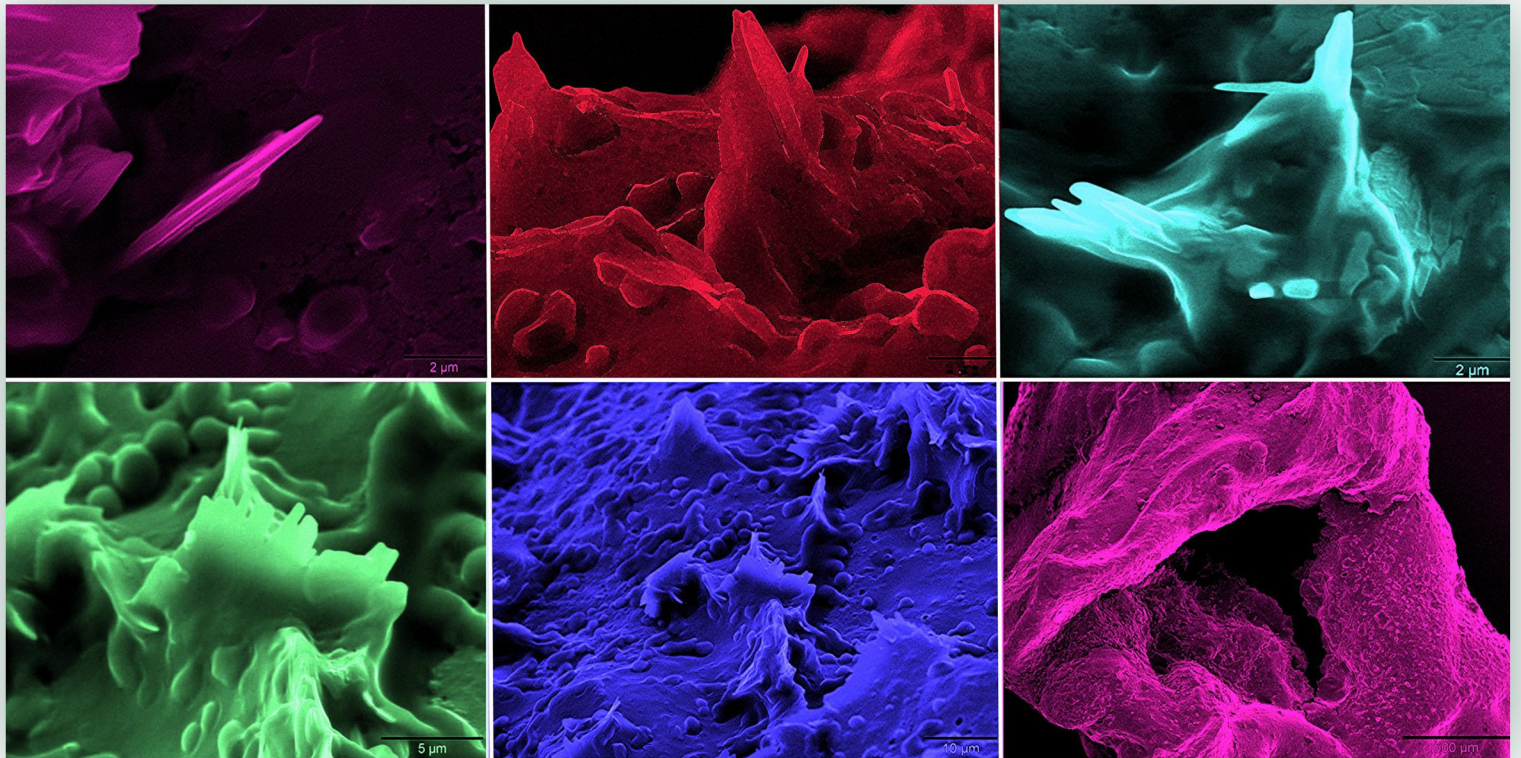


NORTH ATLANTIC UNIVERSITY UNION

**Editors: Vadim V. Sumbayev, Alessandra Pica, Shi-Ping Luh,
Hyun Kyoon Lim, Kazuhiko Natori,
Shunsuke Meshitsuka**

**Proceedings of the
WORLD MEDICAL
CONFERENCE**



Malta, September 15-17, 2010

**ISSN: 1792-4839
ISBN: 978-960-474-224-0**

Proceedings of the WORLD MEDICAL CONFERENCE



Proceedings of the WORLD MEDICAL CONFERENCE

**Malta
September 15-17, 2010**

Proceedings of the WORLD MEDICAL CONFERENCE

Malta, September 15-17, 2010

Published by WSEAS Press

www.wseas.org

Copyright © 2010, by WSEAS Press

All the copyright of the present book belongs to the World Scientific and Engineering Academy and Society Press. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the Editor of World Scientific and Engineering Academy and Society Press.

All papers of the present volume were peer reviewed by two independent reviewers. Acceptance was granted when both reviewers' recommendations were positive.
See also: <http://www.worldses.org/review/index.html>

ISSN: 1792-4839

ISBN: 978-960-474-224-0



North Atlantic University Union

Proceedings of the WORLD MEDICAL CONFERENCE

**Malta
September 15-17, 2010**

Editors:

Vadim V. Sumbayev
Alessandra Pica
Shi-Ping Luh
Hyun Kyoong Lim
Kazuhiko Natori
Shunsuke Meshitsuka

International Program Committee Members:

Michiko N. Fukuda, USA
Ghassan S. Kassab, USA
Jeffrey Field, USA
Mohamed Labib Salem, USA
Emily A. Keshner, USA
Annette Lindert, THE NETHERLANDS
Yvette Mandi, HUNGARY
Allen Yeoh, SINGAPORE
Constantin Polychronakos, CANADA
David E. Featherstone, USA
Ann Walker, USA
Mahmoud H. El Kouni, USA
Markus Kraft, UK
Tzung K. Hsiai, USA
Kenji Izuhara, JAPAN
Jörgen Gailer, CANADA
Peter H. Roos, GERMANY
Natalija Koprivanac, CROATIA
Rand Wilcox, USA
Paula Gomes, PORTUGAL
Staffan Kjelleberg, AUSTRALIA
Thomas Dittmar, GERMANY
Coen Stehouwer, THE NETHERLANDS
Zelimir Kurtanek, CROATIA
Beatriz Ruiz Dvez, SPAIN
Leonard H. Robinson, USA
Aleksandra Fucic, CROATIA
Peter C. Doherty, USA
Vassilios Fanos, ITALY
Prof Stephen Lord, USA
E. S. Kilpatrick, USA
Warren G. Darling, USA
Rada D. Ozrina, RUSSIA
Marwan Dwairy, ISRAEL
Elisabetta Di Giovanni, ITALY
Nikolai Grigorevich Khlebtsov, RUSSIA
Shmuel Einav, ISRAEL
Ken Kitajima, JAPAN
Zuhong Lu, CHINA
Seeroong Prichanont, THAILAND
Gertz I. Likhtenshtein, ISRAEL
Eddy Karnieli, ISRAEL
Marcela Kopacova, CZECH REPUBLIC
Xiaodan Jiang, CHINA
G. B. Arden, UK
Dhavendra Kumar, UK
Victor J. Hruby, USA
M. Pfreundschuh, GERMANY

Nobuo Inotsume, JAPAN
Draga Toncheva, BULGARIA
Alastair J Sloan, UK
K. Stephen Suh, USA
Geremia B. Bolli, ITALY
M. Wasif Saif, USA
Danny R. Welch, USA
Tony Lefebvre, FRANCE
Narihiko Kondo, ITALY
Kenneth K. Kidd, USA
Annamaria Lammel, France
Heloisa Sobreiro Selistre de Aratjo, BRAZIL
Vassilios I Sikavitsas, USA
Leena Peltonen, UK
Adrian L. Harris, UK
Robert C Rees, UK
Karl-Ludwig Laugwitz, GERMANY
Kenneth B. Storey, CANADA
Brian I. Carr, USA
J. F. Geschwind, USA
Ashok K. Shetty, USA
Zelia M Correa, USA
Vinai Norasakkunkit, USA
A. C. Hackney, USA
Marta Fulop, HUNGARY
Ignatia B. Van den Veyver, USA
J. Tinsley Oden, USA
Otto Horvath, HUNGARY
Jeb P. Owen, USA
Tjalf Ziemssen, GERMANY
Numa Dancause, USA
R. J. M. Klein Gebbink, THE NETHERLANDS
Andrea Benucci, UK
Steven C. Elbein, USA
Polly A. Newcomb, USA
Rosalind Eeles, UK
Laurent Bosquet, FRANCE
Regina Hofmann-Lehmann, SWITZERLAND
Kevin D. Costa, USA
Bart Verkerke, THE NETHERLANDS
K. Muthumani, USA
Ulf Ziemann, GERMANY
James J. Feng, CANADA
Jeffrey A. Weiss, USA
Cheng Dong, USA
Muhammad H. Zaman, USA
Marwan Dwairy, ISRAEL
Karl Peltzer, SOUTH AFRICA

Yan-Ling He, USA
Tomas Palecek, CZECH REPUBLIC
Fabio Lang da Silveira, BRAZIL
David Mann, UK
Ian D. Hickson, UK
Jerzy Jochem, POLAND
Reiner A. Veitia, FRANCE
Andrzej Starek, POLAND
Csaba Soti, HUNGARY
Hictor Escrivu, FRANCE
C. Ratledge, UK
Aurel Popa-Wagner, GERMANY
Ulf Ziemann, GERMANY
Shulamith Kreitler, ISRAEL
Michael Evgenev, RUSSIA
Paul W. Franks, USA
Tatyana Korolenko, RUSSIA
George G Chen, HONG KONG
Joanna Zawacka-Pankau, POLAND
Katharina Paschinger, AUSTRIA
Lucio Sibia, ITALY
Margo C. Honeyman, AUSTRALIA
Shosuke Kojo, JAPAN
Maurizio Bossola, ITALY
Warren G. Darling, USA
Johnny Ludvigsson, SWEDEN
Axel H. Schonthal, USA
Zan-Min Song, AUSTRALIA
Ima Nirwana Soelaiman, MALAYSIA
George Perry, USA
Miquel Solu, SPAIN
Curt Eckhert, USA
Alan Wells, USA
Emmanuel Katsanis, USA
Michael J. Lambert, USA
Roger Seymour, AUSTRALIA
Lucas Sanchez, SPAIN
Peter C. Doherty, USA
Greg Atkinson, UK
P. Gopalakrishnakone, SINGAPORE
Santosh Kumar, INDIA
Harvest F. Gu, SWEDEN
Rita Alevriadou, USA
Vladimir Jiranek, AUSTRALIA
Glen Atlas, USA
Bernardino Ghetti, USA
Ozgur Cogulu, TURKEY
Jaw-Lin Wang, USA
Harold A. Scheraga, USA
Ayten Yazgan-Karatas, TURKEY
Rodiger Wehner, SWITZERLAND
Julien Doyon, CANADA
A. Terrence Conlisk Jr., USA
C. Bolenz, GERMANY
Lakshmi Pendyala, USA
Vincent Launay-Vacher, FRANCE
Jerome Sanes, USA

Greg Tesch, AUSTRALIA
Edwin Wang, CANADA
Jose C. Florez, USA

Table of Contents

Plenary Lecture 1: Toll-like Receptor Signalling in Host Defence, Tissue Regeneration and Autoimmune Disorders <i>Vadim V. Sumbayev</i>	11
Plenary Lecture 2: A Novel Form of Manganese Superoxide Dismutase: Its Role as anti-Cancer, anti-Necrotic and Tumor Marker for Imaging Analysis <i>Alessandra Pica</i>	12
Plenary Lecture 3: Video-Assisted Thoracoscopic Surgery (VATS) – Our 3,000 Cases Experiences, and Future Perspectives <i>Shi-Ping Luh</i>	14
Plenary Lecture 4: The Evolution and Future of Magnetocardiography in Identification of Heart Disease-Induced Electrophysiological Changes <i>Hyun Kyoon Lim</i>	15
Plenary Lecture 5: Harm-Reduction as Risk Decreasing Strategy in Heroin Dependence <i>Daniel Vasile</i>	16
Plenary Lecture 6: Malignant Lymphoma Complicated by Gastrointestinal Perforation: Experience of 7 Cases in our Department <i>Kazuhiko Natori</i>	17
Plenary Lecture 7: N - Nitrosodiethylamine (NDEA) Genotoxicity in Primary Hepatocytes: Influence of Metabolic Activation by Cytochrome P450 <i>Claudia Alessandra Fortes Aiub</i>	18
Plenary Lecture 8: Efficacy of Anti-VEGF Agents in the Treatment of Age-Related Macular Degeneration <i>Marilita M. Moschos</i>	19
Plenary Lecture 9: The Influence of Aluminum on the Expression of Genes <i>Shunsuke Meshitsuka</i>	20
Novel Mining Algorithm for Multiple Level Classification of Brain Tumors <i>A. Tamilarasi M., B. Duraiswamy K.</i>	21
Human Lactoferrin Can Be Alternative to Antibiotics <i>Igor L. Goldman, Aleksey V. Deikin, Elena R. Sadchikova</i>	27
Renal Tumors: The Good, the Bad, and the Ugly <i>Robert C. Flanigan, Anthony J. Polcari, Cory M. Hugen</i>	39
The Study on Targeted Drug Regulation on DNA Methylation of p53-Bax Mitochondrial Apoptosis Pathway Enhances Chemo-Sensitivity of Cholangiocarcinoma Cells <i>Xiao-Fang Liu, Shao-Ping Yu, Xian-Chun Sun, Cui-Sheng Zhang, Zai-Qiu Wang, Hai-Long Su, Xian-Ting Zhou</i>	61

The Evolution and Future of Magnetocardiography in Identification of Heart Disease-Induced Electrophysiological Changes	74
<i>Hyun Kyoon Lim, Yong-Ho Lee, Namsik Chung</i>	
Pattern of Gastritis as Manipulated by Current State of Helicobacter Pylori Infection	78
<i>Mohamed M. Elseweidy, Mona M. Taha, Nahla N. Younis, Khadiga S. Ibrahim, Hamdi A. Hamouda, Mohamed A. Eldosouky, Hala Soliman, Samir Ghate</i>	
Determination of Amoxicillin in Human Plasma by LC-MS/MS and its Application to a Bioequivalence Study	86
<i>Satish G. Pingale, Madhukara. Badgajar, Kiran V. Mangaonkar, Nikos E. Mastorakis</i>	
Study of Hypoxia Inducible Factor -1α and CD34 as Angiogenic Factors in Bladder Cancer	99
<i>Hala I. Awadallah, Ahmed M. Salem, Abdel Hamid M. Yuosif, Soheir B. Mohamed, Nahla M. Awed, Amany A. Bakr</i>	
Efficacy of Minimal Invasive Surgery (Tension Free Vaginal Tape – Obturator) in the Management of Female Stress Urinary Incontinence	109
<i>Shahla Kareem Al Alaf</i>	
Excision of Pulmonary Nodules or Masses in Patients with Known Malignancies through Video-Assisted Thoracoscopic (VATS) Surgery	115
<i>Shi-Ping Luh, Der-Ear Huang, Chien-Chih Ou, Chu-Huan Lin, Shu-Ming Fang</i>	
CT and MRI in Congenital Thoracic Vascular Abnormalities	126
<i>Oleksandr Kondrachuk</i>	
Modulation of the Ipsilateral and Contralateral H Reflexes Following Ipsilateral Mechanical Pressure of the Foot in Normal Subjects	129
<i>Mohammad-Reza Hadian, Andisheh Bastani, Saeed Talebian, Hussein Bagheri, Gholam-Reza Olyaei</i>	
Effect of Implementing Nursing Process on Women's Health after Cesarean Birth at the Maternity Teaching Hospital/Erbil City	135
<i>H. M. Ahmed, B. M. Najib</i>	
The Mutation Spectrum of Hereditary Diseases Genes in Populations of Russia	143
<i>Irina Khidiyatova, Vita Akhmetova, Alexandra Karunas, Rita Khusainova, Irina Gilyazova, Elza K. Khusnutdinova</i>	
Evaluating the Infection in the Second Trimester of Pregnancy by C-Reactive Protein Dosing	149
<i>Carmen A. Bulucea, Nikos E. Mastorakis, Mariana F. Paun, Alina Neatu</i>	
Arterial Supply of the Ometum Majus – A Preliminary Study	155
<i>D. Kachlik, M. Kheck, M. Kheck Sr., P. Tesinsky, V. Baca</i>	
Selected Surgical Managements in Snoring and Obstructive Sleep Apnoea Patients	159
<i>E. Olszewska, J. Rutkowska, A. Czajkowska, M. Rogowski</i>	
Relationships between Biomarkers of Vascular Dysfunction and Peripheral Arterial Disease	164
<i>Claudia Gherman, Aurel Mironiuc, Serban Radulescu, Dana Fodor, Adriana Filip, Simona Mirel, Pamfil Doru, Ioana Petricele, Iulia Pop, Sanda Micula</i>	

The Plasma Level of Cathelicidin-LL37 in Patients with Chronic Hepatitis C Virus	170
<i>Simona Alexandra Iacob, Dorina Banica, Eugenia Panaitescu, Manole Cojocaru, Diana Iacob</i>	
Evaluation of Serum Intercellular Adhesion Molecule 1 in Patient with Metabolic Syndrome and Vitamin D Deficiency	174
<i>Suzana Danoiu, Mircea Danoiu, Rucsandra Danciulescu-Miulescu, Denisa Margina</i>	
Oxidative Stress and Vascular Inflammation in Post-menopausal Woman with Metabolic Syndrome	178
<i>Corina Grigore, Ovidiu Grigore, Irina Stoian, Ana-Maria Vintila, Luminita Dawkins, Dan Isacoff, Ion Bruckner</i>	
The Serum Level of 25-Hydroxyvitamin D and the Hepatic Necroinflammatory Activity in Hepatitis C Virus Infection	185
<i>Simona Alexandra Iacob, Dorina Banica, Eugenia Panaitescu, Manole Cojocaru, Diana Iacob</i>	
Efficacy of Anti-VEGF Agents in the Treatment of Age-Related Macular Degeneration	190
<i>Marilita M. Moschos</i>	
Symptoms and End-of-Life Experiences of Mexican Health and Aging Study Participants Who Died of Cancer	201
<i>Marylou Cardenas-Turanzas, Joseph L. Nates</i>	
Realization of Automatic Measurement and Bionic Control of Rotary Heart Pumps	209
<i>K. X. Qian, T. Jing, L. Li</i>	
Medically Induced Abortion in Second Trimester with Intravaginal Misoprostol	215
<i>Carmen A. Bulucea, Nikos E. Mastorakis, Mariana F. Paun, Alina Neatu</i>	
Y Chromosome Microdeletions in 34 Cryptorchidism Patients	221
<i>Necat Imirzalioglu, Yusuf Kubar, Hidayet Coban, Yasemin Soysal, Murat Dayanc</i>	
Mining the Common Facts in Cancer: Reliability of Protein Expression in Breast Cancer and Brain Tumor	226
<i>Parvin Mehdipour, Majid Kheirollahi, Masoud Mehrazin, Morteza Atri</i>	
Case Report- A Case of Primary Bilateral Fibroadenoma of Breasts in A Male of 20 Years of Age	231
<i>Anil Noolkar, D. G. Mote, S. D. Deshpande</i>	
Clinic Usefulness of an Algorithm for Endoscopic Retrieval of Proximally Migrated Pancreatic Stents	239
<i>Biao Gong, Bo Sun, Lixiao Hao, Like Bie</i>	
A Novel Form of Manganese Superoxide Dismutase: Its Role as Anti-Cancer, Anti-Necrotic and Tumor Marker for Imaging Analysis	245
<i>A. Pica, A. Di Santi, F. Basile, F. Iacobellis, A. Borrelli, A. Schiattarella, R. Mancini, A. Mancini</i>	
Flavonoid Silymarin Potentiates Antihelmintic Effect of Praziquantel via Down-Regulation of Oxidative Stress and Fibrogenesis in the Liver	250
<i>Gabriela Hreckova, Samuel Velebny</i>	
The Effect of Dimerumic Acid on LPS-Induced Internalization of MRP2 in Human Liver	258
<i>Toshiharu Horie, Shuichi Sekine</i>	

Laser Thrombolysis and in Vitro Study of Tissue Plasminogen Activators (tPA) Release Encapsulated by Chitosan Coated PLGA Nanoparticles for Acute Myocardial Infarction (AMI)	262
<i>Mahboobeh Mahmoodi, Mohammad E. Khosroshahi, Fatemeh Atyabi</i>	
Pathology Clinic Can Promote the Compliance of Patients to Clinicians: It is a Focal Point where Patients Consult Pathologists Directly	268
<i>Kiyomi Taniyama, Kazuya Kuraoka, Akihisa Saito, Takako Nakanishi, Miyuki Nishimaki, Minoru Takebayashi</i>	
Management of Affective Symptoms and Quality of Life Improvement after Primary Brain Tumor Surgery	276
<i>Daniel Vasile, Octavian Vasiliu</i>	
Anticonvulsants for Severe Behavioral Disturbances in Alzheimer Dementia	279
<i>Daniel Vasile, Octavian Vasiliu</i>	
Management of Cognitive Symptoms in Dementia Associated with Parkinson's Disease	284
<i>Daniel Vasile, Octavian Vasiliu</i>	
Matching Psychotropics to Neurobiological Mechanisms in the Aftermath of a Traumatic Event: A Literature Review	287
<i>Daniel Vasile, Octavian Vasiliu</i>	
Harm-Reduction as Risk Decreasing Strategy in Heroin Dependence	294
<i>Daniel Vasile</i>	
Stress Factors in Academic Environments: Inventory of Student Issues in Romanian Technical Universities	297
<i>Suzana Carmen Cismas</i>	
Authors Index	302

Plenary Lecture 1

Toll-like Receptor Signalling in Host Defence, Tissue Regeneration and Autoimmune Disorders



Professor Vadim V. Sumbayev
Medway School of Pharmacy
University of Kent
United Kingdom
E-mail: V.Sumbayev@kent.ac.uk

Abstract: Toll-like receptors (TLRs) specifically recognise pathogen-associated molecular patterns and thus induce inflammatory/innate immune reactions to pathogens. Both cell membrane-associated and endosomal TLRs lie at the core of resistance to infectious disease allowing the host to specifically detect pathogen and promote further stages of the immune defence. Recent evidence clearly demonstrated the role of TLRs in development of autoimmune disorders and tissue regeneration. This appears possible because of the ability of some TLRs to recognise host-derived endogenous ligands. Here we analyse the intracellular signalling pathways recruited by TLRs and used for cellular adaptation to inflammatory stress and promotion of innate immune reactions in the cases of host immune defence, tissue regeneration and autoimmune reactions. Possible cross-links between pro-inflammatory/stress-adaptation pathways and formation of inflammasome are considered. Molecular mechanisms employed for suppression of the inflammatory responses and programmed death of the effector cells are discussed as well.

Brief Biography of the Speaker:

I achieved my PhD degree in 1999 from the Palladin Institute of Biochemistry, National Academy of Science of the Ukraine. After graduating, I worked as Assistant, then Associate, Professor at the Department of Biochemistry, Mechnikov Odessa National University in the Ukraine. Then I moved to Germany where I received an Alexander von Humboldt research fellowship and worked as a Humboldt fellow in the Institute for Cell Biology, University of Kaiserslautern. Upon complete of my fellowship, I spent three years in Denmark at the University of Aarhus, working as Assistant Professor at the Department of Molecular Biology at the Interdisciplinary Nanoscience Centre. In December 2006, I joined the Medway School of Pharmacy, University of Kent as a Lecturer in Biochemistry where I have established my research group.

Plenary Lecture 2

A Novel Form of Manganese Superoxide Dismutase: Its Role as anti-Cancer, anti-Necrotic and Tumor Marker for Imaging Analysis



Professor Alessandra Pica

Dipartimento delle Scienze Biologiche
Sezione di Biologia Evolutiva e Comparata
Universita di Napoli, Federico II
via Mezzocannone 8,
80134, Napoli, Italy
E-mail: alessandra.pica@unina.it

Abstract: The manganese superoxide dismutase from liposarcoma (LSA-MnSOD) is a tumor protein isolated and sequenced, for the first time, in human liposarcoma cells (LSA) in the Laboratory of Experimental Oncology, Cancer Institute of Naples, G. Pascale, by Dr. Aldo Mancini. This protein showed a rapid and effective anti-cancer activity consisting of a selective cytotoxicity on certain human breast cancer cells (MCF-7), and no cytotoxic effect on normal cells, such as normal human mammary epithelium (MCF-10) and fibroblasts (MRC-5). This protein was sequenced and produced as recombinant form (rMnSOD). The rMnSOD demonstrated the ability to enter both normal and cancer cells and to perform antioxidant activity by neutralizing free radicals, turning them into hydrogen peroxide that only normal cells are able to transform into molecular oxygen and water, due to their normal levels of catalase. In cancer cells – by their well known catalase underproduction, up to 10-100 times, as compared to normal cells – the peroxide can not be converted in oxygen, so that only cancer cells will reach the threshold of toxicity that will cause apoptotic death. The surprising effect of this molecule is, however, due to its ability, following injection *in vivo*, to penetrate all cells giving off its antioxidant potential, through its enzymatic activity. Both LSA-MnSOD and the rMnSOD were sequenced and compared to the common mitochondrial form. The difference lies in the presence of a leader peptide detected only in LSA-MnSOD, thus explaining the unusual characteristic of the protein of entering cells, while the native protein remains confined to the mitochondrial compartment. So the leader peptide has been synthesized (rMnSOD-LP) and injected *in vitro* and *in vivo*, thus demonstrating its ability to enter cells. These experiments highlighted its role as a molecular carrier. Further studies about its carrier function were performed by conjugation of this peptide to radioactive ^{68}Ga and its subsequent injection into animals affected by mammary tumors. PET analysis, performed two hours after injection in animals (dogs and cats), demonstrated internalization of the synthetic construct in the tumor and in its metastasis, thus allowing a more accurate identification in the body. Experiments in progress are demonstrating the ability of the leader peptide to deliver a conjugated cisplatin directly inside the tumor cells (as quantitatively demonstrated by atomic absorption spectrophotometry) and delivering cisplatin toxic load. This internalization rapidly leads to cell death *in vitro* and *in vivo*. As a further demonstration of the ability of rMnSOD to repair the damage caused by radical excess, its topical formulation has been used to treat animals affected by extended necrotic lesions, which quickly returned to the structural and functional integrity of all tissues affected by necrosis. More recently, a significant reduction of tissue injury from X ray damage was demonstrated by using MnSOD-plasmid/liposome treatments in the protection of murine lung. The latter studies demonstrated that rMnSOD not only exerts radioprotective effect on normal cells, but it is also radiosensitizing for tumor cells.

Brief Biography of the Speaker:

Alessandra Pica B.Sc., Associate Professor of Hematology, Faculty of Mathematical Physical and Natural Sciences of University of Naples, Federico II, Italy

Teaching:

Human Anatomy ;Embryology and Experimental Morphology;.Histochemistry and Cytochemistry; Human Development, Growth and Anatomy - Course of General and Applied Biology - Curricula Nutritional Biology, University of Naples, Federico II, Italy.;;- Hematology – Course of first Degree in Biological Sciences University of Naples, Federico II, Italy.;;General and Comparative Hematology - Course of Biological Sciences -Curricula in Physiology-Pathology, University of Naples, Federico II, Italy.;; - Biology in Doctorate School in Bioethics of University of Naples, Federico II, Italy.;;- Hematology of Sea Turtles in Training Course On Sea Turtle Rescue and Rehabilitation

RAC/SPA (Regional Activity Centre for Specially Protected Areas - United Nations Environment Programme Mediterranean Action Plan (UNEP)) of Zoological Station, A. Dohrn, (Naples, Italy) devoted to foreign researcher of Mediterranean Areas; Hemopathology of Sea water Vertebrates in 1st Level Master in Biotechnology applied to reproduction and repopulation of marine species. 2007 School: Mathematics, Physics and Natural Sciences of University of Naples, Federico II, Italy

Current Scientific Activities

Consulting Hematologist of Sea Turtle Rescue and Rehabilitation Program of Zoological Station of Naples A. Dohrn, Italy

Member of Research Unit of project granted by Fidia Pharmaceutical: "Study of a Superoxide Dismutase modified (mMn-SOD-2), secreted by human liposarcoma displaying antitumoral and antioxidant properties" (Coordinator: Dr. Aldo Mancini, Cancer Institute of Naples, A. Pascale): immunocytochemical study of anti-tumoral action of LSA-Mn-SOD treatment on MCF-7 cultured breast cancer cells.

Member of Research Unit of the project granted by Space Agency (Coordinator: Dr. Aldo Mancini, Cancer Institute of Naples, A. Pascale) "From Molecules to Man: Biotechnological Applications of Space Research. Pharmacological countermeasures "on: Prevention and care from the radiation damages through a modified form of Manganese Super Oxide Dismutase (mMnSOD-2) of human origin.

Main fields of interest: Comparative hematology; hematological characterization of the Mediterranean loggerhead *Caretta caretta*; Histology of human endometrial cancer cells and leukemia cells of children, following a treatment with a new anticancer agent; Detection of biomarkers of blood cell damage due to sea water pollution.

Academic activities: Member of Doctorate School in Bioethics; teacher in 1st Level Master in Biotechnology applied to reproduction and repopulation of marine species. School: Mathematics, Physics and Natural Sciences of University of Naples, Federico II; Member of Animal Experimentation Ethics Committee (CESA) of A.O.R.N. "A. Cardarelli" Napoli, Italy; member of Regional Center of Competence for New Technology for Productive Activities: biological and medical imaging; Revisor, Hematology expert, for Comitato di indirizzo per la valutazione della Ricerca (CIVR) MIUR, Italy.

PROFESSIONAL MEMBERSHIPS: Italian Society of Anatomy; Italian Society of Histochemistry; Italian Zoological Society; Italian Group of Neuromorphology; Member of Scientific Committee of C.I.R.U.B. (Centro interdipartimentale per l'ultrastruttura biologica) of University of Naples, Federico II.

AUTHORED BOOK: Erythrocytes of the Poikilotherms: a Phylogenetic Odyssey

Chester A. Glomski, Alessandra Pica. Foxwell & Davies UK 1-432; 2006

ISBN 88-8448-010-8

Plenary Lecture 3

Video-Assisted Thoracoscopic Surgery (VATS) – Our 3,000 Cases Experiences, and Future Perspectives



Professor Shi-Ping Luh

Professor of Surgery

Vice Superintendent, St Martin De Porres Medical Center and

National Chiao-Tung University

Taiwan, R.O.C.

E-mail: luh572001@yahoo.com.tw

Abstract: Video-assisted thoracoscopic surgery (VATS) has replaced conventional thoracotomy as a standard procedure for some simpler thoracic operations as well as an option or a complementary procedures for some other complex operations. From 1992 to now, about 3,000 cases (not including sympathectomy for hyperhidrosis) have undergone this procedure by my service for the diagnosis and treatment of intrathoracic diseases. My experiences in VATS will be presented. Some specific issues in the application of VATS, which will be very important in the future will be discussed:

1. The role of VATS in the diagnosis and treatment for undetermined pulmonary nodules.
2. The VATS approach of pulmonary sub-centimeter ground glass opacity.
3. Timing of VATS approach for complicated pleural effusions or empyemas.
4. The role of VATS in indeterminate pleural effusions (suspect malignancy).
5. Timing of VATS for primary spontaneous pneumothorax. Choice of VATS for secondary spontaneous pneumothorax and giant bullous emphysema.
6. The VATS approach for spontaneous hemopneumothorax and bilateral lesions.
7. The VATS approach for simple or thymomatous myasthenia gravis (MG), and invasive or metastatic thymomas.
8. Newer instruments and techniques that facilitate the VATS procedures.

Plenary Lecture 4

The Evolution and Future of Magnetocardiography in Identification of Heart Disease-Induced Electrophysiological Changes



Professor Hyun Kyoon Lim

Co-authors: Y. H. Lee, N. S. Chung

Division of Convergence Technology

Center for Emerging Measurement Standards

Korea Research Institute of Standards and Science (KRISS)

Daejeon, Korea

E-mail: hlim@kriss.re.kr

Abstract: It has been more than 100 years since electrocardiography (ECG) began to be studied, and 60 years since it became a standard of care for patients with cardiac pain. Cardiac electrophysiological information using ECG has provided crucial data for heart disease diagnosis. However, the fundamental principles of ECG have not much changed since that time, and its low sensitivity has been unfavorably contrasted with those of new technologies that provide anatomical or biochemical information. Nevertheless, ECG is still the primary screening tool in the emergency department because no alternative medical device has been demonstrated to provide comparable physiological information directly. Multichannel magnetocardiography (MCG) has recently shown higher accuracy in detecting abnormal cardiac electrophysiology than that of ECG. MCGs are especially known for their superior ability to detect ischemic heart disease and fetal arrhythmias. In this paper, we focus on recent studies, including our own, demonstrating the ability of MCG to detect ischemic heart disease.

Realization of the benefits of MCG, such as its non-invasive and non-contact nature, has been anticipated for more than for 40 years. In addition, its signal is free from sensor artifacts and human organ artifacts including muscles and/or tissues. Regardless of the benefits, few MCG studies were published until the late 20th century for several reasons, particularly its high cost, bulky instrumentation, and difficulty in reading. Recently, MCG studies in the emergency department began to reveal additional crucial information. In particular, MCG showed a higher sensitivity than that of ECG, echocardiography and troponin-I for detecting patients with coronary artery disease, and MCG even predicted high-risk patients with chest pain without ST-segment elevation. We also found a similar diagnostic ability: sensitivity of 86 % and specificity of 75% using a single MCG parameter to detect non ST-segment elevation myocardial infarction (NSTEMI) compared with healthy controls (age-matched). The diagnostic performance to detect NSTEMI versus healthy controls was increased when multiple MCG parameters were used together. The use of magnetic field map pattern analysis and spatio-temporal electrical action graph (STAG) increased our understanding of how electrical conduction patterns were abnormal comparing to those of healthy controls. We were also able to observe consistent results including MCG parameter value change, magnetic field map change, and STAG from an animal model using a pig that had acute occlusion from 0 to over 90% at the middle portion of the left anterior descending (LAD) artery. In addition, an adenosine stress test in angina patients showed similar and significant MCG changes pre and post adenosine injection in several parameters ($p < 0.05$). These favorable study results were facilitated by newly developed computing techniques. In conclusion, MCG may have valuable implications in detecting abnormal cardiac electrophysiology, especially for non ST-segment elevation myocardial infarction patients.

Plenary Lecture 5

Harm-Reduction as Risk Decreasing Strategy in Heroin Dependence



Associate Professor Daniel Vasile

Clinical Psychopharmacology

Chief Clinic of Psychiatry, University Emergency Central Military Hospital

"Dr. Carol Davila", Bucharest

88, M. Vulcanescu Str., 010825, Bucharest, Romania

E-mail : danielvpsy@yahoo.com

Abstract: Harm reduction is a relatively new concept in the armamentarium of methods used for decreasing abuse and complications of the drug dependence, in patients who don't actually intend to give up completely their substance use. The main strategies of this intervention are drug substitution with a less dangerous pharmacological agent, information dissemination in consumer communities about long-term negative effects of drug use and possible complications (sexually transmitted diseases, traumatism, death by intoxication) and other strategies like needle-exchange or promoting less aggressive criminalization policies. This strategy tries to reduce the high-risk situations encountered by drug dependent patients and was implemented in several countries from Europe (Great Britain, Holland, Switzerland, Germany) and America (United States, Brazil). Several strategies of harm-reduction are applied also in Romania, in adolescent population, with high risk for overdose and other drug dependence complications. Although at a conceptual level harm reduction seems an interesting and useful approach, there are needed more controlled data in order to verify its efficacy versus other methods.

Brief Biography of the Speaker:

Dr. Daniel Vasile is Associate Professor of Clinical Psychopharmacology at University of Medicine and Pharmacy "Carol Davila", Bucharest and chief of the Clinic of Psychiatry at the University Emergency Central Military Hospital "Dr. Carol Davila", Bucharest, Romania. He is a psychiatrist and psychopharmacologist. He received his M.D. and Ph.D. in medical sciences from the University of Medicine and Pharmacy "Carol Davila", Bucharest and his M.A. from University of Bucharest, Faculty of Sociologie and Social Assistance.

Postgraduate work in research and clinic in France, Belgium, Spain, Netherlands, Romania. He published 10 books as first author, regarding drug dependences, psychopharmacology and general psychopathology. 160 papers published in international and national journals of psychiatry and psychopharmacology. Seven of these studies were published in ISI indexed journals (2 in "The World Journal of Biological Psychiatry" and 5 in "The International Journal of Neuropsychopharmacology"). He was distinguished with four awards at international scientific meetings.

He worked in 16 multicentric clinical trials (phase IIa, IIb, III) as Principal Investigator.

Plenary Lecture 6

Malignant Lymphoma Complicated by Gastrointestinal Perforation: Experience of 7 Cases in our Department



Associate Professor Kazuhiko Natori

Co-authors: Haruka Izumi, Susumu Ishihara, Yukitoshi Toyoda, Akiko Shibuya, Yoshinori Fujimoto, Daisuke Nagase, Motohiro Kato, Masanori Umeda, Yasunobu Kuraishi and Kazutoshi Shibuya

Division of Hematology and Oncology Department of Medicine
Omori Medical center

Toho University School of Medicine

E-mail: natori@med.toho-u.ac.jp

Abstract: Malignant lymphomas frequently invade the gastrointestinal tract, and concomitant perforation often occurs due to the response of the invasive regions to chemotherapy. We encountered 7 patients with malignant lymphoma complicated by gastrointestinal perforation. Herein, we report these cases.

The patients were 5 men and 2 women with a median age of 64 years. The histopathological type was non-Hodgkin's lymphoma in all cases, and the clinical stage was IEA in 1, IIIA in 1, IVA in 1, and IVB in 4. The perforated site was located in the stomach in 2, duodenum in 1, jejunum in 2, and ileum in 2, and emergency laparotomy was performed in 6 cases. The median survival time after perforation was 14 days, showing that the prognosis was very poor.

When gastrointestinal perforation occurs during chemotherapy, the life-saving rate is generally low due to pancytopenia-associated infection and hemorrhage. For surgery in malignant lymphoma patients complicated by gastrointestinal perforation, curative resection is not essential, and initiation of chemotherapy early after surgery is important. Complete resection of the lesion is not always necessary, and a safe surgical procedure prioritizing saving the life should be selected according to the systemic condition.

Plenary Lecture 7

N - Nitrosodiethylamine (NDEA) Genotoxicity in Primary Hepatocytes: Influence of Metabolic Activation by Cytochrome P450



Professor Claudia Alessandra Fortes Aiub

Department of Biophysics and Biometry

Rio de Janeiro State University

Rio de Janeiro, Brazil

E-mail: aiub@hotmail.com

Abstract: Nitrosamines are converted enzymatically into a methylating agent sparked an interested in the mechanism of carcinogenesis through alkylation of proteins and nucleic acids. The comprehension of formation of N-nitroso compounds from precursors (that are amine and nitrites) common in our environment, including formation in the stomach became clear that many nitrosamines, including a number of suspected carcinogens, could be formed in acid solution. Because of the gastric secretion of hydrochloric acid, the stomach of humans provides a milieu in which nitrosamines could form from ingested nitrite and amines. The more direct source of exposure to N-nitroso compounds is the nitrosamine present in tobacco. Tobacco contains by itself many volatile amines, which are formed by thermal degradation. In addition, tobacco is cured with the aid of nitrates, which become reduced to nitrites and react with nitrosable amines, such as nicotine, to form nitrosamines. Local exposure to nitrosamines present in tobacco is almost causally related to the oral and lung cancer common for tobacco chewers and snuff dippers. During the last few years, there has been a great interest in developing rapid and simple tests to identify the effects of exposure to environmental agents that can induce DNA damage. Drug enzyme induction is usually investigated in animal models by repeated administration of the tested compound, followed by the assessment of the metabolism of a reference compound, or changes in the pharmacological action of a metabolisable drug. Using the methodology described by Eckl and Raffelsberger (1997), in primary hepatocytes cultures, we study cell viability, induction of necrosis and apoptosis, mutagenicity and DNA repair in CYP (cytochrome P-450) pre-induction cultures in the presence of N-nitrosodiethylamine (NDEA), and correlate enzyme expression in rats with that in man, and their potential cancer risk. NDEA is activated by cytochrome P450 enzymes, resulting in ethylation of N and O atoms of most bases from DNA. The N7, and O6 positions of guanine are preferable ethylated, and a lower level of ethylation is also observed at the O4 position of thymine. O6-ethylguanine and O4-ethylthymine, if not repaired, will lead to mutation and tumour formation.

Brief Biography of the Speaker:

Claudia AF Aiub, PhD (doctor in Biology, Area Nuclear Biosciences by Rio de Janeiro State University) is a researcher at Rio de Janeiro State University and professor in Environmental Toxicology, Brazil. Her area of expertise is metabolism of natural products, including endogenous formation of nitrosamines, mutagenesis and carcinogenesis. She is an author of 15 papers and member of Environmental Mutagenesis, Carcinogenesis and Teratogenesis Brazilian Society (SBMCTA), Genetic Brazilian Society (SBG) and Biology Regional Council (CRB). She has an active participation as adhoc reviewer for Toxicology Letters, Marine Drugs, Anais da Academia Brasileira de Ciencias, Genetics and Molecular Biology and, Environmental Toxicology and Pharmacology. She was awarded in 2009- Distinction on Chagas Disease during the 100th anniversary, FIOCRUZ; 2004-Young Investigator Grant, Cancer Research Institute, Cancer Research Foundation, Gregor Mendel's Genetic Society; 2001-Special Fellow to 8? Internacional Mutagens Congress, in Japan, by Associacao Latino Americana de Mutagenese e Carcinogenese e Teratogenese Ambiental, ALAMCTA and 1998- Young Scientist – Eminence, UFRGS.

Plenary Lecture 8

Efficacy of Anti-VEGF Agents in the Treatment of Age-Related Macular Degeneration



Dr. Marilita M. Moschos

Co-author: Prof. Michael Moschos
Department of Ophthalmology
University of Athens, Greece
E-mail: moschosmarilita@yahoo.fr

Abstract: Choroidal neovascularisation (CNV) is a leading cause of loss of central vision in developed countries. The potentially poor natural history of many subfoveal CNV lesions and the limitations of thermal laser photocoagulation for these lesions have prompted the search for alternative treatment modalities, including photodynamic therapy. More recently agents that block the effects of vascular endothelial growth factor (VEGF) have been used to treat CNV secondary to age macular degeneration. Bevacizumab binds all biologically active forms of VEGF, as ranibizumab does.

In this presentation the authors summarize their experience on the treatment of CNV due to age-related macular degeneration (AMD). Also they assess the efficacy of the treatment by means of multifocal-Electroretinogram (mf-ERG) and optical coherence tomography (OCT) before and after the intravitreal injection of bevacizumab and ranibizumab.

Brief Biography of the Speaker:

Marilita M. Moschos graduated the Pharmacy School of the University of Patras and the Medical School of the University of Athens. She is actually working as a senior lecturer of Department of Ophthalmology of Athens University where she has the clinical and scientific co-responsibility of the Laboratory of Electrophysiology of Vision and the department of Glaucoma. She authored or co-authored over 45 scientific papers in pubmed reviewed journals and presented over 60 at international conferences, in some of them as invited speaker. She also wrote the chapter on 'Multifocal-Electroretinogram in retinal vascular diseases' in the annual edition of SFO (Societe Francaise d'Ophthalmologie). Finally she is a member of many international ophthalmological societies and reviewer in several ophthalmological journals, like, Clinical and Experimental Ophthalmology, Expert Review of Ophthalmology, Journal of Neuroscience Methods, Graefe's Archive for Clinical and Experimental Ophthalmology, BMC Ophthalmology, Clinical Ophthalmology, Indian Journal of Ophthalmology and others.

Plenary Lecture 9

The Influence of Aluminum on the Expression of Genes



Associate Professor Shunsuke Meshitsuka

Division of Integrative Bioscience
Institute of Regenerative Medicine and Biofunction
Graduate School of Medical Science
Tottori University, 86 Nishi-machi, Yonago 683-8503, Japan
E-mail: mesh@med.tottori-u.ac.jp

Abstract: Aluminum is the third abundant element and the most abundant metal in the earth's crust, therefore exposure to aluminum is inevitable in daily life. High aluminum excretion continued for several days after taking aluminum laden analgesics on account of a limiting threshold of renal aluminum excretion. It is widely known that accumulation of aluminum in the body has been linked to disease conditions such as dialysis encephalopathy, renal osteodystrophy, and hypochromic microcytic anemia. Therefore, the influence of a dose of aluminum on gene expression was interested in. It was shown by differential display analysis that aluminum caused up-regulation of eight and down-regulation of five renal genes. Renin was the only positively identified up-regulated gene by DNA sequencing of 13 genes. The up-regulation of renin was confirmed by RT-PCR and Western blotting experiments in the dose dependent treatments and the time course observation after aluminum citrate injection in mice. The up-regulation of the renin expression by aluminum is a strong indication of the influence of aluminum on the renin-angiotensin-aldosterone-system, resulting in the induction of essential hypertension.

Brief Biography of the Speaker:

Shunsuke Meshitsuka graduated from Waseda University in 1970, and got his Ph.D. from the Faculty of Science of the University of Tokyo in 1977, and got D.Med. from Tottori University Faculty of Medicine in 1987. He got a position of a researcher in Sagami Chemical Research Center in 1972. He moved to Tottori University Medical School as an assistant professor in 1976. After working in the Fox Chase Cancer Center in Philadelphia as a postdoctoral fellow he became an associate professor in 1995. He was an invited researcher of Riken Genome Science Research Center, Yokohama from 2004 to 2006, and also was a visiting researcher of Osaka University Institute for Protein Research from 1981 to 2010. His main research area is inorganic biochemistry and the structure of related biological molecules.

Authors Index

Ahmed, H. M.	135	Hamouda, H. A.	78	Neatu, A.	149, 215
Akhmetova, V.	143	Hao, L.	239	Nishimaki, M.	268
Al Alaf, S. K.	109	Horie, T.	258	Noolkar, A.	231
Atri, M.	226	Hrckova, G.	250	Olszewska, E.	159
Atyabi, F.	262	Huang, D.-E.	115	Olyaei, G.-R.	129
Awadallah, H. I.	99	Hugen, C. M.	39	Ou, C.-C.	115
Awed, N. M.	99	Iacob, D.	170, 185	Panaitescu, E.	170, 185
Baca, V.	155	Iacob, S. A.	170, 185	Paun, M. F.	149, 215
Badgujar, M.	86	Iacobellis, F.	245	Petricela, I.	164
Bagheri, H.	129	Ibrahim, K. S.	78	Pica, A.	245
Bakr, A. A.	99	Imirzalioglu, N.	221	Pingale, S. G.	86
Banica, D.	170, 185	Isacoff, D.	178	Polcari, A. J.	39
Basile, F.	245	Jing, T.	209	Pop, I.	164
Bastani, A.	129	Kachlik, D.	155	Qian, K. X.	209
Bie, L.	239	Karunas, A.	143	Radulescu, S.	164
Borrelli, A.	245	Kheck, M.	155	Rogowski, M.	159
Bruckner, I.	178	Kheck, M. Sr.	155	Rutkowska, J.	159
Bulucea, C. A.	149, 215	Kheirollahi, M.	226	Sadchikova, E. R.	27
Cardenas-Turanzas, M.	201	Khidiyatova, I.	143	Saito, A.	268
Chung, N.	74	Khosroshahi, M. E.	262	Salem, A. M.	99
Cismas, S. C.	297	Khusainova, R.	143	Schiattarella, A.	245
Coban, H.	221	Khusnutdinova, E. K.	143	Sekine, S.	258
Cojocar, M.	170, 185	Kondrachuk, O.	126	Soliman, H.	78
Czajkowska, A.	159	Kubar, Y.	221	Soysal, Y.	221
Danciulescu-Miulescu, R.	174	Kuraoka, K.	268	Stoian, I.	178
Danoiu, M.	174	Lee, Y.-H.	74	Su, H.-L.	61
Danoiu, S.	174	Li, L.	209	Sun, B.	239
Dawkins, L.	178	Lim, H. K.	74	Sun, X.-C.	61
Dayanc, M.	221	Lin, C.-H.	115	Taha, M. M.	78
Deikin, A. V.	27	Liu, X.-F.	61	Takebayashi, M.	268
Deshpande, S. D.	231	Luh, S.-P.	115	Talebian, S.	129
Di Santi, A.	245	Mahmoodi, M.	262	Tamilarasi, A. M.	21
Doru, P.	164	Mancini, A.	245	Taniyama, K.	268
Duraiswamy, B. K.	21	Mancini, R.	245	Tesinsky, P.	155
Eldosouky, M. A.	78	Mangaonkar, K. V.	86	Vasile, D.	276, 279, 284
Elseweidy, M. M.	78	Margina, D.	174	Vasile, D.	287, 294,
Fang, S.-M.	115	Mastorakis, N. E.	86, 149, 215	Vasiliu, O.	276, 279,
Filip, A.	164	Mehdipour, P.	226	Vasiliu, O.	284, 287,
Flanigan, R. C.	39	Mehrazin, M.	226	Velebny, S.	250
Fodor, D.	164	Micula, S.	164	Vintila, A.-M.	178
Ghate, S.	78	Mirel, S.	164	Wang, Z.-Q.	61
Gherman, C.	164	Mironiuc, A.	164	Younis, N. N.	78
Gilyazova, I.	143	Mohamed, S. B.	99	Yu, S.-P.	61
Goldman, I. L.	27	Moschos, M. M.	190	Yuosif, A. H. M.	99
Gong, B.	239	Mote, D. G.	231	Zhang, C.-S.	61
Grigore, C.	178	Najib, B. M.	135	Zhou, X.-T.	61
Grigore, O.	178	Nakanishi, T.	268		
Hadian, M.-R.	129	Nates, J. L.	201		