JOURNAL OF APPLIED BIOANALYSIS, June 2017, p. 58.
http://dx.doi.org/10.17145/jab.17.009 (ISSN 2405-710X)
Vol. 3, No. 4.

OPEN ACCESS

EDITORIAL

22th Panhellenic Conference in Chemistry (2016) Thessaloniki, Greece.

This issue of the Journal of Applied Bioanalysis is devoted to the 22th Panhellenic Conference in Chemistry and presents several studies in the field of bioanalysis selected from those announced at this scientific event. This year the conference was organized in the framework of the 90th anniversary celebration of the Aristotle University of Thessaloniki, the biggest university in Greece and in the Balkans. The Panhellenic Conference in Chemistry is organized periodically by the Association of Greek Chemists. This time, it was organised by the Division of Central and Western Macedonia of the Association of Greek Chemists with the Association of Chemists in Northern Greece, under the auspices of Department of Chemistry of the Aristotle University of Thessaloniki. This conference series gives the opportunity for the scientists from Greece and Cyprus, involved into wide spectrum of chemistry based research, to communicate on the multidisciplinary basis. The different aspects of bioanalysis were into the focus of the conference's topics.

Two selected studies by Kontou et al. and Petrocheilou et al. describe development and validation of HPLC methods for therapeutic drug monitoring. In the former study a selective HPLC method, using a monolithic column was developed for the simultaneous determination of the histamine H_2-receptor antagonists: famotidine, cimetidine and nizatidine. Monolithic stationary phases (based on silica and polymers) have some advantages over conventional packed columns providing high rates of mass transfer at lower pressure drops, enable much faster separations and the nature of the pores allows easy permeability for large molecules. The second study presents a simple and direct HPLC-DAD method for the simultaneous determination of galantamine, donepezil and rivastigmine in cerebrospinal fluid, blood serum and urine leading to fast chromatograms and high throughput in the laboratory.

Another study presented in this issue by Panderi et al. describes the application of MALDI imaging mass spectrometry (IMS) for the discovery of potential biomarkers for colon adenocarcinoma. MALDI Imaging allows direct label-free measurement of proteins, peptides, lipids, drugs, and metabolites from tissue and potential of MALDI-IMS in biomarkers discovery is increasingly recognized.
During last two decades biosensors has acquired paramount importance in the field of drug discovery, biomedicine, food safety standards, defense, security, and environmental monitoring. The development of new electrochemical biosensors based on alternatively prepared carbonaceous materials is described in the studies presented by Karastogianni et al. and Dimitrakopoulou et al. The latter study also describes successful application of new fabricated biosensor for the determination of Vitamin B12 in human urine sample by voltammetry. The voltammetric methods are highly sensitive, selective and rather accurate, do not require expensive instrumentation.

Last but not least, we would like to thank Prof. dr. Roland J.W. Meesters for giving us the chance to present the state of the art in bionalysis in Greece. We believe that selected studies will be interesting to the audience of the Journal of Applied Bioanalysis.

Guest editors

Victoria Samanidou PhD
Aristotle University of Thessaloniki, Thessaloniki, Greece.
samanidu@chem.auth.gr

Andreas Tsakalof PhD
University of Thessaly, Volos, Greece.
atsakal@med.uth.gr