



## **GRADUATE CERTIFICATE IN HEALTH PRODUCTS REGULATION**

### **GMS5011: Fundamentals of Pharmaceutical Regulation**

*7 September 2020 – 11 September 2020*

**Venue:** Zoom

#### **WORKSHOP PROGRAMME**

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##### **Learning outcomes**

- Examine the health products regulatory landscape, the interaction among the regulatory stakeholders and the implication on regulatory decision-making
- Recognize the importance of quality manufacturing in the product development and quality control of health products
- Describe the stakeholders and processes involved in the marketing authorization application of health products
- Evaluate the importance of regulatory strategy
- Identify current and future trends in health products regulations

## Graduate Certificate in Health Products Regulation

### GMS5011: Fundamentals of Pharmaceutical Regulation

7 – 11 September 2020

#### Day 1 – 7 September, Mon

Topic	Speaker/ Organisation
<b>8.00am Zoom Briefing</b>	<b>Mr Osman Bin Mohamad</b> Senior Associate Centre of Regulatory Excellence (CoRE) Duke-NUS Medical School
<b>8.30am Workshop Briefing / Ice-breaker / Goalsetting</b>	<b>Dr How Yew Meng</b> Senior Associate CoRE, Duke-NUS Medical School
<b>8.50am Welcome Graduate Certificate Students</b>	<b>Prof John Lim</b> Executive Director Centre of Regulatory Excellence (CoRE) Duke-NUS Medical School
<b>Session 1: Health Products Regulatory Overview and Role of Regulatory Professional</b>	
<b>9.00am Health products regulatory landscape</b> <ul style="list-style-type: none"> <li>Provide broad overview of how regulations are evolving in the context of changing global landscape</li> </ul>	<b>Dr Murray Lumpkin</b> Deputy Director – Integrated Development Lead for Global Regulatory Systems Initiatives Bill and Melinda Gates Foundation
<b>10.00am Refreshment Break</b>	
<b>10.30am Introduction to pharmaceutical regulations</b> <ul style="list-style-type: none"> <li>To understand the purpose of regulatory framework in ensuring pharmaceutical product SEQ</li> <li>Regulatory decision-making across PLC</li> </ul>	<b>Dr Murray Lumpkin</b> Deputy Director – Integrated Development Lead for Global Regulatory Systems Initiatives Bill and Melinda Gates Foundation
<b>11.30am Pharmaceutical regulations in the context of healthcare</b> <ul style="list-style-type: none"> <li>To understand the role of pharmaceutical regulations and its contribution to the healthcare environment.</li> </ul>	<b>Dr Murray Lumpkin</b> Deputy Director – Integrated Development Lead for Global Regulatory Systems Initiatives Bill and Melinda Gates Foundation
<b>12.30pm Lunch</b>	
<b>1.30pm Knowledge-Check 1</b>	<b>Understanding of pharmaceutical regulations</b>
<b>2.00pm Introduction to medical device regulations</b> <ul style="list-style-type: none"> <li>Overview of MD regulations</li> <li>US FDA 510(k)</li> <li>EU CE-mark</li> <li>ASEAN</li> </ul>	<b>Dr Adelheid Schneider</b> Regional Head for Regulatory and Quality Roche Diagnostics
<b>2.45pm Medical device regulations in the context of healthcare</b> <ul style="list-style-type: none"> <li>To understand the role of medical device regulations and its contribution to the healthcare environment.</li> </ul>	<b>Mr Michael Gropp</b> Advisory Board Member and Visiting Expert Centre of Regulatory Excellence (CoRE)
<b>3.30pm Refreshment Break</b>	
<b>4.00pm Knowledge-Check 2</b>	<b>Understanding of MD regulations</b>
<b>4.30pm Role of regulatory professionals</b> <ul style="list-style-type: none"> <li>Role of regulatory professional in the current landscape</li> <li>Good Regulatory Practice (GRP)</li> </ul>	<b>Dr How Yew Meng</b> Senior Associate CoRE, Duke-NUS Medical School
<b>5.30pm End</b>	

## Day 2 – 8 September, Tue

	Topic	Speaker/ Organisation
8.30am	Individual and Group assessment I	
<b>Session 2: Health Products Processes: Ensuring Quality, Safety, Efficacy</b>		
9.30am	<b>Manufacturing and inspection process pharm products</b> <ul style="list-style-type: none"> <li>• Introduction to CMC standards</li> <li>• Drugs &amp; Biologics CMC differences</li> </ul>	<b>Dr Sannie Chong</b> Asia Pacific Technical Regulatory Policy Global Regulatory Policy Group Roche Singapore Technical Operations Pte Ltd
10.15am	Refreshment Break	
10.45am	<b>Manufacturing and inspection process MD (ISO 13485)</b> <ul style="list-style-type: none"> <li>• Introduction to QMS for MD</li> <li>• Relevance of ISO 13485 to regulations</li> </ul>	<b>Ms Bernice Lau</b> Medical Device Lead Auditor TUV SUD PSB Pte Ltd
11.15am	<b>WHO Quality Management System Requirements</b>	<b>Mr Vimal Sachdeva</b> Technical Officer – Senior Inspector World Health Organization (WHO)
11.45am	Knowledge-Check 3	<b>Health Products manufacturing</b>
12.00pm	Lunch	
1.00pm	<b>Clinical trials for pharmaceutical products and medical devices: Similarities and differences</b> <ul style="list-style-type: none"> <li>• Understand the basis for differences in CT requirements between pharm and MD</li> </ul>	<b>Ms Geraldine Seow</b> Director, Global Program Leader Medical Affairs Operations Johnson & Johnson
2.00pm	Practicum Briefing	<b>Dr How Yew Meng</b> Senior Associate CoRE, Duke-NUS Medical School
2.15pm	Practicum 1a	
3.45pm	Refreshment Break	
4.00pm	Practicum 1b	
5.30pm	End	

**Day 3 – 9 September, Wed**

	Topic	Speaker/ Organisation
8.30am	Individual and Group assessment II	
<b>Session 3: Health Products Regulatory Process</b>		
9.30am	<b>Market authorisation application (pharmaceutical)</b> <ul style="list-style-type: none"> <li>Requirements for MAA submission and review in select countries</li> <li>ICH CTD submission requirements</li> </ul>	<b>Asst Prof James Leong</b> Head of Pharmaceutical Regulatory Science Programme CoRE, Duke-NUS Medical School
10.30am	<b>Refreshment Break</b>	
11.00am	<b>Market authorisation application (MD)</b> <ul style="list-style-type: none"> <li>Requirements for MAA submission and review in select countries</li> <li>ASEAN CSDT for GSP</li> </ul>	<b>Mr Sharad Shukla</b> Associate Director Regulatory affairs (Medical Devices) for South East Asia Johnson & Johnson Medical
12.00pm	<b>Knowledge-check 4</b>	<b>Health Products MAA process</b>
12.30pm	<b>Lunch</b>	
1.30pm	<b>Regulatory requirements for regulatory decision making: Benefit-risk analysis</b> <ul style="list-style-type: none"> <li>Benefit-risk assessment for regulatory decision making</li> </ul>	<b>Asst Prof James Leong</b> Head of Pharmaceutical Regulatory Science Programme CoRE, Duke-NUS Medical School
2.30pm	<b>Practicum 2a</b>	
3.30pm	<b>Refreshment Break</b>	
3.45pm	<b>Practicum 2a Cont'd</b>	
4.15pm	<b>Practicum 2b</b>	
5.30pm	<b>End</b>	

## **Day 4 – 10 September, Thurs**

	<b>Topic</b>	<b>Speaker/ Organisation</b>
<b>8.30am</b>	<b>Individual and Group Assessment III</b>	
<b>9.30am</b>	<b>Vigilance and Post-marketing for pharmaceutical products</b> <ul style="list-style-type: none"> <li>Regulatory requirements for post-marketing activities</li> <li>Introduce PV, RMP, enforcement, surveillance</li> </ul>	<b>Ms Christine Ho</b> Regulatory Consultant Vigilance & Compliance Branch Health Sciences Authority Singapore
<b>10.30am</b>	<b>Refreshment Break</b>	
<b>11.00am</b>	<b>Vigilance and Post-marketing for medical devices</b> <ul style="list-style-type: none"> <li>Adverse event reporting</li> <li>Field Safety Corrective Actions</li> </ul>	<b>Mr Nishith Desai</b> Vice President QA and RA, APAC Medtronic
<b>12.00pm</b>	<b>Lunch</b>	
<b>1.00pm</b>	<b>Practicum 3a</b>	
<b>2.15pm</b>	<b>Practicum 3b</b>	
<b>3.30pm</b>	<b>Refreshment Break</b>	
<b>Session 4: Health Products Commercialisation Strategy</b>		
<b>3.45pm</b>	<b>Commercialisation strategy of pharmaceutical products</b> <ul style="list-style-type: none"> <li>Regulatory activities in the context of commercialization of pharmaceutical product</li> </ul>	<b>Mr Arun Mishra</b> Head, Global Nutrition Regulatory Affairs and Global Health and Wellness Regulatory Affairs Unilever
<b>4.30pm</b>	<b>Commercialisation strategy of medical devices</b> <ul style="list-style-type: none"> <li>Understand regulatory activities in the context of commercialization of Medical Devices.</li> </ul>	<b>Dr John Thornback</b> Chief Operating Officer Diagnostics Development Hub (DxD Hub)
<b>5.15pm</b>	<b>Knowledge-check 5</b>	<b>Health Products commercialisation</b>
<b>5.30pm</b>	<b>End</b>	

## Day 5 – 11 September, Fri

	Topic	Speaker/ Organisation
8.30am	<b>End-of-Module (EOM) Assessment</b>	
9.30am	<b>Review of EOM Questions</b>	
10.30am	<b>Break</b>	
<b>Session 5: Trends in Health Product Development and Regulations</b>		
11.00am	<b>Good Regulatory Management and Professional Development</b> <ul style="list-style-type: none"> <li>Continuing development for regulatory professionals</li> </ul>	<b>Dr Hsien-Yi Lin</b> Senior Reviewer Division of Medicinal Products Taiwan Food and Drug Administration
11.45am	<b>Trends in MD Development and Regulation<sup>1</sup></b> <ul style="list-style-type: none"> <li>Digitalization, wearables, combination products, robotics, AI, 3D printing</li> </ul>	<b>Mr Yu Liang</b> Director Regulatory Affairs APACMed
12.30pm	<b>Lunch</b>	
1.30pm	<b>Trends in Pharmaceutical Development and Regulation<sup>2</sup></b> <ul style="list-style-type: none"> <li>RWE, rolling subs, advanced therapies, digital therapies</li> </ul>	<b>Mr Arun Mishra</b> Head, Global Nutrition Regulatory Affairs and Global Health and Wellness Regulatory Affairs Unilever
2.15pm	<b>Global and Regional Regulatory Platforms<sup>3</sup></b> <ul style="list-style-type: none"> <li>Regulatory reliance, convergence, harmonization, work-sharing</li> </ul>	<b>Dra Lucky Slamet</b> Visiting Expert, CoRE
3.00pm	Photo-taking with Faculty and Participants	<b>CoRE Team</b>
3.10pm	<b>Break</b>	
3.30pm	<b>Panel Session: Accelerating innovative developments of therapeutic technologies of health products</b>  Q&A with Industry and Regulators	<b>Moderator:</b> <b>Prof John Lim</b>  <b>Panelists:</b> <b>Mr Michael Gropp</b> <b>Mr Yu Liang</b> <b>Mr Arun Mishra</b> <b>Dra Lucky Slamet</b>
4.30pm	<b>Towards Regulatory Excellence</b>	<b>Prof John Lim</b> Executive Director Centre of Regulatory Excellence (CoRE) Duke-NUS Medical School
5.15pm	<b>Graduate Certificate Workshop Conclusion</b>	<b>Prof John Lim</b> CoRE
5.30 pm	<b>End</b>	