



ZAMBIA ACADEMY OF SCIENCES



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ZaAS

INSIGHTS AND UPDATES

Esteemed Members,

Welcome to the August edition of the ZaAS Newsletter, packed with the latest updates, opportunities, and insights from the Zambia Academy of Sciences (ZaAS). This month, we bring you highlights from the Zambia Young Academy of Sciences (ZYAS) Induction Ceremony, where the future of our scientific community was celebrated with the induction of young, promising scientists.

You will also find a radio interview on one of Zambia's most pressing health challenges—stunting—by Immediate Past President and ZaAS Fellow, Professor Kawwanga E.S. Yambayamba.

Furthermore, in light of the various health-related challenges facing the country, such as the presence of Aflatoxin in maize, the alarming increase in Mpox cases in neighbouring countries, and the resurgence of Anthrax within Zambia, the Zambia Academy of Sciences is currently engaged in discourse with partners on how to strengthen public health surveillance, enhance disease prevention strategies, and improve response mechanisms to mitigate these threats effectively.

We hope you find this issue informative.

ZaAS NEWS

Zambia Academy of Sciences Hosts Zambia Young Academy of Sciences Induction Ceremony

On 30 July 2024, the Zambia Academy of Sciences hosted an Induction Ceremony for the **inaugural Zambia Young Academy of Sciences (ZYAS)**, celebrating the inclusion of the first cohort of promising young scientists. This event marks a vital step in the Academy's ongoing commitment to fostering scientific excellence and ensuring the sustainability of Zambia's scientific community. The newly inducted ZYAS members bring a diverse range of scientific expertise, spanning malnutrition research, neuroendocrinology initiatives, and engineering.



The Induction Ceremony was presided over by Acting President Professor Cyprian Katongo, alongside Executive Director Dr. Henry Njapau and Treasurer Dr. Kutemba Kapanji Kakoma. In his address, Professor Katongo congratulated the new members and highlighted the crucial role that young scientists play in the Academy's future.

Professor Katongo also encouraged the newly inducted members to actively engage with the Zambia Academy of Sciences (ZaAS) for guidance and support. Furthermore, he emphasized the importance of broadening the base of ZYAS to include a wider array of disciplines, encouraging members to expand their network by bringing in experts from various scientific fields.

Securing Zambia's Future: The Urgent Need to Combat Stunting

The Zambia Academy of Sciences (ZaAS) has identified nutrition and stunting as national priorities due to their profound impact on socioeconomic development. By focusing on these areas, the Academy aims to raise awareness about addressing multiple strategic outcomes, including improved education, food security, poverty reduction, and environmental sustainability.

To this end, to raise public awareness about the critical issue of stunting, **Professor Kavwanga E.S. Yambayamba, Immediate Past President and Fellow of the Zambia Academy of Sciences** recently appeared on Power FM Radio. His appearance underscored the need for national prioritization of addressing the root causes of stunting to ensure the future prosperity of Zambia.

Sub-Saharan African economies face significant challenges, one of which is the pervasive issue of stunting. In Zambia, stunting is a critical concern, with 35% of children under the age of five affected. This statistic implies that 35% of the population is stunted, meaning that out of Zambia's estimated 20 million people, around 7 million are likely to be stunted. The first 1,000 days of a child's life—spanning from conception to the second birthday—are critical for growth and development. Proper nutrition during this period, including breastfeeding and the introduction of nutritious complementary foods, is essential to ensure healthy development. If this window of opportunity is missed, the consequences are severe and long-lasting, leaving individuals and the nation at a disadvantage. Stunting compromises physical, cognitive, and social capabilities, severely limiting potential. Given that a large portion of Zambia's population lives in poverty, tackling stunting is essential for national development. To listen to the Radio Interview, click [here](#).

Child Development: Creating a Nurturing Environment

Watch this Child Development podcast episode on creating a nurturing environment by **ZaAS Immediate Past President and Fellow, Professor Kavwanga E.S. Yambayamba and Mr. Emmanuel Chisalu**. The episode explores how the physical and emotional environment plays a critical role in the child's cognitive development. From setting up a stimulating and safe place for exploration to fostering a loving and supportive atmosphere in the home, the episode covers various strategies for creating a conducive environment to support a child's cognitive development. To watch the Podcast, click [here](#)

MEMBER FOCUS

PROFESSOR PHENNY MWAANGA – SECRETARY GENERAL, ZAMBIA ACADEMY OF SCIENCES

Prof. Phenny Mwaanga is a Chemist, Water Quality Specialist, and Environmental Toxicologist with extensive experience in the rubber and mining industries. He began his career as a chemist, eventually becoming Sectional Chemist-Spectrographic, where he led the certification of finished copper and cobalt metals for export. His work involved research to enhance analytical methods, routine and non-routine analysis of various samples, and extensive use of advanced analytical techniques, including LC-MS/MS, GC/MS, ICP-OES, and AAS. His research interests include integrated water resources management, the fate and transport of chemical contaminants in ecosystems, and the application of nanotechnology in various industrial processes. Prof. Phenny Mwaanga holds a BSc. in Chemistry from the University of Zambia, an MSc in Water and Environmental Resources Management from UNESCO-IHE in the Netherlands and a Doctorate in Environmental Toxicology, specializing in nano-ecotoxicology, from the United States.

PUBLICATIONS

Mapping Safe Drinking Water Use in Low- and Middle-Income Countries

The publication by Greenwood et al. addresses the critical issue of access to safe drinking water in low- and middle-income countries. The study estimates that 4.4 billion people in these regions lack safe drinking water, a figure significantly higher than previous global estimates. Using geospatial modeling combined with household surveys, the authors identify key factors affecting water safety, such as fecal contamination and environmental conditions like climate variability. Download the Paper [here](#).

Synthesis of the Transformations to Sustainability Programme

Published by the International Science Council, the report provides an overview of the key findings and lessons learned from the Transformations to Sustainability (T2S) Programme, which ran from 2014 to 2022. The T2S programme focused on pioneering international, transdisciplinary research that explored the social dimensions of environmental change and sustainability, with an emphasis on enhancing the role of social sciences in sustainability science. The programme was implemented in two phases, supported by various international funders, and aimed to shift the focus of sustainability efforts from technical solutions to social, political, and economic responses. Download the Report [here](#)

HEALTH AND WELLBEING

Top Daily Tips for Better Gut Health

1. **Start the Day** with Fibre-Rich Breakfast by Incorporating wholemeal bread, semi-ripe bananas, and natural yoghurt to stimulate gut bacteria and promote gut health.
2. Engage in at least **30 minutes** of moderate exercise, like walking, five times a week to enhance gut motility and microbial diversity.

3. **Take time** to eat meals slowly to reduce air swallowing and prevent bloating.
4. Regularly **consume** white or oily fish, along with diverse plant-based foods such as vegetables, grains, nuts, and spices to support a diverse gut microbiota.
5. Limit consumption overall **to reduce** the risk of gut issues.
6. Aim for **7-9 hours** of quality sleep each night to support gut health, as poor sleep can negatively impact gut bacteria diversity.
7. Instead of relying on probiotic supplements, **focus** on a balanced diet rich in plant-based foods, adequate fibre, and regular exercise to naturally improve gut health.

Source: [The Telegraph](#)

OPPORTUNITIES

Opportunities: Fellowships

University of Bayreuth Centre of International Excellence “Alexander von Humboldt” Junior and Senior Fellowship Programme 2025

The University of Bayreuth Centre of International Excellence “Alexander von Humboldt” promotes excellent research at the University of Bayreuth (UBT) and advances the internationalisation of research and networking with the best universities worldwide. Effective immediately, the Centre is offering Fellowships for the year 2025 open to all disciplines for Senior Fellowships: Award sum 40,000 and Junior Fellowships. **(Deadline: 18 October 2024)** [Read More](#)

AREF Research Development Fellowship 2024/25

Applications are open for the 2024/25 AREF Research Development Fellowship Programme to support researchers in Africa who are emerging leaders and working on important challenges for human health, to develop their skills as researchers. The programme offers a three to nine-month placement at a leading research institution in the UK, Europe or Africa, with additional support at your home institution before and after the placement. **(Deadline: 4 October 2024)** [Read More](#)

Smithsonian Biodiversity Genomics Postdoctoral Fellowship Program

The Smithsonian Institution (SI) Postdoctoral Fellowship in Biodiversity Genomics promotes collaborative research in these fields involving comparative genomic approaches such as phylogenomics, population genomics, metagenomics or transcriptomics, and have a component that involves significant bioinformatics analysis. Applicants must propose to conduct research in-residence for a period of 12 to 24 months. **(Deadline: 15 October 2024)** [Read More](#)

Opportunities: International Science Council (ISC)

- [Call for nominations](#) for the role of **Co-chair at The World Data System** – Early Career Researchers (WDS-ECR) Network. **(Deadline: 30 September 2024)**.
- [Call for membership](#) of the **Global Young Academy**. **(Deadline: 18 September 2024)**.
- [Call for applications](#) for the **Fifth Hideyo Noguchi Africa Prize** honouring individuals with outstanding achievements in medical research or medical activities to combat infectious diseases and promote public health in Africa **(Deadline: 20 September 2024)**.
- [Apply](#) for the **2024 Visiting Scholar Scheme of the Scientific Committee on Antarctic Research**. **(Deadline: 31 August 2024)**.
- [Call for papers](#) for the **International Population Conference 2025**. **(Deadline: 15 September 2024)**.
- [Call for applications](#) to the **Elsevier Foundation’s Chemistry for Climate Action Challenge** awarding two prizes of 25,000 USD. **(Deadline: 15 September 2024)**.

For more ISC Opportunities click [here](#)