

Advances in Biomolecular Medicine

Editors

Robert Hofstra
Noriyuki Koibuchi
Suthat Fucharoen



 **CRC Press**
Taylor & Francis Group

A BALKEMA BOOK

PROCEEDINGS OF THE 4TH BIBMC (BANDUNG INTERNATIONAL BIOMOLECULAR MEDICINE CONFERENCE) 2016 AND THE 2ND ACMM (ASEAN CONGRESS ON MEDICAL BIOTECHNOLOGY AND MOLECULAR BIOSCIENCES), BANDUNG, WEST JAVA, INDONESIA, 4–6 OCTOBER 2016

Advances in Biomolecular Medicine

Editors

Robert Hofstra

Department of Clinical Genetics, Erasmus MC University Medical Center, Rotterdam, The Netherlands

Noriyuki Koibuchi

Department of Integrative Physiology, Gunma University Graduate School of Medicine, Gunma, Japan

Suthat Fucharoen

Thalassemia Research Centre, Institute of Molecular Biosciences, Mahidol University, Thailand



CRC Press

Taylor & Francis Group

Boca Raton London New York Leiden

CRC Press is an imprint of the
Taylor & Francis Group, an **informa** business

A BALKEMA BOOK

Table of contents

Preface	vii
Iron overload intolerance in Balb/c mice <i>N. Anggraeni, M.R.A.A. Syamsunarno, R.D. Triatin, D.A. Setiawati, A.B. Rakhimullah, C.C. Dian Irianti, S. Robianto, F.A. Damara, D. Dhianawaty & R. Panigoro</i>	1
Mapping of health care facilities in the universal coverage era at Bandung District, Indonesia <i>N. Arisanti, E.P. Setiawati, I.F.D. Arya & R. Panigoro</i>	5
Influence of phosphatidylcholine on the activity of SHMT in hypercholesterolemic rats <i>A. Dahlan, H. Heryaman, J.B. Dewanto, F.A. Damara, F. Harianja & N. Sutadipura</i>	9
Molecular detection of DHA-I AmpC beta-lactamase gene in <i>Enterobacteriaceae</i> clinical isolates in Indonesia <i>B. Diela, S. Sudigdoadi, A.I. Cahyadi, B.A.P. Wilopo, I.M.W. Dewi & C.B. Kartasasmita</i>	13
Correlation between natrium iodide symporter and c-fos expressions in breast cancer cell lines <i>A. Elliyanti, N. Noormartany, J.S. Masjhur, Y. Sribudiani, A.M. Maskoen & T.H. Achmad</i>	19
Fat mass profile in early adolescence: Influence of nutritional parameters and rs9939609 FTO polymorphism <i>S.N. Fatimah, A. Purba, K. Roesmil, G.I. Nugraha & A.M. Maskoen</i>	23
A study of the palatal rugae pattern as a bioindicator for forensic identification among Sundanese and Malaysian Tamils <i>R. Khaerunnisa, M. Darjan & I.S. Hardjadinata</i>	29
Effect of acrylamide in steeping robusta coffee (<i>Coffea canephora</i> var. <i>robusta</i>) on memory function and histopathological changes of brain cells in male rats (<i>Rattus norvegicus</i>) <i>D.Y. Lestari, M. Bahrudin, Rahayu, Fadhil & A.W. A'ini</i>	33
Effects of aerobic exercise and a high-carbohydrate diet on RBP4 expression in rat skeletal muscle <i>N. Najmi, Y. Sribudiani, B.S. Hernowo, H. Goenawan, Setiawan, V.M. Tarawan & R. Lesmana</i>	37
Correlation of physical activity and energy balance with physical fitness among the professors of the University of Padjadjaran <i>J. Ninda, L. Lubis, A. Purba, I.B. Akbar, W. Karhiwikarta, Setiawan, V.M. Tarawan, R. Farenia, G.I. Nugraha, M. Rizky Akbar, D.K. Sunjaya, S. Rachmayati, I. Ruslina, Hanna, T. Hidayat, P. Tessa, N. Sylviana, Ronny, T. Nurhayati, Y.S. Pratiwi, N.V. Utami, Juliati, S.N. Fatimah, Y. Indah & F. Huda</i>	41
Molecular biology of irreversible pulpitis: A case report <i>D. Prisinda & A. Muryani</i>	47
Effect of different doses of X-ray irradiation on survival of human esophageal cells <i>I.M. Puspitasari, R. Abdulah, M.R.A.A. Syamsunarno & H. Koyama</i>	53
The effect of mesenchymal stem cells on the endothelial cells of diabetic mice <i>A. Putra, A. Rahmalita, Y. Tarra, D.H. Prihananti, S.H. Hutama & N.A.C. Sa'diyah</i>	57
Effects of selenium on SePP and Apo B-100 Gene expressions in human primary hepatocytes <i>M. Putri, N. Sutadipura, S. Achmad, C. Yamazaki, S. Kameo, H. Koyama, M.R.A.A. Syamsunarno, T. Iso & M. Kurabayashi</i>	61

Inhibition of cAMP synthesis abolishes the impact of curcumin administration in the skeletal muscle of rodents <i>H.R.D. Ray & K. Masuda</i>	65
Effect of Monosodium Glutamate (MSG) on spatial memory in rats (<i>Rattus norvegicus</i>) <i>R. Razali, S. Redjeki & A.A. Jusuf</i>	71
<i>Mycobacterium tuberculosis</i> load and rifampicin concentration as risk factors of sputum conversion failure <i>E. Rohmawaty, H.S. Sastramihardja, R. Ruslami & M.N. Shahib</i>	75
Interleukin-22 serum in comedonal acne vulgaris: Proof of inflammation <i>K. Ruchiatan, R. Hindritiani, E. Sutedja & S. Maulinda</i>	79
Pharmacokinetic optimization of the treatment of TB meningitis with TB drugs <i>R. Ruslami</i>	83
Iron-chelating effect of <i>Caesalpinia sappan</i> extract under conditions of iron overload <i>R. Safitri, D. Malini, A.M. Maskoen, L. Reniarti, M.R.A.A. Syamsunarno & R. Panigoro</i>	87
The role of <i>S.aureus</i> and <i>L.plantarum</i> as an immunomodulator of IFN α macrophages and fibronectin dermal fibroblast secretion <i>R.S.P. Saktiadi, S. Sudigdoadi, T.H. Madjid, E. Sutedja, R.D. Juansah, T.P. Wikayani, N. Qomarilla & T.Y. Siswanti</i>	93
Exon globin mutation of β -thalassemia in Indonesian ethnic groups: A bioinformatics approach <i>N.I. Sumantri, D. Setiawan & A. Sazali</i>	99
Serum immunoglobulin-E level correlates with the severity of atopic dermatitis <i>O. Suwarsa, E. Avriyanti & H. Gunawan</i>	105
Fatty liver in fasted FABP4/5 null mice is not followed by liver function deterioration <i>M.R.A.A. Syamsunarno, M. Ghozali, G.I. Nugraha, R. Panigoro, T. Iso, M. Putri & M. Kurabayashi</i>	109
The potential of seluang fish (<i>Rasbora</i> spp.) to prevent stunting: The effect on the bone growth of <i>Rattus norvegicus</i> <i>Triawanti, A. Yumanto & D.D. Sanyoto</i>	113
Effect of cryoprotectants on sperm vitrification <i>R. Widyastuti, R. Lesmana, A. Boediono & S.H. Sumarsono</i>	119
Mucoprotective effect of <i>Trigona</i> propolis against hemorrhagic lesions induced by ethanol 99.5% in the rat's stomach <i>V. Yunivita & C.D. Nagarajan</i>	123
Author index	127

Mapping of health care facilities in the universal coverage era at Bandung District, Indonesia

N. Arisanti, E.P. Setiawati & I.F.D. Arya

Department of Public Health, Faculty of Medicine, Universitas Padjadjaran, West Java, Indonesia

R. Panigoro

Department of Biochemistry, Faculty of Medicine, Universitas Padjadjaran, West Java, Indonesia

ABSTRACT: The implementation of Universal Health Coverage should be accompanied by increasing and distributing health resources such as human resources, infrastructure, etc in primary health center and hospitals. In this UHC era, Government of Bandung District has made various efforts to strengthen health systems in order of fulfillment the number of health personals. The purpose of this study was to identify health care facilities according to the number, status, type, accreditation, partnership with National Health Insurance (BPJS) and map the distribution.

The method was descriptive study. The data of registered health care facilities was collected from District Health Office and Professional Organization, categorized according to the number, type, location, status, accreditation, and the mapping was performed using the software. The research was conducted in Bandung District, from October to December 2015.

There are 1027 health care facilities in 31 sub-districts. A total of 59.5% is private health care facilities and majority is midwives (28.7%). There are only 5 health care facilities accredited and all are general hospitals. Health care facilities that have formed a new partnership with BPJS reached 29.8%. From 31 sub-districts, Rancaekek is the sub-districts with the highest number of health care facilities.

Keywords: distribution, health care facilities, mapping

1 INTRODUCTION

The access to health care facilities is a necessary condition to achieve Universal Health Coverage. UHC aims to meet population needs for quality health care, remove financial barriers to health care access, reduce incidence of catastrophic health expenditures, attain national and internationally agreed health goals, and ultimately contribute to poverty alleviation and development. (Sambo et al. 2014) Many efforts in the implementation of the UHC to meet the goal should be accompanied by increasing and equitable distribution of resources such as human resources for health, health care facilities and infrastructure, affordability of drugs, medical supplies in health. Equal and proper distribution of health and human services is an effort that can support the achievement of UHC and help in maximizing accessibility, thereby helping government and stakeholders save cost on providing infrastructure for the entire population and most importantly optimize delivery of health care goals. (Ayuba et al. 2016)

As one of the largest archipelagos in the world, Indonesia facing problem on geographical access

to health care and unevenly distributed health care facilities. Doctor could not reach the whole population in the working area and visa versa. Their inequitable distribution over space is of concern and has brought about the issue of provision and effective utilization of the facilities. The regular monitoring of access to health care facilities is often a weak component of country and global monitoring the performance of health system. Annual reviews of health sector progress and performance at national and subnational levels, based on a broad set of indicators that cover all areas of performance, should include up-to-date and accurate information on service delivery. There is continuing discussion in Indonesia about the need for improved information on resources for health at the district level where programs are actually delivered. Research by Heywood, et al in 2009 describes the distribution of health care facilities and personnel in the 15 Districts in Java in 2007. The result of this study was about half of the third group of professionals (doctors, nurses, midwives) is a Public Servant. The private sector as the main work is very important for doctors (37%) and more important for midwives (10%). For those who work in the government sector, two-thirds of