Front cover: 75 Years Alkaloid, Skopje, Republic of Macedonia.

The Institute for Development and Quality Control was officially launched on 11 March 2009. This modern facility covers a surface of 1540 square metres. It is equipped with cutting-edge laboratory and pilot manufacturing equipment that enables the development of new, modern, forms of generic drugs implementing the latest advances in the field of pharmaceuticals. Around 9 million euros have been invested in the Institute for Development and Quality Control, while the necessary funds were provided mostly from Alkaloid’s own resources.

Print: ProPoint, Skopje, Republic of Macedonia in 200 copies.
Basic Science


The extent of inhibition of fungal growth and aflatoxin production was dependent on the type and concentration of essential oils used. The complete inhibition of Aspergillus flavus growth was observed at 1000 ppm concentrations of essential oils of basil, coriander, caraway and rosemary. While, essential oils of basil and coriander showed marked inhibition of aflatoxin B1 produced by Aspergillus flavus at all concentrations tested 500,750 and 1000 ppm.


Results showed that ethanolic extract of Ocimum gratissimum reduced blood glucose levels and body weight significantly all through the treatment period, that these effects were more rapid with increasing doses of the extract, and the glucose lowering potential of Ocimum gratissimum was comparable to that seen following administration of metformin.


The findings of the present study clearly demonstrates that methyl, methoxy, chloro, dimethylamino, dimethoxy and trimethoxy functional groups possess cholesterol-suppressive capacities and has an ability to attenuate the accelerated development of atherosclerosis in hypercholesterolemic models. However, hydroxyl and nitro derivatives did not show any hypolipidemic activity.


The results of this investigation have shown that after application of MPA the presence ratio of parenchyma and stroma is significantly changed in favor of the stroma, which emphasizes the fact that the major morphological characteristic of thymus after application of MPA is atrophy of its parenchyma.


In this study authors found that RAPD-PCR analysis provide better discrimination of C. jejuni strains than serogrouping by Penner’s method. Each of the three Penner’s antigenic groups comprised different genotypes. RAPD-PCR analysis of C. jejuni resulted in the generation of highly specific and reproducible DNA fingerprints that enable discrimination even between isolates of a single bacterial serogroup.


Martin-Gruber anastomosis (MGA) is the well known anastomosis that occur at the various levels between the median and ulnar nerves. This anastomosis involves axons leaving either the main trunk of median nerve or the anterior interosseous nerve, crossing through the forearm to join the ulnar nerve. Knowledge of the incidence of this anastomosis is necessary because MGA can cause confusion in the assessment of nerve injuries and compressive neuropathies.


Telfairia occidentalis demonstrated a prophylactic effect on alcohol induced testicular damage and has improved semen quality. In addition, it also improved serum testosterone and luteinizing hormone levels.

Clinical Science


Late presentation is the hallmark of breast cancer among Nigerians. Awareness of the disease is low and care of this condition has not received adequate attention from Government. Health education to improve awareness was intensified in the last 2 decades. This study aims to assess the current state of care and presentation of breast cancer in Lagos, Nigeria.


This analysis had 151 patient who had joint ankle fracture both sexes, age 18-45, and among them there were 102 men (67.55%) and 49 women (32.45%). The patients whose diagnosis was joint ankle fracture were observed in Orthopedic - Casualty ward of Clinical Centre in Podgorica.
The research period was May 2005-May 2009. The results of our research show that the most frequently fractures of joint ankle happened while running 52 patients (34.44%) and the least by fall from the height 22 (14.57%). The most frequent fracture type was SE type 48 (31.79%) and the least PA type 25 (16.56%).

Dhar D. Occult Glove Perforation During Adult Elective Orthopaedic Surgery. Maced Med Sci. 2011 Dec 15; 4(4):…………………………… 399 Routine use of double gloves during elective orthopaedic surgery is advocated. Occult perforations are unrecognized during surgery and pose greater risk. Double gloves confers additional protection especially in high risk patients and significantly reduces blood contamination. Also regular glove changing in high risk surgeries and surgeries lasting more than 2 hours is recommended.

Boskabadi H, Maamouri G, Mafinejad S, Rezagholizadeh F. Clinical Course and Prognosis of Hemolytic Jaundice in Neonates in North East of Iran. Maced Med Sci. 2011 Dec 15; 4(4):…………………………… 403 Jaundice due to hemolysis is associated with a higher serum bilirubin and more complications like kemicutus. ABO incompatibility was the most common reason of hemolytic jaundice among neonates in north east of Iran. Special attention to ABO incompatibility and G6PD enzyme screening may decrease complications and improve the prognosis.

**Case Report**
Stojanoski Z. Fatal Sepsis Due to Stenotrophomonas Maltophilia in Stem Cell Recipient – Case Report. Maced Med Sci. 2011 Dec 15; 4(4):…………………………… 408 Despite use of broad-spectrum antibiotics as prophylaxis, Gram-negative bacteria are still potentially fatal for immunocompromised patients. Microbiological monitoring on local microflora is mandatory for all transplant centers and intensive care units.

**Public Health**
Chadikovski V, Dimov A, Petrovski M, Simeonov R, Petrovska B. Cadaver Transplantation in Balkans: Mission Possible? Maced Med Sci. 2011 Dec 15; 4(4):…………………………… 411 The results revealed that majority of population in Macedonia is familiar with the term transplantation, but there is a very low awareness that a specific law for organ donation exists. Segmentation analysis identified several groups of responders: apostles (23%), mercenaries (11%), escapists (26%), neutral (13%) and hostages (28%). More precisely, apostles are people who perceive transplantation or donations of organ as human act and who already participate in some humanitarian activity like blood donation. The participants were divided upon their opinion whether they would donate their organs after death. The reasons for this are found in negative attitude towards donation and low level of trust in institutions.

Mijakoski D, Karadzinska-Bislimovska J, Stikova E, Stoleski S. Occupational Sharp Injuries and Biological Markers of Hepatitis B and Hepatitis C Virus Infection in Nurses. Maced J Med Sci. 2011 Dec 15; 4(4):…………………………… 417 Data showed that needle-stick injuries (81.5%) were significantly more frequent than instrument injuries (81.1%) in examined nurses. Positive Anti-HBC-Ab were more frequently detected in nurses than in subjects from Group II with statistically significant difference (25.9% vs. 6.3%; P<0.05). Positive Anti-HBC-Ab status was registered only among nurses with percutaneous injuries at work.

Stoleski S, Stikova E, Karadzinska-Bislimovska J, Mijakoski D. Biological Monitoring Among Workers Exposed to Inorganic Lead and Its Compounds. Maced Med Sci. 2011 Dec 15; 4(4):…………………………… 428 Authors performed cross-sectional study using 60 workers occupationally exposed to lead compared with 60 controls. All examinees were assessed by Questionnaire, and laboratory testing concerning blood lead level ( BLL), activity of delta-aminolevulinic acid dehydratase (ALAD) in blood, concentration of delta-aminolevulinic acid (ALA) and coproporphyrin in urine, reticulocytes and erythrocytes with basophilic stippling (EBS).

**Medical Theses**
Macedonian Journal of Medical Sciences. Macedonian Medical Master of Science Theses in Public Health Defended in 2007-2010. Maced Med Sci. 2011 Dec 15; 4(4):…………………………… 437 We present English abstracts of MSc theses in Public Health defended in 2007-2010 at the Faculty of Medicine, University “Ss Cyril and Methodius”, Skopje, Republic of Macedonia. English summaries are published as they are translated by authors and included in the final version of defended MSc. Macedonian Medical Master of Science (MSc) theses are deposited in the Central Medical Library and National and University Library “St. Kliment Ohridski” in Skopje, Republic of Macedonia. At the Faculty of Medicine in Skopje 26 MSc theses were defended in 2007-2010, 8 MSc are without abstracts (30.8%) and 13 MSc are without Key words (50.0%).

**Author Index**

**Instructions for Authors**