

Dr. Cyril Buhler

3 Route de Moret 77690 La Genevraye - France

☎: +33 (0) 642 015 144

@: cyril.buhler@ordiagnostics.com



Senior consultant laboratory systems

EXPERTISE

Diagnostic of infectious disease; clinical studies in phase I/II drug development and for infectious disease surveillance; research in biomedical science; AMR surveillance system strengthening in LMICs; laboratory systems evaluation; laboratory QMS; procurement of laboratory supplies; capacity building; training and mentoring in laboratory activities and data analysis. RFP development and Grant review in international public health funding organisation.

SUMMARY OF EXPERIENCE

- Consultant in laboratory systems evaluation and strengthening at facility and national level
- Research analyst in biomedical sciences and leadership experience in managing clinical studies for disease surveillance in challenging and fragile countries.
- Strong scientific and technical expertise in the diagnostics of infectious diseases including AMR using microbiological, immunological or molecular strategies.
- Provides recommendations in laboratory diagnostic, laboratory QMS and Biosafety and Biosecurity
- Facilitator and solution oriented in project development and implementation with wide experience in coordinating multi-site stakeholders. Sound knowledge of procurement of laboratory reagents and supplies.
- Ability to analyse complex data to deliver in time technical, interim and final project reports leading to scientific publication in peer-reviewed journals when appropriate.
- Fluent in English and French

PROFESSIONAL EXPERIENCES

Scientific and technical consultancies

Oct 2016 – present: **Laboratory system specialist, member of core technical team of the Management Agent of the Fleming Fund – Mott MacDonald, The Fleming Fund, London UK**

- Led the development of needs assessment tools for AMR national system and surveillance sites in human and animal health facilities
- Participated in the development of a procurement catalogue for equipment and reagents for bacteriology laboratories adapted to AMR surveillance.
- Provided technical input for the selection of *ad hoc* M&E indicators for the Fleming Fund Grant portfolio
- Provided technical supports for Fleming Fund Country and Regional Grant proposal development
- Member of country evaluation team in Ghana, Nepal, Bhutan and Nigeria for Fleming Fund Country Grants
- Participated in Fleming Fund Country Grants and Regional Grant review panels
- Developed a resource handbook of guidance document on AMR AMU AMS and IPC in the context of One Health

Feb 2016 – June 2016: **Laboratory advisor for a Cutaneous Leishmaniasis diagnosis study in Afghanistan – Foundation for Innovative New Diagnostics, Geneva CH and HealthNet-TPO, Amsterdam, NL**

- Conducted pre-trial laboratory and clinical capacity assessment for the comparison of diagnostic methods of Cutaneous Leishmaniasis (CL) in Kabul, Afghanistan.
- Advise and support laboratory staff at the National Malaria & Leishmaniasis Control Program in Kabul on the implementation of a LAMP assay and a Rapid Diagnostic Test for CL detection
- Developed the terms of reference and scope of work for the laboratory staff
- Adapted of guidelines and SOPs for DNA sample extraction, LAMP assay and RDT.
- Supervised shipment of the human samples from Afghanistan to Europe under Category B (UN 3373) regulation
- Provided QA on laboratory results and participated in the drafting of a manuscript for publication in the journal *EBioMedicine*

Sept 2014 – April 2015: **Technical Consultant on improving capacity for safe and secure detection of select febrile diseases in Afghanistan** – HPRO, Kabul, Afghanistan (Study sponsors: LSHTM, Dstl UK DoD)

- Developed the clinical study to evaluate the prevalence of Q fever and Rickettsial diseases among patient attending OPD with undifferentiated febrile illness
- Organized the procurement of laboratory reagents and supplies
- Supervised molecular diagnostic testing (ELISA) and performed data analysis
- Provided interim and final reports to stakeholders

Feb 2014 – Mar 2015: **Scientific and Technical consultant on an insecticide resistance study in 5 high-risk malaria provinces in Afghanistan** – HealthNet-TPO, Amsterdam, NL

- Provided bibliographic documentation on insecticide resistance monitoring including metabolic and target site resistances
- Developed the study proposal and provide recommendations for project implementation to the laboratory staff in Kabul
- Identified and secure collaboration for molecular genotyping of resistance mechanisms
- Performed data analysis and actively participated in the final reporting and publication in *Malaria Journal*

Project Management

Feb 2014 – Mar 2014: **Project manager on an epidemiology study of the causes of non-malaria febrile illness in Afghanistan** – HPRO, Kabul, Afghanistan (Study sponsors: LSHTM)

- Participated in the development of the clinical study proposal for the differential diagnosis of febrile illness in 100 patients in a district hospital in Kabul
- Led the procurement of laboratory reagents and supplies
- Implemented and supervised commercial or in-house Real-Time PCR assay for the detection of virus (15) in biological samples
- Analysed laboratory data and draft interim and final reports to the sponsor of the study

Jan 2013 – Mar 2013: **Epidemiological study on the causes brucellosis and Q fever in the Herat province Afghanistan** – HPRO, Kabul, Afghanistan

- Provided scientific and technical assistance in the selection of immunoassays (ELISA) for the diagnostic of both diseases in 1000 human collected samples
- Implemented SOPs and guidelines for the sampling, transportation and processing of blood samples

Sept 2012 – Mars 2013: **Training in advance clinical diagnostic of infectious disease**

HPRO, Kabul, Afghanistan – Henry Jackson Foundation, USA

- Project coordinator of the training: responsible for the development of the curriculum and organised the planning for 20 invited speakers and lecturers
- Provided lectures on immunology and molecular biology including hands-on training on molecular diagnostic methodologies (ELISA and real-time PCR)
- Organised a student conference (2 days) on endemic infectious diseases in Afghanistan

Sept 2009 – July 2012: **Development of innovative cancer drugs based on therapeutic nucleic acids**

DNA Therapeutics SA, Evry, France

- Team leader with responsibility of the R&D laboratory (2 research technicians, 1 PhD student)
- Designed and led research projects on the development of therapeutic nucleic acids for the treatment of solid tumors (formulation and targeting)
- Developed Quality Assurance assay for the quantification of nucleic acid from biological samples, bioactivity and integrity of the molecules
- Identified cancer predispositions and response-to-treatment biomarkers using immuno enzymatic assays
- Developed and Implemented the laboratory Quality Management System
- Organised collaborations with industrial partners and research institutes

July 2008 – Jan 2009: **Scientific and technical laboratory support** – Malaria Research and Training Center, Bamako, Mali

- Organised the work of the laboratory on Leishmaniasis composed of 3 laboratory technicians
- Implemented a PCR-based method for the detection of Leishmania major from field-collected sandflies
- Managed laboratory activities including training in Molecular Biology and Good Laboratory Practice
- Organised oversees shipments of biological samples for the US National Institute Of Allergy and Infectious Disease

Research activities

May 2009 – July 2009: **Development of single molecule next generation sequencing approaches**

Postdoctoral scientist, Wellcome Trust Centre for Human Genetics, Oxford, UK

- Performed overexpression and purification of DNA and RNA polymerases
- Performed DNA sequencing assays using single molecule

Nov 2007 – March 2008: **Development of innovative cancer therapies based on small DNA molecules**

Postdoctoral scientist, Institut Curie, Orsay, France

- Identification of biomarkers using genomic and proteomic approaches.
- Gel shift assay and immune-detection of protein-DNA complex

Sept 2002 – June 2007: **Analysis of DNA double strand break during meiosis in the yeast *S. cerevisiae* using ChiP-chip assay and whole genome DNA microarrays**

Visiting Fellow, National Cancer Institute, Bethesda, MD USA

- Implement high throughput DNA microarray analysis and quality control using real time PCR
- Development of bioinformatic tools for DNA microarray data processing using MATLAB and File maker

EDUCATION AND QUALIFICATIONS

2002 PhD. Molecular and cellular biology University Paris VI Pierre et Marie Curie – France

1997 MSc. Molecular and cellular biology University Paris VI Pierre et Marie Curie – France

1996 BSc. Genetics and molecular biology – University Paris XI – Orsay, France

1995 BSc. Biochemistry and microbiology– University Paris XI – Orsay, France

Additional trainings

- Training in Biosafety and Biosecurity in biomedical laboratories – *Société Française de Microbiologie (SFM), Paris France, 2018;*
- Workshop on the WHO tricycle project: Integrated Global Survey on ESBL-producing *E. coli* using a "One Health" approach. *Utrecht University of Veterinary Science and World Health Organization, 2017;*
- Workshop on the FAO Assessment Tool for Laboratory and AMR Surveillance System (ATLASS) *Food And Agriculture Organization of the United Nations HQ, Rome, Italy, 2017;*
- ISO15189:2012 - Quality approach and accreditation for biomedical laboratory – *French Normalization Association (AFNOR) – La Plaine Saint-Denis, France 2015;*
- 5th Advanced Course on Diagnostics (ACDx) - *the Fondation Mérieux and the London School of Hygiene & Tropical Medicine – Les Pensières Annecy – France 2014*

Memberships and affiliations

Société Française de Microbiologie (2017-present)

Global Link for Online Biomedical Expertise (GLOBE) – Fondation Mérieux (2014-present)

Europe Society in clinical microbiology and infectious diseases (ESCMID) – (2019-present)

List of scientific publications

<https://orcid.org/0000-0003-0397-7653>