> =-0.358<br><i>P</i> =0.002 | <i>r</i> =-0.432<br><i>P</i> <0.001 | <i>r</i> =-0.434<br><i>P</i> <0.001 | <i>r</i> =-0.569<br><i>P</i> <0.001 | <i>r</i> =-0.582<br><i>P</i> <0.001 | <i>r</i> =-0.596<br><i>P</i> <0.001 | <i>r</i> =-0.362<br><i>P</i> <0.001 | <i>r</i> =-0.728<br><i>P</i> <0.001 |

PBC: primary biliary cholangitis; PF: physical functioning; RP: role limitation due to physical health; RE: role limitation due to emotional problem; VT: vitality; MH: mental health; SF: social functioning; BP: bodily pain; GH: general health.

**Supplementary Table 3. Pearson's correlation between PBC-40 and SF-36 in PBC patients from Crete**

|           | PF                                  | RP                                  | RE                                  | VT                                  | MH                                  | SF                                  | BP                                  | GH                                  |
|-----------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Symptoms  | <i>r</i> =-0.290<br><i>P</i> <0.001 | <i>r</i> =-0.389<br><i>P</i> <0.001 | <i>r</i> =-0.457<br><i>P</i> <0.001 | <i>r</i> =-0.441<br><i>P</i> <0.001 | <i>r</i> =-0.215<br><i>P</i> <0.001 | <i>r</i> =-0.424<br><i>P</i> <0.001 | <i>r</i> =-0.460<br><i>P</i> <0.001 | <i>r</i> =-0.285<br><i>P</i> =0.015 |
| Itch      | <i>r</i> =-0.185<br><i>P</i> =0.022 | <i>r</i> =-0.178<br><i>P</i> =0.014 | <i>r</i> =-0.261<br><i>P</i> =0.014 | <i>r</i> =-0.257<br><i>P</i> =0.031 | <i>r</i> =-0.279<br><i>P</i> =0.018 | <i>r</i> =-0.279<br><i>P</i> =0.023 | <i>r</i> =-0.270<br><i>P</i> =0.023 | <i>r</i> =-0.259<br><i>P</i> =0.022 |
| Fatigue   | <i>r</i> =-0.490<br><i>P</i> <0.001 | <i>r</i> =-0.500<br><i>P</i> <0.001 | <i>r</i> =-0.478<br><i>P</i> <0.001 | <i>r</i> =-0.689<br><i>P</i> <0.001 | <i>r</i> =-0.495<br><i>P</i> <0.001 | <i>r</i> =-0.538<br><i>P</i> <0.001 | <i>r</i> =-0.583<br><i>P</i> <0.001 | <i>r</i> =-0.571<br><i>P</i> <0.001 |
| Cognition | <i>r</i> =-0.375<br><i>P</i> <0.001 | <i>r</i> =-0.468<br><i>P</i> <0.001 | <i>r</i> =-0.525<br><i>P</i> <0.001 | <i>r</i> =-0.402<br><i>P</i> <0.001 | <i>r</i> =-0.444<br><i>P</i> <0.001 | <i>r</i> =-0.507<br><i>P</i> <0.001 | <i>r</i> =-0.445<br><i>P</i> <0.001 | <i>r</i> =-0.351<br><i>P</i> =0.002 |
| Emotional | <i>r</i> =-0.316<br><i>P</i> <0.001 | <i>r</i> =-0.403<br><i>P</i> <0.001 | <i>r</i> =-0.434<br><i>P</i> <0.001 | <i>r</i> =-0.569<br><i>P</i> <0.001 | <i>r</i> =-0.582<br><i>P</i> <0.001 | <i>r</i> =-0.596<br><i>P</i> <0.001 | <i>r</i> =-0.362<br><i>P</i> <0.001 | <i>r</i> =-0.728<br><i>P</i> =0.002 |
| Social    | <i>r</i> =-0.583<br><i>P</i> <0.001 | <i>r</i> =-0.473<br><i>P</i> <0.001 | <i>r</i> =-0.596<br><i>P</i> <0.001 | <i>r</i> =-0.548<br><i>P</i> <0.001 | <i>r</i> =-0.573<br><i>P</i> <0.001 | <i>r</i> =-0.480<br><i>P</i> <0.001 | <i>r</i> =-0.432<br><i>P</i> <0.001 | <i>r</i> =-0.358<br><i>P</i> <0.001 |

PBC: primary biliary cholangitis; PF: physical functioning; RP: role limitation due to physical health; RE: role limitation due to emotional problem; VT: vitality; MH: mental health; SF: social functioning; BP: bodily pain; GH: general health.

**Supplementary Table 4. Comparison of PBC-40 scores between healthy females and males.**

| PBC 40 domain | Female (n = 110) | Male (n = 21) | P value |
|---------------|------------------|---------------|---------|
| Symptoms      | 7.30 ± 2.17      | 7.76 ± 2.23   | 0.27    |
| Fatigue       | 11.71 ± 1.37     | 11.93 ± 1.73  | 0.43    |
| Cognition     | 7.00 ± 2.16      | 7.19 ± 2.09   | 0.63    |
| Social        | 8.87 ± 1.89      | 9.14 ± 2.07   | 0.47    |
| Emotional     | 1.03 ± 0.32      | 1.00 ± 0.00   | 0.49    |
| Total PBC     | 36.09 ± 6.64     | 36.95 ± 6.68  | 0.49    |

PBC: Primary biliary cholangitis.

**Supplementary Table 5. Comparison of PBC-40 scores between PBC patients with and without fatigue**

|                | No fatigue (< 15) | Fatigue (≥ 15) | P value |
|----------------|-------------------|----------------|---------|
| Other symptoms | 9.16 ± 3.2        | 12.53 ± 4.6    | <0.001  |
| Itch           | 2.32 ± 4.8        | 4.13 ± 3.3     | <0.001  |
| Cognitive      | 6.72 ± 1.5        | 11.25 ± 5.1    | <0.001  |
| Social         | 14.6 ± 5          | 21.64 ± 8.2    | <0.001  |
| Emotional      | 6.43 ± 4.2        | 8.96 ± 3.8     | <0.001  |
| Total PBC-40   | 51.46 ± 9.3       | 85.08 ± 23.8   | <0.001  |

PBC: Primary biliary cholangitis.

**Supplementary Table 6. Comparison of PBC-40 scores between PBC patients with and without itching**

|                | No itch (0) | Itch (≥ 1)  | P value |
|----------------|-------------|-------------|---------|
| Other symptoms | 9 (1-26)    | 12 (5-26)   | 0.030   |
| Fatigue        | 18 (11-48)  | 23 (3-53)   | 0.001   |
| Cognitive      | 7 (6-24)    | 9 (6-28)    | 0.200   |
| Social         | 16 (3-37)   | 20 (6-46)   | <0.001  |
| Emotional      | 6 (2-23)    | 9 (3-27)    | <0.001  |
| Total PBC-40   | 61 (8-128)  | 79 (30-151) | <0.001  |

PBC: Primary biliary cholangitis.