



INTENSIVE PROGRAM SERIES: MYCOLOGY, PARASITOLOGY AND VIROLOGY

8-12 November 2021

Contact persons: Dr Jacqueline Weyer, 082 903 9131 / jacquelinew@nicd.ac.za (virology), John Frean johnf@nicd.ac.za (parasitology), Nelesh Govender neleshg@nicd.ac.za (mycology)

Medium: Online, Zoom, details to be confirmed with participants

Learning objectives:

The course series will cover the following topics:

Mycology

- Focus on identification of medically important fungi, antifungal susceptibility testing, serological and molecular diagnostic testing and molecular epidemiology of medically important mycoses
- Understanding of AIDS-related mycoses

Parasitology

- Focus on important aspects of malaria
- Understanding blood and tissue parasite diagnosis and identification
- Understanding stool and urine parasite diagnosis and identification
- Explore unusual and opportunistic parasitic infections

Virology

- Discussions on advanced virology aspects of COVID-19
- Understanding management, clinical and laboratory diagnostic aspects of viral haemorrhagic fevers, arboviral disease, influenza, influenza drug resistance and novel or emerging respiratory viruses (other than SARS-COV2) in cases of respiratory illness of unknown cause and viral enteric infections
- Explore enteric viral disease classification, epidemiology, laboratory detection/typing, interventions and vaccines
- Discuss key aspects of human papillomaviruses

Monday, 8 November 2021		
(8h55 – 16h00)		
PARASITOLOGY		
8h55	Welcoming remarks: Intensive rotation course series	J Raman
9h00	Malaria elimination and drug resistance monitoring	J Raman
9h45	Pathogenesis of malaria	J Frean
10h30	Practical methods for blood and tissue parasites	B Moodley/L Ming Sun
11h00	Malaria identification and parasite counts	B Moodley/L Ming Sun
12h30	Break	
13h15	VCRL and medically important vectors	S Oliver/B Brooke
14h15	Other blood-borne pathogens	J Frean
15h00	Identification of other blood-borne pathogens	B Moodley/L Ming Sun
15h30	Quiz	
Tuesday, 9 November 2021		
(8h30 – 16h30)		
PARASITOLOGY/VIROLOGY		
8h30	Stool parasites: protozoa, trematodes, cestodes and nematodes	J Frean
9h30	Practical methods for stool and urine parasites	B Moodley/ L Ming Sun
10h15	Stool and urine parasite identification and pooled stool	B Moodley/L Ming Sun
11h00	Macroscopic identification of parasites and microscope usage/maintenance	B Moodley/ L Ming Sun
11h30	Unusual and opportunistic parasitic case studies	J Frean
12h30	Quiz	
12h45	Break	
13h30	The 2020 Influenza season...or lack thereof	J Bhiman
14h15	Influenza HAI: application in serology (brief overview of current work)	L Maake
15h00	SARS-CoV-2 clinical aspects and molecular diagnosis	A von Gottberg
15h30	SARS-CoV-2 viral evolution and host immune response	J Bhiman
16h00	On the topic of human papillomaviruses	R Kularatne
Wednesday, 10 November 2021		
(9h00 -16h30)		
MYCOLOGY		
9h00	Mycology program overview	N Govender
9h15	Introduction to medical mycology, ID of moulds/dimorphics	N Govender
10h00	Yeast ID	R Mpembe/All students*
11h00	Yeasts: antifungal susceptibility testing	S Naicker
11h45	AIDS-related mycoses	G Greene
12h15	Molecular methods for diagnosis, AST, molecular epidemiology	T Maphanga

13h00	Break	
14h00	Making good slides for fungal ID	TG Zulu
14h30	Moulds with enteroblastic conidia in chains	M Moerane
15h30	Moulds with enteroblastic conidia in wet masses	TG Zulu
Thursday, 11 November 2021 MYCOLOGY (9h00 – 16h00)		
9h00	Dermatophytes and other moulds with aleurioconidia	N Govender
10h00	Mucoraceous moulds	T Maphanga
11h00	Thermally-dimorphic fungi	R Mapengo
12h00	Moulds with holoblastic conidia	E Tsotetsi
13h00	Break	
14h00	Approach to fungal disease outbreaks	H Ismail/LShuping
14h30	Serological assays in mycology	I Rukasha/N Blasich
15h00	Pneumocystis diagnostics	J Frean
15h30	Molecular epidemiology in fungal disease outbreaks	S Naicker
Friday, 12 November 2021 VIROLOGY 9h00-15h00		
9h00	Enteric viruses – classification, epidemiology, laboratory detection/typing, interventions and vaccines	N Page
10h30	Arboviral disease case studies: clinical, diagnostic and management aspects	O Hellferscee/J Weyer
11h00	Break	
11h15	Arboviral disease case studies: clinical, diagnostic and management aspects (continued)	O Hellferscee/J Weyer
11h45	Management of viral haemorrhagic fever cases	L Blumberg/J Weyer
13h15	Management of rabies exposures	Prof Lucille Blumberg / Dr Michelle Groome / Dr J Weyer
14h30	Wrap up session/Course evaluation	J Frean, N Govender, J Weyer

END