



Institute for Research in Molecular Medicine

INFORMM

MSc Molecular Medicine

Mixed mode

Time Table
Semester 1, 2021/22
11/10/2021 -20/03/2022

Course Coordinators & Lecturers

Code	Course	Coordinator	Ext.	E-mail
TFM 501	Molecular Basis of Diseases (Core)	Assoc. Prof. Dr. Oon Chern Ein	4879	chern.oon@usm.my
TFM 502	Diagnostic Technologies & Biological Markers Discovery (Core)	Dr. Nurulhasanah Othman	4877	nurulhasanah@usm.my
TFM 503	Vaccines & Novel Therapeutics (Core)	Dr. Tye Gee Jun	4878	geejun@usm.my
TFM 504	Bioinformatics (Core)	Dr. Eugene Ong Boon Beng	4871	eugene@usm.my
TFM 511	Research Project (Core)	Dr. Daruliza Kernain Mohd Azman	4866	daruliza@usm.my

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TSC	Tan Suat Cheng (PPSains Kesihatan)	tansc@usm.my
LCY	Leow Chiuan Yee (PPSains Farmasi)	yee.leow@usm.my

Modes of teaching/learning (subject to rules and regulations imposed during the Covid-19 pandemic)

F2F = Face-to-Face (physical)

Blended learning = combination of F2F and online learning

Online = Webex or other online platforms

PBL = Problem-based learning

***Part time students must enrol for TFM502 and TFM504 in Semester 1**

Orientation Week

Date	9-10am	10-11am	11am-12pm	12-1pm		2-3pm	3-4pm	4-5pm	
Mon 4/10/21									
Tues 5/10/21	<p style="text-align: center;">Welcome to INFORMM</p> <ol style="list-style-type: none"> 1. Welcome address : Director INFORMM 2. Overview of INFORMM: Deputy Director 3. Self introduction : Lecturers, students 4. Photo session, Tea break 5. Briefing on MSc mixed mode: Programme chair 6. Getting to know your seniors 			<p>Tour of INFORMM</p>		<p>Back to Basics in Molecular Biology Session I</p> <p>Central Dogma of Biology : Process from DNA to proteins VB (F2F)</p>			
Wed 6/10/21	<p>Session II</p> <p>Practical Chemistry: Calculations used in lab practical OMT (F2F)</p>		<p>Session III</p> <p>Recombinant DNA Technology : Cloning DK (F2F)</p>			<p>Session IV</p> <p>Cell Biology OCE (F2F)</p>			
Thurs 7/10/21	<p>Guidelines for log book keeping & lab report writing</p> <p>OMT (F2F)</p>					<p>Briefing on laboratory safety</p> <p>Science officer (F2F)</p>			
Fri 8/10/21									

Week 1

Date	9-10am	10-11am	11am-12pm	12-1pm		6-7pm	7-8pm	8-9pm
Mon 11/10/21	TFM 501 Briefing on TFM501 <i>OCE (F2F)</i> 9.30 -10.00am	TFM501 1: Introduction to molecular microbiology & infectious diseases <i>Lecture, Tutorial</i> <i>KMFM (online)</i>						
Tues 12/10/21		TFM501 1: Introduction to molecular microbiology & infectious diseases <i>Cont'd, Tutorial & Discussion</i> <i>KMFM (online)</i>						
Wed 13/10/21						TFM504 1: Introduction to Bioinformatics <i>Lecture, Practical</i> <i>EOBB (F2F)</i>		
Thurs 14/10/21	INFORMM <i>Research</i> <i>Presentation</i>	TFM501 2: Molecular mechanisms of infectious diseases <i>Tutorial, Discussion</i> <i>KMF (online)</i>				TFM504 2: Accessing databases <i>Lecture, Tutorial, Practical</i> <i>EOBB (F2F)</i>		
Fri 15/10/21								

Week 2

Date	9-10am	10-11am	11am-12pm	12-1pm		6-7pm	7-8pm	8-9pm
Mon 18/10/21								
Tues 19/10/21	<i>Prophet Muhammad's Birthday</i>							
Wed 20/10/21		TFM501 2: Molecular mechanisms of infectious diseases <i>PBL</i> <i>KMF (online)</i>				TFM504 3: Using the right bioinformatics tools <i>Lecture, Tutorial</i> <i>NHO (F2F)</i>		
Thurs 21/10/21	INFORMM <i>Research Presentation</i>	TFM 501 3: Research methodologies in infectious diseases <i>Tutorial, Case Study, Discussion</i> <i>AR (F2F)</i>				TFM504 3: Using the right bioinformatics tools <i>Practical</i> <i>NHO (F2F)</i>		
Fri 22/10/21								

Week 3

Date	9-10am	10-11am	11am-12pm	12-1pm		6-7pm	7-8pm	8-9pm
Mon 25/10/21		TFM 501 2: Molecular mechanisms of infectious diseases <i>Student Seminar</i> <i>KMF (online)</i>						
Tues 26/10/21		TFM 501 3: Research methodologies in infectious diseases <i>Cont'd</i> <i>AR (F2F)</i>						
Wed 27/10/21		TFM 501 Gene Cloning <i>Lab Practical</i> <i>KMF/ AR/EOBB (F2F)</i>				TFM504 4: Bioinformatics Analysis of Genomes <i>Lecture, Tutorial</i> <i>NY (online)</i>		
Thurs 28/10/21	INFORMM <i>Research Presentation</i>					TFM504 4: Bioinformatics Analysis of Genomes <i>Practical</i> <i>NY (online)</i>		
Fri 29/10/21								

Week 4

Date	9-10am	10-11am	11am-12pm	12-1pm		6-7pm	7-8pm	8-9pm
Mon 1/11/21		TFM 501 4: Cancer Biology Tumour, cancer, grading, staging <i>PBL</i> <i>GK (F2F)</i>				TFM504 5: Structural bioinformatics I <i>Lecture, Tutorial</i> <i>LTS (F2F)</i>		
Tues 2/11/21		TFM501 Protein expression & purification <i>Lab Practical</i> <i>KMF/AR/MLWO (F2F)</i>				TFM504 5: Structural bioinformatics I <i>Lecture, Practical</i> <i>CYS (F2F)</i>		
Wed 3/11/21	<i>Deepavali</i>							
Thurs 4/11/21	INFORMM Research Presentation							
Fri 5/11/21								

Week 5

Date	9-10am	10-11am	11am-12pm	12-1pm		6-7pm	7-8pm	8-9pm
Mon 8/11/21		TFM 501 5: The cancer genome- Cancer genetics & epigenetics <i>Tutorial</i> <i>NFM (online)</i>						
Tues 9/11/21		TFM 501 6: Tumour growth & metastasis Cell growth & cell death <i>Discussion</i> <i>OMT (F2F)</i>						
Wed 10/11/21		TFM 501 6: Cancer stem cells <i>Tutorial, Discussion</i> <i>KBY (F2F)</i>				TFM504 6: Structural bioinformatics II <i>Lecture</i> <i>CYS (F2F)</i>	TFM504 6: Structural bioinformatics II <i>Practical</i> <i>CYS (F2F)</i>	
Thurs 11/11/21	INFORMM Research Presentation					TFM502 Introduction to TFM502 <i>NHO</i> <i>(online)</i>	TFM502 1: Introduction to biomarkers discovery & diagnostics technologies <i>Lecture</i> <i>DK (F2F)</i>	
Fri 12/11/21								

Week 6

Date	9-10am	10-11am	11am-12pm	12-1pm		6-7pm	7-8pm	8-9pm
Mon 15/11/21		TFM 501 6: Role of tumour microenvironment in tumour progression <i>NFM (online)</i>						
Tues 16/11/21		TFM501 Cell culture <i>Lab Practical</i> <i>OMT (F2F)</i>				TFM502 2: Biological markers discovery in genomics <i>Lecture</i> <i>VB (F2F)</i>		
Wed 17/11/21		TFM501 7: The role of virus & bacteria in the pathogenesis of cancer <i>Tutorial & Discussion</i> <i>VB (F2F)</i>				TFM502 2: Biological markers discovery in genomics <i>Tutorial</i> <i>VB (F2F)</i>		
Thurs 18/11/21	INFORMM Research Presentation					TFM502 2: Biological markers discovery in genomics <i>Lab Practical</i> <i>VB (F2F)</i>		
Fri 19/11/21								

Week 7

Date	9-10am	10-11am	11am-12pm	12-1pm		6-7pm	7-8pm	8-9pm
Mon 22/11/21		TFM501 8: Research methodologies in molecular medicine Tutorial OCE (F2F)	TFM501 8: Research methodologies in molecular medicine <i>Student Seminar (Science Quest Workshop)</i> OCE (Facilitator) & All lecturers (F2F)					
Tues 23/11/21		TFM501 ELISA <i>Lab Practical</i> VB (F2F)				TFM502 3: Biological markers discovery in transcriptomics <i>Lecture</i> DK (F2F)		
Wed 24/11/21		TFM501 8: Research methodologies in molecular medicine <i>Student Seminar (Science Quest Workshop)</i> OCE (Facilitator) & All lecturers (F2F)				TFM502 3: Biological markers discovery in transcriptomics <i>Tutorial</i> DK (F2F)		
Thurs 25/11/21	INFORMM <i>Research Presentation</i>					TFM502 3: Biological markers discovery in transcriptomics <i>PBL</i> DK (F2F)		
Fri 26/11/21								

Week 8 – MID SEMESTER BREAK
29/11/21 - 5/12/21

Week 9

Date	9-10am	10-11am	11am-12pm	12-1pm		6-7pm	7-8pm	8-9pm
Mon 6/12/21		TFM503 Briefing on TFM503 1: Introduction to Immunology <i>Lecture, Tutorial</i> <i>TGJ (F2F)</i>						
Tues 7/12/21		TFM503 2: Innate Immunity <i>Lecture</i> <i>LCH (F2F)</i>				TFM502 4: Biological markers discovery in proteomics <i>Lecture</i> <i>NHO (F2F)</i>		
Wed 8/12/21		TFM503 LAB SESSION 1 <i>TGJ (F2F)</i>				TFM502 4: Biological markers discovery in proteomics <i>Tutorial</i> <i>NHO (F2F)</i>		
Thurs 9/12/21	INFORMM Research Presentation	TFM503 3: Acquired Immunity – T and B cell immunity <i>Lecture</i> <i>LCH (F2F)</i>				TFM502 4: Biological markers discovery in proteomics <i>Lab Practical</i> <i>NHO (F2F)</i>		
Fri 10/12/21								

Week 10

Date	9-10am	10-11am	11am-12pm	12-1pm		6-7pm	7-8pm	8-9pm
Mon 13/12/21		TFM503 4: Immunology as a self- defense mechanism towards infectious & non-infectious diseases <i>Lecture, Tutorial</i> <i>TGJ (F2F)</i>						
Tues 14/12/21		TFM503 5: Autoimmunity – “Graft versus Host Disease” <i>Lecture</i> <i>TGJ (F2F)</i>				TFM502 5: DNA-based diagnostics <i>Lecture</i> <i>AI (online)</i>		
Wed 15/12/21		TFM503 LAB SESSION 2 <i>TGJ (F2F)</i>				TFM502 5: DNA-based diagnostics <i>Lab Practical</i> <i>AI (blended learning)</i>		
Thurs 16/12/21	INFORMM Research Presentation					TFM502 5: DNA-based diagnostics <i>Tutorial</i> <i>AI(online)</i>		
Fri 17/12/21								

Week 11

Date	9-10am	10-11am	11am-12pm	12-1pm		6-7pm	7-8pm	8-9pm
Mon 20/12/21		TFM503 6: Introduction to Vaccines <i>Lecture</i> <i>LCY (F2F)</i>						
Tues 21/12/21		TFM503 LAB SESSION 3 <i>TGJ (F2F)</i>						
Wed 22/12/21		TFM503 7: Vaccines & Immunotherapy <i>Lecture, Discussion</i> <i>LCY (F2F)</i>					TFM502 6: RNA-based diagnostics <i>Lecture, Tutorial, Discussion</i> <i>EOBB (F2F)</i>	
Thurs 23/12/21	INFORMM Research Presentation	TFM503 8: Gene Therapy – Diseases & Current issues <i>Lecture, Discussion</i> <i>TGJ (F2F)</i>					TFM502 6: RNA-based diagnostics <i>Lecture, Tutorial, Discussion</i> <i>NFM (online)</i>	
Fri 24/12/21								

Week 12

Date	9-10am	10-11am	11am-12pm	12-1pm		6-7pm	7-8pm	8-9pm
Mon 27/12/21		TFM503 8: Gene Therapy <i>Cont'd</i> <i>TGJ (F2F)</i>						
Tues 28/12/21		TFM503 9: Cell therapy <i>Lecture, PBL</i> <i>TSC (online)</i>				TFM502 7: Proteins-based diagnostics <i>Lecture</i> <i>AR (F2F)</i>		
Wed 29/12/21		TFM503 9: Cell therapy <i>Cont'd</i> <i>TSC (online)</i>				TFM502 7: Proteins-based diagnostics <i>Tutorial</i> <i>AR (F2F)</i>		
Thurs 30/12/21	INFORMM Research Presentation	TFM503 10: Novel Biologics-Custom peptides <i>Tutorial</i> <i>LCH(F2F)</i>				TFM502 7: Proteins-based diagnostics <i>Lab Practical</i> <i>NSA (F2F)</i>		
Fri 31/12/21								

Week 13

Date	9-10am	10-11am	11am-12pm	12-1pm		6-7pm	7-8pm	8-9pm
Mon 3/1/22		TFM503 10: Novel Biologics- Small molecules <i>Lecture</i> <i>KMF(online)</i>						
Tues 4/1/22		TFM503 11: Pre-clinical trial & current methods in novel therapeutics <i>Lecture, Tutorial</i> <i>TGJ(F2F)</i>					TFM502 8: Current trends in diagnostics technologies <i>Lecture, Tutorial, Discussion</i> <i>LCH (F2F)</i>	
Wed 5/1/22		TFM503 11: Continued <i>Discussion</i> <i>TGJ (F2F)</i>					TFM502 8: Current trends in diagnostics technologies <i>Lecture, Tutorial, Discussion</i> <i>NSA (F2F)</i>	
Thurs 6/1/22	INFORMM Research Presentation	TFM503 LAB SESSION 4 <i>TGJ(F2F)</i>					TFM502 8: Current trends in diagnostics technologies <i>Lecture, Tutorial, Discussion</i> <i>FH (F2F)</i>	
Fri 7/1/22								

Week 14

Date	9-10am	10-11am	11am-12pm	12-1pm		6-7pm	7-8pm	8-9pm
Mon 10/1/22		TFM503 12: Clinical Trials – Phase I/II/III <i>Lecture, PBL</i> <i>TGJ (F2F)</i>						
Tues 11/1/22		TFM503 12: Clinical Trials, Cont'd <i>Tutorial</i> <i>TGJ (F2F)</i>				TFM502 9: Workshop on biological markers discovery and diagnostics <i>Lecture</i> <i>NHO (online)</i>		
Wed 12/1/22		TFM503 13: Production of vaccines, novel therapeutics & laws on use of these therapies <i>Lecture, PBL</i> <i>MLWO (F2F)</i>				TFM502 9: Workshop Continued <i>PBL</i> <i>NHO, VB, EOBB, NSA, DK, FH, LCH (F2F)</i>		
Thurs 13/1/22	INFORMM Research Presentation	TFM503 13: Production of vaccines, novel therapeutics & laws on use of these therapies, Cont'd <i>MLWO (F2F)</i>				TFM502 9: Workshop Continued <i>PBL</i> <i>NHO, VB, EOBB, NSA, DK, FH, LCH (F2F)</i>		
Fri 14/1/22								

Week 15

Date	9-10am	10-11am	11am-12pm	12-1pm		6-7pm	7-8pm	8-9pm
Mon 17/1/22								
Tues 18/1/22	<i>Thaipusam</i>							
Wed 19/1/22	TFM 511 Research Project Briefing <i>DK (F2F)</i>	TFM 511 Thesis Writing Workshop <i>DK (F2F)</i>				TFM502 9: Workshop Continued <i>Student presentation</i> <i>NHO, VB, EOBB, NSA, DK, FH, LCH (F2F)</i>		
Thurs 20/1/22	INFORMM <i>Research Presentation</i>	TFM 511 Communication skills workshop <i>DK (F2F)</i>						
Fri 21/1/22		TFM 511 <i>DK (F2F)</i>						

Students can organise revision sessions with lecturers in this week.

Week 16 – Revision Week

24/1/22 - 30/1/22

Week 17-19 – Examination (3 weeks)

31/1/22 - 20/2/22

(1 & 2 Feb - Chinese New Year)

Week 20-23 – End of Semester Break (4 weeks)

21/2/22- 20/3/22

Semester 2

Begins 21/3/22