

We wish you a happy & healthy 2023, filled with many successful projects!

One new member joined the GABRIEL network at the end of the year: the Congolese Foundation for Medical Research (FCRM), Republic of the Congo.

This institution will make it possible to strengthen the presence of the GABRIEL network in Africa by bring new skills to strengthen our research activities and public health.

You can find out more about this new member in the article below:

Presentation of the Congolese Foundation for Medical Research (FCRM), Republic of the Congo



The Congolese Foundation for Medical Research (FCRM) (www.fcrm-congo.com) was created as a legal entity in 2008 to solve the issue of the limited number of Congolese scientists carrying out health research activities in the Republic of the Congo. The FCRM is an independent non-governmental institution. The Foundation has signed a collaboration agreement with the Congolese Ministry of Public Health and Science and Technology, and Marien Ngouabi University.

Contents

- *Presentation of the Congolese Foundation for Medical Research (FCRM), Republic of the Congo*
- *Screening of SARS-COV2 variants*
- *First French-speaking African Forum on the management of tuberculosis infection*
- *Strengthening Data Science Capacity and the Ecosystem: AMR Data Center in Madagascar and Burkina Faso*
- *Fighting pneumonia: an action plan*
- *Sequencing M.leprae strains at CICM, Madagascar*
- *Training in bioinformatics analyses of next-generation sequencing data for the characterization of bacterial isolates*
- *GABRIEL member publications since July 2022*

The Foundation raises funds through grants and donations in order to achieve its objectives. The FCRM serves to further strengthen collaboration between academic, research and health institutions in the Republic of the Congo and promotes public and private sector support for health research in the country. To achieve this, partnership agreements have been signed with the Ministry of Public Health, the Ministry of Science and Technology and the Marien Ngouabi University, the country's state-funded institution.

At the regional level, the FCRM coordinates the Central African Clinical Research Network (CANTAM) which aims to develop clinical research capacities on infectious and tropical diseases, as well as the PANDORA-ID-net consortium which aims to strengthen its partners to ensure rapid responses and preparedness to infectious disease outbreaks in Africa.

Three facilities host FCRM's activities: the Christophe Mérieux infectious disease research centre with its molecular biology, immunology and cellular laboratories, a 3D printing laboratory and a parasitology laboratory, a health facility comprising a clinical research laboratory, and an administrative and financial unit.

The FCRM's activities are focused on:

- Molecular epidemiology related to malaria, *Mycobacterium tuberculosis*, HIV/AIDS and COVID-19;
- Bacterial and viral diarrheal infections;
- Sickle-cell disease and malaria;
- Emerging and re-emerging infections

(Chikungunya, Ebola, dengue, etc.)

- Immunological responses to identified pathogens;
- Antimicrobial resistance;
- Studies related to co-infections.

The FCRM benefits from a long-standing collaboration with the Institute of Tropical Medicine (University of Tübingen, Germany), which serves as a training centre for Congolese MSc and PhD students. Celebrating its 15th anniversary in 2023, the FCRM has a long history of building health research capacity in sub-Saharan Africa and has been committed for several years to promoting gender equality in science in the Republic of the Congo and the abroad thanks to an extensive awareness program entitled "Women & Science".

The FCRM has established a publication history in many peer-reviewed journals, such as *The Lancet*, *Nature*, *Science*, *The Lancet Infectious Diseases*, *Nature Microbiology* (<https://www.fcrm-congo.com/publications>).

Francine Ntoumi, the Congolese Foundation for Medical Research, Republic of the Congo

Screening of SARS-COV2 variants

As part of the effort to combat COVID-19, five members of the GABRIEL network, the Charles Mérieux Center for Infectious Disease (CICM) in Madagascar, the Rodolphe Mérieux Laboratory in Lebanon, the BITID and ideSHi, in Bangladesh, and Centre Pasteur Cameroon (CPC) in Yaoundé, received funding to purchase

PCR screening kits for SARS-CoV-2 variants, and obtained support to select screening methods and interpret data for variant identification. The choice of screening methods was made between commercial kits from Thermo-Fisher, SNPsig® EscapePLEX™, TIB, and Sanger sequencing, with different targets and combinations on the S gene. Laboratory personnel from the five GABRIEL network members, skilled in detecting variants, were able to identify several hundred VOCs and VOIs during the 2021-2022 epidemic. In fact, ideSHi was the first laboratory to identify the Omicron BA.2 variant in Bangladesh. (*c.f. Bin Manjur OH, et al. Genome Sequences of 25 SARS-CoV-2 Sublineage B.1.1.529 Omicron Strains in Bangladesh. Microbiol Resour Announc. 2022 Apr 21;11(4):e0011922.*)



This initiative, along with the technical skills required, has given some of the laboratories the opportunity to participate in their respective national surveillance systems. The laboratory data that they have obtained will be able to be transmitted to the relevant authorities in the national ministries of health and used to decide on non-therapeutic health

measures to be applied.

Zannat Kawser, Tanbir Habib, Hassan Afrad, Mohabbat Hossain, Omar Hamza, Nishat Sultana, Saikt Rahman, Firdausi Qadri, institute for developing Science & Health initiatives (ideSHi), Bangladesh

Zahirul Islam, Rakib Hassan, Shakeel Ahmed, Bangladesh Institute of Tropical and Infectious Diseases (BITID), Bangladesh

Luc Hervé Samison, Luca Maharavo, Felana Ranaivo Rabetokotany, Mandranto Rasamoelina, Centre of Infectiology Charles Mérieux, Madagascar

Marianne Antar, Marianne Abifadel, Rodolphe Mérieux Laboratory, Lebanon and Josette Najjar, Mérieux Foundation, Lebanon

Ronald Perraut, Richard Njouom, Centre Pasteur of Cameroon

Jean-Luc Berland, Emilie Westeel, Florence Pradel, Mérieux Foundation, France

First French-speaking African Forum on the management of tuberculosis infection

In its new strategy to end TB, the World Health Organization (WHO) challenges all countries to dramatically scale up their efforts to achieve bold new targets of a 95% reduction in tuberculosis deaths worldwide and a 90% reduction (<10 cases per 100,000 population) by 2035.

It is in this context that the **First Francophone Africa Forum on the Management of Tuberculosis Infection (IT)** was held in Yaoundé on 27-28 September 2022. This event brought together the heads of National

TB control programs and/or the IT focal point or the head of the National Reference Laboratory for TB from 11 French-speaking African countries: Benin, Burkina Faso, Cameroon (host country), Republic of the Congo, Côte d'Ivoire, Gabon, Guinea, Madagascar, Democratic Republic of the Congo, Senegal and Togo.



This workshop, co-organized by the Centre Pasteur of Cameroon (CPC) and the Mérieux Foundation with the support of QIAGEN, had as its central question: *What prevention strategies to accelerate the elimination of TB in Africa?*

The overall objective of this workshop was to create a platform for discussion and exchange with stakeholders concerned with the implementation of WHO recommendations on community-based intervention, IT screening and TB preventive treatment among at-risk groups. The workshop provided an opportunity for NTP members to learn more about the available tests and treatment regimens for IT and to review current practices in African countries on this topic so that they can identify strategies that are appropriate for their socio-economic context. A roundtable discussion was held to discuss sources of

operational funding to support countries in implementing new strategies for the screening and management of IT.

Sara Eyangoh, Valérie Donkeng, Centre Pasteur of Cameroon

Laurent Raskine, Koren Wolman-Tardy, Jonathan Hoffmann, Mérieux Foundation

Strengthening Data Science Capacity and the Ecosystem: AMR Data Center in Madagascar and Burkina Faso

Antimicrobial resistance (AMR) is a worldwide threat, and data-centered public health interventions are one of the WHO action plan pillars to fight it. Building up on passive surveillance as the cornerstone of all national action plans through regular collection of AMR data during diagnosis, two partners of the international GABRIEL network, the Charles Mérieux Center for Infectious Disease (CICM) – University of Antananarivo in Madagascar and Souro Sanou University Hospital, in Burkina Faso, have been also implementing active surveillance through the WHO “tricycle” protocol, with the support of the Mérieux Foundation. However, there are still drastic gaps to achieve a data-centred surveillance and efficient data governance in both countries to provide evidence-based data supporting actively stakeholders and policy makers in adjusting national action plans.

Some existing standardized collection and analysis tools which have been developed e.g. Whonet and the GLASS system, are a pillar for passive surveillance but not adapted to collect other data (e.g. sequencing data) in the context of active surveillance. This active

surveillance is faced to (i) non-use of efficient electronic data collection tools – without standards not reaching sufficient quality (duplicates, incomplete data, entry errors...), (ii) non-standardized passive surveillance and research data collected leading to lack of sharing, (iii) lack of experienced personnel for advanced statistics inducing delays on providing strategic indicators, (iv) weak culture of evidence-based decision making among data governance stakeholders and (v) poor-evidence for decision makers.

To fill in these gaps, Charles Mérieux Center for Infectious Diseases, University of Antananarivo and Souro Sanou University Hospital, with the Mérieux Foundation have been granted for 2 years, by the Bill and Melinda Gates Foundation under the Grand Challenges 2022. This collaborative project will strengthen active surveillance in both Madagascar & Burkina Faso by building up a data science center with robust tools for collection, data analysis and dissemination from this active surveillance. In addition, the Mérieux Foundation will guarantee the sharing of data to the wider community between its partners based in the LMICs to build upon their capacities in the AMR data center. This project is considered as a pilot project on the emergence of an AMR data center for active surveillance. It integrates 3 innovative processes: (i) the use of electronic data collection tools, (ii) the implementation of the Clinical Data Interchange Standards Consortium (CDISC) standards, (iii) the use of the Staged Development Tool (SDT) for the improvement of the culture of evidence-based decision making among data governance stakeholders. The concept of

robust and validated data process on active surveillance in One Health approach – through ESBL *Escherichia Coli* surveillance - could be applied to other types of monitoring and research such as TRluMPH in Madagascar and FASO-RAM in Burkina Faso, already financed and in ongoing implementation. This approach built with and for policy makers, will contribute to a more responsive and resilient surveillance system.

Luc Hervé Samison, Charles Mérieux Center for Infectious Diseases, Madagascar

Kabore Odilon, Abdoul Salam Ouedraogo, CHU Souro Sanou, Burkina Faso

Isidore Traore, Université Nazi Boni, Burkina Faso

Laurence Mazuranok, Florence Pradel, Mérieux Foundation

Fighting pneumonia: an agenda for action



Pneumonia is the leading infectious disease killer in the world, claiming the lives of an estimated 2.5 million people in 2019, including 672,000 children under five and 1.2 million adults over 70 years, according to the Global Burden of Disease. The COVID-19 pandemic has increased the burden of respiratory infection deaths to more than 6

million in 2021.

Urgent action is needed to both reduce the massive burden of sickness and death from pneumonia and reduce the risk that future respiratory pandemics will kill millions more.

For World Pneumonia Day, the Mériex Foundation and Every Breath Counts Coalition joined forces to host a critical conversation on what governments and international agencies must do to reduce pneumonia deaths and the risk of future respiratory pandemics. Renown experts in the Protect, Prevent, Diagnose and Treat axes of the Global Action Plan on Pneumonia presented insightful perspectives on how to tackle pneumonia particularly in low resource settings.

Understanding that pneumonia awareness needs to be addressed from all ends, the Mériex Foundation and Every Breath Counts Coalition also supported Community country-based activities, through its eleven NGOs Small Award Grants Winners that carried small scale projects, during October and November of the present year, promoting and building Pneumonia awareness to the large public.

Valentina Picot, Mériex Foundation

Leith Greenslade, Every Breath Counts Coalition

Sequencing *M.leprae* strains at CICM, Madagascar

In November 2022, two Illumina Iseq 100 sequencer systems were installed at the Charles Mériex Center for Infectious Disease (CICM) in Madagascar. The Centre's

staff have received training in the chemistry of sequencing and the analysis of the data derived from the system.



This offers the center interesting prospects in genomics and epidemiology. The technology of the sequencers will be of great value for the CICM in its work on leprosy, especially considering that it oversees the monitoring of resistance to anti-leprosy drugs in the Analamanga region of Madagascar. As the mycobacterium's resistance to antibiotics is triggered by point mutations on certain genes, sequencing is the appropriate technique for scanning the causative genes, especially *folp1*, *rpoB*, and *gyrA*. In addition, the mutations carried by the remaining genome should help define the genotype of various *M. leprae* strains circulating in the country. According to recent work carried out in collaboration with the CICM, the genotype of most strains is specific to Madagascar, e.g., genotype 1D-malagasy belongs to branch 1 (Avanzi et al, 2020). The ability to compare the genomes of *M. leprae* strains should make it possible to examine the genetic diversity of the strains in the country and the factors that influence patient transmission.

Jean-Luc Berland, Mériex Foundation

Training in bioinformatics analyses of next-generation sequencing data for the characterization of bacterial isolates



A bioinformatics course organized by the Mérieux Foundation in collaboration with ANSES was held in Dakar, Senegal, from 5 to 9 December 2022. Eighty candidates from 15 African countries submitted applications to attend this professional training course, which had received an Illumina educational grant. Of the 23 applicants who were interviewed, ten were selected, coming from eight countries (Benin, Burkina Faso, Cameroon, Ivory Coast, Gabon, Democratic Republic of the Congo, Senegal, and Togo) The course dealt with the bioinformatics analysis of next-generation sequencing data for the characterization of bacterial isolates.



During the course, the participants acquired the basic knowledge in bioinformatics needed to interpret their own data sets starting from the raw information they had collected, working their way up to specific gene identification. Bioinformatics were taught in workshops with the use of teaching aids (puzzles, board games, etc.) together with theoretical and hands-on computer coursework.

Each participant's progress was gauged through pre- and post-training assessments. They each expressed their desire to learn more about the material taught in the course during a follow-up session, as they felt that five days of coursework had been insufficient to cover all the concepts.

The excellent feedback and the notable progress of each participant suggest that offering the course over the long term for as many people as possible in the future would be extremely beneficial.

Pauline François, ANSES

Emilie Westeel, Mérieux Foundation

GABRIEL member publications since July 2022

Collaborative publications

Uddin MKM, Ather MF, Akter S, Nasrin R, Rahman T, Kabir SN, Rahman SMM, Pouzol S, Hoffmann J, Banu S. Diagnostic Yield of Xpert MTB/RIF Assay Using Bronchoalveolar Lavage Fluid in Detecting Mycobacterium tuberculosis among the Sputum-Scarce Suspected Pulmonary TB Patients. *Diagnostics (Basel)*. 2022 Jul 10;12(7):1676.

NdiayeMDB, RanaivomananaP, RasoloharimananaLT,

Rasolofo V, Ratovoson R, Herindrainy P, Rakotonirina J, Schoenhals M, Hoffmann J, Rakotosamimanana N. Plasma host protein signatures correlating with Mycobacterium tuberculosis activity prior to and during antituberculosis treatment. *Sci Rep.* 2022 Nov 30;12(1):20640.

Colizzi V, Alteri C, D'Amelio S, Garba IH, Giovanetti M, Komurian-Pradel F, Lourenço J, Mazeri S, Muwonge A, Perno CF, Russo G, Mukadi-Bamuleka D. Preventing future pandemics and epidemics through a North-South collaboration on genomic surveillance in Africa. *J Public Health Afr.* 2022 Sep 23;13(3):2319.

Xiang Z, Sangaré AK, Wang X, Xiao Y, Kané B, Cissé I, Camara M, Traore B, Dembele A, Wang Y, Ouedraogo J, Timbine LG, Diallo S, Komurian-Pradel F, Doumbo OK, Ren L, Kouriba B, Wang J. Microorganisms in patients with acute respiratory tract infections in Bamako, Mali. *J Infect.* 2022 Oct;85(4):e83-e85.

Paboriboune P, Phongsavan K, Arounlangsy P, Flaissier B, Aphayarath O, Phimmasone P, Banchongphanith K, Xayaovong M, Jourdain G, Schott AM, Saadatian-Elahi M, Magaud L, Klich A, Ngo-Giang-Huong N, Heard I, Rabilloud M, Picot VS, Longuet C. Efficacy of careHPV™ human papillomavirus screening versus conventional cytology tests for the detection of precancerous and cancerous cervical lesions among women living with HIV-1 in Lao People's Democratic Republic. *Cancer Med.* 2022 May;11(9):1984-1994.

Sitbounlang P, Deharo E, Latthaphasavang V, Marchio A, Soukhsakhone C, Soinxay V, Mayxay M, Steenkeste N, Vincelot P, Bertani S, Palamy S, Paboriboune P, Pineau P. Estimating the burden of hepatitis B virus infection in Laos between 2020 and 2021: A cross-sectional seroprevalence survey. *EClinicalMedicine.* 2022 Jul 29;52:101582.

Nour D, Rafei R, Lamarca AP, de Almeida LGP, Osman M, Ismail MB, Mallat H, Berry A, Burfin G, Semanas Q, Josset L, Hassan H, Dabboussi F, Lina B, Colson P, Vasconcelos ATR, Hamze M. The Role of Lebanon in the COVID-19 Butterfly Effect: The B.1.398 Example. *Viruses.* 2022 Jul 27;14(8):1640.

Brito AF, ..., Siqueira MM, Resende PC, Vasconcelos ATR, Spilki FR, Aguiar RS, Alexiev I, Ivanov IN, Philipova I, Carrington CVF, Sahadeo NSD, Gurry C, Maurer-Stroh S, Naidoo D, von Eije KJ, Perkins MD, van Kerkhove M, Hill SC, Sabino EC, Pybus OG, Dye C, Bhatt S, Flaxman S, Suchard MA, Grubaugh ND, Baele G, Faria NR. Global disparities in SARS-CoV-2 genomic surveillance. *medRxiv [Preprint].* 2021 Dec 9:2021.08.21.21262393.

Tegally H, ... Sangare AK, Ouedraogo AS, Sow A ..., Kouriba B, Adu B, ..., Njouom R, et al. The evolving SARS-CoV-2 epidemic in Africa: Insights from rapidly expanding genomic surveillance. *Science.* 2022 Oct 7;378(6615):eabq5358.

Kawser Z, Hossain M, Suliman S, Lockman S, Gitaka J, Bandawe G, Rahmat R, Hasan I, Siddik AB, Afrad MH, Rahman MZ, Miller G, Walt DR, Ivers LC, LaRocque RC, Harris JB, Qadri F. An Assessment of a Rapid SARS-CoV-2 Antigen Test in Bangladesh. *Am J Trop Med Hyg.* 2022 Aug 15;107(4):845-849.

Other publications

Parisot N, Vargas-Chávez C, Goubert C, Baa-Puyoulet P, Balmand S, Beranger L, Blanc C, Bonnamour A, Boulesteix M, Bulet N, Calevro F, Callaerts P, Chancy T, Charles H, Colella S, Da Silva Barbosa A, Dell'Aglio E, Di Genova A, Febvay G, Gabaldón T, Galvão Ferrarini M, Gerber A, Gillet B, Hubley R, Hughes S, Jacquin-Joly E, Maire J, Marcet-Houben M, Masson F, Meslin C, Montagné N, Moya A, Ribeiro de Vasconcelos AT, Richard G, Rosen J, Sagot MF, Smit AFA, Storer JM, Vincent-Monegat C, Vallier A, Vigneron A, Zaidman-Rémy A, Zamoum W, Vieira C, Rebollo R, Latorre A, Heddi A. The transposable element-rich genome of the cereal pest *Sitophilus oryzae*. *BMC Biol.* 2021 Nov 9;19(1):241.

de Carvalho FM, Valiatti TB, Santos FF, Silveira ACO, Guimarães APC, Gerber AL, Souza CO, Cassu Corsi D, Brasiliense DM, Castelo-Branco DSCM, Anzai EK, Bessa-Neto FO, Guedes GMM, de Souza GHA, Lemos LN, Ferraz LFC, Bahia MNM, Vaz MSM, da Silva RGB, Veiga R, Simionatto S, Monteiro WAP, Lima WAO, Kiffer CRV, Campos Pignatari AC, Cayô R, de Vasconcelos ATR, Gales AC. Exploring the

Bacteriome and Resistome of Humans and Food-Producing Animals in Brazil. *Microbiol Spectr.* 2022 Oct 26;10(5):e0056522.

Lemos LN, de Carvalho FM, Santos FF, Valiatti TB, Corsi DC, de Oliveira Silveira AC, Gerber A, Guimarães APC, de Oliveira Souza C, Brasiliense DM, Maia Castelo-Branco DSC, Anzai EK, Bessa-Neto FO, de Melo GM, de Souza GH, Ferraz LFC, de Nazaré Miranda Bahia M, Mattos MS, da Silva RGB, Veiga R, Simionatto S, Monteiro WAP, de Oliveira Lima WA, Kiffer CRV, Cayô R, Gales AC, de Vasconcelos ATR. Large Scale Genome-Centric Metagenomic Data from the Gut Microbiome of Food-Producing Animals and Humans. *Sci Data.* 2022 Jun 25;9(1):366.

Santos-Rebouças CB, Piergiorgio RM, Dos Santos Ferreira C, Seixas Zeitel R, Gerber AL, Rodrigues MCF, Guimarães APC, Silva RM, Fonseca AR, Souza RC, de Souza ATAM, Rossi ÁD, Porto LCMS, Cardoso CC, de Vasconcelos ATR. Host genetic susceptibility underlying SARS-CoV-2-associated Multisystem Inflammatory Syndrome in Brazilian Children. *Mol Med.* 2022 Dec 12;28(1):153.

Bellini R, Guedes IA, Ciapina LP, de Vasconcelos ATR, Dardenne LE, Nicolás MF. Analysis of a novel class A β -lactamase OKP-B-6 of *Klebsiella quasipneumoniae*: structural characterisation and interaction with commercially available drugs. *Mem Inst Oswaldo Cruz.* 2022 Sep 23;117:e220102.

Silva TS, Salvato RS, Gregianini TS, Gomes IA, Pereira EC, de Oliveira E, de Menezes AL, Barcellos RB, Godinho FM, Riediger I, Debur MDC, de Oliveira CM, Ribeiro-Rodrigues R, Miyajima F, Dias FS, Abbud A, do Monte-Neto R, Calzavara-Silva CE, Siqueira MM, Wallau GL, Resende PC, Fernandes GDR, Alves P. Molecular characterization of a new SARS-CoV-2 recombinant cluster XAG identified in Brazil. *Front Med (Lausanne).* 2022 Sep 28;9:1008600.

Capão A, Aguiar-Oliveira ML, Caetano BC, Neves TK, Resende PC, Almeida WAF, Miranda MD, Martins-Filho OAS, Brown D, Siqueira MM, Garcia CC. Analysis of Viral and Host Factors on Immunogenicity of 2018, 2019, and 2020 Southern Hemisphere Seasonal Trivalent Inactivated Influenza Vaccine in

Adults in Brazil. *Viruses.* 2022 Jul 30;14(8):1692.

Costa JCD, Siqueira MM, Brown D, Lopes JO, Costa BCD, Gama EL, Aguiar-Oliveira ML. Vaccine Mismatches, Viral Circulation, and Clinical Severity Patterns of Influenza B Victoria and Yamagata Infections in Brazil over the Decade 2010-2020: A Statistical and Phylogeny-Trait Analyses. *Viruses.* 2022 Jul 5;14(7):1477.

Almada DL, Alves ADR, Leon LAA, Macedo DFR, de Oliveira SA, Siqueira MM, Brown D, Cubel Garcia RCN. Use of oral fluid samples for the investigation of outbreaks of human parvovirus B19 infection. *Braz J Microbiol.* 2022 Dec;53(4):1959-1967.

Pauvolid-Corrêa A, Caetano BC, Machado AB, Ferreira MA, Valente N, Neves TK, Geraldo K, Motta F, Dos Santos VGV, Grinsztejn B, Siqueira MM, Resende PC. Sera of patients infected by earlier lineages of SARS-CoV-2 are capable to neutralize later emerged variants of concern. *Biol Methods Protoc.* 2022 Aug 22;7(1):bpac021.

Araujo CAS, Siqueira MM, Pires A. Brazilian Health Care Professionals Attitudes and Knowledge Regarding Organ Donation and Transplantation: A Systematic Review. *Transplant Proc.* 2022 Oct;54(8):2069-2074.

Estrela PFN, Dos Santos CA, Resende PC, Lima PM, da Silva TDSC, Saboia-Vahia L, Siqueira MM, Silveira-Lacerda EP, Duarte GRM. Fast, low-cost and highly specific colorimetric RT-LAMP assays for inference of SARS-CoV-2 Omicron BA.1 and BA.2 lineages. *Analyst.* 2022 Dec 5;147(24):5613-5622.

Sousa TDC, Martins JSCC, Miranda MD, Garcia CC, Resende PC, Santos CA, Debur MDC, Rodrigues RR, Cavalcanti AC, Gregianini TS, Iani FCM, Pereira FM, Fernandes SB, Ferreira JA, Santos KCO, Motta F, Brown D, de Almeida WAF, Siqueira MM, Matos ADR. Low prevalence of influenza A strains with resistance markers in Brazil during 2017-2019 seasons. *Front Public Health.* 2022 Sep 14;10:944277.

Melo LSW, Estevão TM, Chaves JSC, Vieira JMS, Siqueira MM, Alcoforado ILG, Vidal CFL, Lacerda HR.

Success factors of a collaborative project to reduce healthcare-associated infections in intensive care units in Northeastern Brazil. *Rev Bras Ter Intensiva*. 2022 Sep 12;34(3):327-334. Portuguese, English.

Dos Santos CA, Silva LDC, Souza Júnior MN, Mendes GM, Estrela PFN, de Oliveira KG, de Curcio JS, Resende PC, Siqueira MM, Pauvolid-Corrêa A, Duarte GRM, Silveira-Lacerda EP. Detecting lineage-defining mutations in SARS-CoV-2 using colorimetric RT-LAMP without probes or additional primers. *Sci Rep*. 2022 Jul 7;12(1):11500.

de Sá NBR, Neira-Goulart M, Ribeiro-Alves M, Perazzo H, Geraldo KM, Ribeiro MPD, Cardoso SW, Grinsztejn B, Veloso VG, Capão A, Siqueira MM, de Lima Bezerra OC, Garcia CC, Gomes LR, da Silva Cazote A, de Almeida DV, Giacoia-Gripp CBW, Côrtes FH, Morgado MG. Inflammasome Genetic Variants Are Associated with Protection to Clinical Severity of COVID-19 among Patients from Rio de Janeiro, Brazil. *Biomed Res Int*. 2022 Sep 5;2022:9082455.

Silva ARD Jr, Villas-Boas LS, Paula AV, Tozetto-Mendoza TR, Honorato L, Witkin SS, Mendes-Correa MC. Neutralizing antibodies against the SARS-CoV-2 Omicron variant following two CoronaVac vaccinations and a Pfizer/BioNTech mRNA vaccine booster. *Rev Inst Med Trop Sao Paulo*. 2022 Jun 17;64:e43.

Ferrufino RQ, Bierrenbach AL, Rodrigues C, Figueiredo GM, Gleison D, Yapura S, de Matos MLM, Vasconcelos R, Sol Witkin S, Mendes-Correa MC. The Changing Epidemiology of Hepatitis C Virus Acquisition Among HIV-Infected Individuals in Brazil. *AIDS Res Hum Retroviruses*. 2022 Nov 29.

Santos APT, Silva VCM, Mendes-Corrêa MC, Lemos MF, Malta FM, Santana RAF, Dastoli GTF, Castro VFD, Pinho JRR, Moreira RC. Characterization of primary direct-acting antiviral (DAA) drugs resistance mutations in NS5A/NS5B regions of hepatitis C virus with genotype 1a and 1b from patients with chronic hepatitis. *Rev Inst Med Trop Sao Paulo*. 2022 Sep 30;64:e61.

Liggett LA, Cato LD, Weinstock JS, Zhang Y, Nouraie

SM, Gladwin MT, Garrett ME, Ashley-Koch A, Telen MJ, Custer B, Kelly S, Dinardo CL, Sabino EC, Loureiro P, Carneiro-Proietti AB, Maximo C; NHLBI Trans-Omics for Precision Medicine (TOPMed) Consortium, Reiner AP, Abecasis GR, Williams DA, Natarajan P, Bick AG, Sankaran VG. Clonal hematopoiesis in sickle cell disease. *J Clin Invest*. 2022 Feb 15;132(4):e156060.

Claro IM, Romano CM, Candido DDS, Lima EL, Lindoso JAL, Ramundo MS, Moreira FRR, Barra LAC, Borges LMS, Medeiros LA, Tomishige MYS, Moutinho T, Silva AJDD, Rodrigues CCM, Azevedo LCF, Villas-Boas LS, Silva CAMD, Coletti TM, Manuli ER, O'Toole A, Quick J, Loman N, Rambaut A, Faria NR, Figueiredo-Mello C, Sabino EC. Shotgun metagenomic sequencing of the first case of monkeypox virus in Brazil, 2022. *Rev Inst Med Trop Sao Paulo*. 2022 Jun 24;64:e48.

Mattioli IA, Castro KR, Macedo LJA, Sedenho GC, Oliveira MN, Todeschini I, Vitale PM, Ferreira SC, Manuli ER, Pereira GM, Sabino EC, Crespilho FN. Graphene-based hybrid electrical-electrochemical point-of-care device for serologic COVID-19 diagnosis. *Biosens Bioelectron*. 2022 Mar 1;199:113866.

Bierrenbach AL, Quintino ND, Moreira CHV, Damasceno RF, Nunes MDCP, Baldoni NR, de Oliveira da Silva LC, Ferreira AM, Cardoso CS, Haikal DS, Sabino EC, Ribeiro ALP, Oliveira CDL. Hospitalizations due to gastrointestinal Chagas disease: National registry. *PLoS Negl Trop Dis*. 2022 Sep 19;16(9):e0010796.

Carvalho LB, Casadio LVB, Polly M, Nastri AC, Turdo AC, de Araujo Eliodoro RH, Sabino EC, Levin AS, de Proença ACT, Higashino HR. Monkeypox Virus Transmission to Healthcare Worker through Needlestick Injury, Brazil. *Emerg Infect Dis*. 2022 Nov;28(11):2334-2336.

Nicolete VC, Rodrigues PT, Fernandes ARJ, Corder RM, Tonini J, Buss LF, Sales FC, Faria NR, Sabino EC, Castro MC, Ferreira MU. Epidemiology of COVID-19 after Emergence of SARS-CoV-2 Gamma Variant, Brazilian Amazon, 2020-2021. *Emerg Infect Dis*. 2022 Mar;28(3):709-712.

Frade VP, Moreira CHV, Sabino EC, Bedor DCG, Ghilard FR, Oliveira CDL, Sanches C. Population pharmacokinetic modeling of benzimidazole in Brazilian patients with chronic Chagas disease. *Rev Inst Med Trop Sao Paulo*. 2022 Feb 2;64:e4.

Brizzi A, Whittaker C, Servo LMS, Hawryluk I, Prete CA Jr, de Souza WM, Aguiar RS, Araujo LJT, Bastos LS, Blenkinsop A, Buss LF, Candido D, Castro MC, Costa SF, Croda J, de Souza Santos AA, Dye C, Flaxman S, Fonseca PLC, Geddes VEV, Gutierrez B, Lemey P, Levin AS, Mellan T, Bonfim DM, Miscouridou X, Mishra S, Monod M, Moreira FRR, Nelson B, Pereira RHM, Ranzani O, Schneckenberg RP, Semenova E, Sonabend R, Souza RP, Xi X, Sabino EC, Faria NR, Bhatt S, Ratmann O. Spatial and temporal fluctuations in COVID-19 fatality rates in Brazilian hospitals. *Nat Med*. 2022 Jul;28(7):1476-1485.

Fernandes AE, Rosa PWL, Melo ME, Martins RCR, Santin FGO, Moura AMSH, Coelho GSMA, Sabino EC, Cercato C, Mancini MC. Differences in the gut microbiota of women according to ultra-processed food consumption. *Nutr Metab Cardiovasc Dis*. 2022 Oct 11:S0939-4753(22)00410-0.

Oliveira BA, Oliveira LC, Oliveira FM, Pereira GM, Souza RM, Manuli ER, Marchini FK, Espinoza EPS, Park M, Taniguchi L, Mendes PV, Franco LAM, Nastro AC, Oliveira MS, Vieira Junior JM, Kallas EG, Levin AS, Sabino EC, Costa SF. Evaluation of eleven immunochromatographic assays for SARS-CoV-2 detection: investigating the dengue cross-reaction. *Rev Inst Med Trop Sao Paulo*. 2022 Sep 30;64:e63.

Ferreira GM, Claro IM, Grosche VR, Cândido D, José DP, Rocha EC, de MouraColetti T, Manuli ER, Gaburo N Jr, Faria NR, Sabino EC, de Jesus JG, Jardim ACG. Molecular characterization and sequencing analysis of SARS-CoV-2 genome in Minas Gerais, Brazil. *Biologicals*. 2022 Oct;80:43-52.

Borin A, Coimbra LD, Bispo-Dos-Santos K, Naciuk FF, Fontoura M, Simeoni CL, Gomes GV, Amorim MR, Gravina HD, Shimizu JF, Passos ASC, de Oliveira IM, de Carvalho AC, Cardoso AC, Parise PL, Toledo-Teixeira DA, Sotorilli GE, Persinoti GF, Claro IM, Sabino EC, Alborghetti MR, Rocco SA,

Franchini KG, de Souza WM, Oliveira PSL, Cunha TM, Granja F, Proença-Módena JL, Trivella DBB, Bruder M, Cordeiro AT, Marques RE. Identification and characterization of the anti-SARS-CoV-2 activity of cationic amphiphilic steroidal compounds. *Virulence*. 2022 Dec;13(1):1031-1048.

Lazari LC, Zerbinati RM, Rosa-Fernandes L, Santiago VF, Rosa KF, Angeli CB, Schwab G, Palmieri M, Sarmento DJS, Marinho CRF, Almeida JD, To K, Giannecchini S, Wrenger C, Sabino EC, Martinho H, Lindoso JAL, Durigon EL, Braz-Silva PH, Palmisano G. MALDI-TOF mass spectrometry of saliva samples as a prognostic tool for COVID-19. *J Oral Microbiol*. 2022 Feb 27;14(1):2043651.

Ferreira AM, Sabino EC, Silva LCO, Oliveira CDL, Cardoso CS, Ribeiro ALP, Damasceno RF, Leite SF, Vieira TM, Nunes MDCP, Haikal DSA. Contextual influence on poor self-rated health in patients with Chagas disease: multilevel study. *Cien Saude Colet*. 2022 Jul;27(7):2827-2842.

Prete CA Jr, Buss LF, Buccheri R, Abraham CMM, Salomon T, Crispim MAE, Oikawa MK, Grebe E, da Costa AG, Fraiji NA, do P S S Carvalho M, Whittaker C, Alexander N, Faria NR, Dye C, Nascimento VH, Busch MP, Sabino EC. Reinfection by the SARS-CoV-2 Gamma variant in blood donors in Manaus, Brazil. *BMC Infect Dis*. 2022 Feb 5;22(1):127.

Maia MA, Sabino EC, Oliveira LC, Oliveira CDL, Cardoso CS, Maia AIN, Versiani FCPG, Silva JLPD, Ferreira AM, Ribeiro ALP, Nunes MCP. Incremental Prognostic Value of Echocardiography to Brain Natriuretic Peptide in Patients with Chagas Cardiomyopathy from Endemic Areas. *J Am Soc Echocardiogr*. 2022 Sep;35(9):1002-1003.

Pallos D, Sousa V, Feres M, Retamal-Valdes B, Chen T, Curtis M, Boaventura RM, Tanaka MH, Salomão GVDS, Zanella L, Tozetto-Mendoza TR, Schwab G, Franco LAM, Sabino EC, Braz-Silva PH, Shibli JA. Salivary Microbial Dysbiosis Is Associated With Peri-Implantitis: A Case-Control Study in a Brazilian Population. *Front Cell Infect Microbiol*. 2022 Jan 5;11:696432.

Levin AS, Freire MP, Oliveira MS, NASTRI ACS, Harima LS, Perdigão-Neto LV, Magri MM, Fialkovitz G, Figueiredo PHMF, Siciliano RF, Sabino EC, Carlotti DPN, Rodrigues DS, Nunes FLS, Ferreira JE; HCFMUSP COVID-19 Study Group. Correlating drug prescriptions with prognosis in severe COVID-19: first step towards resource management. *BMC Med Inform Decis Mak.* 2022 Sep 21;22(1):246.

da Silva H, Oliveira TMP, Sabino EC, Alonso DP, Sallum MAM. Bacterial diversity in *Haemagogus leucocelaenus* (Diptera: Culicidae) from Vale do Ribeira, São Paulo, Brazil. *BMC Microbiol.* 2022 Jun 22;22(1):161

Pimenta de Paiva L, Coelho-Dos-Reis JGA, Trindade BC, Peruhype-Magalhães V, Silva Araújo MS, Gonçalves JJ, Nogueira AC, Pereira Martins J, Lopes Ribeiro Á, Starling AL, Alcântara LCJ, Ribeiro MA, Carneiro-Proietti ABF, Sabino EC, Alves Bicalho K, Teixeira-Carvalho A, Martins-Filho OA. A New Flow Cytometry-Based Single Platform for Universal and Differential Serodiagnosis of HTLV-1/2 Infection. *Front Immunol.* 2022 Apr 14;13:795815.

Buss L, Prete CA Jr, Whittaker C, Salomon T, Oikawa MK, Pereira RHM, Moura ICG, Delerino L, Franca RFO, Miyajima F, Mendrone A Jr, Almeida-Neto C, Salles NA, Ferreira SC, Fladzinski KA, de Souza LM, Schier LK, Inoue PM, Xabregas LA, Crispim MAE, Fraiji N, Carlos LMB, Pessoa V, Ribeiro MA, de Souza RE, Cavalcante AF, Valença MIB, da Silva MV, Lopes E, Filho LA, Mateos SOG, Nunes GT, Schlesinger D, da Silva SMN, Silva-Junior AL, Castro MC, Nascimento VH, Dye C, Busch MP, Faria NR, Sabino EC. Predicting SARS-CoV-2 Variant Spread in a Completely Seropositive Population Using Semi-Quantitative Antibody Measurements in Blood Donors. *Vaccines (Basel).* 2022 Aug 31;10(9):1437.

Coletti TM, Romano CM, Urbinatti PR, Teixeira RS, Pedrosa LWA, Nardi MS, Natal D, Costa ACD, Jesus JG, Claro IM, Sabino EC, Witkin SS, Marrelli MT, Fernandes LN. Characterization of insect-specific *Culex flavivirus* (Flaviviridae) nucleotide sequences in mosquitoes from urban parks in São Paulo, Brazil. *Rev Soc Bras Med Trop.* 2022 Sep 26;55:e0067.

Rodrigues DS, NASTRI ACS, Magri MM, Oliveira MS, Sabino EC, Figueiredo PHMF, Levin AS, Freire MP, Harima LS, Nunes FLS, Ferreira JE; HCFMUSP COVID-19 Study Group. Predicting the outcome for COVID-19 patients by applying time series classification to electronic health records. *BMC Med Inform Decis Mak.* 2022 Jul 17;22(1):187

Ferreira AM, Santos LI, Sabino EC, Ribeiro ALP, Oliveira-da Silva LC, Damasceno RF, D'Angelo MFSV, Nunes MDGP, Haikal DSA. Two-year death prediction models among patients with Chagas Disease using machine learning-based methods. *PLoS Negl Trop Dis.* 2022 Apr 14;16(4):e0010356.

Sousa FTG, Biering SB, Patel TS, Blanc SF, Camellini CM, Venzke D, Nunes RJ, Romano CM, Beatty PR, Sabino EC, Harris E. Sulfated β -glucan from *Agaricus subrufescens* inhibits flavivirus infection and nonstructural protein 1-mediated pathogenesis. *Antiviral Res.* 2022 Jul;203:105330.

Costa SF, Vernal S, Giavina-Bianchi P, Mesquita Peres CH, Dos Santos LGD, Santos REB, Santos RCC, Francisco MCPB, Satie FM, Dal Secco LM, Pivetta Cora A, Dos Santos CL, Duarte AJDS, Oliveira Bonfá ESD, Perreira AJ, Sabino EC, Segurado AC, Levin AS. Adherence to non-pharmacological preventive measures among healthcare workers in a middle-income country during the first year of the COVID-19 pandemic: Hospital and community setting. *Am J Infect Control.* 2022 Jun;50(6):707-711.

Teixeira Mendes E, Neto DGPV, Ferreira GM, Valença IN, Lima MPJS, de Freitas MFMB, Donalísio MR, Melo MC, Lazari C, Goes J, Morales I, Jardim ACG, Andrade Dos Santos P, Franco LAM, Sabino EC, Costa SF. Impact of COVID-19 RT-PCR testing of asymptomatic health care workers on absenteeism and hospital transmission during the pandemic. *Am J Infect Control.* 2022 Nov 12;S0196-6553(22)00786-6.

de Souza UJB, Dos Santos RN, de Melo FL, Belmok A, Galvão JD, de Rezende TCV, Cardoso FDP, Carvalho RF, da Silva Oliveira M, Ribeiro Junior JC, Gabev EE, Sabino EC, Arns CW, Ribeiro BM, Spilki FR, Campos FS. Genomic Epidemiology of SARS-

CoV-2 in Tocantins State and the Diffusion of P.1.7 and AY.99.2 Lineages in Brazil. *Viruses*. 2022 Mar 23;14(4):659.

Luna-Muschi A, Noguera SV, Borges IC, De Paula AV, Côrtes MF, Larocca C, Mari JF, Guimarães LSP, Torres PM, Scaccia N, Villas-Boas LS, da Silva AR, Andrade PS, Teixeira JC, Escadafal C, de Oliveira VF, Tozetto-Mendoza TR, Mendes-Correa MC, Levin AS, Sabino EC, Costa SF. Characterization of Severe Acute Respiratory Syndrome Coronavirus 2 Omicron Variant Shedding and Predictors of Viral Culture Positivity on Vaccinated Healthcare Workers With Mild Coronavirus Disease 2019. *J Infect Dis*. 2022 Nov 11;226(10):1726-1730.

Damasceno RF, Sabino EC, Ribeiro ALP, Ferreira AM, de Oliveira-da Silva LC, Oliveira CDL, Cardoso CS, Vieira TM, Haikal DSA. Failure to use health services by people with Chagas disease: Multilevel analysis of endemic area in Brazil. *PLoS Negl Trop Dis*. 2022 Sep 19;16(9):e0010785.

Prete CA Jr, Buss LF, Whittaker C, Salomon T, Oikawa MK, Pereira RHM, Moura ICG, Delerino L, Barral-Netto M, Tavares NM, Franca RFO, Boaventura VS, Miyajima F, Mendrone-Junior A, de Almeida-Neto C, Salles NA, Ferreira SC, Fladzinski KA, de Souza LM, Schier LK, Inoue PM, Xabregas LA, Crispim MAE, Fraiji N, Araujo FLV, Carlos LMB, Pessoa V, Ribeiro MA, de Souza RE, da Silva SMN, Cavalcante AF, Valença MIB, da Silva MV, Lopes E, Filho LA, Mateos SOG, Nunes GT, Silva-Junior AL, Busch MP, Castro MC, Dye C, Ratmann O, Faria NR, Nascimento VH, Sabino EC. SARS-CoV-2 antibody dynamics in blood donors and COVID-19 epidemiology in eight Brazilian state capitals: A serial cross-sectional study. *Elife*. 2022 Sep 22;11:e78233.

Gomez UT, Francisco RPV, Baptista FS, Gibelli MABC, Ibidi SM, Carvalho WB, Paganoti CF, Sabino EC, Silva LCOD, Jaenisch T, Mayaud P, Brizot ML; HC-FMUSP- Obstetric COVID-19 Study Group. Impact of SARS-CoV-2 on pregnancy and neonatal outcomes: An open prospective study of pregnant women in Brazil. *Clinics (Sao Paulo)*. 2022 Jun 27;77:100073.

Oliveira TGM, Venturini G, Alvim JM, Feijó LL, Dinardo

CL, Sabino EC, Seidman JG, Seidman CE, Krieger JE, Pereira AC. Different Transcriptomic Response to *T. cruzi* Infection in hiPSC-Derived Cardiomyocytes From Chagas Disease Patients With and Without Chronic Cardiomyopathy. *Front Cell Infect Microbiol*. 2022 Jul 7;12:904747.

Villas-Boas LS, Paula AV, Silva ARD Jr, Paiao HGO, Tozetto-Mendoza TR, Manuli ER, Leal FE, Ferraz ABC, Sabino EC, Bierrenbach AL, Witkin SS, Mendes-Correa MC. Absence of neutralizing antibodies against the Omicron SARS-CoV-2 variant in convalescent sera from individuals infected with the ancestral SARS-CoV-2 virus or its Gamma variant. *Clinics (Sao Paulo)*. 2022 Jun 16;77:100068.

Custer B, Grebe E, Buccheri R, Bakkour S, Stone M, Capuani L, Alencar C, Amorim L, Loureiro P, Carneiro-Proietti AB, Mendrone-Junior A, Gonzalez T, Gao K, Livezey KW, Linnen JM, Brambilla D, McClure C, Busch MP, Sabino EC; Recipient Epidemiology and Donor Evaluation Study (REDS-III) International Component Brazil. Surveillance for Zika, chikungunya and dengue virus incidence and RNAemia in blood donors at four Brazilian blood centers during 2016-2019. *J Infect Dis*. 2022 Jun 11;jiac173.

Lima EL, Barra LAC, Borges LMS, Medeiros LA, Tomishige MYS, Santos LSLA, Silva AJDD, Rodrigues CCM, Azevedo LCF, Villas-Boas LS, Silva CAMD, Coletti TM, Manuli ER, Claro IM, Romano CM, Ramundo MS, Moutinho T, Sabino EC, Lindoso JAL, Figueiredo-Mello C. First case report of monkeypox in Brazil: clinical manifestations and differential diagnosis with sexually transmitted infections. *Rev Inst Med Trop Sao Paulo*. 2022 Sep 5;64:e54.

Miranda C, Utsch-Gonçalves D, Piassi FCC, Loureiro P, Gomes I, Ribeiro MA, de Almeida-Neto C, Blatyta P, Amorim L, Garcia Mateos SO, Murphy EL, Custer B, Carneiro-Proietti ABF, Sabino EC. Prevalence and Risk Factors for Human T-Cell Lymphotropic Virus (HTLV) in Blood Donors in Brazil-A 10-Year Study (2007-2016). *Front Med (Lausanne)*. 2022 Mar 9;9:844265.

Polly M, de Almeida BL, Lennon RP, Cortês MF, Costa SF, Guimarães T. Impact of the COVID-19 pandemic

on the incidence of multidrug-resistant bacterial infections in an acute care hospital in Brazil. *Am J Infect Control.* 2022 Jan;50(1):32-38.

Porto APM, Tavares BM, de Assis DB, Mendes ET, Girão ES, Perdigão Neto LV, Falcão MAP, de Oliveira MS, Freire MP, Guimaraes T, Arantes T, Levin AS, Costa SF. Brazilian perspective: antimicrobial stewardship in solid organ transplant. *Transpl Infect Dis.* 2022 Oct;24(5):e13874.

Dias VMCH, Oliveira AF, Marinho AKBB, Santos Ferreira CED, Domingues CEF, Fortaleza CMCB, Vidal CFL, Carrilho CMDM, Pinheiro DOBP, de Assis DB, Medeiros EA, Morejón KML, Weissmann L, Michelin L, Carneiro M, Nogueira MDSDP, de Oliveira PRD, Buralli RJ, Stucchi RSB, Lins RS, Costa SF, Chebabo A. COVID-19 and isolation: Risks and implications in the scenario of new variants. *Braz J Infect Dis.* 2022 Sep-Oct;26(5):102703.

Brizzi A, Whittaker C, Servo LMS, Hawryluk I, Prete CA Jr, de Souza WM, Aguiar RS, Araujo LJT, Bastos LS, Blenkinsop A, Buss LF, Candido D, Castro MC, Costa SF, Croda J, de Souza Santos AA, Dye C, Flaxman S, Fonseca PLC, Geddes VEV, Gutierrez B, Lemey P, Levin AS, Mellan T, Bonfim DM, Miscouridou X, Mishra S, Monod M, Moreira FRR, Nelson B, Pereira RHM, Ranzani O, Schnekenberg RP, Semenova E, Sonabend R, Souza RP, Xi X, Sabino EC, Faria NR, Bhatt S, Ratmann O. Spatial and temporal fluctuations in COVID-19 fatality rates in Brazilian hospitals. *Nat Med.* 2022 Jul;28(7):1476-1485.

Rizek CF, Martins RC, Girão ES, Tavares BM, Dos Santos SA, Gamarra GL, Perdigão Neto LV, Diogo C, Orsi TA, Boszczowski I, Piastrelli F, Costa CL, Costa DV, Maciel G, Romão J, Brito GAC, Costa SF. *Clostridioides difficile* from Brazilian hospitals: characterization of virulence genes by whole genome sequencing. *Microbes Infect.* 2022 Jul-Aug;24(5):104953.

Oliveira BA, Oliveira LC, Oliveira FM, Pereira GM, Souza RM, Manuli ER, Marchini FK, Espinoza EPS, Park M, Taniguchi L, Mendes PV, Franco LAM, Nastro AC, Oliveira MS, Vieira Junior JM, Kallas EG, Levin AS, Sabino EC, Costa SF. Evaluation of eleven

immunochromatographic assays for SARS-CoV-2 detection: investigating the dengue cross-reaction. *Rev Inst Med Trop Sao Paulo.* 2022 Sep 30;64:e63.

Pereira AC, Bes TM, Velho M, Marques E, Jannes CE, Valino KR, Dinardo CL, Costa SF, Duarte AJS, Santos AR, Mitne-Neto M, Medina-Pestana J, Krieger JE. Genetic risk factors and COVID-19 severity in Brazil: results from BRACOVID study. *Hum Mol Genet.* 2022 Sep 10;31(18):3021-3031.

Polly M, de Almeida BL, Lennon RP, Cortês MF, Costa SF, Guimarães T. Impact of the COVID-19 pandemic on the incidence of multidrug-resistant bacterial infections in an acute care hospital in Brazil. *Am J Infect Control.* 2022 Feb;50(2):238-239.

Farias LABG, Stolp ÂMV, Bandeira SP, Mesquita RF, Bessa PPN, Holanda PEL, Costa SF, Takeda CFV, Perdigão Neto LV. Meningitis caused by *Capnocytophaga canimorsus* in a COVID-19 patient: a rare complication of dog bites. *Rev Inst Med Trop Sao Paulo.* 2022 May 6;64:e33.

Palomo AT, Pires APM, Matiolo MF, de Athayde Soares R, Pecego C, Sacilotto R, de Paula AI, Hosino N, de Melo Gamba C, Fonseca CL, Paraskevopoulos DKS, Yamaguti A, de Mendonça JS, Costa SF, Guimarães T. Microbiology of Diabetic Foot Infections in a Tertiary Care Hospital in São Paulo, Brazil. *Antibiotics (Basel).* 2022 Aug 19;11(8):1125.

Costa SF, Vernal S, Giavina-Bianchi P, Mesquita Peres CH, Dos Santos LGD, Santos REB, Santos RCC, Francisco MCPB, Satie FM, Dal Secco LM, Pivetta Cora A, Dos Santos CL, Duarte AJDS, Oliveira Bonfá ESD, Perreira AJ, Sabino EC, Segurado AC, Levin AS. Adherence to non-pharmacological preventive measures among healthcare workers in a middle-income country during the first year of the COVID-19 pandemic: Hospital and community setting. *Am J Infect Control.* 2022 Jun;50(6):707-711.

Guimarães T, Borges IC, Spadão FS, Mariano L, Nascimento MM, Higashino H, Rossi F, Rocha V, Costa SF. Impact of Discontinuing Levofloxacin Prophylaxis on Bloodstream Infections in Neutropenic Hematopoietic Stem Cell Transplantation Patients.

Antibiotics (Basel). 2022 Sep 19;11(9):1269.

Mello López A, Borges IC, Luna-Muschi A, Mesquita Peres CH, Carreño PG, de Oliveira AM, de Almeida HBS, de Castro Marques VH, Corchs F, Levin AS, Costa SF, Sartori AMC. Risk factors for reduction in adherence to protective measures following coronavirus disease 2019 (COVID-19) vaccination and vaccine perceptions among healthcare workers, in São Paulo, Brazil. *Infect Control Hosp Epidemiol*. 2022 May 26:1-3.

Ramos JF, Leite G, Martins RCR, Rizek C, Al Sanabani SS, Rossi F, Guimarães T, Levin AS, Rocha V, Costa SF. Clinical outcome from hematopoietic cell transplant patients with bloodstream infection caused by carbapenem-resistant *P.aeruginosa* and the impact of antimicrobial combination in vitro. *Eur J Clin Microbiol Infect Dis*. 2022 Feb;41(2):313-317

Rodrigues Pires de Campos L, Farrel Côrtes M, Deo B, Rizek C, Santos S, Perdigão L, Costa SF. Risk factors for bloodstream infection by multidrug-resistant organisms in critically ill patients in a reference trauma hospital. *Am J Infect Control*. 2022 Jun;50(6):673-679.

Campos AF, Arantes T, Cambiais AMVB, Cury AP, Tiroli CG, Rossi F, Malbouisson LMS, Costa SF, Guimarães T. Impact of an Antimicrobial Stewardship Program Intervention Associated with the Rapid Identification of Microorganisms by MALDI-TOF and Detection of Resistance Genes in ICU Patients with Gram- Negative Bacteremia. *Antibiotics (Basel)*. 2022 Sep 9;11(9):1226.

Sabino JS, Amorim MR, de Souza WM, Marega LF, Mofatto LS, Toledo-Teixeira DA, Forato J, Stabeli RG, Costa ML, Spilki FR, Sabino EC, Faria NR, Benites BD, Addas-Carvalho M, Stucchi RSB, Vasconcelos DM, Weaver SC, Granja F, Proença-Modena JL, Vilela MMDS. Clearance of Persistent SARS-CoV-2 RNA Detection in a NF B-Deficient Patient in Association with the Ingestion of Human Breast Milk: A Case Report. *Viruses*. 2022 May 13;14(5):1042.

Santos Junior OR, Sabino EC, Carvalho VT, Brito BOF, Oliveira LC, Ferreira AM, Maia MA, Gomes NFA,

Ribeiro ALP, Nunes MCP. Prevalence and factors associated with impaired left ventricular global longitudinal strain in patients with Chagas disease: SaMi-Trop cohort study. *Int J Cardiovasc Imaging*. 2022 Nov;38(11):2353-2362.

Whittaker C, Watson OJ, Alvarez-Moreno C, Angkasekwinai N, Boonyasiri A, Carlos Triana L, Chanda D, Charoenpong L, Chayakulkeeree M, Cooke GS, Croda J, Cucunubá ZM, Djaafara BA, Estofolete CF, Grillet ME, Faria NR, Figueiredo Costa S, Forero-Peña DA, Gibb DM, Gordon AC, Hamers RL, Hamlet A, Irawany V, Jitmuang A, Keurueangkul N, Kimani TN, Lampo M, Levin AS, Lopardo G, Mustafa R, Nayagam S, Ngamprasertchai T, Njeri NIH, Nogueira ML, Ortiz-Prado E, Perroud MW, Phillips AN, Promsin P, Qavi A, Rodger AJ, Sabino EC, Sangkaew S, Sari D, Sirijatuphat R, Sposito AC, Srisangthong P, Thompson HA, Udwadia Z, Valderrama-Beltrán S, Winskill P, Ghani AC, Walker PGT, Hallett TB. Understanding the Potential Impact of Different Drug Properties on Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Transmission and Disease Burden: A Modelling Analysis. *Clin Infect Dis*. 2022 Aug 24;75(1):e224-e233.

Sabino EC, Franco LAM, Venturini G, Velho Rodrigues M, Marques E, Oliveira-da Silva LC, Martins LNA, Ferreira AM, Almeida PEC, Silva FDD, Leite SF, Nunes MDPC, Haikal DS, Oliveira CDL, Cardoso CS, Seidman JG, Seidman CE, Casas JP, Ribeiro ALP, Krieger JE, Pereira AC. Genome-wide association study for Chagas Cardiomyopathy identify a new risk locus on chromosome 18 associated with an immune-related protein and transcriptional signature. *PLoS Negl Trop Dis*. 2022 Oct 10;16(10):e0010725.

Soares GDS, Morais LV, Silva KCN, Ferreira EM, Shio MT, Romano CM, Conde CR, Sabino EC, França CN, Nali LH. Low frequency of SARS-CoV2 infection in daycare centers during the reopening of school activities in the Southeast's poor area of Brazil. *Rev Inst Med Trop Sao Paulo*. 2022 Jun 24;64:e46.

Mee P, Alexander N, Mayaud P, González FJC, Abbott S, Santos AAS, Acosta AL, Parag KV, Pereira RHM, Prete CA Jr, Sabino EC, Faria NR; LSHTM Centre for Mathematical Modelling of Infectious Disease

COVID-19 working group, Brady OJ. Tracking the emergence of disparities in the subnational spread of COVID-19 in Brazil using an online application for real-time data visualisation: A longitudinal analysis. *Lancet Reg Health Am.* 2022 Jan;5.

Barreira GA, Santos EHD, Pereira MFB, Rodrigues KA, Rocha MC, Kanunfre KA, Marques HHS, Okay TS; Pediatric COVID-19 HC-FMUSP Study Group, Eisencraft AP, Rossi Junior A, Fante AL, Cora AP, Costa Reis AGA, Ferrer APS, Andrade APM, Watanabe A, Gonçalves AMF, Waetge ARP, Silva CA, Geneviva C, Lazari CDS, Abellan DM, Sabino EC, et al.. Technical performance of a lateral flow immunoassay for detection of anti-SARS-CoV-2 IgG in the outpatient follow-up of non-severe cases and at different times after vaccination: comparison with enzyme and chemiluminescent immunoassays. *Rev Inst Med Trop Sao Paulo.* 2022 Jul 13;64:e49.

Aikawa NE, Kupa LVK, Pasoto SG, Medeiros-Ribeiro AC, Yuki EFN, Saad CGS, Pedrosa T, Fuller R, Shinjo SK, Sampaio-Barros PD, Andrade DCO, Pereira RMR, Seguro LPC, Valim JML, Waridel F, Sartori AMC, Duarte AJS, Antonangelo L, Sabino EC, Menezes PR, Kallas EG, Silva CA, Bonfa E. Immunogenicity and safety of two doses of the CoronaVac SARS-CoV-2 vaccine in SARS-CoV-2 seropositive and seronegative patients with autoimmune rheumatic diseases in Brazil: a subgroup analysis of a phase 4 prospective study. *Lancet Rheumatol.* 2022 Feb;4(2):e113-e124.

Hossain M, Bin Manjur OH, Hasda L, Habib MT, Afrad MH, Khan MH, Banik N, Afreen N, Alam AN, Ayub M, Rahman MZ, Rahman M, Khanam F, Banu S, Thomson NR, Shirin T, Qadri F. Genome Sequences of 23 SARS-CoV-2 Omicron-Lineage Strains from Bangladesh. *Microbiol Resour Announc.* 2022 Dec 6:e0095022.

Bhuiyan TR, Al Banna H, Kaiser MH, Karmakar PC, Hakim A, Akter A, Ahmed T, Tauheed I, Islam S, Hasnat MA, Sumon MA, Rashed A, Ghosh S, Clemens JD, Banu S, Shirin T, Weiskopf D, Sette A, Chowdhury F, Qadri F. Correlation of antigen-specific immune response with disease severity among COVID-19 patients in Bangladesh. *Front Immunol.* 2022 Sep 28;13:929849.

Das P, Rahman MZ, Banu S, Rahman M, Chisti MJ, Chowdhury F, Akhtar Z, Palit A, Martin DW, Anwar MU, Namwase AS, Angra P, Kato CY, Ramos CJ, Singleton J, Stewart-Juba J, Patel N, Condit M, Chung IH, Galloway R, Friedman M, Cohen AL. Acute febrile illness among outpatients seeking health care in Bangladeshi hospitals prior to the COVID-19 pandemic. *PLoS One.* 2022 Sep 1;17(9):e0273902.

Mihika FA, Jubayer Biswas MAA, Khan MMH, Islam SS, Haque MA, Banu S, Hassan MZ. The Effect of the COVID-19 Pandemic on Pulmonary Tuberculosis Control in the Selected Upazila Health Complexes of Dhaka Division, Bangladesh. *Trop Med Infect Dis.* 2022 Nov 17;7(11):385.

Chowdhury F, Ross AG, Islam MT, McMillan NAJ, Qadri F. Diagnosis, Management, and Future Control of Cholera. *Clin Microbiol Rev.* 2022 Sep 21;35(3):e0021121.

Rubin DHF, Zingl FG, Leitner DR, Ternier R, Compere V, Marseille S, Slater D, Harris JB, Chowdhury F, Qadri F, Boncy J, Ivers LC, Waldor MK. Reemergence of Cholera in Haiti. *N Engl J Med.* 2022 Nov 30.

Islam MT, Ross AG, Sleight AC, Chowdhury F, Khan AI, McMillan NA, Qadri F. A blueprint for eliminating cholera by 2030. *Nat Med.* 2022 Sep;28(9):1747-1749.

Ercu M, Mücke MB, Pallien T, Markó L, Sholokh A, Schächterle C, Aydin A, Kidd A, Walter S, Esmati Y, McMurray BJ, Lato DF, Yumi Sunaga-Franze D, Dierks PH, Flores BIM, Walker-Gray R, Gong M, Merticariu C, Zühlke K, Russwurm M, Liu T, Batolomaeus TUP, Pautz S, Schelenz S, Taube M, Napieczynska H, Heuser A, Eichhorst J, Lehmann M, Miller DC, Diecke S, Qadri F, Popova E, Langanki R, Movsesian MA, Herberg FW, Forslund SK, Müller DN, Borodina T, Maass PG, Bähring S, Hübner N, Bader M, Klussmann E. Mutant Phosphodiesterase 3A Protects From Hypertension-Induced Cardiac Damage. *Circulation.* 2022 Dec 6;146(23):1758-1778.

Jones FK, Bhuiyan TR, Muise RE, Khan AI, Slater DM, Hutt Vater KR, Chowdhury F, Kelly M, Xu P, Ková P,

Biswas R, Kamruzzaman M, Ryan ET, Calderwood SB, LaRocque RC, Lessler J, Charles RC, Leung DT, Qadri F, Harris JB, Azman AS. Identifying Recent Cholera Infections Using a Multiplex Bead Serological Assay. *mBio*. 2022 Oct 26:e0190022.

Nickl B, Qadri F, Bader M. Role of Gpnmb in atherosclerosis of female mice. *Biochem Biophys Res Commun*. 2022 Sep 17;621:20-24.

Ahmed J, Taslim AU, Raihan T, Sohag MMH, Hasan M, Suhani S, Qadri F, Azad AK. Characterization of an endo-beta-1,4 glucanase gene from paper-degrading and denim bio-stoning cellulase producing *Aspergillus* isolates. *Biotechnol Appl Biochem*. 2022 Nov 23.

Dunmire CN, Chac D, Chowdhury F, Khan AI, Bhuiyan TR, LaRocque RC, Akter A, Amin MA, Ryan ET, Qadri F, Weil AA. *Vibrio cholerae* Isolation from Frozen Vomitus and Stool Samples. *J Clin Microbiol*. 2022 Oct 19;60(10):e0108422.

Hossain M, Bin Manjur OH, Hasda L, Habib MT, Afrad MH, Khan MH, Banik N, Afreen N, Alam AN, Ayub M, Rahman MZ, Rahman M, Khanam F, Banu S, Thomson NR, Shirin T, Qadri F. Genome Sequences of 23 SARS-CoV-2 Omicron-Lineage Strains from Bangladesh. *Microbiol Resour Announc*. 2022 Dec 6:e0095022.

Øverbø J, Aziz A, Zaman K, Julin CH, Qadri F, Stene-Johansen K, Biswas R, Islam S, Bhuiyan TR, Haque W, Sandbu S, Dembinski JL, Dudman S. Stability and Feasibility of Dried Blood Spots for Hepatitis E Virus Serology in a Rural Setting. *Viruses*. 2022 Nov 15;14(11):2525.

Islam MT, Date K, Khan AI, Bhuiyan TR, Khan ZH, Ahmed S, Hossain M, Khaton F, Zaman K, McMillan NAJ, Anand A, An Q, Zhang C, Weldon WC, Yu A, Luby S, Qadri F. Co-administration of Oral Cholera Vaccine with Oral Polio Vaccine among Bangladeshi Young Children: A Randomized Controlled Open Label Trial to Assess Interference. *Clin Infect Dis*. 2022 Sep 22:ciac782.

Nelson EJ, Khan AI, Keita AM, Brintz BJ, Keita Y, Sanogo D, Islam MT, Khan ZH, Rashid MM, Nasrin

D, Watt MH, Ahmed SM, Haaland B, Pavia AT, Levine AC, Chao DL, Kotloff KL, Qadri F, Sow SO, Leung DT. Improving Antibiotic Stewardship for Diarrheal Disease With Probability-Based Electronic Clinical Decision Support: A Randomized Crossover Trial. *JAMA Pediatr*. 2022 Oct 1;176(10):973-979.

Sayeed MA, Paisie T, Alam MT, Ali A, Camilli A, Wrammert J, Khan AI, Qadri F, Salemi M, Morris JG, Nelson EJ. Development of a Monoclonal Antibody to a Vibriophage as a Proxy for *Vibrio cholerae* Detection. *Infect Immun*. 2022 Aug 18;90(8):e0016122.

Bhuiyan TR, Al Banna H, Kaiser MH, Karmakar PC, Hakim A, Akter A, Ahmed T, Tauheed I, Islam S, Hasnat MA, Sumon MA, Rashed A, Ghosh S, Clemens JD, Banu S, Shirin T, Weiskopf D, Sette A, Chowdhury F, Qadri F. Correlation of antigen-specific immune response with disease severity among COVID-19 patients in Bangladesh. *Front Immunol*. 2022 Sep 28;13:929849.

Arshad A, Riaz M, Naseem Z, Qadri F, Baqir SM, Ibrahim MT, Ayaz A. Clinical spectrum of sarcoidosis in patients at a tertiary care hospital, Pakistan: Ten-year follow-up study. *J Pak Med Assoc*. 2022 Aug;72(8):1491-1496.

Kang S, Chowdhury F, Park J, Ahmed T, Tadesse BT, Islam MT, Kim DR, Im J, Aziz AB, Hoque M, Pak G, Khanam F, Ahmmed F, Liu X, Zaman K, Khan AI, Kim JH, Marks F, Qadri F, Clemens JD. Are better existing WASH practices in urban slums associated with a lower long-term risk of severe cholera? A prospective cohort study with 4 years of follow-up in Mirpur, Bangladesh. *BMJ Open*. 2022 Sep 21;12(9):e060858.

Bagamian KH, Puett C, Anderson JD 4th, Muhib F, Pecenka C, Behrman J, Breiman RF, Edeka I, Horton S, Kang G, Kotloff KL, Lanata CF, Platts-Mills JA, Qadri F, Rogawski McQuade ET, Sudfeld C, Vonaesch P, Wierzbza TF, Scheele S. Could a Shigella vaccine impact long-term health outcomes?: Summary report of an expert meeting to inform a Shigella vaccine public health value proposition, March 24 and 29, 2021. *Vaccine X*. 2022 Sep 21;12:100218.

Keita AM, Brintz BJ, Khan AI, Taufiqul Islam M, Khan

ZH, Keita Y, Hwang J, Nelson EJ, Qadri F, Sow S, Leung DT, Watt MH. Introduction of an Electronic Clinical Decision Support Tool to Inform Prescribing for Pediatric Diarrhea in

Bangladesh and Mali: Do Provider Expectations Predict Experiences? *Am J Trop Med Hyg.* 2022 Jul 13;107(1):32-34.

Jänsch M, Lubomirov LT, Trum M, Williams T, Schmitt J, Schuh K, Qadri F, Maier LS, Bader M, Ritter O. Inducible over-expression of cardiac Nos1ap causes short QT syndrome in transgenic mice. *FEBS Open Bio.* 2022 Nov 9.

Tadesse BT, Khanam F, Ahmmed F, Im J, Islam MT, Kim DR, Kang SSY, Liu X, Chowdhury F, Ahmed T, Binte Aziz A, Hoque M, Park J, Pak G, Zaman K, Khan AI, Pollard AJ, Kim JH, Marks F, Qadri F, Clemens JD. Prevention of Typhoid by Vi Conjugate Vaccine and Achievable Improvements in Household Water, Sanitation, and Hygiene: Evidence From a Cluster-Randomized Trial in Dhaka, Bangladesh. *Clin Infect Dis.* 2022 Nov 14;75(10):1681-1687.

Yenyetou D, Sanou I, Madingar PD, Ouattara C, Zongo E, Zongo Z, Ouedraogo AS, Sangare I. Impact of mentoring on the implementation of the quality management system in clinical laboratories in Burkina Faso, West Africa. *Account Res.* 2022 Nov 22:1-13.

Donkeng-Donfack VF, Ongoulal SM, Djeugoue YJ, Simo YK, Manga H, Tollo DAD, Belinga EMA, Mbassa V, Abena JL, Eyangoh S. Tuberculosis-loop-mediated isothermal amplification implementation in Cameroon: Challenges, lessons learned and recommendations. *Afr J Lab Med.* 2022 Aug 26;11(1):1792.

Marion E, Hycenth N, Vedithi SC, Robbe-Saule M, Donkeng V, Ganlonon LM, Dissou A, Ngazoa SK, Kabedi MJ, Mabika Mabika A, Phillips R, Frimpong M, Yeboah-Manu D, Walker VY, Akinwale O, Issaka M, Bretzel G, Asiedu K, Eyangoh S. A combined effort of 11 laboratories in the WHO African region to improve quality of Buruli ulcer PCR diagnosis: The «BU-LABNET». *PLoS Negl Trop Dis.* 2022 Nov 4;16(11):e0010908.

Ndoungué VF, Ngapagna AN, Kouadio SA, Djinguebey R, Gnigninanjouena O, Eyangoh S, Nguéfack-Tsague G, Djeunga HCN, Njajou O. Assessing core capacities for addressing public health emergencies of international concern at designated points of entry in Cameroon during the COVID-19 Pandemic. *BMC Public Health.* 2022 Nov 28;22(1):2197.

Cyrille TM, Serge SM, Brice TMJ, Alain TNP, Grace N, Joseph F, Achta H, Gisèle N, Julius N, Marcel T, Melissa S, Lucy N, Ronald P, Claire OAM, Walter PYE, Alain EMG, Richard N, Sara E. Clinical presentation of COVID-19 at the time of testing and factors associated with pre-symptomatic cases in Cameroon. *IJID Reg.* 2022 Sep;4:33-41.

Takuissu GR, Kenmoe S, Amougou Atsama M, Atenguena Okobalemba E, Mbaga DS, Ebogo-Belobo JT, Bowo Ngandji A, Oyono MG, Magoudjou-Pekam JN, Kame-Ngasse GI, Menkem EZ, Selly Ngaloumo AA, Banlock ATR, Feudjio AF, Zemnou-Tepap C, Meta-Djoms D, Nyimbe Mviena GL, Nyebe Eloundou I, Yéngué JF, Kenfack-Zanguim J, Ndzie Ondigui JL, Zekeng Mekontchou RM, Touangnou-Chamda SA, Kamtchueng Takeu Y, Taya-Fokou JB, Mbongue Mikangue CA, Kenfack-Momo R, Kengne-Nde C, Nkie Esemu S, Njouom R, Ndip L. Global epidemiology of occult hepatitis B virus infections in blood donors, a systematic review and meta-analysis. *PLoS One.* 2022 Aug 22;17(8):e0272920.

Kenmoe S, Atenguena Okobalemba E, Takuissu GR, Ebogo-Belobo JT, Oyono MG, Magoudjou-Pekam JN, Kame-Ngasse GI, Taya-Fokou JB, Mbongue Mikangue CA, Kenfack-Momo R, Mbaga DS, Bowo-Ngandji A, Kengne-Ndé C, Esemu SN, Njouom R, Ndip L. Association between early viral lower respiratory tract infections and subsequent asthma development. *World J Crit Care Med.* 2022 Jul 9;11(4):298-310.

Ramassamy JL, Ndongo CB, Nnuka P, Antunes M, Mener ML, A Betsem EB, Njouom R, Cassar O, Fontanet A, Gessain A. Epidemiological evidence of nosocomial and zoonotic transmission of HTLV-1 in a large survey in rural population of central Africa. *J Infect Dis.* 2022 Jul 22;jjac312.

Ebogo-Belobo JT, Sadeuh-Mba SA, Mveng-Sanding GMA, Chavely GM, Groschup MH, Mbacham WF, Njouom R. Serological evidence of the circulation of the Rift Valley fever virus in sheep and goats slaughtered in Yaoundé, Cameroon. *Vet Med Sci*. 2022 Sep;8(5):2114-2118.

Edinga BEE, Bigna JJ, Nansseu JR, Tchammi AY, Mbouna SFM, Belinga S, Njoya O, Ama-Moor VJ, Njouom R. Simple noninvasive tests for liver fibrosis diagnosis in sub-Saharan African adults with chronic viral hepatitis B or C: A cross sectional study in Cameroon. *Clin Chim Acta*. 2022 Nov 1;536:56-60.

Gao P, Ji M, Liu X, Chen X, Liu H, Li S, Jia B, Li C, Ren L, Zhao X, Wang Q, Bi Y, Tan X, Hou B, Zhou X, Tan W, Deng T, Wang J, Gao GF, Zhang F. Apolipoprotein E mediates cell resistance to influenza virus infection. *Sci Adv*. 2022 Sep 23;8(38):eabm6668.

Pan M, Zhang W, Xiao Y, Lai Y, Cao M, Wang J, Deng T. The Hierarchical Sequence Requirements of the H1 Subtype-Specific Noncoding Regions of Influenza A Virus. *Microbiol Spectr*. 2022 Oct 26:e0315322.

Zhu Y, Dong X, Liu N, Wu T, Chong H, Lei X, Ren L, Wang J, He Y. SARS-CoV-2 fusion-inhibitory lipopeptides maintain high potency against divergent variants of concern including Omicron. *Emerg Microbes Infect*. 2022 Dec;11(1):1819-1827.

Cao J, Xiao Y, Zhang M, Huang L, Wang Y, Liu W, Wang X, Wu J, Huang Y, Wang R, Zhou L, Li L, Zhang Y, Ren L, Qian K, Wang J. Deep Learning of Dual Plasma Fingerprints for High-Performance Infection Classification. *Small*. 2022 Dec 5:e2206349.

Xu F, Wang G, Zhao F, Huang Y, Fan Z, Mei S, Xie Y, Wei L, Hu Y, Wang C, Cen S, Liang C, Ren L, Guo F, Wang J. IFITM3 Inhibits SARS-CoV-2 Infection and Is Associated with COVID-19 Susceptibility. *Viruses*. 2022 Nov 18;14(11):2553.

He Y, Dang S, Ma W, Chen L, Zhang R, Mei S, Wei X, Lv Q, Peng B, Sun Y, Kong D, Chen J, Li S, Tang X, Lu Q, Zhu C, Chen Z, Wan J, Zou X, Li M, Feng T, Ren L, Wang J. Temporal dynamics of SARS-CoV-2 genome mutations that occurred in vivo on an aircraft.

Biosaf Health. 2022 Oct 28.

Jia M, Wang X, Gong W, Zhong J, Leng Z, Ren L, Feng L, Guo L, Gao L, Liang X, Chen E, Tang W, Huang Q, Zhang Q, Jiang G, Zhao S, Liu Z, Feng Y, Qi L, Ma L, Huang T, Yue Y, Wang J, Jiang B, Xu L, Wang J, Yang W, Wang C. Humoral responses after inactivated COVID-19 vaccination in individuals with and without prior SARS-CoV-2 infection: A prospective cohort study. *J Med Virol*. 2022 Dec;94(12):5746-5757.

Bahuaud O, Genestet C, Hoffmann J, Dumitrescu O, Ader F. Opti-4TB: A protocol for a prospective cohort study evaluating the performance of new biomarkers for active tuberculosis outcome prediction. *Front Med (Lausanne)*. 2022 Sep 14;9:998972.

Moroso, M., Rozières, A., Verlhac, P., Komurian-Pradel, F., Ferraris, O., Peyrefitte, C.N., Paranhos-Baccalà, G., Viret, C., Faure, M. The Relationship between DUGBE Virus Infection and Autophagy in Epithelial Cells. *Viruses* 2022, 14, 2230.

Genestet C, Refrégier G, Hodille E, Zein-Eddine R, Le Meur A, Hak F, Barbry A, Westeel E, Berland JL, Engelmann A, Verdier I, Lina G, Ader F, Dray S, Jacob L, Massol F, Venner S, Dumitrescu O; Lyon TB study group. Mycobacterium tuberculosis genetic features associated with pulmonary tuberculosis severity. *Int J Infect Dis*. 2022 Oct 21;125:74-83.

Kiria N, Lomtadze N, Solomonina N, Aspindzelashvili R, Danelia M, Gabisonia I, Janjgava M, Khonelidze I, Kipiani M, Tukvadze N, Blumberg HM, Kempker RR, Furin J, Avaliani Z. Tuberculosis recovery in Georgia: implementing more by 24. *Lancet Infect Dis*. 2022 Oct 27:S1473-3099(22)00689-2.

Baliashvili D, Blumberg HM, Benkeser D, Kempker RR, Shadaker S, Averhoff F, Gvinjilia L, Adamashvili N, Magee M, Kamkamidze G, Zakalashvili M, Tsertsvadze T, Sharvadze L, Chincharauli M, Tukvadze N, Gandhi NR. Association of treated and untreated chronic hepatitis C with the incidence of active tuberculosis disease: a population-based cohort study. *Clin Infect Dis*. 2022 Sep 22:ciac786.

Finci I, Albertini A, Merker M, Andres S, Bablshvili

N, Barilar I, Cáceres T, Crudu V, Gotuzzo E, Hapeela N, Hoffmann H, Hoogland C, Kohl TA, Kranzer K, Mantsoke A, Maurer FP, Nicol MP, Noroc E, Plesnik S, Rodwell T, Ruhwald M, Savidge T, Salfinger M, Streicher E, Tukvadze N, Warren R, Zemanay W, Zurek A, Niemann S, Denkinger CM. Investigating resistance in clinical *Mycobacterium tuberculosis* complex isolates with genomic and phenotypic antimicrobial susceptibility testing: a multicentre observational study. *Lancet Microbe*. 2022 Sep;3(9):e672-e682.

Dade E, Metz M, Pierre JL, Rouzier V, Sufra R, Fox E, Preval F, St-Preux S, Zephir JR 2nd, Ariste W, Rasul R, Sabwa S, Roberts N, Deschamps MM, Severe P, Fitzgerald D, Pape JW, Yan LD, McNairy ML. High prevalence of obesity among women in urban Haiti: Findings from a population-based cohort. *Front Public Health*. 2022 Oct 5;10:976909.

Kingery JR, Roberts NL, Lookens Pierre J, Sufra R, Dade E, Rouzier V, Malebranche R, Theard M, Goyal P, Pirmohamed A, Yan LD, Hee Lee M, Nash D, Metz M, Peck RN, Safford MM, Fitzgerald D, Deschamps MM, Pape JW, McNairy M. Population-Based Epidemiology of Heart Failure in a Low-Income Country: The Haiti Cardiovascular Disease Cohort. *Circ Cardiovasc Qual Outcomes*. 2022 Dec 6:e009093.

Ajayakumar J, Curtis AJ, Rouzier V, Pape JW, Bempah S, Alam MT, Alam MM, Rashid MH, Ali A, Morris JG Jr. Spatial Video and EpiExplorer: A Field Strategy to Contextualize Enteric Disease Risk in Slum Environments. *Int J Environ Res Public Health*. 2022 Jul 22;19(15):8902.

Rasul R, Rouzier V, Sufra R, Yan LD, Joseph I, Mourra N, Sabwa S, Deschamps MM, Fitzgerald DW, Pape JW, Nash D, McNairy ML. Extreme Food Insecurity and Malnutrition in Haiti: Findings from a Population-Based Cohort in Port-au-Prince, Haiti. *Nutrients*. 2022 Nov 17;14(22):4854.

Walsh KF, Vilbrun SC, Souroutzidis A, Ellis J, Delva S, Joissaint G, Dupnik KM, Joseph P, Pape JW, Koenig SP. Time to Culture Conversion of Bedaquiline and High-Dose Isoniazid for Drug-Resistant Tuberculosis. *Open Forum Infect Dis*. 2022 Aug 29;9(9):ofac440.

Zainabadi K, Saito K, Mishra S, Walsh KF, Mathurin LD, Vilbrun SC, Ocheretina O, Pape JW, Fitzgerald DW, Nathan CF, Lee MH. Transcriptional Biomarkers of Differentially Detectable *Mycobacterium tuberculosis* in Patient Sputum. *mBio*. 2022 Nov 3:e0270122.

Zainabadi K, Lee MH, Walsh KF, Vilbrun SC, Mathurin LD, Ocheretina O, Pape JW, Fitzgerald DW. An optimized method for purifying, detecting and quantifying *Mycobacterium tuberculosis* RNA from sputum for monitoring treatment response in TB patients. *Sci Rep*. 2022 Oct 17;12(1):17382.

Walsh KF, Lee MH, Brejt JA, Reust MJ, Juste MJ, Hilaire G, Pape JW, Koenig S, Dupnik K. Prevalence of HTLV-I Infection and Its Association with Tuberculosis among Patients at an Urban Clinic in Haiti. *Am J Trop Med Hyg*. 2022 Mar 14;106(5):1333–5.

Yan LD, Dévieux JG, Pierre JL, Dade E, Sufra R, St Preux S, Tymejczyk O, Nash D, Metz M, Lee MH, Fitzgerald DW, Deschamps M, Pape JW, McNairy ML, Rouzier V. The relationship between perceived stress and support with blood pressure in urban Haiti: A cross-sectional analysis. *PLOS Glob Public Health*. 2022;2(5):e0000263.

Srivastava RM, Verma S, Gupta S, Kaur A, Awasthi S, Agrawal S. Reliability of Smart Phone Photographs for School Eye Screening. *Children (Basel)*. 2022 Oct 4;9(10):1519.

Ponnaiah M, Bhatnagar T, Parasuraman G, Murhekar MV, Sankar MJ, Awasthi S, Ramji S, Bhargava B. Pioneering an online course on research methods for India's medical postgraduates & faculty members. *Indian J Med Res*. 2022 Dec 13.

Kapoor A, Awasthi S, Kumar Yadav K. Predicting Mortality and Use of RISC Scoring System in Hospitalized Under-Five Children Due to WHO Defined Severe Community Acquired Pneumonia. *J Trop Pediatr*. 2022 Jun 6.

Pachauri A, Singh SN, Verma SK, Awasthi S. Thrombocytosis, haemorrhagic pleural effusion and fibro-infiltrative patches with cavitary lung lesions in a child with COVID-19 pneumonia. *BMJ Case Rep*.

2022 Jun 23.

Black AP, Virachith S, Khounvisith V, Hefele L, Paboriboune P, Hübschen JM. High exposure to hepatitis C virus in Saravan, southern Laos; identification of several risk practices. *Lancet Reg Health West Pac.* 2022 Nov 7;29:100632.

lem V, Xangsayarath P, Chittamany P, Suthepmany S, Siphanthong S, Paboriboune P, Somphavong S, Konstantina K, Khan JAM, Edwards T, Wingfield T, Creswell J, Dominguez J, Cuevas LE. Pooling samples to increase testing capacity with Xpert Xpress SARS-CoV-2 during the Covid-19 pandemic in Lao People's Democratic Republic. *PLoS One.* 2022 Sep 29;17(9):e0275294.

Osman M, Kasir D, Rafei R, Kassem II, Ismail MB, El Omari K, Dabboussi F, Cazer C, Papon N, Bouchara JP, Hamze M. Trends in the epidemiology of dermatophytosis in the Middle East and North Africa region. *Int J Dermatol.* 2022 Aug;61(8):935-968.

Dabboussi AA, Osman M, Dabboussi F, Hamze M. High rates of macrolide and fluoroquinolone resistance in human campylobacteriosis in the Middle East and North Africa. *Future Microbiol.* 2022 Aug;17:957-967.

Khoder M, Osman M, Kassem II, Rafei R, Shahin A, Fournier PE, Rolain JM, Hamze M. Whole Genome Analyses Accurately Identify *Neisseria* spp. And Limit Taxonomic Ambiguity. *Int J Mol Sci.* 2022 Nov 3;23(21):13456.

Mechmechani S, Gharsallaoui A, Fadel A, El Omari K, Khelissa S, Hamze M, Chihib NE. Microencapsulation of carvacrol as an efficient tool to fight *Pseudomonas aeruginosa* and *Enterococcus faecalis* biofilms. *PLoS One.* 2022 Jul 1;17(7):e0270200.

Rima M, Oueslati S, Dabos L, Daaboul D, Mallat H, Bou Raad E, Achkar M, Mawlawi O, Bernabeu S, Bonnin RA, Girlich D, Osman M, Hamze M, Naas T. Prevalence and Molecular Mechanisms of Carbapenem Resistance among Gram-Negative Bacilli in Three Hospitals of Northern Lebanon. *Antibiotics (Basel).* 2022 Sep 22;11(10):1295.

Mechmechani S, Gharsallaoui A, El Omari K, Fadel A, Hamze M, Chihib NE. Hurdle technology based on the use of microencapsulated pepsin, trypsin and carvacrol to eradicate *Pseudomonas aeruginosa* and *Enterococcus faecalis* biofilms. *Biofouling.* 2022 Nov 30:1-13.

Abifadel M, Boileau C. Genetic and molecular architecture of familial hypercholesterolemia. *J Intern Med.* 2022 Oct 4.

Bedlington N, Abifadel M, Beger B, Bourbon M, Bueno H, Ceska R, Cillíková K, Cimická Z, Daccord M, de Beaufort C, Dharmayat KI, Ference BA, Freiburger T, Geanta M, Gidding SS, Grošelj U, Halle M, Johnson N, Novakovic T, Májek O, Pallidis A, Peretti N, Pinto FJ, Ray KK, Rees B, Reeve J, Reiner Ž, Santos RD, Schunkert H, Šikonja J, Sokolovic M, Tokgözoğlu L, Vrablík M, Wiegman A, Gutiérrez-Ibarluzea I. The time is now: Achieving FH paediatric screening across Europe - The Prague Declaration. *GMS Health Innov Technol.* 2022 Sep 30;16:Doc04.

Gannagé-Yared MH, Naous E, Al Achkar A, Issa W, Sleilaty G, Barakett-Hamade V, Abifadel M. Lipid Parameters and Proprotein Convertase Subtilisin/Kexin Type 9 in Healthy Lebanese Adults. *Metabolites.* 2022 Jul 26;12(8):690.

Ayoub C, Azar Y, Maddah D, Ghaleb Y, Elbitar S, Abou-Khalil Y, Jambart S, Varret M, Boileau C, El Houry P, Abifadel M. Low circulating PCSK9 levels in LPL homozygous children with chylomicronemia syndrome in a syrian refugee family in Lebanon. *Front Genet.* 2022 Aug 19;13:961028.

Sendrasoa FA, Ratovonjanahary VT, Rasamoelina T, Ramarozatovo LS, Rapelanoro Rabenja F. Treatment responses in patients with chromoblastomycosis to itraconazole in Madagascar. *Med Mycol.* 2022 Nov 12;60(11):myac086.

Struck NS, Lorenz E, Deschermeier C, Eibach D, Kettenbeil J, Loag W, Brieger SA, Ginsbach AM, Obirikorang C, Maiga-Ascofare O, Sarkodie YA, Boham EEA, Adu EA, Asare G, Amoako-Adusei A, Yawson A, Boakye AO, Deke J, Almoustapha NS, Adu-Amoah L, Duah IK, Ouedraogo TA, Boudo V,

Rushton B, Ehmen C, Fusco D, Gunga L, Benke D, Höppner Y, Rasolojaona ZT, Rasamoelina T, Rakotoarivelo RA, Rakotozandrindrainy R, Coulibaly B, Sié A, Awuah AA, Amuasi JH, Souares A, May J. High seroprevalence of SARS-CoV-2 in Burkina-Faso, Ghana and Madagascar in 2021: a population-based study. *BMC Public Health*. 2022 Sep 5;22(1):1676.

Samudio M, Abente S, Fariña N, López Y, Duré C, Laspina F, Guillén R, Salinas CLÁ, Castillo V, Palacios J, Santacruz I, Nentwich M. Analysis of antibioticresistance and genetic profile of conjunctival bacteria flora before and after cataract surgery. *Int Ophthalmol*. 2022 Aug 9.

Salinas C, Florentín G, Rodríguez F, Alvarenga N, Guillén R. Terpenes Combinations Inhibit Biofilm Formation in *Staphylococcus aureus* by Interfering with Initial Adhesion. *Microorganisms*. 2022 Jul 28;10(8):1527.

Doshi RH, Hoff NA, Bratcher A, Mukadi P, Gadoth A, Nicholson BP, Williams R, Mukadi D, Mossoko M, Wasiswa J, Mwanza A, Sinai C, Alfonso VH, Shah R, Bramble MS, Ilunga-Kebela B, Okitolonda-Wemakoy E, Muyembe-Tamfum JJ, Rimoin AW. Risk Factors for Ebola Exposure in Health Care Workers in Boende, Tshuapa Province, Democratic Republic of the Congo. *J Infect Dis*. 2022 Sep 4;226(4):608-615.

Bratcher A, Hoff NA, Doshi RH, Gadoth A, Halbrook M, Mukadi P, Musene K, Ilunga-Kebela B, Spencer D, Bramble MS, McIlwain D, Kelly JD, Mukadi D, Kingebeni PM, Ahuka S, Okitolonda-Wemakoy E, Jacques Muyembe-Tamfum J, Rimoin AW. Correction: Zoonotic risk factors associated with seroprevalence of Ebola virus GP antibodies in the absence of diagnosed Ebola virus disease in the Democratic Republic of Congo. *PLoS Negl Trop Dis*. 2022 May 18;16(5):e0010465.

The GABRIEL network receives support from bioMérieux

