

ISPOR 7TH ASIA-PACIFIC CONFERENCE

3-6 SEPTEMBER 2016

SUNTEC SINGAPORE CONVENTION
& EXHIBITION CENTER

SINGAPORE

SHORT COURSE PROGRAM



ISPOR 7TH ASIA-PACIFIC CONFERENCE

3-6 SEPTEMBER 2016 • SUNTEC SINGAPORE CONVENTION & EXHIBITION CENTER, SINGAPORE

SHORT COURSE PROGRAM

Saturday
3

SATURDAY, 3 SEPTEMBER

MORNING COURSES 8:00AM-12:00PM

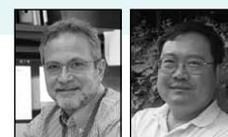
INTRODUCTION TO PHARMACOECONOMICS/HEALTH ECONOMICS Room 324

TRACK: Economic Methods

LEVEL: Introductory. *This course is suitable for those with little or no experience with pharmacoeconomics.*

FACULTY: David B. Matchar, MD, Professor & Director, Program for Health Services & Systems Research, Duke-NUS Graduate Medical School, Singapore; Hong Li, PhD, MPH, Adjunct Professor, School of Public Health, Shanghai Jiaotong University, Shanghai, China and Adjunct Associate Professor, School of Pharmacy, Cincinnati University, Cincinnati, OH, USA

COURSE DESCRIPTION: This course is designed to teach clinicians and researchers the basics of pharmacoeconomic (health economic) analysis in health care. This course will include the basic theory for determining cost and outcomes, the different types of costs and costing methods. Analysis methods to be discussed include cost-minimization, cost-benefit analysis, cost-utility (cost per QALY), cost-effectiveness, and incremental cost-effectiveness ratios (ICERS). The course will also highlight how analyses are framed, evaluated, and reported. Finally, the course will outline challenges and considerations when utilizing pharmacoeconomics as a tool for developing clinical guidelines for health care systems. Applications of pharmacoeconomics/health economics in Asia will also be discussed.



Matchar

Li

INTRODUCTION TO MODELING Room 327

TRACK: Modeling Methods

LEVEL: Introductory.

FACULTY: Shu Chuen Li, MAppSc, MBA, PhD, Chair Professor of Pharmacy & Head of Pharmacy and Experimental Pharmacology, University of Newcastle, Callaghan, NSW, Australia; Jipan Xie, MD, PhD, Vice President, Analysis Group, Inc., New York, NY, USA

COURSE DESCRIPTION: This course will introduce modeling techniques such as decision analytic modeling, Markov modeling, discrete event models, and other modeling techniques and their appropriate usages, including a review of the *ISPOR Modeling Good Research Practices*. Examples will be presented using Microsoft Excel, with add-on simulation software. This course will include practical steps in the selection of models and options in modeling of data inputs.



Li

Xie

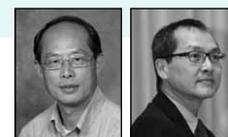
NEW! HEALTH CARE DATA AND INFORMATICS Room 325

TRACK: Observational Data Methods

LEVEL: Introductory. *This course is designed for those with little experience with data analysis or observation.*

FACULTY: Jeff J. Guo, PhD, Professor, University of Cincinnati, Cincinnati, USA; Kinwei Arnold Chan, MD, MPH, ScD, Deputy Director, Department of Medical Research, Director, Health Data Research Center, Director, Clinical Trial Center, National Taiwan University Hospital, and Professor, College of Medicine, National Taiwan University, Taipei, Taiwan

COURSE DESCRIPTION: This course will discuss issues surrounding health care data and health informatics in Asia, including established data sources such as patient registries and clinical data warehouses, methodologies surrounding data collection and sharing across health systems, data management through established health information systems, electronic health records, and data utilization (analytics), as well as issues of clinical and economic data transferability across jurisdictions. Emerging trends in big data and their future role in Asia will also be introduced.



Guo

Chan

ELEMENTS OF PHARMACEUTICAL/BIOTECH PRICING Room 326

TRACK: Use of Pharmacoeconomic / Economic / Outcomes Research Information

LEVEL: Introductory. *This introductory course is designed for those with limited experience in pharmaceutical pricing and reimbursement.*

FACULTY: Jack M. Mycka, Global President & CEO, Medical Marketing Economics LLC (MME), Montclair, USA; Shanlian Hu, MS, MD, Senior Consultant, Shanghai Health Development Research Center, Shanghai, China; Manny Papadimitropoulos, MScPhm, PhD, Health Outcomes Scientific Leader, Latin America, Eli Lilly, and Adjunct Assistant Professor, University of Toronto, Toronto, ON, Canada



Mycka

Hu

Papadimitropoulos

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SHORT COURSES: SATURDAY MORNING & AFTERNOON COURSES

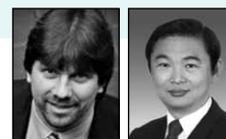
COURSE DESCRIPTION: This course will give participants a basic understanding of the key terminology and issues involved in pricing decisions and the principles of market access. It covers the tools to document product value, the role of pharmacoeconomics, and the differences in payment systems that help pricing decisions. Recent pharmaceutical spending patterns, trends, and cost-containment measures will also be discussed, taking into account the wider policy context. The health systems approach in several countries will be presented.

INTRODUCTION TO HEALTH TECHNOLOGY ASSESSMENT *Room 323*

TRACK: Use of Pharmacoeconomic / Economic / Outcomes Research Information

LEVEL: **Introductory.** *This course is suitable for those with little or no experience with health technology assessment (HTA).*

FACULTY: **Uwe Siebert, MD, MPH, MSc, ScD**, Professor, Department of Public Health, Health Services Research & HTA/ONCOTYROL, Department of Health Policy & Management, Harvard Medical School, Institute for Technology Assessment & Department of Radiology, Hall i.T., Austria; **Yen-Huei (Tony) Tarn, PhD, MS**, Associate Professor, Kaohsiung Medical University, Kaohsiung, Taiwan



Siebert

Tarn

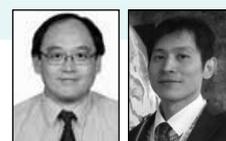
COURSE DESCRIPTION: This course will teach participants about the key principles, elements, methods, and language of health technology assessment (HTA), and provide an overview of basic HTA disciplines, including benefit assessment (biostatistics, clinical epidemiology, patient-relevant outcomes, risk-benefit assessment), economic evaluation (costing, cost-effectiveness analysis, pharmacoeconomic modeling, budget impact analysis, resource allocation), and ELSI (ethical, legal, and social implications). Participants will also learn to be prepared for discussions between different stakeholders regarding the implementation of HTA in decision making.

COST EFFECTIVENESS ANALYSIS ALONGSIDE CLINICAL TRIALS *Room 300-301*

TRACK: Economic Methods

LEVEL: **Intermediate.** *Familiarity with economic evaluations will be helpful.*

FACULTY: **Chee-Jen Chang, PhD**, Director & Professor, Chang Gung University, Taoyuan, Taiwan; **David Bin-Chia Wu, PhD**, Professor of Health Economics, Monash University Malaysia, Selangor, Malaysia



Chang

Wu

COURSE DESCRIPTION: The growing number of prospective clinical/economic trials reflects both widespread interest in economic information for new technologies and the regulatory and reimbursement requirements of many countries that now consider evidence of economic value along with clinical efficacy. This course will present the design, conduct, and reporting of cost-effectiveness analyses alongside clinical trials based on, in part, the *Good Research Practices for Cost-Effectiveness Analysis alongside Clinical Trials: The ISPOR RCT-CEA Task Force Report*. Trial design, selecting data elements (measures of cost and outcomes), database design and management, analysis, and reporting of results will be presented. Trials designed to evaluate effectiveness (rather than efficacy) as well as clinical outcome measures will be discussed. How to obtain health resource use and health state utilities directly from study subjects and economic data collection fully integrated into the study will also be discussed. Analyses guided by an analysis plan and hypotheses, an incremental analysis using an intention to treat approach, characterization of uncertainty, and standards for reporting results will be presented. Various case studies will be employed to guide participants through the elements listed above.

Saturday

3

SATURDAY, 3 SEPTEMBER

AFTERNOON COURSES 1:00PM-5:00PM

MODELING: DESIGN AND STRUCTURE OF A MODEL *Room 324*

TRACK: Modeling Methods

LEVEL: **Intermediate.** *This intermediate course requires basic understanding of decision analysis.*

PREREQUISITE: *Introduction to Modeling*

FACULTY: **Mark S. Roberts, MD, MPP**, Professor & Chair, University of Pittsburgh Graduate School of Public Health, Pittsburgh, PA, USA; **Sun-Young Kim, PhD**, Assistant Professor, Seoul National University Graduate School of Public Health, Seoul, South Korea



Roberts

Kim

COURSE DESCRIPTION: This course will provide an intermediate level introduction to modeling techniques such as Monte Carlo analysis, Markov modeling, discrete event models, and other techniques and their appropriate use as described in the *ISPOR Principles of Good Practice for Decision Analytic Modeling in Health Care Evaluations*. The steps involved with model structure, data inputs (data identification, data modeling, and data incorporation); and data validation (internal, between-models, external, and prediction) will be discussed.

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SHORT COURSES: SATURDAY AFTERNOON COURSES

PATIENT-REPORTED OUTCOMES MEASURES (PROMS): CROSS-CULTURAL DEVELOPMENT AND VALIDATION *Room 327*

TRACK: Patient-Reported Outcomes Methods

LEVEL: Introductory. *This course is designed for those with limited experience with quality of life/patient-reported outcomes studies.*

FACULTY: Bruce Crawford, MA, MPH, Senior Principal, Real World Evidence Solutions, IMS Japan KK, Minato-ku, Tokyo, Japan; Hwee Lin Wee, PhD, Assistant Professor, National University of Singapore, Singapore

COURSE DESCRIPTION: This course will introduce the definitions and concepts, methodologies, and practical methods for measuring patient-reported outcomes. The value of patient-reported outcomes assessment will be discussed. A strategy to aid in selecting appropriate instruments and the translation processes will be presented with considerations for regional needs. Instrument development and validation will be discussed using practical examples and exercises, including *ISPOR Principles of Good Practice for the Translation and Cultural Adaptation Process for Patient-Reported Outcomes (PRO) Measures*.



Crawford

Wee

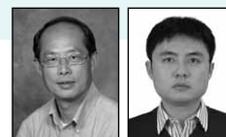
RETROSPECTIVE DATABASE DESIGN AND ANALYSIS *Room 326*

TRACK: Observational Data Methods

LEVEL: Introductory. *This course is designed for those with little experience with database analysis.*

FACULTY: Jeff J. Guo, PhD, Professor, University of Cincinnati, Cincinnati, OH, USA; Xin Sun, PhD, Professor, West China Hospital of Sichuan University, Chengdu, China

COURSE DESCRIPTION: Retrospective studies require strong principles of epidemiologic study design and complex analytical methods to adjust for bias and confounding. This course will provide an overview of fundamental design strategies, analytic techniques, and specific best practices to improve causal inference in studies using retrospective databases. Specific topics to be covered at an introductory level include: measurement of exposure and outcome, causal graphs, new user study design, measures of comorbidity, the use of stratification analysis before multivariable modeling, multivariable regression including Cox proportional hazards survival analysis, model performance and diagnostic testing, propensity scoring, instrumental variable and structural modeling techniques, including marginal structural models.



Guo

Sun

META-ANALYSIS AND SYSTEMATIC LITERATURE REVIEW IN COMPARATIVE EFFECTIVENESS RESEARCH *Room 323*

TRACK: Outcomes Research Methods

LEVEL: Intermediate. *This course requires basic understanding of statistical method and is recommended as a prerequisite to the ISPOR short course, "Network Meta-Analysis and Indirect Treatment Comparisons."*

FACULTY: Nathorn Chaiyakunapruk, PhD, PharmD, Professor, Monash University Malaysia, Petaling Jaya, Malaysia; Peter Feng Wang, PhD, Director, Bristol-Myers Squibb, Princeton, NJ, USA

COURSE DESCRIPTION: Comparative effectiveness research is a rigorous evaluation of the impact of different options that are available for treating a given medical condition for a particular set of patients. Its purpose is to assist consumers, clinicians, purchasers, and policy makers to make informed decisions that will improve health care at both individual and population levels. As a central part of comparative effectiveness research and reviews, meta-analysis may be defined as the statistical analysis of data from multiple studies for the purpose of synthesizing and summarizing results, as well as for quantitatively evaluating sources of heterogeneity and bias. A systematic literature review often includes meta-analysis and involves an explicit, detailed description of how a review was conducted. This course highlights and expounds upon six key areas: 1) comparative effectiveness research; 2) impetus for meta-analysis and systematic reviews; 3) basic steps to perform a quantitative systematic review; 4) statistical methods of combining data; 5) reporting of results; and 6) appraisal and use of meta-analytic reports. The material includes practical examples from the published literature relevant to pharmacoeconomic and outcomes research. This course is designed for those with little experience with meta-analysis and includes interactive exercises.



Chaiyakunapruk

Wang

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SHORT COURSES: SATURDAY AFTERNOON & SUNDAY MORNING COURSES

NEW! CASE STUDIES IN PHARMACEUTICAL/BIOTECH PRICING II – ADVANCED

Room 300-301

TRACK: Use of Pharmacoeconomic/Economic/Outcomes Research Information

LEVEL: Intermediate. This course is designed for those with limited experience in the area of pharmaceutical pricing and covers topics within a global context.

PREREQUISITE: Previous attendance at the ISPOR short course, "Elements of Pharmaceutical/Biotech Pricing," or equivalent knowledge, is recommended.

FACULTY: Jack M. Mycka, Global President & CEO, Medical Marketing Economics LLC (MME), Montclair, NJ, USA; Shanlian Hu, MS, MD, Senior Consultant, Shanghai Health Development Research Center, Shanghai, China; Manny Papadimitropoulos, MScPhm, PhD, Health Outcomes Scientific Leader, Latin America, Eli Lilly and Adjunct Assistant Professor, University of Toronto, Toronto, ON, Canada

COURSE DESCRIPTION: Case studies will be employed to lead participants through the key steps of new product pricing, with focus on the need to thoroughly analyze the business environment and its constraints and opportunities, and the need to closely integrate the pricing, reimbursement, and pharmacoeconomic strategy for the new product with the clinical development and marketing strategies. Practical exercises will allow participants to consolidate the concepts delivered in the "Elements" introductory session and expanded here. Areas covered will include the post-launch issues of reimbursement and pricing maintenance as a part of life-cycle management in a global environment.



Mycka

Hu

Papadimitropoulos

CASE STUDIES IN HEALTH TECHNOLOGY ASSESSMENT Room 325

TRACK: Use of Pharmacoeconomic / Economic / Outcomes Research Information

LEVEL: Intermediate.

PREREQUISITE: Previous attendance at the ISPOR short course, "Elements of Pharmaceutical/Biotech Pricing," or equivalent knowledge, is recommended.

FACULTY: Uwe Siebert, MD, MPH, MSc, ScD, Professor, Department of Public Health, Health Services Research & HTA/ONCOTYROL, Department of Health Policy & Management, Harvard Medical School, Institute for Technology Assessment & Department of Radiology, Hall i.T., Austria; Kun Zhao, MD, PhD, Professor & Director, China National Health Development, Research Center, National Health and Family Planning Commission (NHFP), Beijing, China; Jasmine Pwu, PhD, MS, Senior Investigator, Health Data Research Center, National Taiwan University, Taipei, Taiwan

COURSE DESCRIPTION: This course will provide a hands-on approach to health technology assessment (HTA) through specific case studies, teaching participants how to apply HTA disciplines in conducting assessments, generate recommendation reports, and communicate their findings effectively to health care decision makers, as well as explore issues surrounding implementation of the reports in regional contexts.



Siebert

Zhao

Pwu

Sunday

4

SUNDAY, 4 SEPTEMBER

MORNING COURSES 8:00AM-12:00PM

STATISTICAL CONSIDERATIONS IN HEALTH ECONOMIC EVALUATIONS Room 327

TRACK: Use of Pharmacoeconomic / Economic / Outcomes Research Information

LEVEL: Intermediate. This course is designed for those with a basic understanding of statistics.

FACULTY: Jalpa A. Doshi, PhD, Associate Professor of Medicine & Director, Economic Evaluations Unit, Center for Evidence-based Practice and Director, Value-based Insurance Design Initiatives, Center for Health Incentives and Behavioral Economics, University of Pennsylvania, Philadelphia, PA, USA; Chee-Jen Chang, PhD, Director & Professor, Chang Gung University, Taoyuan, Taiwan

COURSE DESCRIPTION: Adoption and diffusion of new medical treatments depend increasingly on robust analysis of costs and cost-effectiveness analysis (CEA). The source of this evidence often comes from patient-level economic data collected in clinical trials. This course will discuss statistical considerations when dealing with patient-level cost data, including the effect of distributional assumptions, univariate and multivariable analyses of data, sample size and power calculations, and estimation of sampling uncertainty for cost-effectiveness analysis. Examples will be provided to illustrate concepts.



Doshi

Chang

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SHORT COURSES: SUNDAY MORNING COURSES

HEALTH-RELATED QUALITY OF LIFE (HRQOL) WEIGHTS FOR ECONOMIC EVALUATIONS

Room 324

TRACK: Patient Preference Methods

LEVEL: Introductory. *No prior knowledge of health-related quality of life is assumed.*

FACULTY: Alex Z. Fu, PhD, Associate Professor, Georgetown University, Washington, DC, USA; Nan Luo, PhD, Associate Professor, National University of Singapore, Singapore



Fu

Luo

COURSE DESCRIPTION: This course is designed to provide an overview of preference-based health-related quality of life measures to support economic evaluations. The concepts of utility or health-state utility measurement will be introduced, and similarities and differences with profile-based health-related quality of life measurement will be discussed. The course will describe how health-state utility data can be combined with survival to estimate quality-adjusted life years (QALY), which is applied in economic evaluations for valuing treatments or health outcomes. Methods that are used to capture utility values such as standard gamble, time trade-off, and rating scales will be introduced, along with a presentation of the different generic instruments that have been developed for measuring utilities such as the EQ-5D, Health Utilities Index, and SF-6D. Mapping functions (the practice of estimating the target health-state utility as a function of the health outcomes that have been measured in the key clinical studies of effectiveness, using an external dataset) will be described. Finally, faculty will describe the requirements and preferences of different reimbursement agencies around the world, including USA, Europe, and Asia. The course will be interactive with break-out sessions and group discussion.

NETWORK META-ANALYSIS AND INDIRECT TREATMENT COMPARISONS Room 323

TRACK: Outcomes Research Methods

LEVEL: Intermediate. *This course is designed for those with some understanding of meta-analysis.*

PREREQUISITE: *Previous attendance at the ISPOR short course, "Meta-Analysis and Literature in Comparative Effectiveness Research," or equivalent knowledge, is recommended.*

FACULTY: Jeonghoon Ahn, PhD, MS, Associate Professor, Ewha Womans University, Seoul, South Korea; Nathorn Chaiyakunapruk, PhD, PharmD, Professor, Monash University Malaysia, Petaling Jaya, Malaysia; Peter Feng Wang, PhD, Director, Bristol-Myers Squibb, Princeton, NJ, USA



Ahn

Chaiyakunapruk

Wang

COURSE DESCRIPTION: When head-to-head randomized controlled trials are absent, network meta-analysis (also commonly referred to as a multiple treatment comparison meta-analysis or mixed treatment meta-analysis) offers a quantitative method of integrating all of the data from all of the available comparisons while indirect treatment comparisons can be conducted and provides useful evidence. In this course, the fundamentals and concepts of network meta-analysis will be presented. *ISPOR Good Research Practices for Conducting and Interpreting Network Meta-Analysis and Indirect Treatment Comparisons* will also be presented. Participants will be able to understand the concepts and assumptions of network meta-analysis (indirect and mixed treatment comparisons), such as heterogeneity, transitivity, and consistency, critically analyze the results of network meta-analysis, recognize the statistical models used to explore heterogeneity and inconsistency, and know that WinBUGS and SAS can be used to perform network meta-analysis.

BUDGET IMPACT AND COST ANALYSIS Room 326

TRACK: Economic Methods

LEVEL: Intermediate. *This course is designed for those with some experience with pharmacoeconomic analysis.*

FACULTY: J. Jaime Caro, MDCM, FRCPC, FACP, Chief Scientist, Evidera, Lexington, MA, USA and Adjunct Professor of Medicine, McGill University, Montreal, QC, Canada; Allen Lai, PhD, MD, MSc, Principal in HEOR, IMS, Singapore



Caro

Lai

COURSE DESCRIPTION: This course will describe methods to determine the costs associated with a health condition and the budget impact of new technologies for that condition. Participants will learn the different types of analyses needed to complete a budget impact analysis, how to distinguish between static and dynamic budget impact models, and how to design a study to estimate the budget impact of a new health care intervention. The *ISPOR Good Research Practice Guidance on Budget Impact Analysis II* will be discussed, along with examples of budget impact models. Finally, important differences between cost effectiveness analysis and budget impact analysis will also be described.

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SHORT COURSES: SUNDAY MORNING COURSES CONTINUED

RISK-SHARING/PERFORMANCE-BASED SCHEMES FOR DRUGS & MEDICAL DEVICES *Room 325*

TRACK: Use of Pharmacoeconomic / Economic / Outcomes Research Information

LEVEL: Intermediate. It will be helpful for individuals to be familiar with both the key determinants of pharmaceutical pricing and the main international health systems.

FACULTY: Louis P. Garrison, PhD, Professor, University of Washington, Seattle, WA, USA; Adrian Towse, MA, MPhil, Director, Office of Health Economics, London, UK; Min Hu, PhD, Lecturer of Health Economics & Assistant to the Dean, Fudan University, Shanghai, China; Bruce Wang, PhD, MA, Co-founder & Chief Executive Officer, Elysia Group Ltd, Taipei, Taiwan and Affiliate Assistant Professor, Department of Pharmacy, University of Washington, Seattle, WA, USA

COURSE DESCRIPTION: There is significant and growing interest among both the payers and producers of medical products for arrangements that involve a "pay-for-performance" or "risk-sharing" element. These payment schemes involve a plan by which the performance of the product is tracked in a defined patient population over a specified period of time and the level of reimbursement is tied by formula to the outcomes achieved. Although these agreements have an intrinsic appeal, there can be substantial barriers to their implementation. Theory and practice, including incentives and barriers, will be analyzed along with several country-specific examples.



Garrison

Towse

Hu

Wang

NEW! HEALTH CARE SYSTEMS IN ASIA *Room 300-301*

TRACK: Use of Pharmacoeconomic / Economic / Outcomes Research Information

LEVEL: Introductory. This class is intended for those with limited experience with health care systems in Asia.

FACULTY: Bong-min Yang, PhD, Professor of Health Economics, Seoul National University, Seoul, South Korea; Kun Zhao, MD, PhD, Professor & Director, China National Health Development, Research Center, National Health and Family Planning Commission (NHFPC), Beijing, China; Bruce Crawford, MA, MPH, Senior Principal, Real World Evidence Solutions, IMS Japan KK, Minato-ku, Tokyo, Japan; Jitendar Sharma, PhD, CEO, Andhra Med Tech Zone (AMTZ) and Head, National Health Systems Resource Center, Ministry of Health and Family Welfare, New Delhi, India

COURSE DESCRIPTION: This course will introduce key components of health care systems, including health care costs, quality, and access. It will focus on major characteristics of health care systems in Asia, including health care needs and spending, management of essential medical products and technology, health financing systems, health care governance, access to health services and health care delivery systems, and outcomes measurements through the use of multi-country case studies.



Yang

Zhao

Crawford

Sharma

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