



# VHFMoDRAD

Viral Haemorrhagic Fever Modern Approaches  
for developing bedside Rapid Diagnostics

## VHFMoDRAD 2<sup>nd</sup> newsletter

Visit our website at <https://vhfmodrad.eu/>

Contact the VHFMoDRAD team <https://vhfmodrad.eu/contact-us/>

Follow us on twitter [@VHFMoDRAD\\_eu](https://twitter.com/VHFMoDRAD_eu)

View our project flyer [here](#)

### VHFMoDRAD newsletter is back!

**Three years after SARS-CoV2 pandemic, Professor Ali Mirazimi, coordinator of VHFMoDRAD, comments:**

*"As we begin to emerge from the challenges of the COVID-19, I want to take a moment to express my appreciation for the resilience and determination of Partners in their activity within the VHFMoDRAD project. Now, as we look forward, I am confident that we will produce more data and achieve all milestones within this project. Thank you to all Partners for their dedication. Let's move forward together."*

#### **A quick reminder of what VHFMoDRAD is ?**

VHFMoDRAD is a five-year European project and is part of [IMI's EBOLA+ programme](#) that was launched in 2014 to respond to the Ebola epidemic by accelerating all aspects of vaccine development and diagnostics.

The overall aim of VHFMoDRAD is to **develop and deliver rapid and Point-of-Care (POC) diagnostic tools** that will significantly increase the capacity to handle outbreaks of filoviruses, other VHF diseases in Africa and other highly pathogenic emerging viruses.

Three years after SARS-CoV-2 pandemic outbreak, we are coming back on the impact of the crisis on the Consortium and on how the Partners have been involved.

### VHFMoDRAD and the SARS-CoV-2 pandemic

The SARS-CoV2 pandemic has strongly impacted VHFMoDRAD project causing delays on activities and some changes in the program. The interactions between the partners, the laboratory work, reagent ordering and activities of communication and dissemination have been complicated and slowed-downed due to the crisis. Moreover, the VHFMoDRAD partners,

*This project has received funding from the Innovative Medicines Initiative 2 Joint Undertaking under grant agreement N° 823666. This Joint Undertaking receives support from the European Union's Horizon 2020 research and innovation programme and EFPIA and CEPHEID Europe SAS.*



[www.imi.europa.eu](http://www.imi.europa.eu)

as specialists in infectiology, were strongly involved in the health emergency and have been fully dedicated to the crisis with highly reduced time to conduct other activities.

**The COVID-19 Pandemic has put the importance of rapid and Point-of-Care (POC) diagnostic for controlling an outbreak of an emerging disease on spotlight, not only in low- and middle-income countries, but also in developed countries.** The overall aim of VHF MoDRAD is to develop and deliver rapid and POC multiplex diagnostic tool(s) that will significantly increase our capacity to handle outbreaks of filoviruses, other viral haemorrhagic fever diseases in Africa and other highly pathogenic emerging viruses.

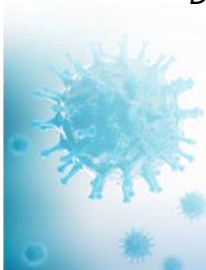
Activities conducted by some of the VHF MoDRAD partners during the pandemic and the interactions between the partners in response to the outbreak of SARS-CoV2 have demonstrated **the capacity of the Consortium to bring new point of care assay to the market and to contribute to increased preparedness.**

Below are some examples of developments conducted by VHF MoDRAD partners illustrating their commitment and reactivity in tackling COVID-19 crisis.

*Thanks to its knowledge on the diagnosis of SARS acquired during its activity in the SARS-DTV project (<https://cordis.europa.eu/project/id/511064>), Coris BioConcept developed very early a first SARS-CoV-2 antigen detection rapid strip assay which was registered end of March 2020 and used for detection and management of COVID-19 cases. The test was later improved and made available in a lateral-flow cassette format. Validation of the assay and industrialization was made possible thanks to interactions with several other partners in the project. To date, more than 80% of the COVID-19 tests manufactured by Coris BioConcept have been provided to low- and middle-income countries, showing the commitment to reach all people in need of diagnostics for public health improvement.*

*After launching its first Xpert SARS-CoV-2 assay in March 2020, Cepheid kept improving the original design of this cartridge based PCR assay. The updated Xpert Xpress CoV-2/Flu/RSVplus was launched at the end of 2021 for the qualitative detection of the viruses causing COVID-19, Flu A, Flu B, and respiratory syncytial virus (RSV) infections from a single patient sample. The Xpert Xpress CoV-2/Flu/RSVplus provides also a third gene target for SARS-CoV-2 detection to meet the challenge of future viral mutations with results delivered in approximately 36 minutes. Xpert Xpress CoV-2/Flu/RSVplus is designed for use on any of Cepheid's over 40,000 GeneXpert® systems placed worldwide.*

*The pandemic has put IPD at the forefront of the fight against SARS-CoV-2 in Africa. On March 2020, a fully operational POC manufacturing named DIATROPIX was launched in collaboration with the Foundation for Innovative New Diagnostics, the Merieux Foundation, the Institut de recherche et de Développement, the Africa Centre for Diseases Control, the West Africa Health Organization, Doctors Without Borders and the Open Society Foundation. On June 2020, DIATROPIX successfully manufactured COVID-19 IgA/IgM/IgG RDTs that have been donated to*



*hospitals to support patients serostatus monitoring. Since January 2021, DIATROPIX has been manufacturing SAYTU, a COVID-19 Ag RDT, registered in the ECOWAS region and CE approved.*

*Into the framework of the VHF MoDRAD project for the capacity building activity, DIATROPIX will host the tech transfer of Rapid Diagnostic Tests (RDTs) from Coris Bioconcept according to the ISO 13485 standards. Because the factory is now established and operational, the twinning training activity on RDT manufacturing planned to take place in Belgium can now be done remotely by Coris Bioconcept.*

The dissemination of data and tools will very likely be useful and constructive in the long-term for **supporting preparedness campaigns of new outbreaks**, further research and public health strategies.

**Professor Ali Mirazimi, coordinator of VHF MoDRAD, commented:**

*“The COVID-19 pandemic have clearly demonstrated that the development of diagnostic tools, preparedness, and field capabilities are crucial in the fight against any outbreak or pandemic. These tools and resources allow us to quickly and accurately identify and track cases, implement effective interventions. It is essential that we continue to invest in and improve these critical capabilities.”*

Although the project timing has been impacted by the SARS-CoV2 pandemic, the VHF MoDRAD project has been moved forward with important development steps delivered which will be further explained in a next Newsletter.

## Useful Links

VHF MoDRAD

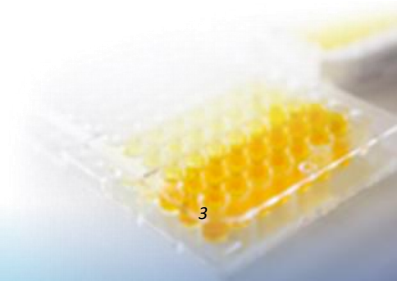
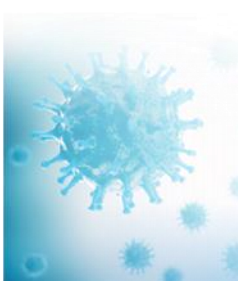
<https://vhfmodrad.eu/>

<https://www.imi.europa.eu/projects-results/project-factsheets/vhfmodrad>

IMI Ebola+ programme

<https://www.imi.europa.eu/projects-results/project-factsheets/ebola>

*This project has received funding from the Innovative Medicines Initiative 2 Joint Undertaking under grant agreement N° 823666. This Joint Undertaking receives support from the European Union’s Horizon 2020 research and innovation programme and EFPIA and CEPHEID Europe SAS.*



## VHF MoDRAD Partners

- Folkhälsomyndigheten (FoHM), Sweden
- Inserm Transfert (IT), France
- University of Stirling (UoS), United Kingdom
- UK Health Security Agency (UKHSA), United Kingdom
- Coris BioConcept SPRL (CORIS), Belgium
- Institut national de la Santé et de la recherche médicale (INSERM), France
- University of Copenhagen (UCPH), Denmark
- Istituto Nazionale per le Malattie Infettive "L. Spallanzani" I.R.C.C.S (INMI), Italy
- Institut Pasteur de Dakar (IPD), Senegal
- RD-Biotech (RD-B), France
- CEPHEID, France
- Aix-Marseille University (AMU), France
- Emergency (EMR), Italy
- Sivas Cumhuriyet Üniversitesi (SCU), Turkey
- Medizinische Hochschule Brandenburg (MHB), Germany

