

# Prof. Dr. Thomas Tuschl

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## Award Person

## Prof. Dr. Thomas Tuschl

Name: Thomas Tuschl

Address: Laboratory of RNA Molecular Biology, The Rockefeller University, New York; NY

### Positions and Employment

1991-1995 Graduate Student, Max Planck Institute for Experimental Medicine, Göttingen, Germany

1995-1999 Postdoctoral Fellow, MIT/Whitehead Institute, Cambridge, MA

1999-2002 Group Leader, Max Planck Institute for Biophysical Chemistry, Göttingen, Germany

2003-pres. Associate Professor and Head of Laboratory, The Rockefeller University, New York, NY

### Honors and Awards

1995 BAG Award for outstanding dissertations, Regensburg, Germany

1995-1997 2-Year Postdoctoral Fellowship, German Research Foundation, Germany

1997-1998 Merck/MIT Postdoctoral Fellowship, Cambridge, MA

1998-2003 Biofuture Award (1.4 Mio funding of a young investigator group), German Ministry of Education and Science, Berlin, Germany

2001 EMBO Young Investigator

2001 Springer Young Investigator Award, German-French Society of Cell Biology

2002 Professorial Stipend of the German "Fund of the Chemical Industry"

2002 Otto-Klung-Weberbank Award for Chemistry and Physics, Berlin, Germany

2002 Eppendorf Young Investigator Award, Hamburg, Germany

2003 Newcomb Cleveland Prize, American Association for the Advancement of Science, USA

2003 Wiley Prize in the Biomedical Sciences, The Wiley Foundation, USA

2003 Mayor's Award for Excellence in Science and Technology, New York, NY, USA

2005 Dr. Albert Wander Memorial Prize, Bern, Switzerland

2005 Meyenburg Prize, Heidelberg, Germany

2005 Ernst Schering Prize, Ernst Schering Foundation, Berlin, Germany

### Selected peer-reviewed publications (in chronological order)

1. C. Paludan, D. Schmid, M. Landthaler, M. Vockerodt, D. Kube, T. Tuschl, C. Munz, Endogenous MHC class II processing of a viral nuclear antigen after autophagy. *Science*, 2004 Dec 9 epub.
2. M. Landthaler, A. Yalcin, T. Tuschl, The human DiGeorge Syndrome Critical Region Gene 8 and its D. melanogaster homolog are required for miRNA biogenesis. *Curr. Biol*, 2004, 14, 2162-2167
3. M. N. Poy, L. Eliasson, J. Krutzfeldt, S. Kuwajima, X. Ma, P. E. MacDonald, S. Pfeffer, T. Tuschl, N. Rajewsky, P. Rorsman, M. Stoffel, A pancreatic islet-specific microRNA regulates insulin secretion, *Nature*, 2004, 432, 226-230
4. B. John, A. J. Enright, A. Aravin, T. Tuschl, C. Sander, D. S. Marks, Human microRNA targets, *PLoS*, 2004, 2, e363
5. G. Meister, M. Landthaler, A. Patkaniowska, Y. Dorsett, G. Teng, T. Tuschl, Human Argonaute2 mediates RNA cleavage targeted by miRNAs and siRNAs, *Mol. Cell*, 2004, 15, 185-197
6. J. Gruber, G. Boese, T. Tuschl, M. Osborn, K. Weber, RNA interference by osmotic lysis of pinosomes: liposome-independent transfection of siRNAs into mammalian cells, *BioTechniques*, 2004, 37, 96-102.
7. B. Yuan, R. Latek, M. Hossbach, T. Tuschl, F. Lewitter, siRNA Selection Server: an automated siRNA oligonucleotide prediction server, *Nucleic Acids Res.*, 2004, 32, W130-134
8. C. L. Will, C. Schneider, M. Hossbach, H. Urlaub, R. Rauhut, S. Elbashir, T. Tuschl, R. Lhrmann, The human 18S U11/U12 snRNP contains a set of novel proteins not found in the U2-dependent spliceosome, *RNA*, 2004, 10, 929-941
9. S. Pfeffer, M. Zavolan, F. A. Graesser, M. Chien, J. J. Russo, J. Ju, B. John, A. J. Enright, D. Marks, C. Sander, T. Tuschl, Identification of virus-encoded microRNAs, *Science*, 2004, 304, 734-736
10. G. Meister, M. Landthaler, Y. Dorsett, T. Tuschl, Sequence-specific inhibition of microRNA and siRNA-induced silencing, *RNA*, 2004, 10, 544-550
11. J. Enright, B. John, U. Gaul, T. Tuschl, C. Sander, D. Marks, MicroRNA targets in Drosophila, *Genome Biol.*, 2003, 5:RI,1-14
12. A. Aravin, M. Lagos-Quintana, A. Yalcin, M. Zavolan, D. Marks, B. Snyder, T. Gaasterland, J. Meyer, T. Tuschl, The small RNA profile during Drosophila melanogaster development, *Dev. Cell.*, 2003, 5, 337-350
13. J. Harborth, S. M. Elbashir, K. Vandenburgh, H. Manninga, S. A. Scaringe, K. Weber, T. Tuschl, Sequence, chemical and structural variation of small interfering RNAs and short hairpin RNAs and the effect on mammalian gene silencing, *Antisense Nucleic Acid Drug Dev.*, 2003, 13, 83-105
14. V. Ambros, B. Bartel, D. P. Bartel, C. B. Burge, J. C. Carrington, X. Chen, G. Dreyfuss, S. R. Eddy, S. Griffiths-Jones, M. Marshall, M. Matzke, G. Ruvkun, T. Tuschl, A uniform system for microRNA annotation, *RNA*,

2003, 9, 277-279

15. M. Lagos-Quintana, R. Rauhut, J. Meyer, A. Borkhardt, T. Tuschl, New microRNAs from mouse and human, *RNA*, 2003, 9, 175-179
16. J. Martinez, A. Patkaniowska, H. Urlaub, R. Lhrmann, T. Tuschl, Single-stranded antisense siRNAs guide target RNA cleavage in RNAi, *Cell*, 2002, 110, 563-574
17. S. M. Elbashir, J. Harborth, Klaus Weber, T. Tuschl, Analysis of gene function in somatic mammalian cells using small interfering RNAs, *Methods*, 2002, 26, 199-213
18. M. Lagos-Quintana, R. Rauhut, A. Yalcin, J. Meyer, W. Lendeckel, T. Tuschl, Identification of tissue-specific microRNAs from mouse, *Curr. Biol.*, 2002, 12, 735-739
19. S. M. Elbashir, J. Martinez, A. Patkaniowska, W. Lendeckel, T. Tuschl, Functional anatomy of siRNAs for mediating efficient RNAi in *Drosophila melanogaster* embryo lysate, *EMBO J.*, 2001, 20, 6877-6888
20. J. Harborth, S. M. Elbashir, K. Bechert, T. Tuschl, Klaus Weber, Identification of essential genes in cultured mammalian cells using small interfering RNAs, *J. Cell Sci.*, 2001, 114, 4557-4566
21. M. Lagos-Quintana, R. Rauhut, W. Lendeckel, T. Tuschl, Identification of novel genes coding for small expressed RNAs, *Science*, 2001, 294, 853-858
22. G. Hutvagner, J. McLachlan, E. Balint, T. Tuschl, P. D. Zamore, A cellular function for the RNA interference enzyme Dicer in small temporal RNA maturation, *Science*, 2001, 293, 834-838
23. S. M. Elbashir, J. Harborth, W. Lendeckel, A. Yalcin, Klaus Weber, T. Tuschl, Duplexes of 21-nucleotide RNAs mediate RNA interference in cultured mammalian cells, *Nature*, 2001, 411, 494-498
24. T. Tuschl, RNA interference and small interfering RNAs, *ChemBioChem*, 2001, 2, 239-245
25. S. M. Elbashir, W. Lendeckel, T. Tuschl, RNA interference is mediated by 21 and 22 nt RNAs, *Genes & Dev.*, 2001, 15, 188-200
26. T. Tuschl, P. A. Sharp, D. P. Bartel. A ribozyme selected from variants of U6 snRNA promotes 2',5'-branch formation, *RNA*, 2001, 7, 29-43
27. P. D. Zamore, T. Tuschl, P. A. Sharp, D. P. Bartel, RNAi: Double-stranded RNA directs the ATP-dependent cleavage of mRNA at 21 to 23 nucleotide intervals, *Cell*, 2000, 101, 25-33
28. T. Tuschl, P. D. Zamore, R. Lehmann, D. P. Bartel, P. A. Sharp, Targeted mRNA degradation by double-stranded RNA in vitro, *Genes & Dev.*, 1999, 13, 3191-3197
29. T. Tuschl, P. A. Sharp, D. P. Bartel, Selection in vitro of novel ribozymes from a partially randomized U2 and U6 snRNA library, *EMBO J.*, 1998, 17, 2637-2650
30. M. Menger, T. Tuschl, F. Eckstein, D. Porschke, Mg<sup>2+</sup>-Dependent conformational changes in the hammerhead ribozyme, *Biochemistry*, 1996, 35, 14710-14716
31. S. T. Sigurdsson, T. Tuschl, F. Eckstein, Probing RNA tertiary structure: Interhelical cross-linking of hammerhead ribozyme, *RNA*, 1995, 1, 575-583
32. T. Tuschl, J. B. Thomson, F. Eckstein, Catalysis by small RNAs, *Curr. Opin. Struct. Biol.*, 1995, 5, 296-302
33. T. Tuschl, C. Gohlke, T. M. Jovin, E. Westhof, F. Eckstein, A Three-Dimensional Model for the Hammerhead Ribozyme Based on Fluorescence Measurements, *Science*, 1994, 266, 785-789
34. M. M. P. Ng, F. Benseler, T. Tuschl, F. Eckstein, Isoguanosine Substitution of Conserved Adenosines in the Hammerhead Ribozyme, *Biochemistry*, 1994, 33, 12119-12126
35. H. Aurup, T. Tuschl, F. Benseler, J. Ludwig, F. Eckstein, Oligonucleotide Duplexes Containing 2-Amino-2-deoxycytidines: Thermal Stability and Chemical Reactivity, *Nucleic Acids Res.*, 1994, 22, 20-24
36. J. B. Thomson, T. Tuschl, F. Eckstein, Activity of Hammerhead Ribozymes Containing Non-Nucleotidic Linkers, *Nucleic Acids Res.*, 1993, 21, 5600-5603
37. T. Tuschl, M. M. P. Ng, W. Pieken, F. Benseler, F. Eckstein, Importance of Exocyclic Base Functional Groups of Central Core Guanosines for Hammerhead Ribozyme Activity, *Biochemistry*, 1993, 32, 11658-11668
38. T. Tuschl, F. Eckstein, Hammerhead Ribozymes: Importance of Stem-Loop II for Activity, *Proc. Natl. Acad. Sci. USA*, 1993, 90, 6991-6994

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