

# ZAMBIA ACADEMY OF SCIENCES NEWSLETTER



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# **ZaAS NEWS**

In the past two years, the Zambia Academy of Sciences has taken a leading role in collaboration with four other science academies, developing a project proposal aimed at adoption and funding by the African Union (AU). This initiative, now recognized as a flagship project, has been accepted by the African Scientific Research and Innovation Council (ASRIC), the scientific arm of the AU. At the 2022 Congress, ASRIC officially endorsed this project as an AU flagship project. Led by the President Professor Kavwanga Yamba Yamba, the Zambia Academy of Sciences presented the Stunting Flagship Project at the 6<sup>th</sup> Congress of the ASRIC Council in Rabat, Morocco, 5<sup>th</sup> to 8<sup>th</sup> December 2023. The AU Flagship Project on Stunting in Africa is a visionary and comprehensive project designed to eradicate stunting across the continent. Acknowledging the critical nature of the issue affecting millions of African children, the project aims to overcome obstacles to cognitive and physical development, fostering economic growth and prosperity. The project recognizes the complex interplay of factors contributing to stunting by integrating science, technology, and innovation.



## **SCIENCE NEWS**

#### Cholera Outbreak in Zambia

Honourable Sylvia T. Masebo, the Minister of Health, urgently addressed the nation on the cholera outbreak in Zambia. The outbreak, initially in Lusaka Province and recently in Eastern Province, has seen an alarming increase in cases since the last update on November 25th. As of December 13th, there have been 1,385 cases with 36 deaths in Lusaka Province and a total of 2,270 cases with 52 deaths nationwide since January 26th, 2023. The affected provinces include Lusaka, Luangwa, Chongwe, Chilanga, Vubwi, and Petauke. The Minister emphasized the need for collective action to combat cholera, urging the public to treat water, practice hand hygiene, and seek early medical care for diarrhoea.

Key mechanisms in place include multisectoral coordination, early identification of cholera cases, provision of chlorine in affected communities, and activated cholera treatment centres. The Minister highlighted the importance of reducing stigma, encouraging good health-seeking behaviour, and establishing oral rehydration points in communities. The Government has received support, including K5.6 million worth of chlorine, from health sector partners. Efforts to secure cholera vaccines are underway, and long-term solutions, especially in Water, Sanitation, and Hygiene (WASH), are emphasized.

The Minister addressed the economic impact of cholera outbreaks, stressing the importance of investing in WASH infrastructure and proposed using the Constituency Development Fund (CDF) to improve WASH in affected communities.

Acknowledging the role of climate change, population growth, and migration, the Minister requested a comprehensive report from the National Disaster Coordinating Committee and the reactivation of the National Epidemic Preparedness Committee.

In conclusion, Honourable Sylvia T. Masebo called for unity to "Kick Out Cholera" and reiterated the preventive measures: Clean Water, Clean Hands, and Early Care.

Ministerial Statement on the Cholera Outbreak in Zambia by the Minister of Health. Read More

#### Quote

"We can't solve problems by using the same kind of thinking we used when we created them"

- Albert Einstein



## **MEMBER FOCUS**

## DR. ELDER MOONGA - SECRETARY GENERAL & CHAIRPERSON AWARDS COMMITTEE

Dr. Elder Moonga, is a founding member and the Secretary General of the Zambia Academy of Sciences. Before taking up teaching of Medical Parasitology at Lusaka Apex Medical University in 2015, Dr. Moonga, was at the Livestock and Pest Research Centre of the National Council for Scientific Research (NCSR), where he spent over 10 years, carrying out a wide-range of livestock research aspects that included: determining the constraints to improved livestock production in the traditional sector of Mumbwa District of Zambia; isolating Theileria parva lawrencei infective strains for possible vaccine development; improving the productive and reproductive performance of indigenous goats in the traditional sector; and isolating and transmitting Trypanosomes to elucidate their respective pathogenesis in the indigenous breeds of cattle. Additionally, he was part of the early team that carried out in-vitro validations of some Zambian traditional medicines for efficacy against HIV/AIDS and other opportunistic infections. Dr. Moonga rose to high prominence in 2008 when he was appointed as NEPAD/Southern Africa Regional Coordinator of the Livestock Node.

## **PUBLICATIONS**

#### **Visualizing Proactive Strategies: Safeguarding Science Amidst Crises**

In anticipation of the ISC Centre for Science Futures' upcoming working paper titled "Protecting Science in Times of Crisis: How do we stop being reactive, and become proactive?", a series of insightful infographics have been released. These visuals capture key points from the paper, emphasizing the urgent need for a proactive approach to protecting scientists, science, and research infrastructures during crises. Read More

#### Hazards with Escalation Potential: Governing the Drivers of Global and Existential Catastrophes

This report highlights risks and susceptibilities capable of initiating global catastrophes, emphasizing climate change and artificial intelligence as significant contributors. Addressing these hazards necessitates a re-evaluation of governance approaches, as existing systems are inadequately prepared to address evolving global worst-case situations. This calls for modifications in both risk assessment methodologies and governance structures. Read More

#### The Case for Reform of Scientific Publishing

This document serves as a follow-up to the Key Principles of Scientific Publishing. It details the collaborative efforts of the International Science Council (ISC) and its members, including international scientific Unions and Associations, to address contemporary issues in science. It outlines the endorsement of publishing principles in 2021 and the subsequent establishment of an international Steering Committee tasked with identifying actions to implement these principles. Through various studies, discussions, and presentations, barriers to realization were explored, resulting in the publication of three additional reports. Read More

### **HEALTH AND WELLBEING**

#### Six Easy Ways to Improve Gut Health

- 1. Peanuts for Gut Bacteria: Regular peanut consumption increases Ruminococcaceae bacteria associated with healthy liver metabolism and immune function.
- 2. Spice Up Your Diet: Incorporate herbs and spices like cinnamon, ginger, cumin, turmeric, rosemary, oregano, basil, and thyme into your meals.
- **3. Prebiotic Foods for Digestive Health:** Consume prebiotic-rich foods such as mushrooms, onions, garlic, asparagus, leeks, apples, and whole grains.
- **4. Embrace Extra Virgin Olive Oil:** Beyond salad dressings, use extra-virgin olive oil in various ways, such as swirling it into soup, adding it to smoothies, drizzling over toast, or making a simple tomato sandwich.
- **5. Diverse Plant Foods at Each Meal:** Aim to include at least two different plant foods to enhance gut bacteria diversity. Examples include yogurt with fruit and nuts for breakfast, a tuna and bean salad for lunch, and a vegetable stir-fry for dinner.
- **6. Moderate Consumption of Red Wine and Dark Chocolate:** Small amounts of red wine and dark chocolate (at least 70% cocoa solids) containing polyphenols can benefit gut microbes.

Source: The Telegraph

## **OPPORTUNITIES**

#### **ISC Opportunities**

The ISC is encouraging ISC members to submit nominations for the renewed Scientific Committee, which will provide scientific and policy guidance to the IRDR community and the IRDR International Programme Office in programme planning, implementation, development and evaluation. This is in light of the inception of the second phase of the Integrated Research on Disaster Risk (IRDR) Programme.

ZaAS members interested in being nominated by ZaAS are encouraged to inform ZaAS Secretariat. Interested parties can apply via the online nomination form <a href="https://example.com/here">here</a>.

The ISC Secretariat will host Zoom sessions on **25 January** and **1 February 2024** to update the membership on recent developments in global science-policy work in the multilateral space, including UN processes. The ISC Secretariat will use this moment to outline 2024 priorities, and discuss upcoming opportunities for Member involvement in policy activities. Please register here

#### **Open Calls**

- <u>Call for case studies</u> on Safeguarding Intangible Cultural Heritage and Climate Actions from Asia-Pacific Region by the Integrated Research on Disaster Risks (IRDR) under the auspices of UNESCO (**deadline: 30 January 2024**)
- <u>Call for applicants</u> for IUPAC-SOLVAY International Award for Young Chemists for most outstanding Ph.D. theses in chemical sciences (**deadline: 15 February 2024**)
- Submit your International Data Week/SciDataCon 2023 Paper to the CODATA Data Science Journal (deadline: 31 March 2024)
- Call for submissions to the IUPAC Polymer video competition (deadline: 31 March 2024)
- <u>Call for applications</u> to the Mozilla Tech + Society Fellowship. This fellowship is designed to bring technological strategists and civil society leaders together into collaboration (**deadline: 22 January 2024**).