

P 241

About the cover: An international team led by scientists at the Shanghai Institute of Materia Medica (SIMM), CAS has characterized the detailed structure of a receptor that plays a key role in platelet activation and blood clotting. The work has implications for treatment of cardiovascular and other diseases. For more please see page 241.

BCAS

Vol.28 No.3, 2014

Pages 205 – 268

**Honorary Editor-in-chief**

BAI Chunli

**Editor-in-chief**

FANG Xin

**Executive Vice Editor-in-chief**

CAO Xiaoye

**Vice Editors-in-chief**

YANG Le, ZHU Daoben, TAN Tieniu, LI Ting, WANG Xingdong

**Editor**

GUO Haiyan

**Associate Editors**

SONG Jianlan

XIN Ling

LI Yuyang

**Design & Layout**

YUAN Miao

General Editorial Office  
Tel/Fax: 86-10-62542631  
Email: bulletin@mail.casipm.ac.cn  
P.O. Box. 8712, Beijing 100190, China

Sponsored by the Chinese Academy of Sciences  
Published by Science Press  
Domestic subscription (1 year): 100 yuan; foreign subscription plus postage extra: \$72.

The views expressed in the *Bulletin of the Chinese Academy of Sciences* are those of the authors, and are not necessarily those of the Academy or the editors.

# Contents



CAS reveals a complete reform scheme to optimize its research structure and improve efficiency.

206 Towards Excellence in Science

## InBrief

- 210 Chinese Academy of Sciences to Lead Reform
- 210 China Launches Its First Carbon Fiber Yacht
- 211 CAS Launches Centers of Excellence and Innovation
- 212 Danish Queen Breaks Ground for Sino-Danish Center's New Building
- 212 Seeing Measurement Successful at Antarctic Taishan Station
- 213 CAS Physicist Wins Panofsky Prize in Experimental Particle Physics
- 214 *Flora of China* Completed after 25 Years of Compilation
- 215 UCAS Welcomes New President
- 215 Geochemist from USTC Receives Houtermans Award
- 216 China, Nepal Strengthen Scientific Cooperation in Environment

## InFocus

- 217 Closer for Better Future
- 221 CAS Convenes 17<sup>th</sup> General Assembly in Beijing



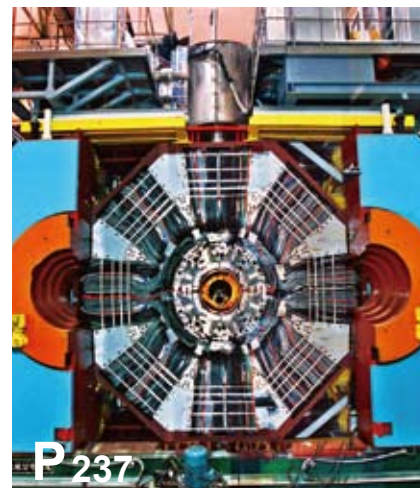
P 221

The General Assembly of the CAS Members took place from June 9<sup>th</sup> to 13<sup>th</sup>, 2014 in Beijing. Chinese President XI Jinping addressed its opening at the Great Hall of the People.



P 224

2014 Annual Global Meeting of the Global Research Council (GRC) was held in Beijing from May 26<sup>th</sup> to 28<sup>th</sup>, 2014. LI Keqiang (middle), Premier of China's State Council attended the meeting and made an important speech.



P 237

With the Beijing Spectrometer at the Beijing Electron Positron Collider, scientists are making exciting discoveries about "strangely structured" particles that have been predicted by the Standard Model.

#### GRC 2014 Summit

- 224 GRC 2014 Summit Convenes in Beijing
- 226 Address by H. E. LI Keqiang  
Premier of the State Council of the People's Republic of China  
At the 2014 Annual Meeting of the Global Research Council
- 228 Statement of Principles and Actions for Shaping the Future:  
Supporting the Next Generation of Researchers
- 230 Chinese Academy of Sciences Policy Statement on Open Access to  
Articles from Publicly Funded Scientific Research Projects

#### People

- 231 Setting Up an Objective and Effective Evaluation System at CAS

#### Highlights

- 235 In Search of Exotic Particles
- 239 New Charged Charmonium-like States Observed at BESIII
- 241 Structures of Human P2Y<sub>12</sub> Receptor Key to Next Generation of  
Antithrombotic Drugs
- 243 Sexually Dimorphic Tridimensionally Preserved Pterosaurs and Their Eggs

#### Science Watch

##### Basic Science

- 246 Promising New Catalyst for Activation and Conversion of Methane  
Developed at DICP
- 247 Space Scientists Reveal Super Solar Particle Event in History

##### Life Science

- 248 CAS Scientists Reveal the Genetic Basis of Drug Resistance in  
*Mycobacterium tuberculosis*

- 249 Receptor-Recognition Mechanism of the Newly Emergent  
Coronavirus MERS-CoV Determined
- 250 New Insights into the Major Drug Target of H7N9 Human Infecting  
Influenza Virus
- 251 Protein Dynamical Structure Revealed by Temperature-jump Time-  
resolved Infrared Spectroscopy
- 252 Novel Mechanism for Kaposi's Sarcoma-Associated Herpesvirus  
Mediated Oncogenesis
- 253 Novel Mechanism Identified for Establishment of Kaposi's  
Sarcoma-Associated Herpesvirus Latency
- 255 Structure-Based Anti-Inflammatory Drug Discovery: Design, Synthesis and  
Biological Evaluation of VSP-22 as a New, Safe and Highly Potent GR Agonist
- 256 Of Monkeys and Men: New Insights into Using Chinese Rhesus  
Macaque as a Viable Model of Human Aging
- 258 Pollen Sensitivity to Ultraviolet-B Suggests Floral Structure  
Evolution in Alpine Plants

##### Earth Science

- 259 Largest Silurian Vertebrate Discovered from Yunnan, China
- 261 Extinct Tibetan Fox Suggests High Tibet Was Cradle of Evolution for  
Cold-adapted Mammals

##### Environment

- 263 Carbon Trading Schemes Unlikely to Save Forest Biodiversity in China
- 264 Monoculture Rubber Plantations Have Negative Effects on  
Controlling Splash Erosion

##### Psychology

- 265 Money Talks: Neural Substrate of Modulation of Fairness by  
Monetary Incentives

##### Technology

- 267 Chinese Scientists Use Earth Observation Technologies to Study  
and Protect Wild Camels