

EDITORIAL

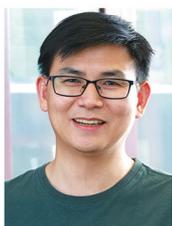


Sanofi-Cell Research outstanding paper award of 2021

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We are pleased to announce the winners of the 2021 Sanofi-Cell Research Outstanding Research Article Award: Dr Qiangfeng Cliff Zhang, for his paper entitled “Predicting dynamic cellular protein–RNA interactions by deep learning using in vivo RNA structures”;¹ Drs Boxun Lu and Yu Ding, for their paper entitled “Degradation of lipid droplets by chimeric autophagy-tethering compounds”;² and Drs Chen-Yu Zhang, Qipeng Zhang and Fangyu Wang for their paper entitled “SIDT1-dependent absorption in the stomach mediates host uptake of dietary and orally administered microRNAs”.³ Each award consists of a prize of ¥40,000 sponsored by Sanofi.



Dr Qiangfeng Cliff Zhang



Dr Yu Ding



Dr Boxun Lu



Dr Fangyu Wang



Dr Qipeng Zhang



Dr Chen-Yu Zhang

In the first award-winning research article, published in the February 2021 issue, Dr Qiangfeng Cliff Zhang and his colleagues built a deep-learning model, PrismNet, to predict dynamic cellular protein–RNA interactions from in vivo RNA secondary structure

data. This model enables the discovery of genetic variants that disrupt RNA structures and are often associated with dynamic RNA-protein bindings and human diseases.¹ Features and rules learned by deep neural networks may help us understand the regulatory mechanisms of human diseases from new angles.

Although targeted degradation of proteins by small-molecule PROTACs (PROteolysis TArgeting Chimeras) now presents promising therapeutic modalities, targeted degradation of non-protein biomolecules remains unreachable. In the second award-winning research article, published in the July 2021 issue, Dr Yu Ding, Boxun Lu and their colleagues designed a new type of molecules, named LD-ATTECs (Lipid Droplets-AuTophagy TETHERing Compounds), that efficiently and selectively clear lipid droplets via autophagy in cells. LD-ATTECs could be applied to both protein and non-protein targets and thus open new avenues for further novel therapeutic modalities.²

Early in 2012, Dr Chen-Yu Zhang and his colleagues reported that a plant miRNA could be taken up by animals through food intake, and then regulate the expression of a mammalian gene.⁴ In the third award-winning research article, published in the August 2021 issue, following their previous findings, Drs Chen-Yu Zhang, Qipeng Zhang, Fangyu Wang and their colleagues reported that the plant small RNAs are absorbed mainly by gastric pit cells in a SIDT1 and low-PH dependent way, revealing the mechanism of the remarkable cross-kingdom regulation by small RNAs.³

Please join us to congratulate Dr Qiangfeng Cliff Zhang, Drs Boxun Lu and Yu Ding, Drs Chen-Yu Zhang, Qipeng Zhang and Fangyu Wang on their winning of the 2021 Sanofi-Cell Research Outstanding Paper Award.

Cell Research Editorial Team¹✉

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