

CELEBRATING
COMMERCIALISATION
YEAR 2014

iiindex 2014

AN INTERNATIONAL EXPOSITION ON RESEARCH AND INNOVATION

invention
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exposition 2014

INNOVATEUR
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2014

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UNIVERSITI TEKNOLOGI MARA
MALAYSIA

*Bridging
the valley of death :
advancing the
commercialisation
of research*

RESEARCH BOOK

iiindex 2014

AN INTERNATIONAL EXPOSITION ON RESEARCH AND INNOVATION

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FOREWORD

The Honourable Minister of Science, Technology and Innovation (MOSTI) has launched 2014 as Malaysia Commercialisation Year 2014 (MCY2014) with the theme Science Technology and Innovation (STI) for Wealth Creation. In line with this theme, Invention, Innovation, Design & Exposition 2014 (iidex2014) is an annual exposition organized by UiTM and is the ultimate platform to highlight and commercialise new inventions and innovations. Researchers and inventors will exhibit their products which cater to the needs and wants of the community and the country.

The iidex2014 creates a new dimension by fusing two competitive concepts, a competition among innovative products and a competition to invite Innovateur Wannabes to perform live pitching of their products to the audience. The iidex2014 focuses on comprehensive commercialization and creating opportunities for entrepreneurs to carry out R&D as well as to provide avenue to commercialise their products. Through expositions such as iidex2014, MOSTI hopes to inculcate the culture of commercialisation of new technology designed and created by Malaysians.

I wish to congratulate all the participants of the iidex2014 and this is the opportunity for all researchers to show their ideas and exhibits their products and creativity. Apart from showcasing their products, innovators will have the opportunity to provide a window to the industry for business matching during the exposition.

Tan Sri Dato' Sri Sallehuddin Mohamed
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ELDERLY MEDICATION AND SAFETY (EMAS) EDUCATION PROGRAM

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The chronological age of 65 years and above has been accepted as a definition of elderly or older person. World-wide, elderly population has been increasing over the years due to medical technologies advancement, improved health promotion and services. In Malaysia the number of those categorised as elderly population was approximately 1.5 million in the year 2000 and this number is expected to increase to 3 million in 2020. The elderly are frequent users of medications and health services since they generally co-exist with multiple co-morbidities. Due to age related-physiological changes that affect the pharmacokinetics and pharmacodynamics of medications, the elderly are prone to developing drug-related problems (DRPs) and adverse drug reactions (ADRs). Optimizing medication use among the elderly is challenging due to multiple medication use, reduced physical and mental functioning and low level of medication compliance. At present there is no therapeutic educational program focusing on the elderly that interconnects physicians, pharmacists and the elderly. Therefore the implementation of EMAS project could fill the gap in promoting better care for the geriatrics. EMAS project is aimed to improve medication use in the elderly through its various programs. The project consists of three components: education, research and community services. In the educational part of the project, educational materials on geriatric medications will be sent to physicians, hospital and community pharmacists and elderly care institutions to provide common geriatric-related information such as medication pharmacokinetics and pharmacodynamics changes, physiological changes, potentially inappropriate medications/ potentially prescribing omissions and common geriatric syndromes in the elderly. A group of clinical experts will contribute to the development of the educational materials which was specifically developed for the elderly and healthcare professionals who are involved in geriatric care. Medical conditions that are common in the elderly such as heart failure, diabetes, falls and gout will be covered more extensively in the educational program. As part of EMAS, continuing professional development (CPD) program in the form of lecture, talk or forum will also be organized for the healthcare professionals to provide latest updates and information on geriatrics pharmacotherapy. A CPD program website will also be developed for healthcare professionals who could provide comprehensive and good quality online training support for the pharmacists and doctors in the area of geriatrics. This website will be the first in the country to compile reliable information regarding elderly medication for easy reference. For the laypeople, series of talks on optimization of geriatric medication use will be held regularly. This would provide opportunities especially the elderly to better understand the importance of optimal medication use among them. EMAS project would also provide series of community services in which basic health screening is offered to the elderly at the elderly care institutions in collaboration with governmental and non-governmental organization. Health screening services that could be provided includes blood pressure, body mass index (BMI), glucose, total cholesterol and nutrition awareness. Through this health screening program, those who may be at risk for certain illnesses may be identified. EMAS project can be seen as an ongoing commitment designed specifically to improve health and medication use in the elderly. Since the program involves the participation of academicians, healthcare professionals and the elderly themselves, EMAS offers a holistic approach in optimizing medication use for the elderly.