
9. LITERATUR

- Allen, P., Collins, B., Brown, D., Hostomsky, Z., and Gold, L. (1996) A specific RNA structural motif mediates high affinity binding by the HIV-1 nucleocapsid protein (NCp7). *Virology* **225**, S. 306-315
- Altman, S. (1989) Ribonuclease P: An enzyme with a catalytic RNA subunit. *Adv. Enzymol. Relat. Areas Mol. Biol.* **62**, S. 1-36
- Avery, O.T., MacLeod, C.M., and McCarthy, C. (1944) Studies on the chemical nature of the substance inducing transformation of pneumococcal types. *J. Exp. Med.* **79**, S. 137-158
- Balakrishnan, V.S., Coles, G.A., and Williams, J.D. (1996) Functional role of endogenous adenosine in human chronic renal disease. *Exp. Nephrol.* **4**(1), S. 26-36
- Barbas, C.F., and Burton, D.R. (1996) Selection and evolution of high-affinity human anti-viral antibodies. *Trends in Biotechnology* **14**, S. 230-234
- Barbin, A., Bresil, H., Croisy, A., Jaquignon, P., Malaveille, C., Montesano, R., and Bartsch, H. (1975) Liver microsome-mediated formation of alkylating agents from vinyl bromide and vinyl chloride *Biochem. Biophys. Res. Commun.* **67**, S. 596-603
- Barbin, A., Bartsch, H., Leconte, P., and Radman, U. (1981) Studies on the miscoding properties of 1,N⁶-ethenoadenine and 3,N⁴-ethenocytosine, DNA-reaction products of vinyl chloride metabolites, during *in vitro* DNA synthesis *Nucleic Acids Res.* **9**, S. 375-387
- Barrio, J.R., Secrist, J.A., and Leonard N. J. (1972) Fluorescent adenosine and cytidine derivatives. *Biochem. Biophys. Res. Comm.* **46**(2), S. 597-604
- Beaucage, S.L., and Caruthers, M.H. (1981) Deoxynucleoside phosphoramidites - A new class of key intermediates for deoxypolynucleotide synthesis. *Tetrahedron Lett.* **22**, S. 1859-1862
- Beaudry, A.A., and Joyce, G.F. (1992) Directed evolution of an RNA enzyme. *Science* **257**, S. 635-641
- Beigelman, L., McSwiggen, J.A., Drapper, K.G., Gonzalez, C., Jensen, K., Darpeisky, A.M., Modak, A.S., Matulic-Adamic, J., DiRenzo, A.B., Haeblerli, P., Sweedler, D., Tracz, D., Grimm, S., Wincott, R.E., Thackray, V.G., and Usman, N. (1995) Chemical modification of hammerhead ribozymes. *J. Biol. Chem.* **270**, S. 25702-25708
- Benner, S.A., and Ellington, A.D. (1987) Return of the "last ribo-organism". *Nature* **332**, S. 688-689
- Bier, F.F., and Fürste, J.P. (1997) Nucleic acid bases sensors *Frontiers in Biosensoric I* Ed. by: Scheller, F.W., Schubert, F., and Fedrowitz, J Birkhäuser Verlag, Basel, S. 97-117
- Bisswanger, H.; (1994) *Enzymkinetik, Theorie und Methoden*. VCH Verlagsgesellschaft, Weinheim
- Blum, B., Bakalara, N., and Simpson, L. (1990) A model for RNA editing in kinetoplastid mitochondria: "Guide " RNA molecules transcribed from maxicircle DNA provide the edited information. *Cell* **60**, S. 189-198
- Boal, J.H., Wilk, A., Harindranath, N., Max, E.E., Kempe, T., and Beaucage, S.L. (1996) Cleavage of oligodeoxyribonucleotides from controlled-pore glass supports and their rapid deprotection by gaseous amines *Nucleic Acids Res.* **24**(15), S. 3115-3117

-
- Burgstaller, P., and Famulok, M. (1995) Synthetische Ribozyme und das erste Desoxyribozym. *Angew. Chem.* **107**(11), S. 1303-1307
- Burke, D.H., and Gold, L. (1997) RNA aptamers to the adenosine moiety of Sadenosine methionine: Structural inferences from variations on a theme and the reproducibility of SELEX. *Nucleic Acids Res.* **25**(10), S. 2020-2024
- Burke, D.H., Hoffman, D.C., Brown, A., Hansen, M., Pardi, A., and Gold, L. (1997) RNA aptamers to the peptidyl transferase inhibitor chloramphenicol. *Chem. Biol.* **4**, S. 833-843
- Cantor, C.R., and Schimmel, P.R. (1980) The conformation of biological macromolecules, Part I, In: *Biophysical Chemistry*, Freemann and Company, San Francisco
- Cattaneo, R. (1991) Different types of messenger RNA editing. *Annu. Rev. Genet.* **25**, S. 71-88
- Cech, T.R. (1992) Self splicing of group I introns. *Annu. Rev. Biochem.* **59**, S. 543-568
- Chapman, K.B., and Szostak, J.W. (1994) *In vitro* selection of catalytic RNAs. *Curr. Biol.* **4**, S. 618-622
- Church, M.K., Holgaate, S.T., and Hughes, P.J. (1983) Adenosine inhibits and potentiates IgE-dependent histamine release from human basophils by an A2-receptor mediated mechanism. *Br. J. Pharmacol.* **80**(4), S. 719-726
- Clackson, T., and Wells, J.A. (1994) *In vitro* selection from protein and peptide libraries. *Trends Biotech.* **12**, S. 173-184
- Connell, G.J., Illangesekare, M., and Yarus, M. (1993) Three small ribooligonucleotides with specific arginine sites. *Biochemistry* **32**(21), S. 5497-5502
- Connors, K.A.; (1987) *Binding constants*. John Wiley & Sons, New York
- Contreras, E. (1990) Adenosine: physiological and pharmacological actions. *Arch. Biol. Med. Exp. (Santiago)* **23**(1), S. 1-12
- Cook, D.B. and Self, C.H. (1995) Monoclonal antibodies in diagnostic immunoassays In: *Monoclonal antibodies: Production , engineering and clinical application* Ritter, M.A., and Ladyman, H.M. (Eds.) Cambridge University Press, London
- Crick, F.H. (1968) The origin of the genetic code *J. Mol. Biol.* **38**(3), S. 367-79
- Davis, P.W., Thurmes, W., and Tinoco, I.Jr. (1993) Structure of a small RNA hairpin. *Nucleic Acids Res.* **21**, S. 537-545
- De Beuckelaer, A. (1998) *In vitro Selektion antiviraler RNA-Moleküle*. Shaker Verlag, Aachen
- Digweed, M., Erdmann, V.A., Odom, O.W., and Hardesty, B. (1981) Fluorescence modification of *Escherichia coli* 5S RNA *Nucleic Acids Res.* **9**(13), S. 3187-3198
- Doudna, J.A., and Szostak, J.W. (1989) RNA-catalysed synthesis of complementary-strand RNA *Nature* **339**, S. 519-522
- Eaton, B.E., and Pieken, W.A. (1995) Ribonucleosides and RNA. *Annu. Rev. Biochem.* **64**, S. 837-863
- Ellington, A.D., and Szostak, J.W. (1990) *In vitro* selection of RNA molecules that bind specific ligands. *Nature* **346**, S. 818-822
- Engelhardt, H.; (1977) *Hochdrucksflüssigkeitschromatographie*. 2nd Edition: Springer Verlag, Berlin

-
- Famulok, M., and Huettenhofer, A. (1996) *In vitro* analysis of neomycin binding RNAs with a mutagenized pool of variants of the 16S decoding region. *Biochemistry* **35**, S. 4265-4270
- Fasman, G.D. (Ed.) (1975) *Purines, pyrimidines, nucleosides, and nucleotides: Physical constants and spectral properties*. In: *CRC Handbook of Biochemistry and Molecular Biologie - Nucleic Acids*. Bd. 1, 3rd Edition: CRC Press, Cleveland, OH
- Feoktistov, I., Polosa, R., Holgate, S.T., and Biaggioni, I. (1998) Adenosine A2B receptors: A novel therapeutic target in asthma?. *Trends Pharmacol. Sci.* **19**(4), S. 148-153
- Feigon, J., Dieckmann, T., and Smith F.W. (1996) Aptamer structures from A to ζ *Chemistry and Biology* **3**, S. 611-617
- Gallo, R.C. (1987) The AIDS virus. *Sci. Am.* **256**(1), S. 46-56
- Ganem, D., and Varmus, H.E. (1987) The molecular biology of the hepatitis B viruses. *Annu. Rev. Biochem.* **56**, S. 65ff1-693
- Garland, P.B. (1996) Optical evanescent wave methods for the study of biomolecular interactions. *Q. Rev. Biophys.* **29**, S. 91-117
- Gilbert, B.A., Sha, M., Wathen, S.T., and Rando, R.R. (1997) RNA aptamers that specifically bind to a K ras-derived farnesylated peptide. *Bioorg. Med. Chem.* **5**(6), S. 1115-1122
- Gilbert, W. (1986) Origin of life, the RNA World. *Nature* **319**, S. 618
- Gold, L., Allen, P., Binkley, J., Brown, D., Schneider, D., Eddy, S.R., Tuerk, C., Green, L., MacDougall, S., and Tasset, D.; Gesteland, R.F., and Atkins, J.F. (Ed.) (1993) *RNA: The shape of things to come*. In: *The RNA World*. Cold Spring Harbour Laboratory Press, New York, S. 497-509
- Guerriere-Takada, C., Gardner, K., Marsh, T., Pace, N., and Altman, S. (1983) The moiety of ribonuclease P is the catalytic subunit of the enzyme. *Cell* **35**, S. 849-857
- Guthrie, C., and Patterson, B. (1988) Sliceosomal snRNAs. *Annu. Rev. Genet.* **22**, S. 387-419
- Hall, J.A., Saffill, R., Green, T., and Hathway, D.E. (1981) The induction of errors during *in vitro* synthesis following chloroacetaldehyde treatment of poly(dA-dT) and poly(dG-dC) templates *Carcinogenesis* **2**, S. 141-145
- Hardt, W.D., Erdmann, V.A., and Hartmann, R.K. (1996) Rp-deoxy-phosphorothioate modification-interference experiments identify 2'-OH groups in RNase P that are crucial to tRNA binding. *RNA* **2**, S 1189-1198
- Hardt, W.D., Warnecke, J.M., Erdmann, V.A., and Hartmann, R.K. (1995) Rp-phosphorothioate modifications in RNase P RNA that interfere with tRNA binding. *EMBO J* **14**, S. 2935-2944
- Heidenreich, O., Kang, S.-H., Brown, D.A., Xu, X., Swiderski, P., Rossi J. J., Eckstein, F., and Nerenberg, M. (1995) Ribozyme-mediated RNA degradation in nuclei suspension. *Nucleic Acids Res.* **23**(12), S. 2223-2228
- Hoogenboom, H.R. (1997) Designing and optimizing library selection strategies for generating high-affinity antibodies. *Trends in Biotechnology* **15**, S. 62-70
- Iribarren, A.M., Sproat, B.S., Neuner, P., Sulston, I., Ryder, U., and Lamond, A.I. (1990) 2'-O-Alkyl oligoribonucleotides as antisense probes. *Proc. Natl. Acad. Sci. USA* **87**, S. 7747-7751
- Jenison, R.D., Gill, S.C., Pardi, A., and Polisky, B. (1994) High-resolution molecular discrimination by RNA. *Science* **264**, S. 1425-1429

-
- Jensen, K.B., Green, L., MacDougal-Waugh, S., and Tuerk, C. (1994) Characterization of an *in vitro*-selected RNA-Ligand to the HIV-1 Rev protein. *J. Mol. Biol.* **235**(1), S. 237-247
- Jensen, K.B., Atkinson, B.L., Willis, M.C., Koch, T.H., and Gold, L. (1995) Using *in vitro* selection to direct the covalent attachment of human immunodeficiency virus type 1 Rev protein to high-affinity RNA ligands. *Proc. Natl. Acad. Sci. USA* **92**, S. 12220-12224
- Jönsson, U., Fägerstam, L., Ivarsson, B., Lundh, K., Löphas, S., Persson, B., Roos, H., Rönnerberg, I., Sjölander, S., Stenberg, E., Stahlberg, R., Urbaniczky, C., Östlin, H., and Malmqvist, M. (1991) Real-time biospecific interaction analysis using surface plasmon resonance and a sensorchip technology. *BioTechniques* **11**, S. 620
- Joyce, G.F. (1989) Amplification, mutation and selection of catalytic RNA. *Gene* **82**(1), S. 83-87
- Joyce, G.F. (1994) *In vitro*-Evolution of nucleic acids. *Curr. Struct. Biol.* **4**, S. 331-336
- Kanda, T., Tashiro, T., Kuwana, Y., and Jenner, P. (1998) Adenosine A2A receptors modify motor function in MPTP-treated common marmosets. *Neuroreport* **9**(12), S. 2857-2860
- Kazantsev, A.V., and Pace, N.R. (1998) Identification by modification-interference of purine N-7 and ribose 2'-OH groups critical for catalysis by bacterial ribonuclease P. *RNA* **4**, S. 937-947
- Kemeny, and Challacombe (1988) ELISA and other solid phase immunoassays. Theoretical and practical aspects. Wiley Verlag, New York
- Kiga, D., Futamura, Y., Sakamoto, K., and Yokoyama, S. (1998) An RNA aptamer to the xanthine/guanosine base with a distinctive mode of purine recognition. *Nucleic Acids Res.* **26**(7), S. 1755-1760
- Kleijnung, F., Klußmann, S., Erdmann, V.A., Scheller, F.W., Fürste, J.P., and Bier, F.F. (1998) High-affinity RNA as a recognition element in a biosensor. *Anal. Chem.* **70**, S. 328-331
- Klußmann, S.; (1996) *Spiegel-Design: Identifizierung und Charakterisierung hochaffiner L-RNA-Moleküle*. Shaker Verlag, Aachen
- Klußmann, S., Nolte, A., Bald, R., Erdmann, V.A., Fürste, and J. P. (1996) Mirror-image RNA that binds D-Adenosine. *Nature Biotechnology* **14**, S. 1112-1115
- Kruger, K., Grabowski, P.J., Zaug, A.J., Sands, J., Gottschling, D.E., and Cech, T.R. (1982) Self splicing RNA: autoexcision and autocatalyzation of the ribosomal RNA intervening sequence of *Tetrahymena*. *Cell* **31**, S. 147-157
- Kusmieriek, J.T., and Singer, B. (1982) Chloroacetaldehyde-treated ribo- and deoxyribonucleotides. Errors in transcription by different polymerases resulting from ethenocytosine and its hydrated intermediate. *Biochemistry* **21**, S. 5723-5728
- Lato, S.M., Boles, A.R., and Ellington, A.D. (1995) *In vitro* selection of RNA lectins: using combinatorial chemistry to interpret ribozyme evolution. *Chem. Biol.* **2**, S. 291-303
- Lee, K.S., Schubert, P., and Heinemann, U. (1984) The anticonvulsive action of adenosine: a postsynaptic, dendritic action by a possible endogenous anticonvulsant. *Brain Res.* **321**(1), S. 160-164
- Leirdal, M., and Sioud, M. (1998) High cleavage activity and stability of hammerhead ribozymes with a uniform 2'-amino pyrimidine modification. *Biochem. Biophys. Res. Comm.* **250**, S. 171-174
- Lewin, R. (1986) RNA catalysis gives fresh perspective on the origin of life. *Science* **231**, S. 545-546
- Linden, J. (1994) Cloned adenosine A3 receptors: pharmacological properties, species differences and receptor functions. *Trends Pharmacol. Sci.* **15**(8), S. 298-306

-
- Lorsch, J.R., and Szostak, J.W. (1994) *In vitro* selection of RNA aptamers specific for cyanocobalamin. *Biochemistry* **33**(4), S. 973-982
- MacKenzie, W.M., Hoskin, D.W., and Blay, J. (1994) Adenosine inhibits the adhesion of anti-CD3-activated killer lymphocytes to adenocarcinoma cells through an A3 receptor. *Cancer Res.* **54**(13), S. 3521-3526
- Maizels, N., and Weiner, A.M. (1987) The last riboorganism was no breakthrough. *Nature* **330**, S. 616
- Milecki, J., Dembek, P., and Antowiak, W.Z. (1989) On the application of t-butyldimethylsilyl groups in chemical RNA synthesis. Part 1. ^{31}P NMR study of 2'-O-t-BDMSi group migration during nucleoside 3'-OH phosphorylation and phosphitylation reactions. *Nucleosides & Nucleotides* **8**, S. 463-474
- Mullis, K., Faloona, F., Scharf, S., Saiki, R., Horn, G., and Erlich, H. (1986) Specific enzymatic amplification of DNA in vitro: the polymerase chain reaction. *Cold Spring Harb Symp Quant Biol* **51**(1), S. 263-73
- Nirenberg, M.W., and Mattaei, J.H. (1961) The dependence of cell-free protein synthesis in *E. coli* upon naturally occurring or synthetic polyribonucleotides. *Proc. Natl. Acad. Sci. USA* **47**, S. 1588-1602
- Nieuwlandt, D., Wecker, M., and Gold, L. (1995) *In vitro* selection of RNA ligands to Substance P. *Biochemistry* **34**(16), S. 5651-5659
- Nitta, I., Kamada, Y., Noda, H., Ueda, T., and Watanabe, K. (1998) Reconstitution of peptide bond formation with *Escherichia coli* 23S ribosomal RNA domains. *Science* **281**, S. 666-669
- Noller, H.F., and Chaires, J.B. (1972) Functional modification of 16S RNA by ketoheptal. *Proc. Natl. Acad. Sci. USA* **69**(11), S. 3113-3118
- Noller, H.F., Hoffarth, V., and Zimniak, L. (1992) Unusual resistance of peptidyl transferase to protein extraction procedures. *Science* **256**, S. 1416-1419
- Nolte, A., Klußmann, S., Bald, R., Erdmann, V.A., and Fürste, J.P. (1996) Mirror-design of L-oligonucleotide ligands binding to L-arginine. *Nature Biotechnology* **14**, S. 1116-1119
- Orgel, L.E. (1968) Evolution of the genetic apparatus. *J. Mol. Biol.* **38**, S. 381-393
- Pace, N.R., and Marsh, T.L. (1985) RNA catalysis and the origin of life. *Origins Life* **16**, S. 97-116
- Paulsen, H., and Wintermeyer, W. (1984) Incorporation of 1,N⁶-ethenoadenosine into the 3'-terminus of tRNA using T4 RNA ligase – 1. Preparation of yeast tRNA^{Phe} derivatives. *Eur. J. Biochem.* **138**, S. 117-123
- Pauwels, R.A., and Joos, G.F. (1995) Characterization of the adenosine receptors in the airways. *Arch. Int. Pharmacodyn. Ther.* **329**(1), S. 151-160
- Pearl, R.G. (1994) Adenosine produces pulmonary vasodilation in the perfused rabbit lung via an adenosine A2 receptor. *Anesth. Analg.* **79**(1), S. 46-51
- Pieken, W.A., Olson, D.B., Benseler, F., Aurup, H., and Eckstein, F. (1991) Kinetic characterization of ribonuclease-resistant 2'-modified hammerhead ribozymes. *Science* **253**, S. 314-317
- Reddy, R., and Bush, H.; ed. by Birnstiel, M.L. (Ed.) (1988) Small nuclear RNAs: RNA sequences, structure and modifications. In: *Small nuclear ribonucleoprotein particles*. Springer Verlag, Berlin, S. 1-37
- Rigl, C.T., Lloyd, D.H., Tsou, D.S., Gryaznov, S.M., and Wilson, W.D. (1997) Structural RNA mimetics; N3' -> P5' phosphoramidite DNA analogues of HIV-1 RRE and TAR RNA form A-type helices that bind specifically to Rev and Tat-related peptides. *Biochemistry* **36**(3), S. 650-659
- Rivkees, S.A. (1994) Localization and characterization of adenosine receptor expression in rat testis. *Endocrinology* **135**(6), S. 2307-2313

-
- Robertson, R.W., and Szostak, J.W. (1997) RNA-peptide fusions for the *in vitro* selection of peptides and proteins. *Proc. Natl. Acad. Sci. USA* **94**, S. 12297-12302
- Roth, H.J., and Fenner, H. (1988) Arzneistoff: Struktur – Bioreaktivität – Wirkungsbezogene Eigenschaften In: *Pharmazeutische Chemie III* Thieme Verlag, Stuttgart
- Roy, S., Delling, U., Chen, C.H., Rosen, C.A., and Sonenberg, N. (1990) A bulge structure in HIV-1 TAR RNA is required for Tat binding and Tat-mediated *trans*-activation. *Genes Dev.* **4**, S. 1365-1373
- Sassanfar, M., and Szostak, J.W. (1993) An RNA motif that binds ATP. *Nature* **364**, S. 550-553
- Sawynok, J. (1998) Adenosine receptor activation and nociception. *Eur. J. Pharmacol.* **347**(1), S. 1-11
- Schumacher, T.N.M., Mayr, Lorenz, M., Minor, D.L., Milhollen, M.A., Burgess, M.W., and Kim, P.S. (1996) Identification of D-peptide ligands through Mirror-Image Phage Display *Science* **271**, S. 1845-1857
- Scott, J.K., and Smith, G.P. (1990) Searching for peptide ligands with an epitope library *Science* **249**, S. 386-390
- Srivastava, S.C., Raza, S.K., and Misra, R. (1994) 1,N⁶-Etheno deoxy and ribo adenosine and 3,N⁴-etheno deoxy and ribo cytidine phosphoramidites. strongly fluorescent structures for selective introduction in defined sequence DNA and RNA molecules. *Nucleic Acids Res.* **22**(7), S. 1296-1304
- Tolman, T.L., Barrio, J.R., and Leonard, N.J. (1974) Chloroacetaldehyde-modified dinucleoside phosphates. Dynamic fluorescence quenching and quenching due to intramolecular complexation *Biochemistry* **13**, S. 4869-4878
- Tucker, A.L., and Linden, J. (1993) Cloned receptors and cardiovascular responses to adenosine. *Cardiovasc. Res.* **27**(1), S. 62-67
- Tuerk, C., and Gold, L. (1990) Systematic evolution of ligands by exponential enrichment: RNA ligands to Bacteriophage T4 DNA polymerase. *Science* **249**, S. 505-510
- Uhlenbeck, O., Baller, J., and Doty, P. (1970) Complementary oligonucleotide binding to the anticodon loop of fMet-transfer RNA. *Nature* **225**, S. 508-510
- Uphoff, K.W., Bell, S.D., and Ellington, A.D. (1996) *In vitro* selection of aptamers: The dearth of pure reason *Curr. Opin. Struct. Biol.* **6**, S. 281-288
- Vaughan, T.J., Williams, A.J., Pritchard, K., Osbourn, J.K., Pope, A.R., Earnshaw, J.C., McCafferty, J., Hodits, R.A., Wilton, J., and Johnson, K.S. (1996) Human antibodies with sub-nanomolar affinities isolated from a large non-immunized phage display library. *Nature Biotech.* **14**, S. 309-314
- Wallis, M.G., von Ahsen, U., Schroeder, R., and Famulok, M. (1995) A novel RNA motif for neomycin recognition. *Chem Biol* **2**, S. 553-552
- Wallis, M.G., Streicher, B., Wank, H.vonAhsen,U., Clodi, E., Wallace, S.T., Famulok, M., and Schroeder, R. (1997) *In vitro* selection of a viomycin-binding RNA pseudoknot. *Chem Biol* **4**, S. 357-366
- Wang, Y., and Rando, R.R. (1995) Specific binding of aminoglycoside antibiotics to RNA. *Chem Biol* **2**, S. 281-290
- Wang, Y., Killian, J., Hamasaki, K., and Rando, R.R. (1996) RNA molecules that specifically and stoichiometrically bind aminoglycoside antibiotics with high affinities. *Biochemistry* **35**(38), S. 12338-12346
- Wang, Y.Y., Lyttle, M.H., and Borer, P.N. (1990) Enzymatic and NMR analysis of oligoribonucleotides synthesized with 2'-tert-butyl dimethylsilyl protected cyanoethylphosphoramidite monomers. *Nucleic Acids Res.* **18**, S. 3347-3352

-
- Watson, J.D., and Crick, F.H.C. (1953) Molecular structure of nucleic acids. *Nature* **171**, S. 737-738
- Woese, C.; (1967) *The Evolution of the genetic code. The genetic code.* Harper & Row, New York, S. 179-195
- Wrede, P., Pongs, O., and Erdmann, V.A. (1978) Binding oligonucleotides to *Escherichia coli* and *Bacillus stearothermophilus* 5S RNA. *J. Mol. Biol.* **120**, S. 83-96
- Yang, Y., Kochoyan, M., Burgstaller, P., Westhof, E., and Famulok, M. (1996) Structural basis of ligand discrimination by two related RNA aptamers resolved by NMR spectroscopy. *Science* **272**, S. 1343-1347
- Zimmermann, G.R., Jenison, R.D., Wick, C.L., Simorre, J.P., and Pardi, A. (1997) Interlocking structural motifs mediate molecular discrimination by a theophylline-binding RNA *Nature Struct. Biol.* **4**(8), S. 644-649
- Zuker, M., and Stiegler, P. (1981) Optimal computer folding of large RNA sequences using thermodynamics and auxiliary information *Nucleic Acids Res.* **9**, S. 133-148
- Zuker, M. (1989) Computer prediction of RNA structure *Methods Enzymol.* **180**, 262-288