

Research Articles

- 119-128 CHARACTERISATION OF LACTIC ACID BACTERIA ISOLATED FROM THE HINDGUT OF FARMED TASMANIAN ATLANTIC SALMON (*SALMO SALAR* L.)
C Neuman, E Hatje, J P Bowman and M Katouli
- 129-134 BACTERIAL VAGINOSIS - LOCAL *LACTOBACILLUS CASEI* VAR *RHAMNOSUS* *DÖDERLEIN* MONOTHERAPY
Stefan Kovachev and Rossitza Vatcheva-Dobrevska
- 135-140 THE DIFFERENCES IN THE SENSITIVITY OF THE *PORPHYROMONAS GINGIVALIS fimA* GENOTYPES TO A PROBIOTIC *LACTOBACILLUS* STRAIN, LS1, IN THE ORAL CAVITY OF PATIENTS: DOUBLE BLIND CLINICAL TRIAL
Takashi Matsuoka and Yasuhiro Koga
- 141-148 POTENTIAL THERAPEUTIC APPLICATIONS OF PROBIOTICS IN PATIENTS WITH LIVER CIRRHOSIS
R Rastmanesh, U Solimene, R Catanzaro, A Italia, M Milazzo, A Lorenzetti and F Marotta

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- 119-128 CHARACTERISATION OF LACTIC ACID BACTERIA ISOLATED FROM THE HINDGUT OF FARMED TASMANIAN ATLANTIC SALMON (*SALMO SALAR* L.)
C Neuman, E Hatje, J P Bowman and M Katouli

ABSTRACT: *Between July 2011 and May 2012, 16 pooled faecal samples were collected on eight occasions (40 fish/ occasion) from Atlantic salmon fed two commercial diets in a farm in Tasmania, Australia. From a second Tasmanian farm, 12 pooled faecal samples were collected on three occasions (80 fish/ occasion) from salmon fed four trial diets. From these samples a total of 160 lactic acid bacteria (LAB) were isolated on MRS agar. Strains were initially typed using PhP-LB plates (PhPlate, AB) and divided into common types (CTs). Strains which belonged to the same CT and found on numerous sampling occasions (n=73) were identified using 16S rRNA sequencing and tested for cytotoxins production, bacteriocins, adherence to Atlantic salmon kidney cells as well as competitively exclude 16 bacterial strains in vitro. These strains were also tested for their resistance against nine antibiotics commonly used in Aquaculture. The 73 LAB strains belonged to six species namely Enterococcus casseliflavus, E. faecalis, E. faecium, Pediococcus acidilactici, and Weisella hellenica of which, three different strains of W. hellenica and one P. acidilactici met most criteria including medium to high adherence and pathogen exclusion capability in vitro. The potential of these strains to serve as probiotic candidates is discussed.*

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129-134 BACTERIAL VAGINOSIS - LOCAL *LACTOBACILLUS CASEI* VAR *RHAMNOSUS*
DÖDERLEIN MONOTHERAPY
Stefan Kovachev and Rossitza Vatcheva-Dobrevska

ABSTRACT: *The objective of the current research is to establish the efficacy of the local probiotic monotherapy in the treatment of bacterial vaginosis. 139 (100%) women with bacterial vaginosis, randomized into two groups are included in the research. In the first group 85 women were treated with local (10 applications) probiotic medicine, containing lactobacillus type Lactobacillus casei var rhamnosus Döderlein – Lcr35®. In the second group 54 patients were treated with five days, oral administration of Clindamycin (600mg) BID and local therapy of two vaginal ovules containing 1000mg Metronidazole each, which were administered locally every other day. Additionally in this group was administered again the same local probiotic. The efficacy of the therapeutic scheme was evaluated via comparison of patients' clinical complains in the different groups, of data from clinical examinations and microbiological tests for each patient. One month after the probiotic monotherapy, the clinical efficacy in this group is 42.7% and microbiological efficacy – 41.3%. They are lower than in the second group with combine treatment: clinical efficacy – 87.5%, microbiological efficacy – 80.3%. Our results show that the local probiotic monotherapy has fewer efficacies in comparison to the nitroimidazole/lincozamide/probiotic scheme for treatment of bacterial vaginosis.*

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135-140 THE DIFFERENCES IN THE SENSITIVITY OF THE *PORPHYROMONAS*
GINGIVALIS *fimA* GENOTYPES TO A PROBIOTIC *LACTOBACILLUS* STRAIN, LS1,
IN THE ORAL CAVITY OF PATIENTS: DOUBLE BLIND CLINICAL TRIAL
Takashi Matsuoka and Yasuhiro Koga

ABSTRACT: *Porphyromonas gingivalis is one of the most important pathogenic bacteria that cause periodontitis. In this bacterium, there are six genotypes of fimA, one of the fimbrial components, and the type II and IV are isolated frequently from patients with periodontitis. In the present study, we examined the difference in the sensitivity of the P. gingivalis fimA genotypes treated with LS1, an oral probiotic strain of Lactobacillus salivarius TI2711. The subjects colonized by fimA type II or IV P. gingivalis were randomized into two groups; one group took tablets containing LS1, and the other took a placebo for 12 weeks. The count of P. gingivalis and probing depth were measured at weeks 0, 4, and 12. In the subjects bearing type II P. gingivalis, LS1 administration lead to a significant decrease both in the number of P. gingivalis and the degree of probing depth, but the placebo did not lead to such a decrease in either. On the other hand, in the subjects bearing type IV, both groups exhibited a significant decrease in both the P. gingivalis number and the probing depth. These results suggested that the sensitivity of P. gingivalis to LS1 tablet appears to depend on its fimA genotype.*

141-148 POTENTIAL THERAPEUTIC APPLICATIONS OF PROBIOTICS IN PATIENTS WITH LIVER CIRRHOSIS
R Rastmanesh, U Solimene, R Catanzaro, A Italia, M Milazzo, A Lorenzetti and F Marotta

ABSTRACT: Patients with liver cirrhosis are characterized by abnormalities of both albumin and muscle protein turnover and anorexia which in turn contribute to cachexia. The main hemodynamic alteration in cirrhosis is caused by decreased albumin synthesis and turnover, which in turn lead to ineffective arterial blood, playing a significant role in development of decompensation and in the prognosis of these patients. Serum albumin might be corrected via administration of human albumin solution (HAS) but its use in all patients with decompensated cirrhosis is not always justified. The interest in therapeutic use of probiotics in these patients has increased during the last few years because of beneficial effects associated with correcting hypoalbuminemia and cachexia. This review aims to highlight potential of therapeutic use of probiotics in cirrhosis by revising the evidence-based results obtained in hepatic disorders.