



LONDON  
SCHOOL of  
HYGIENE  
& TROPICAL  
MEDICINE



# 10<sup>th</sup> Advanced Course on Diagnostics (ACDx)

Les Pensières Center for Global Health, Annecy  
15<sup>th</sup> – 20<sup>th</sup> September 2019

## DRAFT OF PROGRAMME

### OVERALL LEARNING OBJECTIVES

ACDx advocates for the value of diagnostics in global health and builds capacity for critical decision making on diagnostics in the developing world through partnerships and networks.

The 2019 ACDx will have a special emphasis on **Access to Quality-assured Diagnostics, especially related to antimicrobial resistance and epidemic preparedness.**

### FORMATS FOR LEARNING

Lectures, expert panels, roundtables, debates, breakout sessions, technology forum with demonstrations and open discussions.

### ACKNOWLEDGMENT

We are very grateful for their support to:

Opening of ACDx 2019

12:00 – 13:30 **Registration and lunch**

13:30 – 14:00 **Welcome to ACDx & introduction**

Alain Mérieux, Rosanna Peeling & Bénédicte Pansier

**Session 1: Role and value of diagnostics in Global Health**

Co-Chairs: Pr Rosanna Peeling, LSHTM

Objectives:

- Learn about the role of diagnostics in global health
- Provide an overview on the value of diagnostics in Global Health

14.00 – 14.45 **LECTURES:**

**The Value of Diagnostics in Global Health**

Rosanna Peeling

**Role of diagnostics in clinical medicine**

David Mabey

**Rapid diagnostics in clinical decision support**

Valerie D'Acremont

14:45 – 15:00 **Q&A**

15:00 – 15:40 **Celebrating 10 years of progress made in the field of diagnostics – Panel Discussion followed by Q&A**

**Diagnostics in outbreaks of Ebola and Zika**

Amadou Sall

**FIND's achievements in the last 10 years**

Catharina Boehme

**The Merieux Foundation and its networks worldwide**

Francois-Xavier Babin

15:40 – 16:10 Break

16:10 – 17:00 **Celebrating 10 years of diagnostic innovation – Panel Discussion followed by Q&A**

Industry panel: Françoise Gay-Andrieu, BioMérieux; Renuka Gadde, BD; Duncan Blair, Abbott; Mark Davis, Mologic; Philip Jacon, Cepheid (**panel to be confirmed**)

17:00 – 17:40 **Looking forward to the next 10 years:**

**EU ValueDx project**

Hermann Goossens

**Accelerating access to diagnostics**

Rosanna Peeling

**Latin America IVD Alliance: bringing stakeholders together**

Carlos Gouvea

17:40 – 18:10 **Novel approaches for Diagnostics R&D - thinking outside the box:**

**Diagnostics and vaccines**

Chris Nelson (to be confirmed), James Cummings

**Diagnostics and drugs**

Tim Jinks (to be confirmed)

18:10 – 18:20 **End of day 1 - Session 1 evaluation**

18:20 – 19:00 Preparation and viewing of informal biographies

19:00 Welcome drink

19:30 Dinner

## DAY 2: MONDAY 16<sup>th</sup> SEPTEMBER

09:00 – 12:30

### Session 2: Diagnostic system strengthening to improve access

Co-Chairs: Dr François-Xavier Babin, Fondation Mérieux & Amadou Sall, Institut Pasteur Dakar

Objectives:

- Review the laboratory techniques and their use in a tiered laboratory system
- Review the transversal aspects of building a tiered laboratory system

**09:00 – 09:30**     **Lecture:**  
**Overview of the laboratory techniques available in routine medical laboratories**  
François-Xavier Babin, FMx

**09:30 – 09:50**     **Strategic decision making: considerations to scale up/down diagnostic interventions**

- Collect and transfer of samples (Pre-analysis)
- Post-analysis
- Data management and epidemiology

Antoine Pierson, IQLS

**09:50 – 10:10**     **Mapping and surveillance – Panel discussion ?**

- Madagascar and the AMR surveillance network;
- Niger mapping

Dr Saida, MOH Madagascar; Nicolas Steenkeste, FMx

**10:10 – 10:40**     Break

**10:40 – 11:00**     **Rating a laboratory national network: Labnet Scorecard**  
Nqobile Ndlovu, ASLM

**11:00 – 11:20**     **Leadership and governance: building a National Laboratory Policy and Strategic Plan**

- presentation of the Global Laboratory Leadership Program (A Fellowship for the Development of Laboratory Leaders)

Virginie Dolmazon, WHO

**11:20 – 11:40**     **Laboratory data systems**  
Raiva Simbi (MOH, Zimbabwe)

**11:40 – 12:00**     **Biosecurity/biosafety**  
Natascha Griffith, CDC

**12:00 – 12:20**     **Developing best practice for biobanking**  
Emmanuelle Gormally, ESTBB

**12:20 – 12:30**     **Session 2 evaluation**

**12:30**     Lunch

14:00 – 17:30

### Session 3: Diagnostic system sustainability - Partnerships and networks

Co-Chairs: Dr Geoffrey Chipungu (UNICEF) & Dr Mary Lancaster (DTRA)

Objectives:

- Explore options for public & private partnerships to build sustainable diagnostic systems to meet public health needs
- Learn about development and sustainability of laboratory systems
- Learn about partners who need to work together to increase access and to communicate through networks, websites and other opportunities

14:00 – 14:15 **Key considerations for sustainability of laboratory systems**  
**ResaoLab: West-Africa lab network with lab policy regulation, quality management, lab-based surveillance (outbreaks, diseases to be declared)**  
Jean Sakandé

14:15 – 14:30 **CDC experiences in laboratory health systems strengthening through PEPFAR**  
Heather Alexander

14:30 – 14:45 **Public-Private Partnerships and sustainable laboratory systems**  
**All-inclusive pricing experience**  
Trevor Peter

14:45 – 15:00 **Uganda's Infectious Disease Institute**  
Yuka Manabe

*Other examples, e.g. Lab for Life: BD and country MOHs (suggestion)*

15:00 – 15:30 **Debate on Public Private Partnerships**  
2 public + 2 private institutions on stage: discussion with participants

15:30 – 16:00 Break

16:00 – 16:15 **Examples/lessons learned from existing networks: Kenya and Cambodia**  
**Kenya Zoonotic Disease Unit**  
Mathew Muturi, Kenya National Center for Disease Control

16:15 – 16:30 **Cambodia network of clinical, reference, and private labs** (to be confirmed)

16:30 – 16:45 **Examples from course participants**

16:45 – 17:15 **General Discussion on Sustainability, Partnerships and Networks for diagnostics**  
Moderated by Mary & Geoffrey

17:15 – 17:30 **End of day 2 - Session 3 evaluation**

19:00 Dinner

## DAY 3: TUESDAY 17<sup>th</sup> SEPTEMBER

09:00 – 12:30

### Session 4: WHO Essential Diagnostics List (EDL) and evaluation of test performance

Co-Chairs: Dr Mercedes Perez Gonzalez (WHO) & Dr Catharina Boehme (FIND)

Objectives:

- Know the WHO Essential Diagnostics List (EDL)
- Learn about evaluation of test performance
- Review the state-of-the-art diagnostics for major infectious diseases

09:00 – 09:30

#### Lectures:

##### Basic performance characteristics of a diagnostic test

Sensitivity, specificity, repeatability and cross-reactivity

Rosanna Peeling, LSHTM

##### Evaluation of test performance

- Types and objectives of performance evaluations along the lifecycle of the product
- Importance of the responsibility of developers and users (lab-based conditions) in terms of test validation

Catharina Boehme, FIND

9:30 – 10:00

#### ROUNDTABLE

Country perspective on local product evaluation (Mozambique example of Early Infant HIV Diagnostic implementation, TB in Africa?)

TBD

10:00 – 10:30

Break

10:30 – 11:00

#### WHO Model List of *In Vitro* Diagnostics

- Objectives of the EDL
- Process for development and update
- Implementation plan
- Link with other WHO initiatives including primary health care, universal health coverage

Mercedes Perez Gonzalez, WHO

*Note: EDL 2 will very likely contain a lot of cancer related technologies that could be included in addition to the infectious diseases already listed.*

11:00 – 11:30

#### ROUNDTABLE

- Example of a country implementation process (Kamini Walia, Indian Council for Medical Research)
- SAGE IVD member perspective (can discuss the role of the SAGE and discuss link with implementation at country level (Prof Tony Emeribe from Nigeria)
- Industry: would recommend having an association rather than a specific company (Jesus Rueda has been very involved)

11:30 – 12:20

#### Review the state-of-the-art diagnostics for major infectious diseases

POSTERS SESSION

Noah Fongwen and other LSHTM fellows

12:20 – 12:30

#### Session 4 evaluation

12:30

Lunch

14:00 – 17:45

## Session 5: Access to quality-assured diagnostics

Co-Chairs: Dr Trevor Peter (CHAI) & Dr Benjamin Djoudalbaye (Africa CDC)

Objectives:

- Learn about access to diagnostics for public health programmes
- Learn about policy issues in access and share best practices

### Current Trends in Diagnostics Access

14:00 – 14:15

#### Complementary use of laboratory and point-of-care testing

Jennifer Cohn, EGPAF

14:15 – 14:30

#### Laboratory network optimization

Raiva Simbi (Ministry of Health and Child Care Zimbabwe)

14:30 – 14:45

#### Procurement optimization

Ademola Osigbesan, UNITAID

14:45 – 15:00

#### Best practices in the distribution of diagnostic products

Carlos Gouvea, ALADDIV

15:00 – 15:30

#### Q&A

15:30 – 16:00

Break

### Priority Initiatives in Diagnostics Quality

#### WHO Pre-qualification and the Collaborative Regulatory Procedure for Diagnostics

16:00 – 16:15

Deusdedit Mubangizi (WHO)

16:15 – 16:30

#### Moving towards laboratory accreditation: SLIPTA and SLMTA

Nqobile Ndlovu (ASLM)

16:30 – 16:45

#### Rapid Test Quality Initiative

Heather Alexander (United States CDC)

16:45 – 17:00

#### Quality Management

Tjeerd Datema, DATOS

17:00 – 17:15

#### Post-Market Surveillance and the Global Diagnostics Working Group

Anita Sands, WHO

17:15 – 17:30

#### Q&A

17:30 – 17:45

#### End of day 3 - Session 5 evaluation

19:00

Dinner

## DAY 4: WEDNESDAY 18<sup>th</sup> SEPTEMBER – INNOVATION DAY

08:30 – 13:00

### Session 6: Technology forum & Innovative concepts

Co-Chairs: Dr Béatrice Halpaap (WHO TDR) & Dr Sebastien Quesney (Institut Pasteur)

Objectives:

- Review the new technologies in the pipeline
- Understand the challenges faced by test developers and suggest how to accelerate access to quality-assured diagnostics
- Social innovation as perspective for Global Health

08:30 – 09:00

**Lecture:**

#### Challenges in developers a diagnostic test

What does innovation mean?

- Example of diaTROPix

Sebastien Quesney and Amadou Sall

09:00 – 09:45

#### **ROUNDTABLE: How to accelerate access to quality-assured diagnostics**

- Mark Davis, Mologic
- Jean-François Fougère, BioRad, or another to be determined
- Isabelle Tongio, BioMérieux
- Philippe Jacon, Cepheid
- Jean-Claude Manuguerra-CIBU (Biological Emergency Response Cell) - Institut Pasteur Paris
- Theresa Schein, CNine Biosolutions

09:45 – 10:30

#### **ROUNDTABLE: Social innovations to bring diagnosis to all and reach the 'last mile' (Facilitator: Beatrice Halpaap)**

- Presentations (4 min + 2 min questions for clarification):
  - o Noah Fongwen, Africa CDC: the Health Centre by Phone
  - o Beatrice Halpaap, TDR: the Social innovation in Health Initiative (SIHI)
  - o Pradeep Kakkattil, UNAIDS: the Health Innovation Exchange
  - o Mia Hoole, BecauseStories: telling the story
  - o Rosanna Peeling: social innovations to eliminate visceral leishmaniasis
  - o Joe Tucker (TBC)
  - o J-F de Lavison (TBC)

Discussion: 15 min

10:30 – 11:00

Break

11:00 – 12:45

#### **WORKSHOPS**

- Workshop on New Technologies with industries (film, poster, demo)
- Workshop on Social Innovation  
SIHI Film (15 min), group brainstorm on how can social innovation enhance your work (20 min), pitch innovation in Dragon's Den style for jury selection (15 min)

12:45 – 13:00

#### **End of day 4 - Session 6 evaluation**

13:00

Lunch

**Afternoon free for networking, tutorials and special sessions**

19:00

Dinner



## DAY 5: THURSDAY 19<sup>th</sup> SEPTEMBER

09:00 – 12:30

### Session 7: Access to diagnostics for epidemic preparedness in the context of One Health

Co-Chairs: Dr Mark Perkins (WHO)

Objectives:

- Review infectious diseases with epidemic potential and their diagnostics
- Understand the challenges of access to diagnostics in outbreak situations

09:00 – 09:15 **Diagnostics in previous Ebola outbreaks (2014; 2018) and lessons learned**  
Benjamin Djoudalbaye

09:15 – 09:30 **Update on new outbreaks**  
Desmond Williams, US CDC Liberia

09:30 – 10:00 **Outbreaks in refugees populations**  
- Studying the causes of pneumonia in refugees population in Lebanon  
Josette Najjar, FMX (TBC)  
  
- Study on lower acute respiratory infections in Rohingya refugee camps to improve and adapt patient care in a humanitarian crisis  
Valentina Picot, FMX (TBC)

10:00 – 10:15 **Q&A**

10:15 – 10:45 Break

10:45 – 11:15 **Critical role of diagnostics in outbreak preparedness and management**  
Someone from FIND (Catharina Boehme or Cassandra Kelly)  
- WHO Blueprint priority diseases which have important unmet diagnostic needs  
- FIND strategy for diagnostics preparedness & outbreak response (global forum similar to CEPI/Gavi for vaccines, technical solutions, response speed and market sustainability)

11:15 – 11:30 **The FAO-OIE-WHO collaboration to address health risks at the human-animal-ecosystem interfaces**  
A veterinary from OIE (TBC)

11:30 – 11:45 **Example of H5N1 outbreak in 2016 in Ouest and Central Africa**  
Béatrice Mouillé, FAO (TBC)

11:45 – 12:20 **ROUNDTABLE**  
Access to stock of diagnostic tests during outbreaks  
Olivier Ronveau, WHO (Meningitis Outbreaks)

12:20 – 12:30 **Session 7 evaluation**

Lunch





14:00 – 17:40

## Session 8: Access to diagnostics for AMR

Co-Chairs: Dr Nadia Khelef (Institut Pasteur) & Dr Cassandra Kelly (FIND)

Objectives:

- Identify critical diagnostics and market solutions to address AMR
- Understand the barriers faced by diagnostic test developers
- Reflect on policies to overcome barriers faced by AMR diagnostic test developers

14:00 – 14:15	<b>General introduction</b> Cassandra Kelly, FIND
14:15 – 14:30	<b>AMR Diagnostic Technology Landscape</b> Maurine Murtagh (Consultant, Diagnostics for Global Health)
14:30 – 15:00	<b>Country Needs</b> Sarabjit S Chadha, FIND India (10 min, views from country needs) 3 to 4 Participants from Country (Africa or South America) - 5-10 min views from country perspective depending on number of participants from countries Open discussion and questions 5 to 10 min depending on number of final speakers – Moderation Nadia Khelef
15:00 – 15:30	<b>Understand the barriers faced by diagnostic test developers – Round Table</b> Clément Fiaux, BioMérieux Sebastien Quesney or Amadou Sall (Institut Pasteur or Institut Pasteur of Dakar) Jo Fitchett or Mark Davis (Mologics), Carolyn Hall (Abbott)
15:30 – 16:00	<b>Reflect on policies to overcome barriers faced by AMR diagnostic test developers</b> Francis Moussy (WHO) Kamini Walia (Indian Council of Medical Research) Participant(s) from countries (African or South American) - 5-10 min views from country perspective depending on number of participants Including Olga Persovic (South Africa) Moderation: Cassandra Kelly
16:00 – 16:30	<b>Break</b>
16:30 – 17:00	<b>OPEN DISCUSSIONS</b> With panel members and the participants in the room: How to link 3 components? <ul style="list-style-type: none"><li>- Moderation by Cassandra Kelly and Nadia Khelef</li><li>- Questions to be prepared with speakers and participants</li></ul>
17:00 – 17:30	<b>Simulation exercise using role play to show complexities of access to diagnostic for AMR</b> - Animated by Cassandra Kelly and Nadia Khelef <b>Earlier in the day ?</b>
17:30 – 17:40	<b>End of day 5 - Session 8 evaluation</b>
18:30 – 19:15	<b>Diploma ceremony</b>
20:00	<b>Gala Dinner to celebrate the 10<sup>th</sup> anniversary of the Course</b>



## DAY 6: FRIDAY 20<sup>th</sup> SEPTEMBER

09:00 – 12:30

### Session 9: Diagnostics for Universal Health Care and global health security

Co-Chairs: Rosanna Peeling, LSHTM and Francois-Xavier Babin, FMx

Objectives:

- Review and summarise all access issues in the context of Universal Health Care, clinical medicine, AMR and epidemic preparedness
- Review of the week

**09:00 – 09:15**     **Sustainable Development Goals: Diagnostics systems that leave no one behind – overview**

- Integrating technological and social innovation for diagnostics
- Diagnostics to strengthen health systems
- Bringing primary health care into the diagnostic system
- Community engagement in disease control and elimination
- Connected diagnostics for epidemic preparedness
- Diagnostics to combat AMR

Rosanna Peeling, LSHTM

**09:15 – 09:30**     **All participants prepare post-it notes on their take home messages on 3 of the above topics they find most useful**

**09:30 – 09:45**     **No Universal Health Care without Diagnostics**

Catharina Boehme, FIND

**09:45 – 10:30**     **Summary of ACDx participants' take home messages on each topic (6 participants selected to present, 5 min each)**

**10:30 – 10:40**     **Synthesis of take home messages**

Francois-Xavier Babin, FMX

**10:30 – 11:00**     Break

**11:00 – 12:00**     **OPEN DISCUSSION on 10<sup>th</sup> ACDx**

This week in review

**12:00 – 12:10**     **End of day 6 - Session 9 evaluation & global evaluation**

**12:10 – 12:30**     **Summary & closure**

Rosanna Peeling, François-Xavier Babin

**12:30 – 14:00**     Lunch

## End of ACDx 2019

