Cell Research

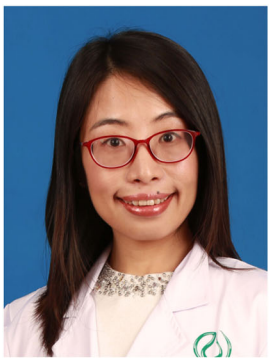
www.nature.com/cr
www.cell-research.com

EDITORIAL

Sanofi-*Cell Research* outstanding paper award of 2017

Cell Research (2018) 28:1043–1044; https://doi.org/10.1038/s41422-018-0106-7

We are pleased to announce winners of the 2017 Sanofi-*Cell Research* Outstanding Research Article Award: Drs. Min Huang, Jian Ding, Bing Sun and Meiyu Geng, for their paper entitled "Chemotherapy-induced intestinal inflammatory responses are mediated by exosome secretion of double-strand DNA via AIM2 inflammasome activation"; Drs. Hai-Lin Wang, Ying-Pu Sun and Yun-Gui Yang, for their paper entitled "5-methylcytosine promotes mRNA export—NSUN2 as the methyltransferase and ALYREF as an m^5C reader"; and Drs Chi-chung Hui and Hoon-Ki Sung, for their paper entitled "Intermittent fasting promotes adipose thermogenesis and metabolic homeostasis via VEGF-mediated alternative activation of macrophage". Each award consists of a prize of €5000 sponsored by Sanofi.


Dr Min Huang


Dr Jian Ding

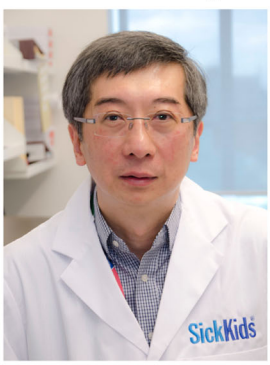

Dr Bing Sun


Dr Meiyu Geng

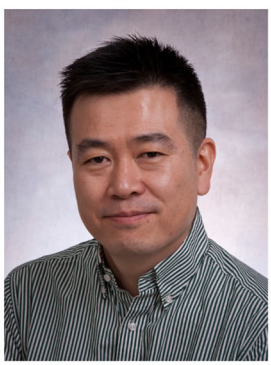

Dr Hailin Wang


Dr Ying-Pu Sun


Dr Yun-Gui Yang



Dr Chi-chung Hui


Dr Hoon-Ki Sung

.

Published online: 26 October 2018

It is well known that chemotherapies often induce severe gastrointestinal tract toxicity, while the mechanism underlying the life-threatening side effect remains largely unknown. Here, in the first award-winning research article, published in the June 2017 issue, Drs. Min Huang, Jian Ding, Bing Sun, Meiyu Geng and their colleagues[1] identified a massive exosome-mediated double-strand DNA release from the intestine induced by chemotherapy that triggers innate immune responses causing intestinal toxicity. This study thus provides clues for developing new chemotherapy regimens that maintain anti-tumor effects but circumvent the associated adverse inflammatory response. 5-Methylcytosine (m^5C), a post-transcriptional RNA modification, is recently identified in mRNAs. However, knowledge about its transcriptome-wide distribution and potential significance for RNA metabolism is limited. In the second award-winning research article, published in the May 2017 issue, Drs. Hai-Lin Wang, Ying-Pu Sun, Yun-Gui Yang and their colleagues[2] showed comprehensive m^5C profiles of mammalian transcriptomes, and identified a regulatory role of m^5C in promoting mRNA export coordinately regulated by its methyltransferase NSUN2 and binding partner ALYREF. This study provides a valuable resource for deciphering the potential biological significance of m^5C and opens up new functions for m^5C modification in mRNA metabolism. Intermittent fasting (IF) has been shown to provide health benefits equivalent to prolonged fasting or caloric restriction, but the underlying mechanisms remain poorly understood. In the third award-winning research article, published in the November 2017 issue, Drs. Chi-chung Hui, Hoon-Ki Sung and colleagues[3] demonstrated that isocaloric IF improves metabolic homeostasis against diet-induced obesity and metabolic dysfunction primarily through browning of WAT caused by VEGF-mediated alternative activation of macrophages. This study indicates a potential use of isocaloric IF as a preventive and therapeutic approach against obesity and metabolic disorders.

Please join us to congratulate Drs. Huang, Ding, Sun and Geng, Drs. Wang, Sun and Yang, and Drs. Hui and Sung on their winning of the 2017 Sanofi-*Cell Research* Outstanding Paper Award.

Editorial Office[1]
[1]*Cell Research, Shanghai Institute of Biochemistry and Cell Biology, Chinese Academy of Sciences, Shanghai 200031, China*
Correspondence: Editorial Office (cellres@sibs.ac.cn)

REFERENCES

1. Lian, Q. et al. Chemotherapy-induced intestinal inflammatory responses are mediated by exosome secretion of double-strand DNA via AIM2 inflammasome activation. *Cell Res.* **27**, 784–800 (2017).
2. Yang, X. et al. 5-Methylcytosine promotes mRNA export—NSUN2 as the methyltransferase and ALYREF as an m(5)C reader. *Cell Res.* **27**, 606–625 (2017).
3. Kim, K. H. et al. Intermittent fasting promotes adipose thermogenesis and metabolic homeostasis via VEGF-mediated alternative activation of macrophage. *Cell Res.* **27**, 1309–1326 (2017).