

Biodiversity Day Report

The Biodiversity and Biomedicine Day, organized by the Global Young Academy; Bio2Bio Working Group, took place on February 11, 2025, at 57357 Children's Cancer Hospital in Cairo, Egypt. More than 150 attendees joined the event.

The day began with an opening session, where we introduced the significance of biodiversity in biomedicine, along with an overview of the Global Young Academy and the Bio2Bio Working Group.

The first speaker, Professor Dr. Ahmed Sherif Attia, presented his talk, "*Harnessing Egyptian Biodiversity for Antimicrobial Drug Discovery.*" He focused on Egypt's rich microbial and botanical biodiversity and its potential in developing new antimicrobial agents. Given the global threat of antibiotic resistance, his research highlighted the urgent need to explore natural resources for novel drug compounds. He provided insights into ongoing studies identifying bioactive compounds from microorganisms and medicinal plants, demonstrating their potential in combating resistant pathogens and advancing antimicrobial therapies.

Next, Professor Dr. Salwa Elhallouty delivered her presentation, "*From Bench to Bedside: Advances in Drug Discovery and Development.*" She discussed the process of translating laboratory research into clinical applications, covering key advancements in therapeutic biochemistry and pharmacognosy. She emphasized the challenges in drug development, including regulatory hurdles and efficacy testing, while highlighting recent breakthroughs that have led to the creation of innovative pharmaceutical treatments. Her talk focused on the importance of interdisciplinary collaboration in accelerating drug discovery and ensuring its real-world impact.

The final keynote speaker, Professor Dr. Wagida Anwar, presented "*From Biodiversity to Biomedicine: Exploring the Hepatoprotective Potential of Aloe arborescens.*" She discussed the medicinal properties of *Aloe arborescens*, a plant with significant hepatoprotective effects, and how biodiversity conservation is crucial for sustainable biomedical research. She emphasized the necessity of preserving plant species with therapeutic potential and how they can contribute to the development of effective treatments for liver diseases and other health conditions. Her talk explained the connection between environmental conservation and medical advancements.

Following the speaker sessions, a Q&A session allowed attendees to engage in discussions with the experts, fostering an exchange of ideas and insights. The event concluded with a networking session, giving a chance for researchers from different disciplines to connect, and discuss the possibility for collaborations.