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# Cell Research



Volume 27 Number 8 August 2017

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Single-cell COOL-seq analyses of early embryo development

Distinctions of PI3KC3-C1 and -C2 revealed by cryo-EM

PPARδ activation promotes cardiac repair

Transport mechanism revealed by a new crystal structure of UraA

Institute of Biochemistry and Cell Biology
Shanghai Institutes for Biological Sciences
Chinese Academy of Sciences

SPRINGER NATURE

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Coordinating Editor for this issue
*Shushu Jiang*

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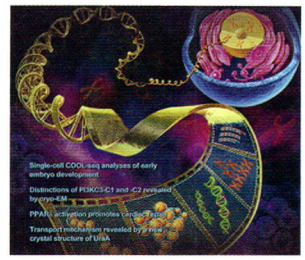
## RESEARCH HIGHLIGHTS

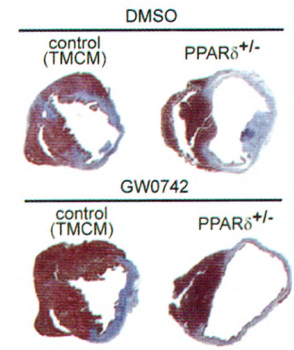




**Cover:** Single-cell COOL-seq technology can analyze the open chromatin, nucleosome positioning, DNA methylation, ploidy and copy number variation simultaneously from the same individual mammalian cell. See page 967-988 by Fan Guo *et al.* for details.

## ORIGINAL ARTICLES






PPARδ activation by GW0742 treatment induces cardiomyocyte cell cycle progression and rescues heart function in myocardial infarction. See page 1002-1019 by Ajit Magadum *et al.* for details.

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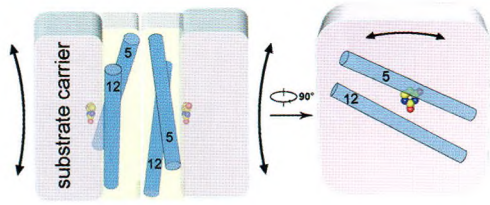


Crystal structure of uracil-bound UraA homodimer together with structural comparison reveals a working model for UraA transporter. See page 1020-1033 by Xinzhe Yu *et al.* for details.



## ADVANCE ONLINE PUBLICATION (published weekly on Tuesday and Friday)

# 2017 Meetings

COLD SPRING HARBOR ASIA

CSH Asia

### Stem Cell Crossroads | *March 27-31*
Robin Franklin, Meritxell Huch, Duanqing Pei, Marius Wernig, Yasuhiro Yamada

### Lipid Metabolism & Metabolic Disorders | *April 10-14*
Peng Li, Peter Tontonoz, Tobias Walther, Hongyuan Yang

### Bacterial Infection & Host Defense | *April 17-21*
Kenya Honda, Samuel Miller, Craig Roy, Feng Shao, Jörg Vogel

### Cilia & Centrosomes | *April 24-28*
Mónica Bettencourt-Dias, Gert Jansen, Guangshuo Ou, Meng-Fu Bryan Tsou

### Francis Crick Symposium Transforming Neurosciences: Questions & Experiments *May 8-12*
Hailan Hu, Edvard Moser, John O'Keefe, Hee-Sup Shin, Alcino Silva

### Membrane Proteins: Structure & Function | *May 15-19*
Martin Caffrey, Nancy Carrasco, Tianle Xu, Ming Zhou

### Plant Cell & Developmental Biology *May 22-26*
Niko Geldner, Tetsuya Higashiyama, Bo Liu, Yongbiao Xue, Zhenbiao Yang

### Primate Neuroscience: Perception, Cognition & Disease Models *June 26-30*
Tadashi Isa, Tony Movshon, Zilong Qiu, Xiaoqin Wang

### Microbiota, Metagenomics & Health *September 4-8*
Eran Elinav, Andrew Goodman, Kenya Honda, Zhihua Liu, Andrew Macpherson

### Precision Cancer Medicine *September 18-22*
Fred de Sauvage, Thomas Gajewski, Yutaka Kawakami, Zemin Zhang

### Cell Signaling & Metabolism in Development & Disease *October 9-13*
Michael Karin, Dianqing Wu, Chenqi Xu, Yingzi Yang

### Mitochondria | *October 16-20*
Paolo Bernardi, Andrew Dillin, Anu Suomalainen-Wartiovaara, Xiaodong Wang

### Tumor Immunology & Immunotherapy | *October 22 -26*
Xuetao Cao, Vincenzo Cerundolo, Olivera Finn, Pramod Srivastava

### Stem Cells, Aging & Rejuvenation *November 6-10*
Adam Antebi, Jing-dong Han, Brian Kennedy, Seung-Jae Lee, Jan Vijg

### Aging & Cancer | *November 11-13*
Zhu Chen, Ruibao Ren, Sam Waxman

### RNA Modifications & Epitranscriptomics | *November 13-17*
Michaela Frye, Chuan He, Tsutomu Suzuki, Yungui Yang

### Liver Biology, Disease & Cancer *December 4-8*
Gen-Sheng Feng, Lijian Hui, Atsushi Miyajima, Lars Zender

### Inflammation – Basic Mechanisms & Related Diseases | *December 11-15*
Frank Austen, Yasmine Belkaid, Chen Dong

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