



ZAMBIA ACADEMY OF SCIENCES

NEWSLETTER



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THE ACADEMY

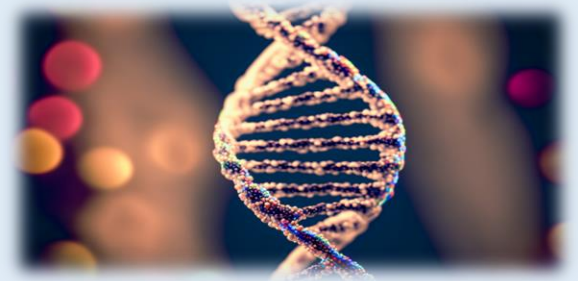
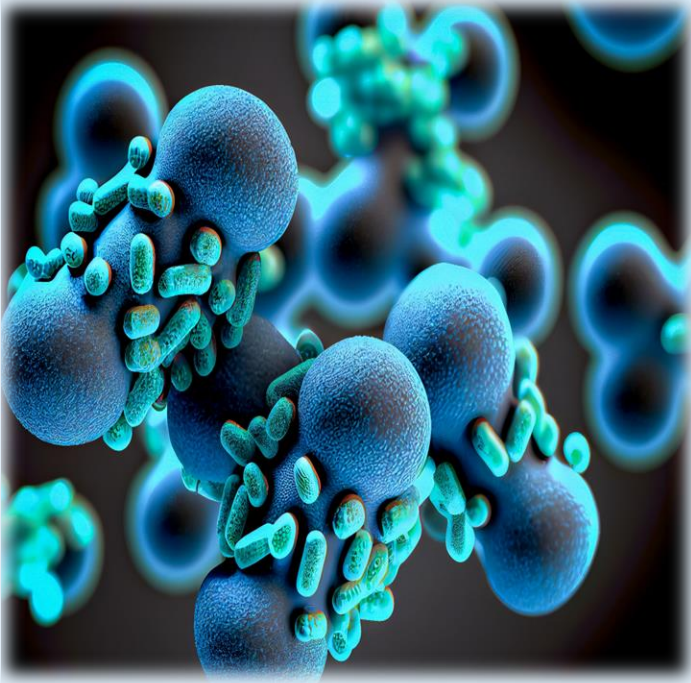
The Zambia Academy of Sciences (ZaAS) envisions a future where Zambia's socio-economic development is anchored on science, technology and innovation. The Academy aims to promote the adoption of technological discoveries and innovations and provide for the investigation of matters of public interest relating to science and technology.

The Zambia Academy of Sciences strives to offer independent, evidence-informed advice to governments and society

SCIENCE NEWS

Genetic editing offers a ray of hope for chickens with enhanced immunity

Scientists have created genetically modified chickens with partial resistance to bird flu. While these birds aren't entirely immune, researchers believe their findings indicate the potential to prevent the virus within three years. The recent findings imply that additional alterations to the chickens' DNA could yield fully immune poultry. ([Read More](#))



The survival of numerous flowering plants is at risk due to environmental pressures

A stark warning from scientists indicates that 45% of the world's identified flowering plants are facing the possibility of extinction. This includes orchids, various pineapple species, and several vital crop varieties. Out of the nearly 19,000 newly discovered plant and fungi species since 2020, a concerning 77% are believed to be in danger. The research conducted by 200 scientists across 30 countries, as studied by the Royal Botanic Gardens, Kew, highlights the severity of this issue. ([Read More](#))

NASA unveils remarkable discoveries from asteroid that may shed light on Earth's life origins

Scientists at NASA's Johnson Space Centre detail the significance of a specimen gathered from the carbon-rich asteroid Bennu, located approximately 60 million miles (96 million kilometres) from Earth. NASA has disclosed the extraordinary revelations derived from a sample acquired from an asteroid's surface and transported to Earth via spacecraft. This sample comprises aged black particles and fragments and was procured from the carbon-rich asteroid Bennu, positioned almost 60 million miles (96 million kilometres) away. ([Read More](#))

Quote

“Where the world ceases to be the scene of our personal hopes and wishes, where we face it as free beings admiring, asking, observing, there we enter the realm of art and science.”

- Albert Einstein

MEMBER FOCUS

PROF. KAVWANGA E.S. YAMBAYAMBA – PRESIDENT - ZAAS



Prof. Kavwanga Yambayamba is an Associate Professor of Animal Physiology, a founding member and Fellow, as well as the President of the Zambia Academy of Sciences. He is currently the Vice-Chancellor at Zambia Open University. Professor Yambayamba has published extensively in both local and international journals, and in Conference Proceedings. In pursuance of his academic path as a lecturer and researcher, Professor Yambayamba has taught several animal production courses since 1986 and has served in various capacities at the University of Zambia, Zambia Open University and Mulungushi University. His research and supervision of students has mainly centered on physiological/hormonal aspects of compensatory growth of tissues and organs in cattle, with special focus on mammogenesis; quality of animal products as affected by biochemical/physiological reactions, and strategies to enhance animal productivity of indigenous livestock. Lately, Professor Yambayamba has focussed more on human capital development, particularly the importance of nutrition on brain development and its nexus with socio-economic development. In this regard, he is leading a team of researchers focussed on stunting in children in sub-Saharan Africa.

PUBLICATIONS

Complementary Feeding Interventions for Infants and Young Children Under Age 2

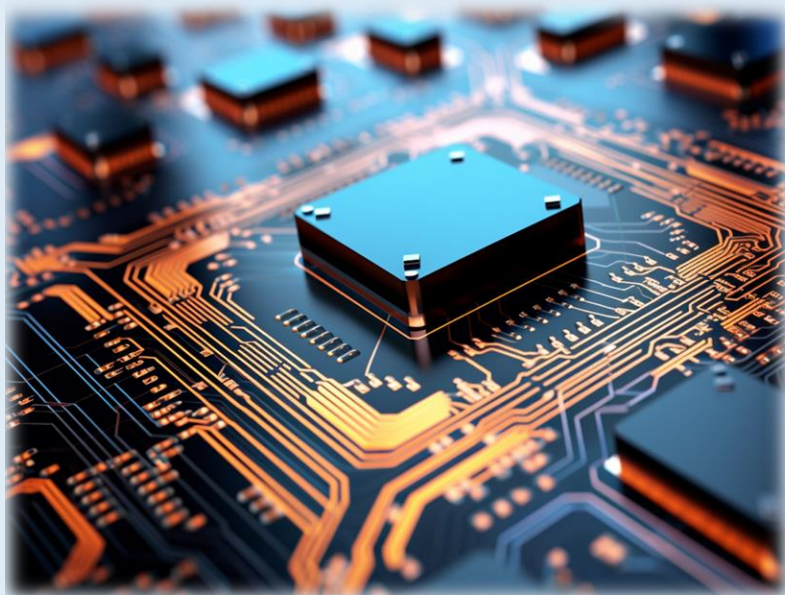
Complementary feeding is the act of adding foods aside from human milk or formula to an infant's nutrition. In answer to the Centers for Disease Control and Prevention's request, the National Academies Health and Medicine Division assembled the Committee on Complementary Feeding Interventions for Infants and Young Children Under Age 2. Their task was to conduct a comprehensive study scoping review, which involved examining peer-reviewed literature and publicly accessible information concerning interventions related to the introduction of complementary foods to infants and young children. ([Read More](#))

Earliest structural use of wood at least 476,000 years old found in Zambia

A report by a collaborative team from universities and organizations in the UK, Belgium, and Zambia presents groundbreaking evidence of wood use in the archaeological record. These findings, dating back around 476,000 years, reveal an unexpectedly wide range of shapes and the ability to craft substantial structures from tree trunks. This discovery not only pushes back the timeline for woodworking in Africa but also broadens our knowledge of early hominins' technical abilities, necessitating a reassessment of trees' role in the history of technology. ([Read More](#))

HEALTH AND WELLBEING

- ✓ For adults aged 18-60, experts recommend a minimum of 7 hours of sleep per night to boost your immune system, improve memory, and enhance cognitive functions.
- ✓ Sufficient sleep supports a strong immune system, reducing the risk of illness and speeding up recovery.
- ✓ Chronic sleep deprivation weakens the immune system and increases the risk of obesity, stroke, depression, cardiovascular disease, and diabetes.
- ✓ Quality rest, including dreaming and deep sleep, can enhance memory and cognitive abilities.
- ✓ A good night's sleep directly impacts your attention, problem-solving skills, and creativity.



OPPORTUNITIES

OPPORTUNITIES: ISC COMMUNITY

- Call for applications for the Future Earth Pathways Communication Grants (deadline: 31 October 2023)
- Call for nominations for scoping experts for the second IPBES global assessment of biodiversity and ecosystem services (deadline: 12 November 2023)
- Call for nominations for the 2024 Grand Chemistry Prize "Le Grand Prix de la Fondation de la Maison de la Chimie" to reward original work in chemistry that is of benefit to mankind, society or nature (deadline: 30 April 2024)

For more information visit [here](#)

OPPORTUNITIES: FELLOWSHIPS

TWAS-UNESCO Associateship 2023

In collaboration with UNESCO and a number of centres of excellence in the South, TWAS has instituted a Joint Associateship Scheme to enable competent researchers from the South to visit these centres regularly. The programme supports regular visits by researchers from developing countries to centres of excellence in the South. ([Read More](#))

Katharine H. Putnam Fellowship in Plant Science

The Arnold Arboretum of Harvard University invites applicants for research fellowships in plant science. Putnam Fellowships offer excellent opportunities for advanced research and study using the Arboretum's living collections of woody plants and research facilities. ([Read More](#))

2024 Demographic and Health Surveys (DHS) Fellowship Program

The Demographic and Health Surveys (DHS) Program is now accepting applications for the 2024 DHS Fellows Program. The DHS Fellows Program, funded by the United States Agency for International Development (USAID), is designed to increase the capacity of countries to conduct further analysis of DHS Program data. ([Read More](#))

OpenAI Residency Fellowship

The OpenAI Residency provides a pathway for exceptional engineers and researchers from other fields to transition into artificial intelligence. Resident are embedded within Research teams working on real, cutting-edge AI problems under the guidance of an OpenAI Researcher. ([Read More](#))

The Maurice R. Greenberg World Fellows Program

The Maurice R. Greenberg World Fellows Program is a four-month, full-time residential program based out of Yale's International Leadership Center and housed within the Jackson School of Global Affairs. The Program runs annually from mid-August to mid-December. The Program provides World Fellows the opportunity to expand their vision, learn from each other, and grow personally and professionally. ([Read More](#))

Green Web Fellowship

The Green Web Foundation is seeking five practitioners in digital rights and climate justice who want to build bridges across these movements. Successful fellows will be supported in a peer-learning program and deliver a community-based project that contributes to digital rights and climate justice. ([Read More](#))