

Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active. After the treatment none of the morphometric parameters of erythrocytes returned to the values of the control group.

The Raman spectroscopy of oxygen-binding capacity of haemoglobin in erythrocytes among patients at the time of admission to the hospital revealed that those patients had a low relative amount of oxyhaemoglobin in the blood and a low relative ability of haemoglobin to discharge ligands. The relative capacity of all haemoglobin to bind ligands and the affinity of haemoglobin to ligands ex-ceeded the control level. After pharmacological therapy, an increase in the relative amount of oxyhaemoglobin was observed against the unreliable decrease in the ability of all haemoglobin to bind ligands and the affinity of haemoglobin to ligands. The ability of haemoglobin to release ligands did not practically change, remaining above the control value. Results of patients with MI had more pronounced changes.

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Biodiversity and biotechnology of Candida boidinii industrial strains

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Candida boidinii, a major methylotrophic yeast species, is also known for its ability to produce xylitol and lipases. The present work deals with biodiversity and preliminary biotechnological studies of three C. boidinii strains isolated from biomass used in pharmaceutical industry. The strains were identified using conventional taxonomy tests and the Biolog MicroLog system. Molecular approaches involved PCR-RFLP analysis of ITS1-5.8S-ITS2 and ITS1-18S regions. Biodiversity studies were performed by PCR-RAPD using five primers: OPA3, OPA18, OPA11, OPB17, OPH15. The polymorphic frequency ranged from 18.18% to 63.6%, OPA18, OPB17 and OPA11 being selected as molecular markers for characterization of intraspecific variability between C. boidinii strains. All three strain grew on D-xylose (5%) at logarithmic scale and were able to assimilate molasses (0.5%) for rapid multiplication during first two days of incubation. Lipase production was estimated in presence of tributyrin, respectively, Tween 80. Best activity was observed on tributyrin, fact correlated with the release of butyric acid, a relevant compound for human health. C. boidinii is a dynamic species with high and diverse biotechnological potential, the studied strains showing significant phenotypic and genetic variation and important metabolic characteristics for biomedical use and food industry.

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Laboratory findings and clinical approaches in domestic cats with enteropathies

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Pathogenic agents of feline Coronaviurs, feline Parvovirus and Giardia spp infest the cat and provoke specific enteropathies with different injuries of the anatomical intestinal layers and severe clinical consequences for the infested animal. Due to the fact that these evolve, usually, simultaneously, for establishing an ethiological diagnosis a serological examination is imperative.

The study has been performed at the Veterinary Medicine Faculty of Bucharest over a three-year period, on 359 cats with different digestive diseases being examined. The serological examination consisted in the detection of specific IgG antibodies for feline Coronavirus, antigens for feline Parvovirus, Coronavirus and respectively Giardia antigens from fresh cat feces.

From these 359 felines serologically tested for IgG FCoV antibodies, 225 were negative and only 134 positive. FCoV IgG antibodies identified in the positive patients, developed different degrees of digestive syndromes in 20 cases, with clinical expression, consisitng in: vomitting, diarrhea/constipation, accompanied by severe dehidrations, lack of appetite, pancreatitis, gastritis, hyperthermia, abdominal pain, sometimes jaundice of the superficial mucous membranes, progressive weight loss (in 6 cases) and, rarely, ascitis. Lymphnodes were found to be reactive in the presence of the pathogenic agent in action, especially the submandibular, poplitei and mesentheric ones (5 cases).

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The compared accuracy of ultrasonographic examination and PCR tehnique in feline polycystic kidney disease

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Feline polycystic kidney disease (PKD) is an autosomal dominant inherited disease occurring in Persian cats and its satellite races. The phenomenon is determined by a point mutation at exon 29 of the PKD1 gene - cytosine (C) substituted with adenine (A) and consequently impairing the translational synthesis of polystyrene 1 by shortening the sequence of aminoacids and affecting its function - C / A substitution results in STOP: TGA codon. The study was conducted in the Clinical Faculty of Veterinary Medicine in Bucharest and the Molecular Biology Laboratory in 2018 on a number of 11 cats with age range between 6-10 years of different races. The result of the study consisted in 11 positive samples with PCR, and cysts range between 1-3.5 cm (n=6), infracentimeter cysts (bn = 3) and inframillimetric cysts (n = 1, probe -11 MHz) with ultrasound and 1 case in which no cystic lesions were identified with a 7,5 MHz probe. The PCR technique certifies the maximum performance of the results, as compared to the ultrasound examination that has a limiting character being influenced