Frequently cited miRNA-related articles from peer-reviewed journals and scientific texts

GETTING STARTED

The following articles describe important insights into the history and uses of miRNA.

miRNA in review- Many excellent reviews on miRNAs can be found in the literature. UUHere are a few of our favorites.

- Carrington, J. C. and V. Ambros. (2003) Role of microRNAs in plant and animal development. **Science**. 301:336-338.
- Bartel, D. (2004) MicroRNAs: genomics, biogenesis, mechanism, and function. **Cell**. 116**:**281-97.
- Dugas, D. and B. Bartel. (2004) MicroRNA regulation of gene expression in plants. **Current Opinion in Plant Biology**. 7**:**512-520.
- He, L. and G. Hannon. (2004) MicroRNAs: small RNAs with a big role in gene regulation. **Nature Review Genetics**. 5**:**522-31.
- Kim, V. N. (2005) MicroRNA Biogenesis: Coordinated Cropping and Dicing. **Molecular Cell Biology: Nature Reviews.** *6:376-385.*
- Pasquinelli, A., S. Hunter and J. Bracht. (2005) MicroRNAs: a developing story. **Current Opinion Genetics and Development***. 15:200-205.*
- Tang, G. (2005) siRNA and miRNA: an insight into RISCs. **Trends Biochem Sci**. 30**:**106-14.
- Lai, E. C., B. Tam and G. M. Rubin. (2005) Pervasive regulation of Drosophila Notch target genes by GY-box-, Brd-box-, and K-box-class microRNAs. **Genes & Dev.** 19**:**1067-1080.
- Du, T., and P.D. Zamore. (2005) microPrimer: the biogenesis and function of microRNA. **Development**. 132:4645-4652.

MILESTONES IN miRNA RESEARCH

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- Lau, N. C., L. P. Lim, E. G. Weinstein and D. P. Bartel. (2001) An Abundant Class of Tiny RNAs with Probable Regulatory Roles in Caenorhabditis elegans. **Science**. 294**:**858-862.
- Lee, R., R. Feinbaum and V. Ambros. (2004) A short history of short RNA. **Cell**. 116**:**S89-92.
- Ruvkun, G., B. Wightman and I. Ha. (2004) The 20 years it took to recognize the importance of tiny RNAs. **Cell**. 116**:**S93-96.

miRNA Biogenesis

- Lee, Y., C. Ahn, J. Han, H. Choi, J. Kim, J. Yim, J. Lee, P. Provost, O. Radmark, S. Kim and V. Kim. (2003) The nuclear RNase III Drosha initiates microRNA processing. **Nature**. 425**:**415 - 419.

- Liu, J., M. A. Carmell, F. V. Rivas, C. G. Marsden, J. M. Thomson, J.-J. Song, S. M. Hammond, L. Joshua-Tor and G. J. Hannon. (2004) Argonaute2 Is the Catalytic Engine of Mammalian RNAi. **Science**. 305**:**1437-1441.

- Murchison, E. and G. Hannon. (2004) miRNAs on the move: miRNA biogenesis and the RNAi machinery. **Curr Opin Cell Biol**. 16**:**223-9.

miRNA Prediction

- Rhoades, M. W., B. J. Reinhart, L. P. Lim, C. B. Burge, B. Bartel and D. P. Bartel. (2002) Prediction of plant microRNA targets. **Cell**. 110:513-20.

- John, B., A. Enright, A. Aravin, T. Tuschl, C. Sander and D. Marks. (2004) Human MicroRNA Targets. **PLoS Biol**. 2**:**1862-1879.

- Krek, A., D. Grun, M. Poy, R. Wolf, L. Rosenberg, E. Epstein, P. MacMenamin, I. da Piedade, K. Gunsalus, M. Stoffel and N. Rajewsky. (2005) Combinatorial microRNA target predictions. **Nat Genet**. 37**:**495-500.

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Identifying mammalian miRNA

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- Chen, P. Y., H. Manninga, K. Slanchev, M. Chien, J. J. Russo, J. Ju, R. Sheridan, B. John, D. S. Marks, D. Gaidatzis, C. Sander, M. Zavolan and T. Tuschl. (2005) The developmental miRNA profiles of zebrafish as determined by small RNA cloning. **Genes & Dev.** 19**:**1288-1293.

Identifying plant miRNA

- Jones-Rhoades, M. and D. Bartel. (2004) Computational identification of plant micro-RNAs and their targets, including a stress-induced miRNA. **Molecular Cell**. 14**:**787-799.

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- Chen, C., L. Li, H. Lodish and D. Bartel. (2004) MicroRNAs modulate hematopoietic lineage differentiation. **Science**. 303:83-86.