

**Publications of Department of Biochemistry and Molecular Biology**  
in 2011

1. Hyttinen, J.M.T., **Petrovski, G.**, Salminen, A., Kaarniranta, K.: 5'-Adenosine monophosphate-activated protein kinase: Mammalian target of rapamycin axis as therapeutic target for age-related macular degeneration.  
*Rejuv. Res.* 14 (6), 651-660, 2011.  
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2. Li, M., Gustchina, A., Matúz, K., **Tózsér, J.**, Namwong, S., Goldfarb, N.E., Dunn, B.M., Wlodawer, A.: Structural and biochemical characterization of the inhibitor complexes of xenotropic murine leukemia virus-related virus protease.  
*FEBS J.* 278 (22), 4413-4424, 2011.  
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3. **Meskó, B., Póliska, S., Nagy, L.**: Gene expression profiles in peripheral blood for the diagnosis of autoimmune diseases.  
*Trends Mol. Med.* 17 (4), 223-233, 2011.  
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4. **Fésüs, L., Demény, M.Á., Petrovski, G.**: Autophagy Shapes Inflammation.  
*Antioxid. Redox Signal.* 14 (11), 2233-2243, 2011.  
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5. Froen, R.C., Johnsen, E.O., **Petrovski, G., Berényi, E., Facskó, A., Berta, A., Nicolaissen, B., Moe, M.C.**: Pigment epithelial cells isolated from human peripheral iridectomies have limited properties of retinal stem cells.  
*Acta Ophthalmol.* 89 (8), 635-644, 2011.  
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6. Balogh, Z., Fóris, G., Kónya, G., jr. Paragh, G., Köbling, T., Padra, J.T., **Sarang, Z., Paragh, G.**: Obesity abrogates the concentration-dependent effect of leptin on endogenous cholesterol synthesis in human monocytes.  
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7. **Petrovski, G.**, Das, S., Juhász, B., Kertész, A., Tósaki, Á., Das, D.K.: Cardioprotection by endoplasmic reticulum stress-induced autophagy.  
*Antioxid. Redox Signal.* 14 (11), 2191-2200, 2011.  
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8. **Petrovski, G., Ayna, G., Majai, G., Hodrea, J., Benkő, S., Mádi, A., Fésüs, L.**: Phagocytosis of cells dying through autophagy induces inflammasome activation and IL-1 $\alpha$  release in human macrophages.  
*Autophagy.* 7 (3), 321-330, 2011.  
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9. Reynaud, E., **Aydemir, G., Rühl, R.**, Dangles, O., Caris-Veyrat, C.: Organic synthesis of new putative lycopene metabolites and preliminary investigation of their cell-signaling effects.  
*J. Agric. Food Chem.* 59 (4), 1457-1463, 2011.  
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10. Gouranton, E., Aydemir, G., Reynaud, E., Marcotorchino, J., Malezet, C., Caris-Veyrat, C., Blomhoff, R., Landrier, J.F., **Rühl, R.**: Apo-10'-lycopenoic acid impacts adipose tissue biology via the retinoic acid receptors.  
*Biochim. Biophys. Acta Mol. Cell Biol. Lipids.* 1811 (12), 1105-1114, 2011.  
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11. Austin, B.P., **Tózsér, J., Bagossi, P.**, Tropea, J.E., Waugh, D.S.: The substrate specificity of *Metarhizium anisopliae* and *Bos taurus* carboxypeptidases A: Insights into their use as tools for the removal of affinity tags.  
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12. **Petrovski, G.**, Berényi, E., Moe, M.C., Vajas, A., **Fésüs, L.**, Berta, A., Facskó, A.: Clearance of dying ARPE-19 cells by professional and nonprofessional phagocytes in vitro-implications for age-related macular degeneration (AMD).  
*Acta Ophthalmol.* 89 (1), 30-34, 2011.  
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13. **Király, R.**, Demény, M.Á., **Fésüs, L.**: Protein transamidation by transglutaminase 2 in cells: A disputed Ca<sup>2+</sup>-dependent action of a multifunctional protein.  
*FEBS J.* 278 (24), 4717-4739, 2011.  
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14. **Zahuczky, G., Kristóf, E., Majai, G., Fésüs, L.**: Differentiation and Glucocorticoid Regulated Apopto-Phagocytic Gene Expression Patterns in Human Macrophages. Role of Mertk in Enhanced Phagocytosis.  
*PLoS ONE.* 6 (6), e21349, 2011.  
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15. **Fésüs, L.**: Cellular biochemistry of the multifunctional transglutaminase 2: Challenging issues and novel concepts.  
*FEBS J.* 278 (24), 4703, 2011.  
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16. Weiss, K., **Mihály, J.**, Liebisch, G., Marosvölgyi, T., Schmitz, G., Decsi, T., **Rühl, R.**: Effect of synthetic ligands of PPAR  $\alpha$ ,  $\beta$ / $\delta$ ,  $\gamma$ , RAR, RXR and LXR on the fatty acid composition of phospholipids in mice.  
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17. Weise, C., Hilt, K., Milovanovic, M., Ernst, D., **Rühl, R.**, Worm, M.: Inhibition of IgE production by docosahexaenoic acid is mediated by direct interference with STAT6 and NFkB pathway in human B cells.  
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18. Flachs, P., **Rühl, R.**, Hensler, M., Janovska, P., Zouhar, P., Kus, V., Macek Jilkova, Z., Papp, E., Kuda, O., Svobodova, M., Rossmesl, M., Tsenov, G., Mohamed-Ali, V., Kopecky, J.: Synergistic induction of lipid catabolism and anti-inflammatory lipids in white fat of dietary obese mice in response to calorie restriction and n-3 fatty acids.  
*Diabetologia.* 54 (10), 2626-2638, 2011.  
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19. **Zahuczky, G.**, **Kristóf, E.**, Majai, G., **Fésüs, L.**: Differentiation and glucocorticoid regulated apopto-phagocytic gene expression patterns in human macrophages: Role of mertk in enhanced phagocytosis.  
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20. Kis-Tóth, K., Hajdú, P., Kovácsné Bácskai, I., Szilágyi, O., Papp, F., **Szántó, A.**, Posta, E., Gogolák, P., Panyi, G., Rajnavölgyi, É.: Voltage-Gated Sodium Channel Nav1.7 Maintains the Membrane Potential and Regulates the Activation and Chemokine-Induced Migration of a Monocyte-Derived Dendritic Cell Subset.  
*J. Immunol.* 187 (3), 1273-1280, 2011.  
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21. **Brázda, P.**, Szekeres, T., Bravics, B., Tóth, K., Vámosi, G., **Nagy, L.**: Live-cell fluorescence correlation spectroscopy dissects the role of coregulator exchange and chromatin binding in retinoic acid receptor mobility.  
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22. Zavaczki, E., Jeney, V., Agarwal, A., Zarjou, A., **Oros, M.**, Katkó, M., Varga, Z., Balla, G., Balla, J.: Hydrogen sulfide inhibits the calcification and osteoblastic differentiation of vascular smooth muscle cells.  
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23. **Hodrea, J.**, **Majai, G.**, Doró, Z., **Zahuczky, G.**, Pap, A., Rajnavölgyi, É., **Fésüs, L.**: The glucocorticoid dexamethasone programs human dendritic cells for enhanced phagocytosis of apoptotic neutrophils and inflammatory response.  
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24. Oberoi, J., Fairall, L., Watson, P.J., Yang, J., **Czimmerer, Z.**, Kampmann, T., Goult, B.T., Greenwood, J.A., Gooch, J.T., Kallenberger, B.C., **Nagy, L.**, Neuhaus, D., Schwabe, J.W.R.: Structural basis for the assembly of the SMRT/NCoR core transcriptional repression machinery.  
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25. **Nakken, B., Varga, T., Szatmári, I., Széles, L., Gyöngyösi, A.,** Illarionov, P.A., **Dezső, B.,** Gogolák, P., Rajnavölgyi, É., **Nagy, L.:** Peroxisome proliferator-activated receptor [gamma]-regulated cathepsin D is required for lipid antigen presentation by dendritic cells. *J. Immunol.* 187 (1), 240-247, 2011.  
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26. Gyetvai, B., Simonyi, Á., **Oros, M.,** Saito, M., Smiley, J., Vadász, C.: mGluR7 genetics and alcohol: Intersection yields clues for addiction. *Neurochem. Res.* 36 (6), 1087-1100, 2011.  
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27. Heilman, J.M., Kemmann, E., Bonert, M., Chatterjee, A., Ragar, B., Beards, G.M., Iberri, D.J., Harvey, M., Thomas, B., Stomp, W., Martone, M.F., Lodge, D.J., Vondracek, A., de Wolff, J.F., Liber, C., Grover, S.C., Vickers, T.J., **Meskó, B.,** Laurent, M.R.: Wikipedia as a Key Tool for Global Public Health Promotion. *J. Med. Internet Res.* 13 (1), 1-12, 2011.  
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28. **Mótyán, J.A.,** Fazekas, E., Mori, H., Svensson, B., Bagossi, P., Kandra, L., Gyémánt, G.: Transglycosylation by barley alfa-amylase 1. *J. Mol. Catal. B-Enzym.* 72 (3-4), 229-237, 2011.  
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29. **Berényi, E.,** Benkő, I., Vámosi, G., Géresi, K., Tárkányi, I., Szegedi, I., Lukács, L., Juhász, I., Kiss, C., **Fésüs, L., Aradi, J.:** In vitro and in vivo activity of 4-thio-uridylylate against JY cells, a model for human acute lymphoid leukemia. *Biochem. Biophys. Res. Commun.* 410 (3), 682-687, 2011.  
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30. Iacovino, M., Chong, D., **Szatmári, I.,** Hartweck, L., Rux, D., Caprioli, A., Cleaver, O., Kyba, M.: HoxA3 is an apical regulator of haemogenic endothelium. *Nat. Cell Biol.* 13 (1), 72-78, 2011.  
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31. **Köröskényi, K.,** Duró, E., Pallai, A., **Sarang, Z.,** Kloor, D., Ucker, D.S., Beceiro, S., Castrillo, A., Chawla, A., Ledent, C.A., **Fésüs, L., Szondy, Z.:** Involvement of adenosine A2A receptors in engulfment-dependent apoptotic cell suppression of inflammation. *J. Immunol.* 186 (12), 7144-7155, 2011.  
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33. **Varga, T., Czimmerer, Z., Nagy, L.:** PPARs are a unique set of fatty acid regulated transcription factors controlling both lipid metabolism and inflammation.  
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34. **Mádi, A., Majai, G., Koy, C., Vámosi, G., Szántó, A., Glocker, M.O., Fésüs, L.:** Altered sialylation on the cell-surface proteins of dexamethasone-treated human macrophages contributes to augmented uptake of apoptotic neutrophils.  
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35. **Mora, K., Joshi, N., Bálint, B.L., Ward, F.B., Elfick, A., French, C.E.:** A pH-based biosensor for detection of arsenic in drinking water.  
*Anal. Bioanal. Chem.* 400 (4), 1031-1039, 2011.  
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36. **Sarang, Z., Köröskényi, K., Pallai, A., Duró, E., Melino, G., Griffin, M., Fésüs, L., Szondy, Z.:** Transglutaminase 2 null macrophages respond to lipopolysaccharide stimulation by elevated proinflammatory cytokine production due to an enhanced [alfa](v)[béta](3) integrin-induced Src tyrosine kinase signaling.  
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37. **Tóth, K.Á., Sarang, Z., Scholtz, B., Brázda, P., Ghyselinck, N., Chambon, P., Fésüs, L., Szondy, Z.:** Retinoids enhance glucocorticoid-induced apoptosis of T cells by facilitating glucocorticoid receptor-mediated transcription.  
*Cell Death Differ.* 18 (5), 783-792, 2011.  
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39. **Mótyán, J.A., Gyémánt, G., Harangi, J., Bagossi, P.:** Computer-aided subsite mapping of alpha-amylases.  
*Carbohydr. Res.* 346 (3), 410-415, 2011.  
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- Book chapters ( 2 )
40. **Szondy, Z., Korponay-Szabó, I., Király, R., Fésüs, L.:** Transglutaminase 2 dysfunctions in the development of autoimmune disorders: Celiac disease and TG2<sup>-/-</sup> mouse.  
In: *Advances in Enzymology and Related Areas of Molecular Biology* : Vol. 78. Ed.: Eric J. Toone, John Wiley & Sons Inc., Hoboken, New Jersey, 295-346, 2011.
41. **Simándi, Z., Nagy, L.:** Retinoid signaling is a context-dependent regulator of embryonic stem cells.  
In: *Embryonic Stem Cells - Differentiation and Pluripotent Alternatives*. Ed.: Michael S. Kallos, InTech - Open Access Publisher, Rijeka, 55-78, 2011.

Other publications ( 1 )

42. Kollár, J., **Meskó, B.:** Revolution in Education: New Possibilities in Education of Medical Students.

*Med. Teach.* 33 (8), 685-686, 2011.

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