

ACADEMIC ACTIVITIES

Publication(s) of the week

1. Jiang, B., Li, Y., Wang, X., Li, E., Murphy, K., Vaccaro, K., Li, Y., and Xu, R. H. (2018) Mesenchymal stem cells derived from human pluripotent cells, an unlimited and quality-controllable source, for therapeutic applications. *Stem Cells*
2. Wang, Y. Y., Jin, Y., Chen, C., Zheng, W., Wang, S. B., Ungvari, G. S., Ng, C. H., Zhang, X. D., Wang, G., and Xiang, Y. T. (2018) Meta-analysis of adherence to highly active antiretroviral therapy in patients with HIV infection in China. *AIDS Care*, 1-10
3. Feng, Y., Wu, M., Li, S., He, X., Tang, J., Peng, W., Zeng, B., Deng, C., Ren, G., and Xiang, T. (2018) The epigenetically downregulated factor CYGB suppresses breast cancer through inhibition of glucose metabolism. *J Exp Clin Cancer Res* **37**, 313
4. He, Z., Dai, Y., Li, X., Guo, D., Liu, Y., Huang, X., Jiang, J., Wang, S., Zhu, G., Zhang, F., Lin, L., Zhu, J. J., Yu, G., and Chen, X. (2018) Hybrid Nanomedicine Fabricated from Photosensitizer-Terminated Metal-Organic Framework Nanoparticles for Photodynamic Therapy and Hypoxia-Activated Cascade Chemotherapy. *Small*, e1804131
5. Tian, S., Lei, I., Gao, W., Liu, L., Guo, Y., Creech, J., Herron, T. J., Xian, S., Ma, P. X., Eugene Chen, Y., Li, Y., Alam, H. B., and Wang, Z. (2018) HDAC inhibitor valproic acid protects heart function through Foxm1 pathway after acute myocardial infarction. *EBioMedicine*
6. Wang, C., Cheng, X., Tan, J., Ding, Z., Wang, W., Yuan, D., Li, G., Zhang, H., and Zhang, X. (2018) Reductive cleavage of C[double bond, length as m-dash]C bonds as a new strategy for turn-on dual fluorescence in effective sensing of H₂S. *Chem Sci* **9**, 8369-8374
7. Wang, Y. Y., Wang, S., Zheng, W., Zhong, B. L., Ng, C. H., Ungvari, G. S., Wang, C. X., Xiang, Y. T., and Li, X. H. (2018) Cognitive functions in smoking and non-smoking patients with schizophrenia: A systematic review and meta-analysis of comparative studies. *Psychiatry Res* **272**, 155-163
8. Gao, Q., Xiang, H., Xiang, Y. T., and Zhu, H. (2018) Deliberate self-harm among children with disabilities in China: a matched case-control study. *Pediatr Res*
9. Ren, H., Wang, M. Y., He, Y., Du, Z., Zhang, J., Zhang, J., Li, D., and Yuan, Z. (2018) A novel phase analysis method for examining fNIRS neuroimaging data associated with Chinese/English sight translation. *Behav Brain Res*
10. Zheng, W., Cai, D. B., Li, H. Y., Wu, Y. J., Ng, C. H., Ungvari, G. S., Xie, S. S., Shi, Z. M., Zhu, X. M., Ning, Y. P., and Xiang, Y. T. (2018) Adjunctive Peony-Glycyrrhiza decoction for antipsychotic-induced hyperprolactinaemia: a meta-analysis of randomised controlled trials. *Gen Psychiatr* **31**, e100003
11. Zheng, W., Zhu, X. M., Zhang, Q. E., Yang, X. H., Cai, D. B., Li, L., Li, X. B., Ng, C. H., Ungvari, G. S., Ning, Y. P., and Xiang, Y. T. (2018) Adjunctive intranasal oxytocin for schizophrenia: A meta-analysis of randomized, double-blind, placebo-controlled trials. *Schizophr Res*

Seminar Series RNA editing with CRISPR-Cas13 - Dr. David Cox



Dr. David Cox, PhD recipient of Harvard-MIT Program in Health Sciences and Technology, Harvard Medical School, presented a talk on “RNA editing with CRISPR-Cas13” on 17 December.

Dr. Cox believes that nucleic acid editing, particularly at the RNA level, holds promise for treating genetic disease, where disease-relevant sequences can be rescued to yield functional protein products.

There is a programmable single-effector RNA-guided RNase, Cas13, in the Type VI CRISPR-Cas systems. Dr. Cox profiled the Type VI systems to engineer a Cas13 ortholog capable of robust knockdown and demonstrated RNA editing by using catalytically-inactive Cas13 (dCas13) to direct adenosine to inosine deaminase activity by ADAR2

to transcripts in mammalian cells. There is no strict sequence constraints in the system so that it is referred to as RNA Editing for Programmable A to I Replacement (REPAIR) and can be used to edit full-length transcripts containing pathogenic mutations. Dr. Cox therefore further engineered this system to create a high specificity variant and minimize the system to facilitate viral delivery. Finally, Dr. Cox concluded that REPAIR presented a promising RNA editing platform with broad applicability for research, therapeutics, and biotechnology.

2019

Happy New Year!

DECEMBER / JANUARY

Mon	Tues	Wed	Thurs	Fri
31 New Year's Eve (Afternoon)	01 New Year's Day	02 Seminar Series Molecular Analysis of Cancer with Single-cell RNAseq Speaker: Prof. F. Zhong JIANG Host: Prof. Chuxia DENG Time: 10:00-11:00 Venue: N22-G002 Seminar Series Spexin as a Novel Regulator for Feeding Control and Reproduction in Fish Model Speaker: Prof. Anderson O.L. WONG Host: Prof. Wei GE Time: 15:00-16:00 Venue: E12-4004	03 Oral Defense Yibo ZHANG Time: 15:00 Venue: N6-2022 Supervisor: Prof. Wei GE	04 Seminar Series Human genome editing in stem cells for disease modeling and treatment Speaker: Prof. Linzhao Cheng Host: Prof. Ren-He XU Time: 14:30-15:30 Venue: E4-G078
07 Oral Defense Zhiqiang ZHAO Time: 15:00 Venue: N6-2022 Supervisor: Prof. Lijun DI	08	09	10	11
14	15	16	17	18