**SUPPLEMENTARY MATERIALS**

**Chitosan Elicitation Impacts Flavonolignan Biosynthesis in *Silybum marianum* (L.) Gaertn Cell Suspension and Enhances Antioxidant and Anti-inflammatory Activities of Cell Extracts**

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**Supplementary Materials List:**

**Figure S1:** Loading scores of the first (PC1) and second (PC2) axis of the principal component analysis of the parameters measured in extract of cell suspension cultures of *S. marianum* in response to chitosan elicitation.

**Table S1:** Actual values for PCC (Pearson correlation coefficient) presented in Figure 4 showing the relation between the main phytochemicals and the biological activities (antioxidant and anti-inflammatory) of extracts of cell suspension cultures of *S. marianum* in response to chitosan elicitation.
Figure S1: Loading scores of the first (PC1) and second (PC2) axis of the principal component analysis of the parameters measured in extract of cell suspension cultures of S. marianum in response to chitosan elicitation.


Biomass: DW: dry weight.
Table S1: Actual values for PCC (Pearson correlation coefficient) presented in Figure 4 showing the relation between the main phytochemicals and the biological activities (antioxidant and anti-inflammatory) of extracts of cell suspension cultures of *S. marianum* in response to chitosan elicitation.

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<th>DPPH</th>
<th>FRAP</th>
<th>ABTS</th>
<th>ROS/RNS</th>
<th>COX1</th>
<th>COX2</th>
<th>15-LOX</th>
<th>SPLA2</th>
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<td>SILB</td>
<td>ISILA</td>
<td>ISILB</td>
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<td><em>p</em> &lt; 0.05, *<em>p</em> &lt; 0.01, **<em>p</em> &lt; 0.001.</td>
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