

PANDEMOS

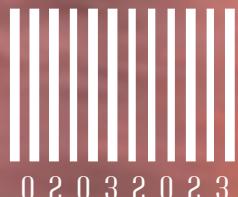
02 MARCH 2023

SIMPIC 12TH

WELCOME TO SIMPIC

an International event held
for enhancing exchange of
knowledge and interest

a global network of friendship, and diverse culture and tradition. Pandemos, the SIMPIC's newsletter, is here to provide you information throughout this competition



SIMPIC

12TH

What is SIMPIC ?

The Siriraj International Medical Microbiology, Parasitology and Immunology Competition, also known as SIMPIC, is an annual event that brings together students and professionals from around the world to showcase their knowledge and skills in the fields of microbiology, parasitology, and immunology. The competition is held at the prestigious Siriraj Hospital in Bangkok, Thailand, and is now entering its 12th year.



12th SIMPIC

The 12th Siriraj International Medical Microbiology, Parasitology and Immunology Competition promises to be another exciting and informative event, offering participants a chance to learn, grow, and connect with others who share their passion for these critical areas of medical research.

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THAILAND BANGKOK

Land of Smiles

"Discover the rich cultural tapestry of Thailand, where tradition and modernity intertwine to create a truly unique experience."

THAILAND
2023

LAND AREA 510,890 sq Km **axe-shaped**

BANGKOK CAPITAL



LANGUAGE

THAI

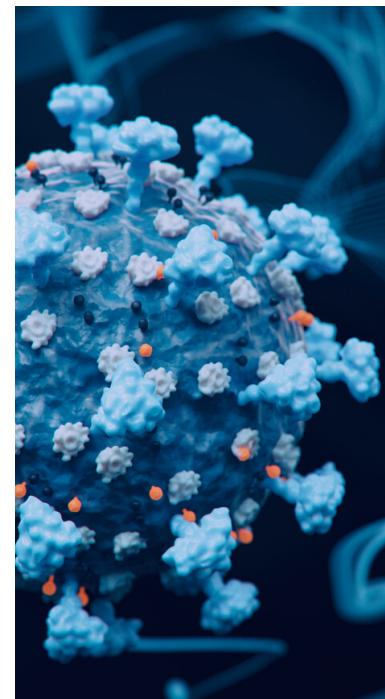
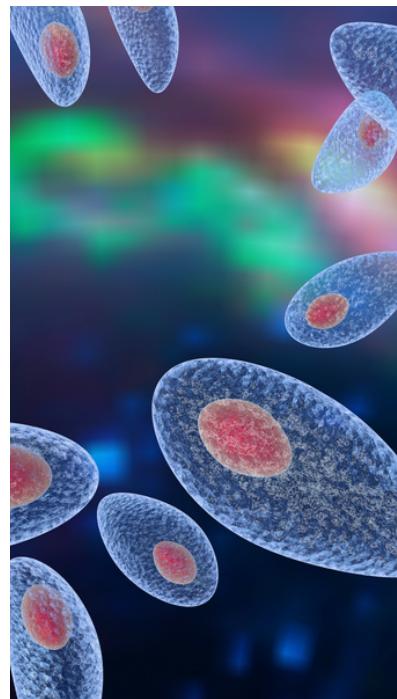
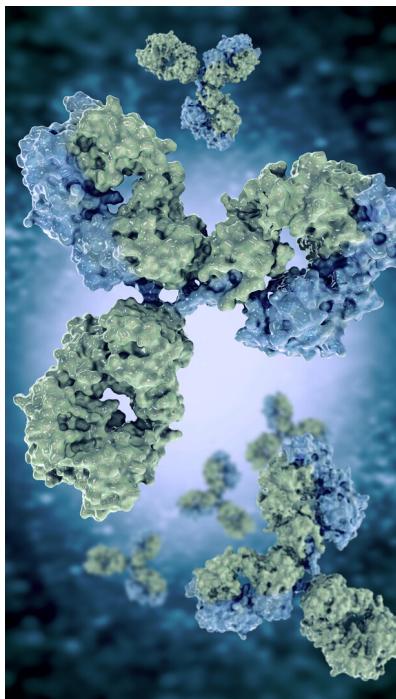
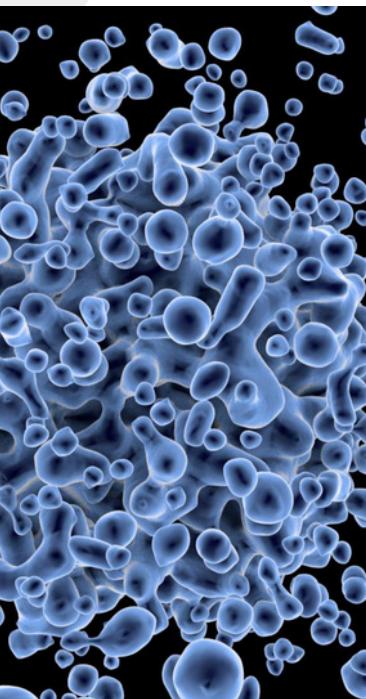


Bangkok is the vibrant capital city of Thailand, known for its rich culture, delicious cuisine, bustling streets, and vibrant nightlife. With a population of over 8 million people, it is one of the largest and most populous cities in Southeast Asia. Bangkok is located in central Thailand, along the Chao Phraya River, and is a major economic, cultural, and political hub for the country.

One of the most distinctive features of Thai culture is its cuisine. Thai food is famous for its spicy, sweet, sour, and savory flavors, which are often blended together in complex and delicious dishes. Popular Thai dishes include Tom Yum soup, Pad Thai noodles, and Green Curry. Another important aspect of Thai culture is its architecture. Thai architecture is known for its intricate details, ornate decorations, and bright colors. Traditional arts and crafts, and festivals are also important parts of Thai culture, which is a vibrant, diverse, and harmonious blend of tradition and innovation.



LATEST NEWS ABOUT MPI



MICROBIOLOGY

TELOMERIC PROTEIN BLOOD TESTS FOR EARLY CANCER DETECTION

Telomeres are protective caps on the ends of chromosomes that shorten as cells divide, and previous research has shown that telomeres in cancer cells are often shorter than those in healthy cells.

By measuring telomeric protein levels in the blood, researchers may be able to detect early signs of certain cancers, such as pancreatic cancer and ovarian cancer, before symptoms appear. These simple blood tests could provide a valuable screening tool for at-risk individuals and potentially improve cancer diagnosis and treatment outcomes.

(doi.org/10.1073/pnas.2221529120.)

PARASITOLOGY

In 2021, a team of researchers from the University of California, Riverside used CRISPR-Cas9 to successfully delete genes in the parasitic flatworm *Schistosoma mansoni*, which causes schistosomiasis, a debilitating and widespread disease in developing countries. This breakthrough could pave the way for developing new treatments and vaccines for schistosomiasis, as well as other parasitic diseases.

([10.1371/journal.ppat.1009711](https://doi.org/10.1371/journal.ppat.1009711).)

IMMUNOLOGY

HIV-1 CURE AFTER STEM CELL TRANSPLANTATION

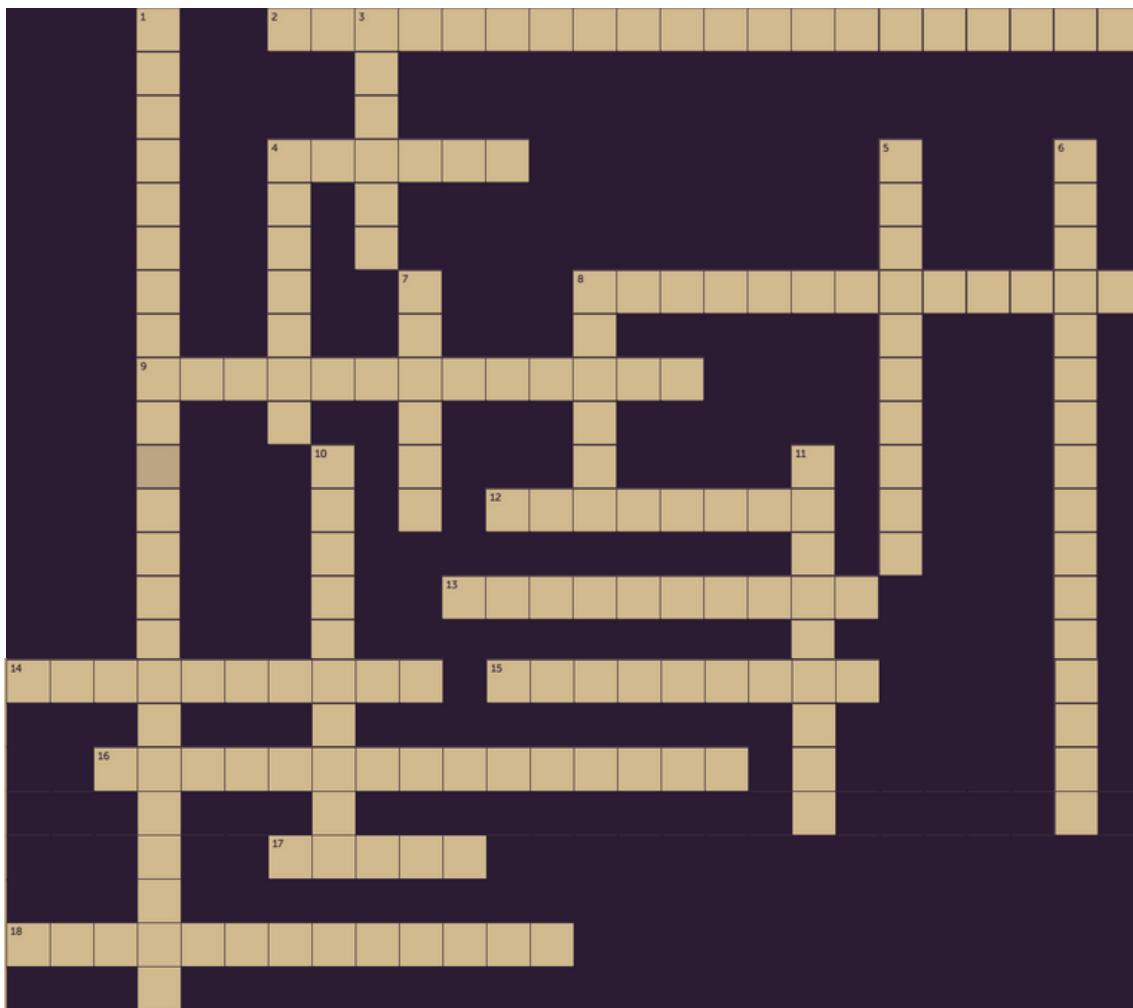
In a groundbreaking discovery, researchers have confirmed a second case of an HIV-1 cure through $CCR5\Delta32/\Delta32$ allogeneic hematopoietic stem cell transplantation. This promising development offers new hope in the fight against HIV, a virus that affects millions of people worldwide.

The patient in question had been living with HIV for over a decade, but after undergoing the stem cell transplant from a donor with the $CCR5\Delta32$ mutation, they were able to achieve an undetectable viral load and remain off antiretroviral therapy for more than three years.

Although this procedure is not practical for most people living with HIV due to its expense and risks, the findings provide valuable insights into potential avenues for future research.

(doi.org/10.1038/s41591-023-02213-x)

SIMPIC GAME



Across

- 2 Inhibition of the synthesis of several catabolic enzymes by a metabolite such as glucose
- 4 Siriraj International Medical Microbiology, Parasitology and Immunology Competition
- 8 How bacteria reproduce
- 9 The process by which many antibodies bind to and group together several pathogens
- 12 An organism that cause disease
- 17 Microorganisms used in the brewing and baking industry

Down

- 13 The spread of a disease, especially cancer, from the place where it started in the body to other areas
- 14 The genus name for the parasite that causes malaria
- 15 A range of chemicals which are released by cells to signal instructions to other cells
- 16 A substance present at high concentrations in the bacterial endospore. It is thought to contribute to the endospore's heat resistance
- 18 parasites that infect the internal parts of the body, such as trypanosomes or Ascaris worms
- 1 Transfer of pathogens from mother to foetus via the placenta. In this case the child will be born infected.
- 3 The organ in the body where T cells mature
- 4 Free from organism
- 5 A chemical which kills bacteria and fungi but not viruses
- 6 Condition where there is an abnormally small number of thrombocytes or blood platelets in the circulating blood
- 7 A segment of DNA containing short repetitions of base sequences, involved in the defense mechanisms of prokaryotic organisms to viruses
- 8 A fungal disease which caused the Great Irish Famine
- 10 A steroid that blocks inflammation of an allergic reaction
- 11 The term used to describe the number of new cases of a disease in a population per year



YESTERDAY'S HIGHLIGHT



OPENING CEREMONY

Welcome all participants !

The ceremony featured captivating performances, speeches from Chair, and an overall atmosphere of excitement and anticipation for the competition ahead.

#Let's go SIMPIC

DAY & NIGHT ACTIVITY

Daytime Activity !

During the daytime activity, we became acquainted with Thai culture through traditional Thai games and activities. Especially the traditional therapeutic touch of Thai massage!

Nighttime activity !

For the Nighttime activity, we have experienced secrets from the centuries-long history of Thai merchandise through our special activities, including crafting Thai knickknacks and making Thai sweets and desserts.



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