

IN FOCUS | SVOM Kicks Off for GRB Observations

Jointly developed by the Chinese Academy of Sciences (CAS) and the French Space Agency (ESA), a satellite for observations on gamma-ray bursts (GRBs) was sent into preset orbit on June 22. Named the Space Variable Objects Monitor (SVOM), it is the most powerful so far in terms of multi-waveband GRB observations, and is expected to play an important role in GRB research and related space science and astronomy. For more, please turn to page 72.



Graphic: microsat, CAS

IN FOCUS | China Unveils Its 2024 Biodiversity Catalog

Species 141,484
Subspecies 13,880
Total 155,364

On International Biodiversity Day, May 22, 2024, the Chinese Academy of Sciences unveiled its latest “*Catalog of Life China 2024 Annual Checklist*,” showcasing the country’s remarkable biodiversity. This year’s edition encompasses an impressive total of 155,364 species and subspecies. The catalog, which covers everything from mammals to viruses, has become an invaluable resource for researchers worldwide, garnering millions of views and citations. Turn to page 74 for an in-depth read.

66

IN FOCUS | HIM Marks 5 Years of Innovation

On May 8, 2024, Hangzhou Institute of Medicine (HIM) celebrated its 5th anniversary. Under the leadership of founding director Prof. TAN Weihong, a pioneer in aptamer research, HIM has made

significant strides in addressing clinical problems through interdisciplinary integration. For more on HIM’s journey and future vision, see page 76.

INTERVIEW | HIM in Director’s Lens

Explore the Hangzhou Institute of Medicine (HIM) with founding director Prof. TAN Weihong, who shares how HIM connects physical, chemical, and biological sciences to drive medical breakthroughs. To have an insightful look into the future of medical science as well as the challenges and opportunities that lie ahead for this institution, turn to page 79.

Prof. TAN Weihong, the founding director of the Hangzhou Institute of Medicine.



Graphic: FANG Linming

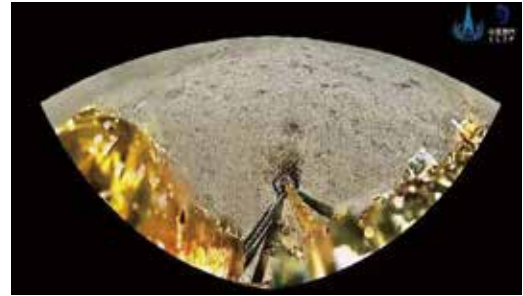
HIGHLIGHTS | Chang’e-6 Brings Samples from the Far Side of the Moon

The day June 25 witnessed the historic moment when *Chang’e-6*, China’s lunar detector, returned home with samples first-ever collected from the far side of the

Moon, breaking through a series of bottleneck issues to make history in lunar exploration.

This detector had to face a lot of challenges when

fulfilling its destined mission, particularly with its specific design as a backup for *Chang'e-5*, a detector for landing on the near side of the Moon to collect and return samples. To secure a successful soft landing, the team chose to have it approach the lunar surface from a direction against the Moon's rotation. This posed a great challenge on orbit observation, measurement and control in navigation from such a long distance. It also had to adapt to the harsh, changing environments there automatically to collect samples and take off from the rugged terrains of the far side of the Moon – all without timely instructions from the Earth. For more, please turn to page 82.



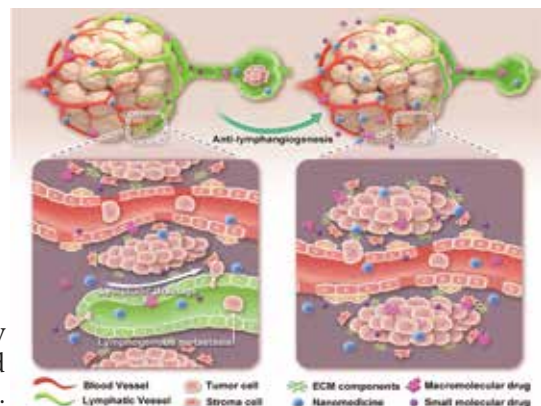
Ambient environment in the lens of the panorama camera onboard the lander of *Chang'e-6*, as released on June 4 by CNSA.

HIGHLIGHTS | Blocking Lymph Channels to Beat Cancer

In the April 15 issue of *Signal Transduction and Targeted Therapy*, researchers from UCAS and NCNST introduce a new cancer treatment strategy that blocks lymphatic vessel growth to improve drug delivery and prevent cancer spread. This approach enhances drug accumulation in tumors while reducing metastasis risk.

For further details, please refer to page 88.

A strategic siege on cancer that simultaneously cuts off the avenues for cancerous spread and enhances cancer treatment outcomes.



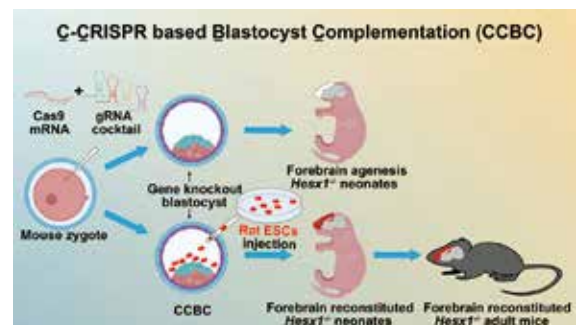
Graphic: CAS

67

HIGHLIGHTS | Rat Brains Thrive in Mice

In an April 25, 2024 *Cell* study, researchers successfully grew functional rat forebrain tissues in living mice, with the chimeric mice showing normal brain structure and cognitive abilities. This breakthrough could offer insights into brain development and pave the way for generating human organs for transplantation, though ethical oversight will be crucial.

For further details, please refer to page 90.



Graphic: CAS

Chimeric mice with rat forebrain tissues.

IN DEPTH | We Are HIM

The Hangzhou Institute of Medicine (HIM), founded in 2019 under the Chinese Academy of Sciences, focuses on tumor diagnostics, precision medicine, drug development, and intelligent healthcare. This

overview highlights HIM's cutting-edge research centers and facilities, emphasizing its mission to advance medical science through interdisciplinary innovation. For further details, see page 92.