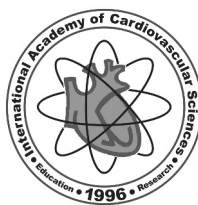
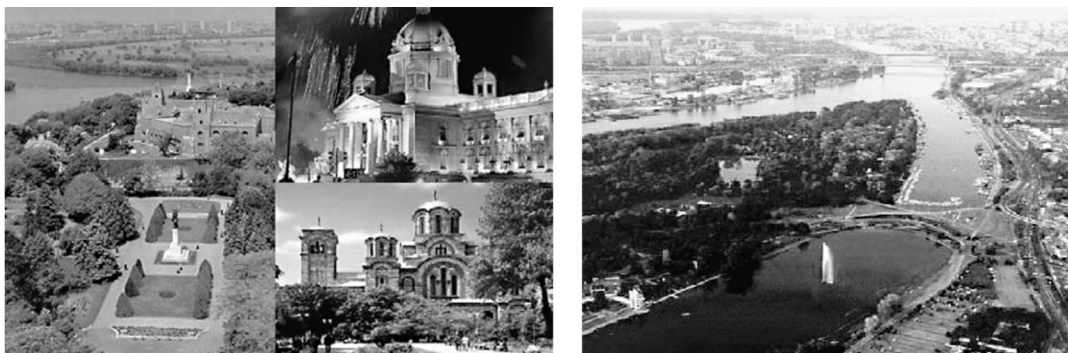


2ND EUROPEAN SECTION MEETING OF THE
INTERNATIONAL ACADEMY OF CARDIOVASCULAR SCIENCES

**"HEART DISEASES: HOW NEW RESEARCH
MAY LEAD TO NEW TREATMENTS"**



Organized by the
International Academy of Cardiovascular Sciences - European Section



ABSTRACT BOOK WITH FINAL PROGRAM

Venue: Hotel Crowne Plaza, Belgrade, Serbia
Date: October 8th – 10th, 2015

<http://www.heartacademy.org/>
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EFFECT OF OMEGA 3 AND FOLIC ACID ON PHOSPHOLIPIDS FATTY ACID COMPOSITION OF LIVER RATS

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Cardiovascular diseases (CVD) are still leading cause of death worldwide. It has been shown that folic acid deficiency can modify polyunsaturated fatty acid (PUFA) metabolism and thus could contribute to the development of (CVD). The contents of (n-6) and (n-3) long-chain PUFA in cell membranes, are important determinants of the biophysical properties of those membranes. The long-chain n-3 PUFAs have been shown to have beneficial effects in delaying the development of various diseases. The aim of our study was to examine the effects of food enriched with fish flour and/or food enriched with fish flour + folic acid on fatty acid composition of liver lipids in 4 weeks treatment. Female Wistar rats were randomly assigned into 3 experimental groups (n=10, 280g±5). Control group received standard food (Veterinarski zavod, Subotica). Both treated groups received a food enriched with fish flour, while in second treated group folic acid was added. After sacrificing, part of the liver was frozen at -80 °C. The phospholipids fatty acid composition of liver was determined by GC using Shimadzu GC. Our results showed that food enriched with fish flour significantly increased: eicosatrienoic (20:3), eicosapentaenoic acid (20:5), docosapentaenoic acid (22:5), docosahexaenoic acid (22:6), n-3 and decreased arachidonic acid, n-6 and n-6/n-3 ratio of liver phospholipids concentrations vs. control. Food enriched with folic acid increased (20:3), (20:5), (22:5), (22:6), PUFA, n-3 and decreased MUFA and palmitic acid (16:0) and n-6/n-3 ratio vs. control. Both type of food significantly decreased concentration of and linoleic (18:2) and vascenic acid (18:1, n-7).