Abstracts submitted to the 43rd FEBS Congress, taking place in Prague, Czech Republic from 7th to 12th July 2018, and accepted by the Congress Organizing Committee are published in this Supplement of FEBS Open Bio. Late-breaking abstracts are not included in this issue.

About these abstracts
Abstracts submitted to the Congress are not peer-reviewed. In addition, abstracts are published as submitted and are not copyedited prior to publication.
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Indexing
Abstracts published in FEBS Open Bio Supplement for the 43rd FEBS Congress will be included individually in the Conference Proceedings Citation Index published by Web of Science.

How to cite these abstracts
* Each poster has been given a unique number beginning with the letter P; the next part relates to the session in which the poster will be presented.

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among the red meat allergic population. The importance of BGG as a clinically relevant milk allergen of red meat allergic patients. Taken together, the results highlight that bound IgE antibodies and furthermore activated basophils patient’s basophils by BGG and milk was demonstrated. In this available milks. Importantly, activation of red meat allergic more potent inhibitor of the IgE binding than the commercially available milk preparations showed that raw milk was a
substantive therapeutic action in prostate dysfunctions.

P.09-224-Tue
Apoptotic and antiproliferative processes from dysplastic and metastatic prostate cells, modulated by proteolytic enzymes of entomological origin
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Proteolytic enzymes have important medical and pharmaceutical application due to their key role in developmental and tissue homeostasis during the life-cycle of many organisms. The delicate balance between cell proliferation and cell death is regulated by the activation of caspases, a conserved family of cysteine pro-
teases, but also non-caspase proteases have their role in programmed cell death. Caspases from many organisms have been characterized, including several insects species. Although several basic strategies are used to activate and regulate caspase-dependent cell death, mammals and insects emphasize distinct points of control. The aim of our study was to explore the apoptotic process and its correlation with the distinct proteolytic activity of two types of entomological complexes. Also, we investigated their impact on one of the first hallmark of carcinogenic progression: the anchorage-independent growth, „in vitro” expressed by the soft agar colony formation assay. The medical transposition of this research will be in prostate’s proliferative disregulation (benign hyperplasia, prostate cancer) generated by the stromal processes of transdifferentiation and cellular senescence, implicated in stromal modulation. The experimental models targeted standardised cell lines PWR-1E and DU-145 cells, relevant for prostate dysplasia and adenocarcinoma metastasis respectively. We used the flow cytometry technique for early and late apoptosis detection (annexin V and PE detection), soft agar colony formation assay for clonogenic capacity evaluation and gelatin-zymography for protease activity quantification. Results correlate a specific proteolytic activity of the entomological complex with its pro-apoptotic and anti-proliferative action. We highlighted one of the basic mechanisms that interrelates these processes and may substantiate therapeutic action in prostate dysfunctions.

P.09-225-Wed
Active and passive transport of carnosine and its derivatives into neurons
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The dipeptide L-carnosine is a recognized neuroprotective agent effective both in animal models and in cultured neurons. Carno-
sine has been shown to enter neurons and exert an antioxidant effect. Exogenously introduced carnosine is mainly transported into neurons via the oligopeptide transporter PEPT2. Since exoge-

nous carnosine is rapidly cleaved by serum carnosinase, we are developing carnosinase-resistant carnosine derivatives to be used as neuroprotective drugs. Carnosine in a nanomicellar complex with α-lipoic acid is able to enter neurons, becomes more resistant to carnosinase, and shows neuroprotective activity at substantially lower concentrations. The study of the effectiveness of PEPT2-mediated transport of both carnosine and its derivatives into neurons is an important aspect of said drug development. To determine the proportion of passive and PEPT2-mediated active