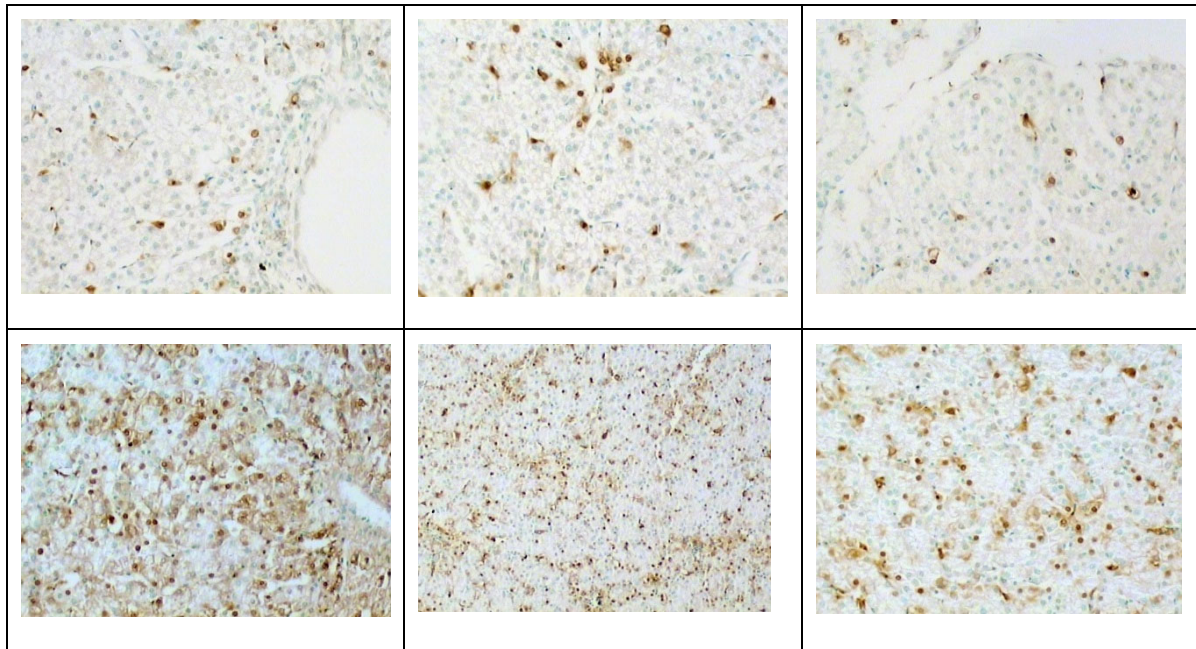


# Basal blood morphology, serum biochemistry, and the liver and muscle structure of weaned Wistar rats, prenatally exposed to fumonisins

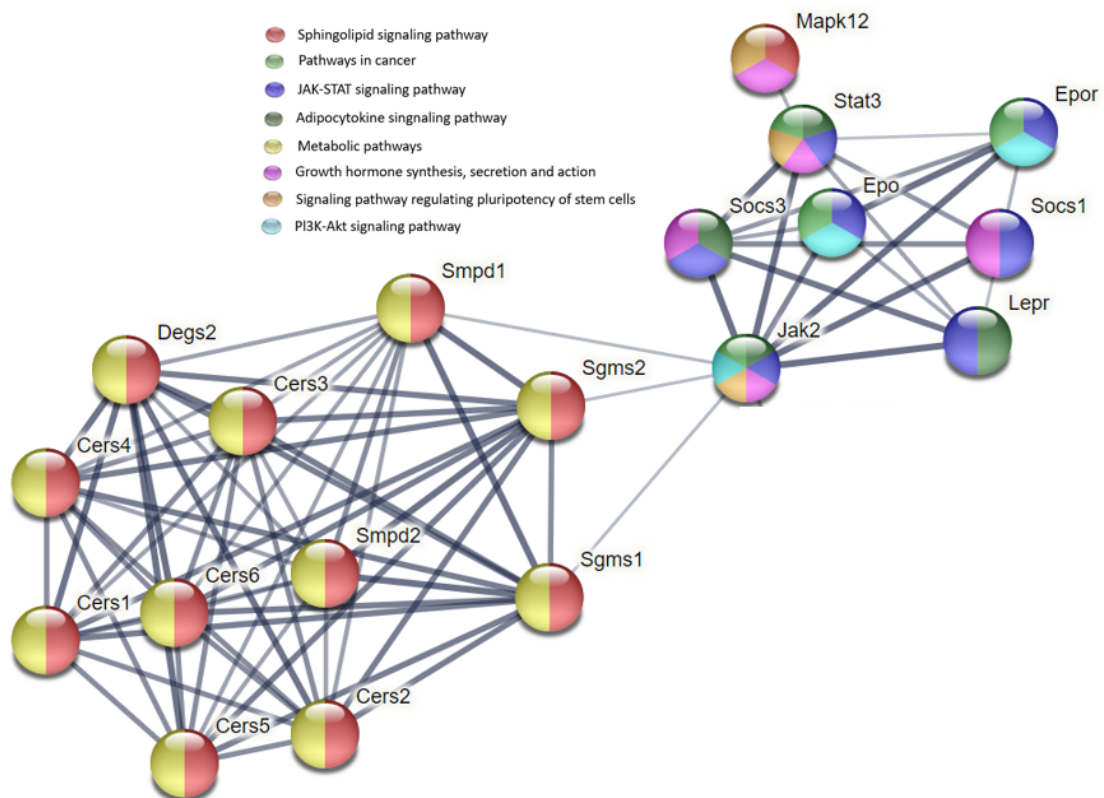
Ewa Tomaszewska, Halyna Rudyk , Dorota Wojtysiak, Janine Donaldson, Siemowit Muszyński, Marcin B. Arciszewski, Nataliia Lisova, Oksana Brezvyin, Iwona Puzio, Beata Abramowicz, Marta Pawłowska-Olszewska, Ihor Kotsyumbas and Piotr Dobrowolski

The list protein abbreviations in STRING protein-protein interaction diagram in Figures 6,7 and supplementary Figures S1 and S2. with description from UniProt database via STRING of their basic functions.

Cers1,2,3,4,5,6	Ceramide synthase 1,2,3,4,5,6; Inhibited by fumonisin B1, especially Cers5;
Csf1	Macrophage colony-stimulating factor 1; This cytokine plays an crucial role in the regulation of proliferation, survival and differentiation of hematopoietic precursor cells (monocytes and macrophages);
Csf1r	The receptor of macrophage colony-stimulating factor 1;
Degs2	Sphingolipid delta(4)-desaturase/C4-monooxygenase DES2; Bifunctional enzyme which acts as both a sphingolipid delta(4)-desaturase and a sphingolipid C4-monooxygenase;
Epo	Erythropoietin; This hormone regulates erythrocyte differentiation and proliferation;
Epor	Receptor for erythropoietin. Mediates erythropoietin-induced erythroblast proliferation and differentiation;
Ghr	The receptor of growth hormone receptor; It is important for the regulation of postnatal development;
Ghrl	Appetite-regulating hormone; It stimulates the secretion of gastric acid, and is involved in growth regulation;
Hgf	Hepatocyte growth factor; hepatotrophic factor;
Igf1	Insulin-like growth factor I;
Igf1r	The receptor of insulin-like growth factor 1 receptor;
Igf2	Insulin-like growth factor II; The main growth hormone during prenatal time in mammals. It regulates tissue differentiation and feto-placental development;
Il6	Interleukin-6;
Il6r	Interleukin receptor;
Ins1	Insulin-1;
Jak2	Tyrosine-protein kinase JAK2; In the cytoplasm, It plays a essential role in signal transmission through its link with receptors like prolactin (PRLR), growth hormone (GHR), erythropoietin (EPOR), leptin (LEPR), thrombopoietin (THPO);
Lep	Leptin; It regulates energy homeostasis and controls body weight;
Lepr	Receptor for hormone leptin;
Map3K11	Mitogen-activated protein kinase 11; It participates in the JUN N-terminal pathway.
Mapk12	Serine/threonine kinase, an essential component of the MAP kinase signal transduction pathway;
Met	Receptor tyrosine kinase which transduces signal from the extracellular matrix into the cell (the cytoplasm) by connection to hepatocyte growth factor/HGF ligand;
Sgms1,2	Sphingomyelin synthase 1 and 2; They synthesize the sphingolipid (sphingomyelin);
Smpd1,2	Sphingomyelin phosphodiesterase 1,2; Converts sphingomyelin to ceramide;
Socs1,3	SOCs family proteins. Socs1 and 3 are involved in the negative regulation through the JAK/STAT3 pathway. Socs3 can inhibit cytokine signal transduction through binding to the receptors of tyrosine kinase including insulin, erythropoietin , IL12, and leptin receptors. Through the connection to JAK2, it inhibits its kinase activity, and lead to the suppression of fetal liver erythropoiesis;
Stat3	Signal activator and transducer of transcription 3 that participate in the mediation of cellular responses to leptin, IIs, and other growth factors.



**Figure S1.** Additional photos of the effect of maternal FB intoxication on liver apoptosis (detected by the TUNEL reaction). Magnification x200.



**Figure S2.** STRING protein-protein interaction diagram in various signaling pathways involving lipid biosynthesis-related proteins inhibited by FB (ceramide synthase and serine/threonine phosphatase). The thickest edge indicates the highest confidence in protein-protein association. Gene ontology pathway analysis revealed that the proteins presented here are involved in many biological pathways. Network contains 19 nodes; <https://string-db.org/>, accessed on 24.07.2022.

