

# 3<sup>RD</sup> ASRIC Congress

Rabat - Morocco  
23 – 26 November, 2020

Infectious Diseases  
and  
pandemics threats



## What Agenda for Africa?

### CALL FOR SCIENTIFIC PAPERS

#### Requests

Abstract  
Acceptance of Abstract  
Full manuscript  
Sponsorship requisition  
The Congress Scientific Session

#### Deadline

5th of June 2020  
On or before 15 of July 2020  
On or before the 31st August 2020  
On or before the 31st August 2020  
23 & 26 of November 2020



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**African Union**  
Scientific Technical Research Commission



**African Scientific  
Research and  
Innovation Council**



Académie  
Hassan II  
des Sciences  
et Techniques

## I. BACKGROUND

In recognition of the role of science, technology and innovation, as essential tools for Africa's socio-economic transformation, and the needed institutional arrangements for the implementation of Africa Science, Technology and Innovation Agenda, the Executive Council of AU Member States adopted the Decision Ex.CL/Dec.747 (XXII) and Decision Ex/CL/Dec.216 (VII) on the establishment of the African Scientific, Research and Innovation Council (ASRIC).

Hence, the ASRIC had its Official Launch and First Congress from 27<sup>th</sup> to 29<sup>th</sup> November, 2018, in Abuja, Nigeria, which set the ASRIC in full operationalization, where the ASRIC Bureau was officially constituted and mandated to oversee and execute the decisions of the Congress amongst others. In addition, the African Union Scientific, Technical and Research Commission (AU-STRC) was named the Secretariat of the ASRIC.

To effectively drive the ASRIC mandate, there is need for a systemic analysis of Africa's challenges as they cut across the various countries and a clearly-defined strategic plan and actions of ASRIC stakeholders. This is in full consideration is a crucial opportunity for ASRIC to promote scientific research and innovation to address Africa's challenges. Africa's prevalent challenges can be classified into fundamental and consequential, where sustainable resolution of Africa's fundamental challenges will bring far-reaching positive solutions to the consequential needs. For instance, the effective application of science and technology in addressing Africa's challenges of poverty, hunger and disease as fundamental needs, will improve the quality of life of African citizens, produce a healthier population, and reduce mortality and disease outbreak, thereby enhancing economic growth which is a consequential challenge.

To this end, the 2<sup>nd</sup> ASRIC Congress took place from 20<sup>th</sup> to 23<sup>rd</sup> November, 2019 in Abuja - Nigeria. The Congress brought together over 100 eminent scientists and researchers from within Africa and Diaspora as stipulated in the ASRIC Statute to address the 2<sup>nd</sup> ASRIC Congress Theme: **FREEING AFRICA FROM POVERTY, HUNGER AND DISEASES**. The Congress had presentations from full abstracts selected from the response to the Call for Scientific Papers launched by the ASRIC Secretariat which focused on four (4) thematic areas which are the 2<sup>nd</sup> ASRIC Congress Sub themes: **(Health Sciences; Agriculture, Forestry and Fisheries; Water, Energy and Environment; and Governance, Sociology, Business and Economics)**.

The ASRIC is organising its 3<sup>rd</sup> Congress scheduled to take place from 23<sup>rd</sup> to 26<sup>th</sup> November, 2020 under the Auspices of the Hassan II Academy of Science and Technology, in Rabat - Morocco. The Congress will be a gathering of selected scientists and researchers, think tanks, and representatives of member institutions, and Academies of Science from AU Member States as stipulated in the ASRIC Statute.

The theme of this year's Congress was: **Water and Food Security – What Agenda for Africa?** **However** due to the serious situation raised by the COVID 19 and its declaration by the WHO as pandemic, it was the agreed amongst ASRIC Bureau members and Hassan II Academy to dedicate this event to **Infectious Diseases and Pandemics Threats – What Agenda for Africa?**

## II. RATIONALE

The COVID-19 pandemic has taken its toll on the world and has sent a shock wave globally with a greater impact on the governments and populace. It is evidently clear that the global spread of COVID-19 has been hard, particularly on America, Italy, Spain, and some other countries in Europe. Yet, the infection rate has been generally quite low in Africa, a fact that could be attributed in part to the low testing capacity of most African nations, or to other factors yet to be determined.

As no specific therapeutics and vaccines are available for disease control, the epidemic of COVID-19 continues posing a great threat for global public health and for Africa as a continent. Availability of medical devices for disease management and health professional's protection, as well as diagnostics means poses also a great challenge for African countries.

The Covid-19 impact will not be only stressing the Africa's health system but it will be extended to impact every African daily life e.g. the number of people that are suffering from chronically hungry will increase by 130 million people by the end of 2020 a good percentage of them are African.

The 3<sup>rd</sup> ASRIC Congress in Rabat, Morocco places particular emphasis on the theme “**Infectious Diseases and pandemics threats – What Agenda for Africa?**” in conjunction to the implementation of the Sustainable Development Goals (SDGs) and AU agenda 2063. The Congress will focus on critical pandemic issues in Africa:

- the impact on health system and promising solutions.
- the impact on the economy and food security and alternative models for socioeconomic development to reduce poverty and hunger.

The inextricable linkages between these critical domains require a suitably integrated approach to ensuring population health protection, food security and socioeconomic development.

The elucidation and solution of these issues are envisaged as concomitant to the Science Technology and Innovation Strategy for Africa and the 2063 Agenda’s aspirations of the *Africa we want*.

### III. OBJECTIVES

***The ultimate Goal of the Congress is to launch a Call for action towards African leaders, Partners and Researchers and Health professionals aiming at:***

- (i) Strengthening Africa health system and its Scientific and technological research and Innovation System.
- (ii) An alternative model for socioeconomic development and resilience.
- (iii) Reversing the brain drain to support Africa development.
- (iv) Valuing Africa resources and related potential for national and regional development.

To achieve this goal, the objectives of the congress are:

- (i) To gather notable African health professionals, scientists, policy makers and industry leaders to deliberate on Africa’s challenges of population health, poverty and food security.
- (ii) To promote the creation of an R&D and innovation ecosystem aimed at developing innovative solutions to Africa’s challenges of population health, poverty and food security.
- (iii) To promote and increasing awareness of existing STI resources and solutions to tackling health challenges, Water, Energy and food security.
- (iv) To hold strategic meetings of ASRIC Sub-committees, working groups and report to the ASRIC Congress.
- (v) To hold a Continental gathering of health professionals, scientists, academics, inventors, partners and innovators in order to promote consultation/dialogue on the prevalent challenges.
- (vi) To enable network and cluster creation and linkage between African Scientists in the Diaspora to home-based scientists and encourage them to take part in Africa’s socioeconomic development together.
- (vii) To inform about ASRIC and strategic partners funding possibilities for boosting R&D in Africa.

### IV. EXPECTED OUTCOMES

The expected outcomes of the congress are:

- (i) Renewed zeal and inspiration in African scientists and researchers to create innovative and inclusive solutions to the prevalent challenges.
- (ii) Strengthening existing relationships and collaboration in research and STI across the continent.
- (iii) Greatly advancing in the building of a Sustainability Nexus while fighting against poverty, food security and ensuring population health by increasing knowledge sharing in these fields.
- (iv) Successful meetings and presentation of reports of ASRIC Sub-committees and working groups

## V. CALL FOR SCIENTIFIC PAPERS

The Congress Organizing Committee announces an Open Call for papers to be presented in the 3<sup>rd</sup> ASRIC Congress that to take place in the Hassan II Academy of Science and Technology, Rabat Morocco from 23<sup>rd</sup> to 26<sup>th</sup> of November 2020.

### The Abstract Submission

- Interested scientists to submit an abstract of their original work in the subthemes listed below before the 30<sup>th</sup> of May 2020, to the Congress Organizing Committee for evaluation.
- Abstract of not more than (300) words should be drafted using Times New Roman with font size 12 with complete information of the Author(s) Contact details, Institutions, and Key words. Kindly identify the area of intervention in the email's subject.
- Abstracts should be sent to the secretariat of ASRIC Scientific Journals and copied to Prof. Driss Ouazar the Editor in Chief of the ASRIC Scientific Journals and Member of Hassan II Academy Organizing Committee for the 3<sup>rd</sup> ASRIC Congress via email to: [asric.au@yahoo.com](mailto:asric.au@yahoo.com) and Cc [d.ouazar@academisciencences.ma](mailto:d.ouazar@academisciencences.ma)

### The Notification

- The successful candidates will be notified by the Organizing Committee on the acceptance of their Abstract by the 15<sup>th</sup> of July 2020 and accordingly they will be requested to submit full manuscript before 30<sup>th</sup> of August 2020.
- The full paper should follow guidelines that are to be sent in due course.
- The candidates whose full papers are accepted by the Organizing Committee will be invited to present their papers during the Congress Scientific Sessions.

### The Sponsorship

There is a limited sponsorship opportunity to be granted to a limited number of Authors to support their participation in the Congress. The sponsorship is only available to the Authors whose papers are accepted by the Congress Organizing Committee.

### The Deadlines

Kindly observe the following deadlines:

Requests	Deadline
Abstract	5 <sup>th</sup> of June 2020
Acceptance of Abstract	On or before 15 of July 2020
Full manuscript	On or before the 31st August 2020
Sponsorship requisition	On or before the 31st August 2020
The Congress Scientific Session	23 & 26 of November 2020

### The Congress Areas of Focus and Sub-themes

The areas of focus in the Congress sub-themes and the topics under each sub-theme are detailed as follows and on table 1 annexed to the document:

#### Areas:

- Health system governance, infrastructure and resources;
- Scientific technical research and innovation initiatives for research proposals, doctoral schools; interdisciplinary research centres, innovative scientific equipment, wealth production;

- Artificial intelligence and modelling for pandemics (e-health, distance learning, e-government; tracking, Big data and Artificial intelligence, mathematical modelling of complex systems)
- Socio-economic dimension of a pandemic; and
- African diaspora attractivity and medicine-related natural resources.

**Sub-Themes and Topics (see table 1):**

The conference driven by learned lessons from COVID 19 Crisis and COVID-19 related science and research topics will cover the following sub-themes:

- virus: natural history, transmission and diagnostics;
  - animal and environmental research on the virus origin,
  - management measures at the human-animal interface,
  - epidemiological studies;
  - clinical characterization and management,
  - infection prevention and control, including health care workers' protection;
  - ethical considerations for research and benefit sharing;
  - candidate therapeutics R&D;
  - immune response and immune-genetics against covid-19
  - candidate vaccines R&D;
  - traditional medicine
  - bio-security and African capabilities
  - economic sciences and predictive modelling tools:
  - economic impact, prospective economy, adopted solutions to reduce the impact, recovering strategies
  - Social and societal impact of the outbreak
  - ITC, IoT (sensors, GPS, Drones, etc.) for data collection and acquisition of spatialized data, monitoring, follow-up and control
  - Organization and in-depth analysis of data, data sciences (big data and artificial intelligence)
  - Scientific and numerical modelling as well as simulation for the possibilities of prediction and analysis of decision support strategies
  - Analysis, optimization and control of implementation strategies, infrastructure deployment, containment, de-containment, governance and government policy.
- Food security, will be addressed, as an interrelated aspect to health issues during a pandemic crisis***

Case studies, success stories during the Covid-19 crisis and potential solutions for from Africa covering the following above-mentioned areas and sub-themes will be presented at the corresponding topic

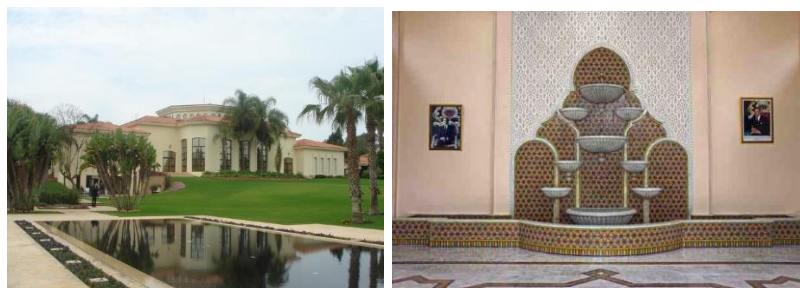
The call for action, goal of the congress, will be drafted during a working group session and launched during the closing session of the congress.

In light of the above, the 3<sup>rd</sup> ASRIC Congress shall be a unique one with scientific sessions and paper presentations by eminent scientists and professionals with the aim of enhancing the application of Science, Technology, Research and Innovation to address these challenges while building the health nexus with focus on infectious diseases. The Congress also seeks to encourage African scientists to expand and widen their spread of research in these development sectors.

**The Congress shall receive original papers of which a selected number shall present on the identified thematic areas during the Scientific Sessions in the Congress.**

**VI. The venue of the 3<sup>rd</sup> ASRIC Congress**

The Congress is hosted at the Hassan II Academy of Science and Technology (www.ah2st.ma) Rabat, Morocco.



## VII. PARTICIPATION

About 150 participants are expected to take part in this Congress. Only the best full papers will be sponsored by ASRIC and AHIIST. The participants are drawn from the following:

- National Academies of Sciences
- National Research Councils or other similar Institutions in the AU Member States;
- Regional Economic Communities;
- Scientific Committee;
- African STI Institutions;
- Financial institutions
- Laureates of the African Union Kwame Nkrumah Scientific Awardees;
- African Diaspora;
- African STI Civil society;
- Industry frontiers, (Public and Private Sectors);
- International STI Institutions and Etc.

## VIII. The Exhibition

In order to show case innovative projects, products and ideas to demonstrate the role that STI can play in Africa's socio-economic development, ASRIC and the HIIAST organizing an exhibition during the 3<sup>rd</sup> ASRIC Congress **"Infectious Diseases and pandemics threats– What Agenda for Africa?"** The exhibition will run in parallel with the 3<sup>rd</sup> ASRIC Congress.

The identified target groups as potential exhibitors in the 3<sup>rd</sup> ASRIC congress Exhibition are: Commercial Companies and Industries; Innovators (Entrepreneurs), Research & Development Startup, National and Private Research Institutions, UN Agencies, individual scientists who can show case.

The selection process for exhibitors will be guided by the following criteria: Applicability, Adaptability, Efficiency, Innovativeness, Market accessibility, Scalability, Impact on Community, Value addition and Relevance to the Congress theme.

More details on the exhibition (call for application, exhibition space, criteria for selection in details, exhibition organizing committee, time frame, among others) will be presented in the exhibition manual that is to be developed and dispatched in due-course.

I. Annex: Table 1

ASRIC Congress' areas, sub-themes and topics related to Covid-19 pandemic.

Area	1. Health system governance, infrastructure and resources	2. Scientific technical research and innovation	3. Socioeconomic dimension of a pandemic	4. African diaspora attractivity and medical-related natural resources
Sub-theme	1.1 Clinical characterization and management 1.2 Case tracking and epidemiological surveillance 1.3 Infection prevention and control 1.4 Advanced technologies for data collection and decision making 1.5 Biosecurity issues	2.1 Virus: natural history, transmission and diagnostics 2.2 Animal and environmental research on the virus origin, management measures at the human-animal interface. 2.3 Ethical considerations for research and benefit sharing 2.4 Candidate therapeutics R&D advances; 2.5 immune response and immunogenetics against 2.6 Candidate vaccines R&D Advances; 2.7 Traditional medicine potential	3.1 Social justice and Equity 3.2 Socio-Economic impact and modelling tools	4.1 African natural therapeutics resources 4.2 R&D Ecosystem in Africa 4.3 Sustainable International partnerships for R&D 4.4 National and regional strategies to reverse and/or prevent brain drain at individual level
Topic (African case studies and success stories)	1.1.1 Clinical Characterization and management 1.2.1 Epidemiological figures 1.3.1 Pharmaceutical infection prevention and control measures and interventions including health care workers' protection 1.3.2 Non pharmaceutical infection prevention and control measures and interventions 1.4 ITC, IoT (sensors, GPS, Drones, etc.) for data collection and acquisition of spatialized data, monitoring, follow-up and control Analysis, optimization and control of implementation strategies, infrastructure deployment, containment, de-containment, governance and government policy Organization and in-depth analysis of data, data sciences (big data and artificial intelligence) 1.4 subtheme will be integrated in each of the subthemes 1.2.1; 1.3.1 and 1.3.2	2.1.1 Covid-19 Diagnostics in Africa: challenges and opportunities 2.3.1 Global alliance to accelerate access to diagnostics, therapeutics and vaccines 2.5.1 and 2.6.1 Vaccine and therapeutics development in Africa: challenges and opportunities 2.7.1 Traditional medicine case studies	3.1.1 Social and societal impact of the outbreak and response 3.2.1 Economic impact and prospective economy, 3.2.2 short, mid and long-term recovering strategies 3.2.3 Scientific and numerical modelling as well as simulation for the possibilities of prediction and analysis of decision support strategies will be embedded in 3.2.1 and 3.2.2.	4.2.1, 4.3.1, 4.4.1 Africa case studies and success stories
Goal	Health system governance, infrastructure and resources improvement	Scientific and technological research and Innovation System strengthening	An alternative model for socioeconomic development and resilience	Building a promising future for Africa with its natural resources, talents and sustainable international partnerships
The area of artificial intelligence and modelling for pandemics is embedded in each of the above-mentioned sub-themes (1.4; 3.2.1, 3.2.2)				