



July 26<sup>th</sup>, 2016

### CNS Annual Report: MBS Publications

1. **P.M. Macdonald**, M. Kanke, A. Kenny (2016) Community effects in regulation of translation. *eLife* 2016;5:e10965.
2. S. Nath, L. Christian, S. Youngsun Tan, S. Ki, **L. I. R. Ehrlich**, and **M. Poenie** (2016) Dynein separately partners with NDE1 and dynactin to orchestrate T cell focused secretion. *Journal of Immunology* (in press).
3. T. A. Triplett, K. T. Cardenas, J. N. Lancaster, Z. Hu, H. J. Selden, G. Jasso, S. Balasubramanyam, K. Chan, L. Li, X. Chen, A. M. Marcogliese, U. P. Dave, P. E. Love, and **L. I. R. Ehrlich** (2016) Dendritic cells in the tumor microenvironment directly support T-All growth through IGF1R activation. *Proc. Natl. Acad. Sci. USA.* 113(8): E1016-25. PMID 26862168.
4. Y. Qin, J. Yao, D.C. Wu, R. Nottingham, S. Mohr, S. Hunicke-Smith, **A.M. Lambowitz** (2016) High-throughput sequencing of human plasma RNA by using thermostable group II intron reverse transcriptases. *RNA* 22(1): 111-128.
5. R.M. Nottingham, D.C. Wu, Y. Qin, J. Yao, S. Hunicke-Smith, **A.M. Lambowitz** (2016) RNA-seq of human reference RNA samples using a thermostable group II intron reverse transcriptase. *RNA* 22(4): 597-613.
6. S. Silas<sup>#</sup>, G. Mohr<sup>#</sup>, D.J. Sidote, L.M. Markham, A. Sanchez-Amat, D. Bhaya, **A.M. Lambowitz\***, A.Z. Fire\* (2016) Direct CRISPR spacer acquisition from RNA by a natural reverse transcriptase-Cas1 fusion protein. *Science* 351(6276): aad4234. <sup>#</sup>Co-first authors, \*Co-corresponding authors. [Commentaries Sontheimer, E.J. and Marraffini, L.A. CRISPR goes retro, *Science* 351, 920-921, 2016; Waldron, D. CRISPR memories of RNA, *Nature Reviews Genetics*, 2016; Calkins, K. CRISPR serves up more than DNA, *Biomedical Beat Blog*, NIGMS, 2016.]
7. L. Lamech, M. Sanoji, P.J. Paukstelis, **A.M. Lambowitz** (2016) Structural divergence of the group I intron-binding surface in fungal mitochondrial tyrosyl-tRNA synthetases that function in RNA splicing. *Journal of Biological Chemistry* 291(22): 11911-11927.
8. S. Lee, **S. S. Stevens** (2016) Spliceosomal intronogenesis. *Proceedings of the National Academy of Sciences* 113(23); 6514-6519.

9. C. H. Liu, L. Zhou, G. Chen, **R. M. Krug** (2015) Battle between influenza A virus and a newly identified antiviral activity of the PARP-containing ZAPL protein. *Proceedings of the National Academy of Sciences USA* 112(45): 14048-14053.
10. C. Wan, B. Borgeson, S. Phanse, F. Tu, K. Drew, G. Clark, X. Xiong, O. Kagan, J. Kwan, A. Bezginov, K. Chessman, S. Pal, G. Cromar, O. Papoulas, Z. Ni, D. R. Boutz, S. Stoilova, P. C. Havugimana, X. Guo, R. H. Malty, M. Sarov, J. Greenblatt, M. Babu, W. B. Derry, E. R. Tillier, **J. B. Wallingford**, J. Parkinson, **E. M. Marcotte**, A. Emili (2015) Panorama of ancient metazoan macromolecular complexes. *Nature*, 525:339–344.
11. G. Zheng #, Q. Qin #, W.C. Clark, C. Yi, C. He, **A.M. Lambowitz\***, T. Pan\* (2015) Efficient and quantitative high-throughput transfer RNA sequencing. *Nature Methods* 12(9): 835-837. #Co-first authors, \*Co-corresponding authors.
12. T. Zhang, Y. Hu, W. Jiang, L. Fang, X. Guan, J. Chen, J. Zhang, C. A. Saski, B. E. Scheffler, D. M. Stelly, A. M. Hulse-Kemp, Q. Wan, B. Liu, C. Liu, S. Wang, M. Pan, Y. Wang, D. Wang, W. Ye, L. Chang, W. Zhang, Q. Song, R. C. Kirkbride, X. Chen, E. Dennis, D. J. Llewellyn, D. G. Peterson, P. Thaxton, D. C. Jones, Q. Wang, X. Xu, H. Zhang, H. Wu, L. Zhou, G. Mei, S. Chen, Y. Tian, D. Xiang, X. Li, J. Ding, Q. Zuo, L. Tao, Y. Liu, J. Li, Y. Lin, Y. Hui, Z. Cao, C. Cai, X. Zhu, Z. Jiang, B. Zhou, W. Guo, R. Li, and **Z. J. Chen** (2015) Sequencing of allotetraploid cotton (*Gossypium hirsutum* L. acc. TM-1) provides a resource for fiber improvement. *Nature Biotechnology* 33:531-537.
13. M. Miller, Q. Song, X. Shi, T. E. Juenger, and **Z. J. Chen** (2015) Natural variation in timing of stress-responsive gene expression predicts heterosis in intraspecific hybrids of *Arabidopsis*. *Nature Communications* 6:7453.
14. X. Shi, C. Zhang, D. -K. Ko, and **Z. J. Chen** (2015) Genome-wide dosage-dependent and -independent regulation contributes to gene expression and evolutionary novelty in plant polyploids. *Molecular Biology and Evolution* 32:2351-2366.
15. Q. Song, and **Z. J. Chen** (2015) Epigenetic and developmental regulation in plant polyploids. *Current Opinions in Plant Biology* 24:101–109.
16. Q. Song, X. Guan, **Z. J. Chen** (2015) Dynamic roles for small RNAs and DNA methylation during ovule and fiber development in allotetraploid cotton. *PLoS Genetics* 11(12):e1005724.
17. X. Li, H. Huang, G. Gropp, B. Gjetvaj, D. Lindsay, S. Wei, C. Coutu, Z. Chen, X. -C. Wan, A. Hannoufa, M. Gruber, D. Lydiate, **Z. J. Chen**, D. Hegedus, and M. -J. Gao (2015) SCARECROW-LIKE15 interacts with HISTONE DEACETYLASE19 and is essential for repressing the seed maturation program. *Nature Communications* 6:7243.
18. Z. Hu, J. N. Lancaster, C. Sasiponganan, **L. I. R. Ehrlich** (2015) CCR4 promotes medullary entry and thymocyte-dendritic cell interactions required for central tolerance. *Journal of Experimental Medicine*. 212 (11):1947-1965. PMID 26417005.

19. **R. M. Harshey**, J. D. Partridge (2015) Shelter in a swarm. *J. Mol. Biol.* 427:3683-3694.
20. G. Ariel, A. Rabani, S. Benisty, J. D. Partridge, **R. M. Harshey**, A. Be'er00 (2015) Swarming bacteria migrate by Lévy walk. *Nature Communications* 6:8396. doi: 10.1038/ncomms9396.