

## 3 GOOD HEALTH AND WELL-BEING



# Ensure healthy lives and promote well-being for all at all age.

Ambassador of SDG 3:

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Good Health and Well-being is an essential pillar for a sustainable development. Among many years, significant efforts have been made to improve human health essentially increasing life expectancy and reducing some of the common killers associated with child and maternal mortality. Nevertheless, several persistent and emerging health issues still need to be addressed and many diseases still need to be fully eradicated. Providing the adequate funding to health systems, improving sanitary and hygienic conditions and making health services accessible to all people still a challenge especially in the less developed countries.

In 2019, the world has been faced to a major force; the COVID19 pandemy. The priority was then to save human's lives and stop the pandemy.

Following the COVID19 pandemy, new problems have been raised and different health issues have become more urgent. In fact, the humanity has to strengthen its preparedness and response to such health emergencies. Many initiatives in different axes are being made to prevent and control re-emerging and new diseases including surveillance, detection and diagnostic strategies, prevention or treatment and production of vaccines and biologics.

### SDG3 targets

**3.1** By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births.

**3.2** By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births.

**3.3** By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases.

**3.4** By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.

**3.5** Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.

**3.6** By 2020, halve the number of global deaths and injuries from road traffic accidents.

**3.7** By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes.

**3.8** Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.

**3.9** By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

## SDG3 actions in UTM

- **The capacity building in vaccine and biologics development project: VISION.** The Institut Pasteur in Tunis coordinates VISION project funded by the European Commission as part of its competitive programme HORIZON-WIDERA-2022-TALENTS-03. The project started on **1 September 2023** for a period of four years.

The VISION project aims to implement a variety of intensive cross-sectoral knowledge and know-how transfer programmes, bi- and multi-directional to strengthen the development and production capacities of vaccines and biologics within a consortium widening and non-widening countries.



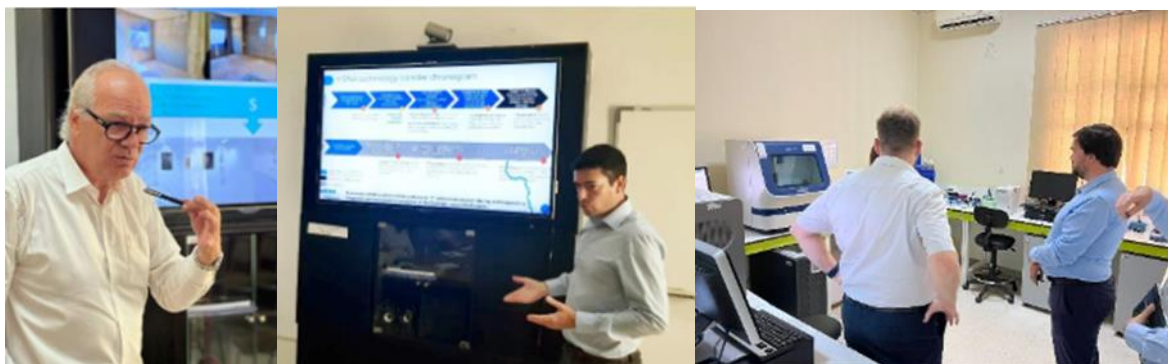
[http://www.pasteur.tn/index.php?option=com\\_content&view=article&id=917:linstitut-pasteur-de-tunis-coordonne-un-consortium-international-finance-par-la-commission-europeenne-pour-le-renforcement-de-capacites-en-developpement-de-vaccins-et-produits-biologiques&catid=41:actualites&Itemid=147](http://www.pasteur.tn/index.php?option=com_content&view=article&id=917:linstitut-pasteur-de-tunis-coordonne-un-consortium-international-finance-par-la-commission-europeenne-pour-le-renforcement-de-capacites-en-developpement-de-vaccins-et-produits-biologiques&catid=41:actualites&Itemid=147)

-**28 September 2023: Scientific day in the framework of the ISSMA project “Interest and Contribution of Exome Sequencing in the Diagnosis of Deafness in Tunisia: from Research to Medical Practice in Hearing Health”.** This scientific day aims to highlight an exchange of experiences with a multidisciplinary panel of national and international experts in the field of genetics in hearing health to assess the current situation of research on deafness of genetic origin in Tunisia and its impact on the management of deafness of the child.

[http://www.pasteur.tn/index.php?option=com\\_content&view=article&id=919:journee-scientifique-dans-le-cadre-du-projet-issma&catid=41:actualites&Itemid=147](http://www.pasteur.tn/index.php?option=com_content&view=article&id=919:journee-scientifique-dans-le-cadre-du-projet-issma&catid=41:actualites&Itemid=147)

-**Medicines Patent Pool assesses IPT’s ability to create an R&D structure using mRNA technology for vaccine development.** A delegation from the NGO Medicines Patent Pool (MPP) visited the Institut Pasteur in Tunis (IPT) from **29 to 31 August 2023**. MPP’s mission is to “facilitate development and improve access to essential medicines in low- and middle-income countries.”

MPP is a WHO partner in the initiative to implement mRNA technology in 15 institutions in low- and middle-income countries including the Institut Pasteur de Tunis (IPT). Its role is to assess the ability of the IPT to set up an R&D structure for the design, development and validation of mRNA vaccines that target several endemic infectious diseases (leishmaniasis, rabies, etc.) in Tunisia and the region. The mRNA Technology Transfer Program will support the IPT in the various stages of the implementation of this structure until June 2025. The evaluation of the experts of the mRNA Technology Transfer Program is very encouraging. According to Julien Bon, member of MPP «the IPT has a high potential. It has the know-how, equipment and space to create this R&D structure. It remains to structure the various components of this R&D activity.”



[http://www.pasteur.tn/index.php?option=com\\_content&view=article&id=915:medicines-patent-pool-evalue-la-capacite-de-lipt-a-creer-une-structure-rad-utilisant-la-technologie-mrna-pour-le-developpement-de-vaccins&catid=41:actualites&Itemid=147](http://www.pasteur.tn/index.php?option=com_content&view=article&id=915:medicines-patent-pool-evalue-la-capacite-de-lipt-a-creer-une-structure-rad-utilisant-la-technologie-mrna-pour-le-developpement-de-vaccins&catid=41:actualites&Itemid=147)

## **-WORKSHOP "TRANSFORMATION AND MAINTENANCE OF E. COLI STRAINS TO PRODUCE BATCHES OF PLASMIDS USED AS QUALITY CONTROL FOR PCR REACTANTS"**



The Robert Koch Institute (RKI) in collaboration with the Institut Pasteur de Tunis (IPT)- LEMV Laboratory (Bacteriology Group), and with the support of GIZ, organised a workshop entitled: "Processing and maintenance of E. coli strains to produce batches of plasmids used as quality control for PCR reagents".

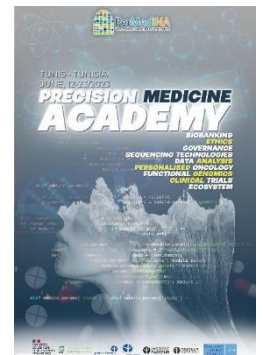
This workshop took place from **12 to 16 June 2023** at the Institut Pasteur in Tunis, and was addressed to the scientific members of the bacteriology and virology laboratories of the IPT and the Charles Nicole Hospital, who have

received training from the RKI for diagnostic methods implemented in their institutions under the "German Biosafety Programme".

The objective of this workshop is to allow these laboratories a continuous self-supply and quality assured in reagents necessary for the molecular tests implemented.

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**- Precision Medicine Academy.** The event was organised by the Institut Pasteur of Tunis from **12 to 23 June 2023**, within the framework of the training activities of the PerMediNA project "Personalized Medicine in North Africa. The Academy of Precision Medicine included lectures, discussions and interactive sessions on several topics such as genomics, big data analysis, biobanks, sequencing technologies, clinical and preclinical trials and functional genomics.

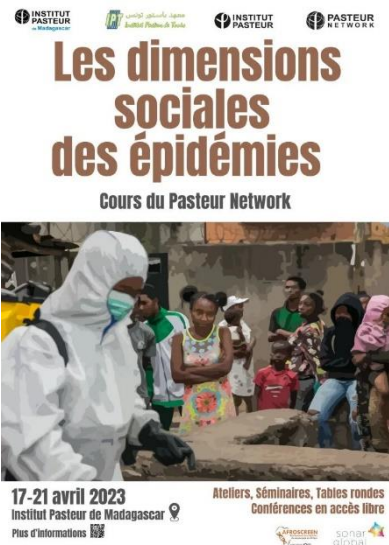


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**-A team of experts from the Science for Africa Foundation conducted a visit to Institut Pasteur de Tunis upon its acceptance of the Grant Award Certificate to host the "African Leishmaniasis Consortium" (ALC).** Upon historic agreement of the Grant Acceptance Certificate for support and inauguration of the "African Leishmaniasis Consortium" (ALC) signed by Pr. Hechmi Louzir, the Director General of Institut Pasteur de Tunis (IPT), a delegation from the Science For Africa Foundation (SFA; <https://scienceforafrica.foundation/our-focus>) conducted a two-day site visit (**22-23 June, 2023**) to the IPT to support the ALC program implementation. During the visit, the SFA representatives exchanged with the different departments of the IPT and the bilingual secretariat of ALC (set in Tunis & Ibadan, Nigeria) about the progress made in setting up necessary governance and management structures and reviewed the grant-related financial managements systems and policies among other matters.



## **-TRAINING AFRICAN RESEARCHERS IN THE SOCIAL DIMENSIONS OF EPIDEMICS FOR BETTER MANAGEMENT OF PUBLIC HEALTH INTERVENTIONS.**



The Institut Pasteur de Madagascar (IPM) in collaboration with the Institut Pasteur de Tunis, the Institut Pasteur in Paris, members of the Pasteur Network and with the support of the Sonar Global, Afroscreen and TransVIHMI IRD projects, is organizing a course entitled «The social dimensions of epidemics». This course will take place at the Institut Pasteur in Madagascar, from **17 to 21 April 2023**. It aims to address the growing need for social science expertise for preparedness and response to emerging epidemics related to infectious threats, through combined theoretical and operational contributions. The objective is to provide learners from the Pasteur Network and more broadly from African research and health institutes with the tools and concepts needed to conduct operational research in Human and Social Sciences (SHS).

[http://www.pasteur.tn/index.php?option=com\\_content&view=category&id=41&layout=blog&Itemid=147&limitstart=30](http://www.pasteur.tn/index.php?option=com_content&view=category&id=41&layout=blog&Itemid=147&limitstart=30)

**- A report from Brown University’s “Pandemic Center”.** A researcher from Pasteur Institute of Tunisia, Dr Rym Benkhalifa, contributed to the drafting of a report from Brown University’s “Pandemic Center” providing a roadmap for addressing the spread of dangerous pathogens in Africa. This report was elaborated by international experts in public health and biosafety, in support of the “Signature” Initiative to mitigate biological threats in Africa. This initiative is the result of a partnership between the "G7-led Global Partnership" and the "Africa Centres for Disease Control and Prevention".

Dr Benkhalifa’s involvement is a reflection of the leadership role that the Institut Pasteur in Tunisia has played in the management of health crises and biological risks as well as in responsible research.



[http://www.pasteur.tn/index.php?option=com\\_content&view=category&id=41&layout=blog&Itemid=147&limitstart=5](http://www.pasteur.tn/index.php?option=com_content&view=category&id=41&layout=blog&Itemid=147&limitstart=5)

**-The “Regional workshop on field outbreak multidisciplinary investigation”.**

The workshop was organized by Pasteur Institute of Tunisia under the coordination of Dr Wasfi Fares, winner of the



Leadership Initiative programme launched by the MediLabSecure (MLS) project. Aiming to create a regional core to deal with possible epidemic and pandemic emergencies, a multidisciplinary work within the framework of a One Health approach was carried out including experts from Algeria, Libya and Tunisia to quickly respond to an epidemic emergence scenario (neurological disease) reported with suspicion of the West Nile virus. The team travelled to the site via a mobile laboratory to conduct a clinical case investigation and a parallel entomological investigation.

[http://www.pasteur.tn/index.php?option=com\\_content&view=article&id=918:lipt-organise-un-atelier-regional-sur-lenquete-multidisciplinaire-en-periode-epidemie&catid=41:actualites&Itemid=147](http://www.pasteur.tn/index.php?option=com_content&view=article&id=918:lipt-organise-un-atelier-regional-sur-lenquete-multidisciplinaire-en-periode-epidemie&catid=41:actualites&Itemid=147)

### **-The International Research Unit of the Pasteur Network on emerging multi-drug-resistant pathogenic fungi.**

The International Research Unit of the Pasteur Network (PIU) was created by the Molecular Mycology Group headed by Dr Sadri Znaidi, biologist at the Molecular Microbiology Laboratory, Vaccinology and Biotechnological Development at the Institut Pasteur in Tunis and the group of Dr. Sophie Bachellier-Bassi of the Fungal Biology and Pathogenicity Unit led by Pr. Christophe d'Enfert, at the Institut Pasteur in Paris.

The newly created PIU will aim to identify the molecular determinants of biofilm development in *C. auris*, in order to use them as a target for the development of new drugs and will be funded to the tune of 150,000.00 € for 5 years renewable, and independent funding.

[http://www.pasteur.tn/index.php?option=com\\_content&view=article&id=912:creation-dune-unite-de-recherche-internationale-du-reseau-pasteur-sur-les-champignons-pathogenes-emergents-multiresistants-aux-medicaments-&catid=41:actualites&Itemid=147](http://www.pasteur.tn/index.php?option=com_content&view=article&id=912:creation-dune-unite-de-recherche-internationale-du-reseau-pasteur-sur-les-champignons-pathogenes-emergents-multiresistants-aux-medicaments-&catid=41:actualites&Itemid=147)

### **-SHS AFRICA ALLIANCE: IMPROVING THE RESPONSE CAPACITY OF AFRICAN HEALTH INSTITUTES TO EPIDEMIC CRISES THROUGH THE HUMAN AND SOCIAL SCIENCES.**

Funded by the Solidarity Fund for Innovative Projects (FSPI) of the French Ministry of Europe and Foreign Affairs, the ALLIANCE SHS Africa project aims to establish a network of experts to integrate the social dimensions of culture in response to epidemics in seven African countries: Cameroon, Côte d'Ivoire, Madagascar, Niger, Central African Republic, Senegal and Tunisia.

The Institut Pasteur of Tunis is responsible for component 3 of the project, dedicated to the training of partners and beneficiaries of the project, the development of the MOOC and networking. The IPTS also coordinates the communication and dissemination of the project. It also contributes to all other components of the project.

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**-Advanced Cancer Course in Digestive and Breast Cancer.** The Tunisian Association for the Fight against Cancer (ATCC) organized the Higher Cancer Course on digestive cancers and breast cancer, at the Faculty of Medicine of Tunis on 3 and 4 February 2023.



<https://fmt.rnu.tn/cours-superieur-de-cancerologie-portant-sur-les-cancers-digestifs-et-le-cancer-du-sein/>

**-Pasteur Institute of Tunisia organized seminars dedicated to researchers and health staff in the different sectors of scientific research in health:**

- **8 JUNE 2023:** ORIGIN AND SUCCESS OF THE MOST REPANDU GENOTYPE OF MYCOBACTERIUM TUBERCULOSIS IN TUNISIA, AND IN THE WORLD, AS DECRYPTED FROM THE GENOMIC SEQUENCE

[http://www.pasteur.tn/index.php?option=com\\_content&view=article&id=904:seminaire-de-lipt-8-juin-2023--origine-et-succes-du-genotype-le-plus-repandu-de-mycobacterium-tuberculosis-en-tunisie-et-dans-le-monde-tels-que-decryptes-a-partir-de-la-sequence-genomique-&catid=41:actualites&Itemid=147](http://www.pasteur.tn/index.php?option=com_content&view=article&id=904:seminaire-de-lipt-8-juin-2023--origine-et-succes-du-genotype-le-plus-repandu-de-mycobacterium-tuberculosis-en-tunisie-et-dans-le-monde-tels-que-decryptes-a-partir-de-la-sequence-genomique-&catid=41:actualites&Itemid=147)

- **20 July 2023:** Targeting alpha-synuclein aggregation for the treatment of Parkinson's disease

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- **25 MAY 2023:** CONSTITUTIONAL MEDULLARY APLASIA: PLACE OF GENETICS

[http://www.pasteur.tn/index.php?option=com\\_content&view=category&id=41&layout=blog&Itemid=147&limitstart=20](http://www.pasteur.tn/index.php?option=com_content&view=category&id=41&layout=blog&Itemid=147&limitstart=20)

- **4 MAY 2023 :** Cumulative incidence of SARS-COV-2 infection among the staff of Institut Pasteur de Tunis, March 2021.

[http://www.pasteur.tn/index.php?option=com\\_content&view=article&id=899:seminaire-de-lipt-4-mai-2023-incidence-cumulee-de-linfection-au-sars-cov-2-parmi-le-personnel-de-linstitut-pasteur-de-tunis-mars-2021-&catid=41:actualites&Itemid=147](http://www.pasteur.tn/index.php?option=com_content&view=article&id=899:seminaire-de-lipt-4-mai-2023-incidence-cumulee-de-linfection-au-sars-cov-2-parmi-le-personnel-de-linstitut-pasteur-de-tunis-mars-2021-&catid=41:actualites&Itemid=147)

- **11 MAY 2023 :** DIAGNOSIS AND MOLECULAR MONITORING OF LEUKEMIAS

[http://www.pasteur.tn/index.php?option=com\\_content&view=category&id=41&layout=blog&Itemid=147&limitstart=25](http://www.pasteur.tn/index.php?option=com_content&view=category&id=41&layout=blog&Itemid=147&limitstart=25)

- **6 April 2023:** Leishmania Eucaryotic Initiation Factor (LeIF) : as a potential immunomodulator of human macrophages

[http://www.pasteur.tn/index.php?option=com\\_content&view=article&id=892:seminaire-de-lipt-6-avril-2023-leishmania-eucaryotic-initiation-factor-leif--comme-un-immunomodulateur-potentiel-des-macrophages-humains-&catid=41:actualites&Itemid=147](http://www.pasteur.tn/index.php?option=com_content&view=article&id=892:seminaire-de-lipt-6-avril-2023-leishmania-eucaryotic-initiation-factor-leif--comme-un-immunomodulateur-potentiel-des-macrophages-humains-&catid=41:actualites&Itemid=147)

- **9 February 2023 :**Brucellosis: a re-emerging health risk

[http://www.pasteur.tn/index.php?option=com\\_content&view=category&id=41&layout=blog&Itemid=147&limitstart=35](http://www.pasteur.tn/index.php?option=com_content&view=category&id=41&layout=blog&Itemid=147&limitstart=35)

- **19 January 2023:** Genomic and metagenomic analysis of microorganism diversity

[http://www.pasteur.tn/index.php?option=com\\_content&view=category&id=41&layout=blog&Itemid=147&limitstart=40](http://www.pasteur.tn/index.php?option=com_content&view=category&id=41&layout=blog&Itemid=147&limitstart=40)

**- The Faculty of Medicine of Tunis provided several courses and postgraduate education in different aspects of medicine:**

- **15 October 2023:** Webinar bacterial infections

<https://fmt.rnu.tn/webinair-infections-bacteriennes/>

- **07 july 2023:** Characterization of colorectal adenocarcinomas with microsatellite instability (CMCU 23GO813) Annual meeting

<https://fmt.rnu.tn/caracterisation-des-adenocarcinomes-colorectaux-avec-instabilite-des-microsatellites-cmcu-23go813-reunion-annuelle-07juillet-2023/>

- **16 June 2023:** CNEM Scientific Day: Racial discrimination in health: science and ethics in perspective  
<https://fmt.rnu.tn/journee-scientifique-du-cnem-discriminations-raciales-en-sante-science-et-ethique-en-perspective/>

- **31 May 2023:** 5th COURSE DISSECTION OF TEMPORAL BONE  
<https://fmt.rnu.tn/5-eme-cours-dissection-de-los-temporal/>

- **02-03 Mars 2023 :** MASTERCLASS DE CHIRURGIE LAPAROSCOPIQUE  
<http://www.fmt.rnu.tn/stcl-masterclass/>

- **3 Mars 2023:** « ADVANCED EP COURSE »  
<https://fmt.rnu.tn/advanced-ep-course-3-mars-a-la-faculte-de-medecine-de-tunis/>

- **25 February 2023 :** EPU : Amputation du membre inferieur  
<https://fmt.rnu.tn/eup-amputation-du-membre-inferieur/>

- **25 February 2023 :** EPU: Les nystagmus  
<https://fmt.rnu.tn/eup-les-nystagmus/>

- **25 February 2023 :** EPU : Les purpuras EPU Purpura  
<https://fmt.rnu.tn/eup-les-purpuras/>

- **11 February 2023 :** EPU : Retard de croissance chez l'enfant  
<https://fmt.rnu.tn/eup-retard-de-croissance-chez-lenfant/>

- **11 February 2023 :** EPU : Les vertiges  
<https://fmt.rnu.tn/eup-les-vertiges/>

- **11 February 2023 :** EPU : Tuberculose neuro-méningée et sur terrains particuliers  
<https://fmt.rnu.tn/eup-tuberculose-neuro-meningee-et-sur-terrains-particuliers/>

- **11 February 2023 :** EPU Insuffisance rénale aigue  
<https://fmt.rnu.tn/eup-insuffisance-renale-aigue/>

- **11 February 2023 :** EPU : Reflux gastro-oesophagien  
<https://fmt.rnu.tn/eup-reflux-gastro-oesophagien/>

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