**LIST OF PUBLICATIONS**

Mart Saarma

**Professor**Academy Professor

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\***Ten selected publications**

**1974**

ORIGINAL ARTICLES

1.Lind, A., Villems,R. & Saarma, M. (1974) Pyrimimine-rich surface in ribosomes. Acta Biologica et Medica Germanica, 33, 715-724.

2. Sööt, M., Saarma, M. & Villems, R. (1974) Binding of tetranucleotides with rat liver 5S RNA. Molecular Biology, 3,723-728 (in Russian).

3. Vasilenko, S.K., Greneva, N.I., Karpova, G.G., Kozorovitsky, A.N., Lomakina, G.S., Saarma, M.J., & Tiunov, I.P. (1973) Complex formation of mixed oligonucleotides and their 5'-derivatives with rRNA and alkylation of these complexes. Proc. Acad. Sci. SSSR. 212, 1227-1230 (in Russian).

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4. Lind, A., Villems, R. & Saarma, M. (1975) Pyrimidine-rich oligonucleotides from rat liver ribosome surface. Eur. J. Biochem. 51, 529 - 536.

5. Saarma, M. Structure and function of the surface of 80S ribosomes. Academic dissertation; 1975, Tartu State University, 110 pages (in Russian).

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6. Lind, A., Metspalu, A., Saarma, M., Toots, I., Ustav, M. & Villems, R. (1977) Universality of the ribosomal peptidyltransferase center and 5.8S rRNA function. Bioorganic Chemistry, 3, 1138-1140 (in Russian).

7. Ustav, M., Lind, A., Saarma, M. & Villems, R. (1977) Interaction of 5S RNA with Escherichia coli ribosomal small subunit proteins. Bioorganic Chemistry, 3, 1699-1701 (in Russian).

8. Ustav. M., Villems, R., Saarma, M. & Lind, A. (1977) The interaction of tRNA with 50S subunit proteins. FEBS Lett., 83, 353-356.

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9. Kelve, M., Metspalu, A., Villems, R., Toots, I., Saarma, M. & Lind, A. (1978) Conformational isomers of rat liver 5S RNA. Molecular Biology, 12, 695-699 (in Russian).

10. Metspalu, A., Villems, R., Saarma, M., Ustav, M. & Lind, A. (1978) Interaction of 5S RNA, 5.8S RNA and tRNA with rat liver ribosomal proteins. Eur. J. Biochem. 91, 73-81.

11. Ustav, M., Lind, A., Saarma, M. & Villems, R. (1978) The domain for transfer ribonucleic acid binding to the Escherichia coli ribosome. FEBS Lett., 87, 315-317.

12. Ustav, M., Metspalu, A., Villems, R., Toots, I., Saarma, M. & Lind, A. (1978) GTPase and ATPase activities of ribosomes. In: "Regulation of enzyme systems: adenosine triphosphate systems." Tartu, pp. 40-49 (in Russian).

13. Uusküla, L., Pärnik, U., Laving, A., Villems, R. & Saarma, M. (1978) Localization of 5S, 5.8S, 18S and 28S rRNA genes in Bam HI and SalI restriction fragments of rat DNA. In: "Plasmid", Puschino, pp. 50-51 (in Russian).

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14. Arsenyan, S., Avdonina, T., Kiselev, L., Laving, A. & Saarma, M. (1979) Isolation and cloning of 5S DNA from rat liver. In: "Plasmid", Puschino, pp. 16-19 (in Russian).

15. Saarma M., Reeman K., Talsepp, T. & Toots, I. (1979) Cloning of the DNA fragments with heterologous sticky ends. In: "Plasmid", Pushino, pp. 129-130 (in Russian).

16. Saarma, M. (1979) Scissors that cut genes. Horisont, 11, 10-12 (in Estonian).

17. Saarma, M., Villems, R., Laving, A., Toots, I., Ustav, M. & Lind, A. (1979) On the origin of eukaryotic 5.8S RNA. Hoppe-Seylers Z. Physiol. Chem., 360, 1040-1041.

18. Toots, I., Metspalu, A., Lind, A., Saarma, M. & Villems, R. (1979) Immobilized eukaryotic 5.8S RNA binds E.coli and rat liver ribosomal proteins. FEBS Lett., 104, 193-196.

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20. Arsenyan, S., Avdonina, T., Laving, A., Saarma, M. & Kiselev, L. (1980) Isolation of rat liver 5S RNA genes. Gene, 11, 97-108.

21. Metspalu, A., Toots, I., Saarma, M. & Villems, R. (1980) The ternary complex consisting of rat liver ribosomal 5S RNA, 5.8S RNA and protein L5. FEBS Lett. 119, 81-84.

22. Saarma, M., Metspalu, A. Toots, I., Örd, T. & Villems, R. (1980) Involvement of 5.8S RNA in eukaryotic ribosome interactions. In: "Mechanisms of protein-nucleic acid interactions", Academic Press, Poznan, pp. 58-69.

23. Speek, M., Ustav, M., Lind, A. & Saarma, M. (1980) Use of S1 nuclease and cobra endonuclease for the mapping of E.coli 5S RNA secondary structure. Bioorganic Chemistry, 6, 1877-1880 (in Russian).

24. Villems, R., Koger, A., Maimets, T., Metspalu, E., Saarma, M., Sarapuu, T. & Ustav, M. (1980) Affinity chromatography of Escherichia coli ribosomal proteins on the immobilized ribonucleic acids: properties of the complexes. In: "Mechanisms of protein-nucleic acid interactions", Academic Press, Poznan, pp. 70-79.

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30. Toots, I., Metspalu, A. Villems, R. & Saarma, M. (1981) Location of single-stranded and double-stranded regions in eukaryotic ribosomal 5S RNA and 5.8S RNA. Nucl. Acids Res., 20, 5331-5343.

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31. Metspalu, A., Speek, M., Toots, I., Villems, R. & Saarma, M. (1982) Interaction of 5S RNA, 5.8S RNA, tRNA and ribosomal proteins in structure and function of eukaryotic ribosome. "Macromolecul¬es in functioning cell", Nauka, Moscow, 1, 228-238.

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34. Saarma, M. (1983) Mode of action of interferons. In: "Cell theory", Ed. T.Tiivel, Tartu, pp. 78-84 (in Russian).

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38. Saarma, M.J., Neuman, T.E., Talpsepp, T.E., Toots, I.E., Siigur, E.P. & Siigur, J.H. (1984) Monoclonal antibodies to snake Vipera lebetina venom nerve growth factor. Proc. Acad. Sci. SSSR, 277, 1267-1269 (in Russian).

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40. Katkov, V.S., Kaplan, I.V., Talyansky, M.E., Kargamanov, V.N., Reeman, K.J. & Saarma, M.J. (1985) Use of monoclonal antibodies for the differential ELISA detection of champinion viruses. Proc. Acad. Sci. Agr. SSSR, 8, 29-31 (in Russian).

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46. Ilves, H., Paalme, V., Speek, M. & Saarma, M. (1986) Nucleotide sequence and transcription of the highly repeating EcoR1 sequences of rat DNA. Proc. Acad. Sci. SSSR,287, 448-451 (in Russian).

47. Saarma, M. & Aaviksaar, A. (1986) Molecular Biology; In "Estonian Academy of Sciences in 1980-1985", Tallinn, pp. 106-115 (in Estonian).

48. Saarma, M., Toots, U., Raukas, E., Zhelkovsky, A., Pivazjan, A. & Neuman, T. (1986) Nerve growth factor induces changes in (2'-5')oligo(A) synthetase and 2'-phosphodies¬terase activities during differentiation of PC12 pheochromocytoma cells. Exp. Cell Res., 166, 229-236.

49. Siigur, J., Arumäe, U., Neuman, T., Samel, M., Siigur, E. & Saarma, M. (1986) Isolation and characterization of nerve growth factor from Vipera berus berus (common viper) venom. Comp. Biochem. Physiol., 83B, 621-625.

50. Toots, U., Neuman, T., Pivazjan, A., Raukas, E., Zhelkovsky, A. & Saarma, M. (1986) Involvement of the 2-5A enzyme system in NGF induced neuronal differentiation. In: "Macromolecul¬es in the functioning cell"; Pustsino, pp. 232-238.

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51. Arumäe, U., Siigur, J., Metsis, M., Saarma, M. & Neuman, T. (1987) Comparison of the antigenic structure of nerve growth factors with monoclonal antibodies. In: "Genetic studies in Estonian SSR", Tallinn, pp. 46-105 (in Russian).

52. Arumäe, U., Siigur, J., Neuman, T. & Saarma, M. (1987) Monoclonal antibodies against Vipera lebetina venom nerve growth factor cross-react with other snake venom nerve growth factors. Molecular Immunology, 24, 1295-1302.

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54. Kärgel, H.-J., Stahl, J., Gross, B., Knespel, S., Bielka, H. & Saarma, M. (1987) Studies on the interaction of 5S RNA with ribosomal proteins. FEBS Lett., 220, 126-128.

55. Neilinn, M., Nigul, A., Toots, I. & Saarma, M. (1987) Secondary structure of the 5'-end 5.3S fragment of ribosomal 18S RNA from rat liver. Bioorganic Chemistry, 13, 128-130 (in Russian).

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58. Toots, U., Kelve, M. & Saarma, M. (1987) Affinity labelling and affinity chromatogra¬phy of 2-5 oligo(A) binding proteins. In: "Genetic studies in Estonian SSR", Tallinn, pp. 129-136 (in Russian).

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59. Laasberg, T., Pihlak, A., Neuman, T., Paves, H. & Saarma, M. (1988) Nerve growth factor increases the cyclic GMP level and activates the cyclic GMP phosphodiesterase in PC12 cells. FEBS Lett., 236, 277-280.

60. Paalme, V., Arumäe, U., Siigur, J., Neuman, T., Sepelev, S. & Saarma, M. (1988) Salivary glands of poisonous and nonpoisonous snakes synthesize and secrete nerve growth factor. Proc. Acad. Sci. SSSR., 301, 754-756 (in Russian).

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63. Radavsky, J., Zaikin, A.A., Viter, S.S., Turova, I.P., Grama, D.P., Bobkova, A.F., Golstein, M.I., Järvekülg, L., Söber, J. & Saarma, M. (1988) Antigenic structure of potato virus X coat protein. I. Immunological analysis of cyanogene bromide fragments. Bioorganic Chemistry, 14, 20-26 (in Russian).

64. Saarma, M. (1988) Nobel prize in physiology and medicine in 1987 for the discovery of immunologlobulin gene structure. Estonian Health Care, 3, 221-224 (in Estonian).

65. Saarma, M., Timmusk, T., Paves, H., Metsis, M., Arumäe, U., Kelve, M. & Neuman, T. (1988) Induction of neuron-specific genes and proteins in PC12 cells during neuronal differentiation. In: "Macromolecules in the functioning cell" (Ruffo, A. et al., eds.) Consiglio Nazionale delle Ricerche Quadermi de La Ricerca Scientifica, 117, 67-76,.

66. Sinijärv, R., Järvekülg, L. & Saarma, M. (1988) Simultaneous quantitative detection of two plant viruses. Proc. Acad. Agr. Sci. SSSR. 8, 16-18 (in Russian).

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69. Toots, V., Kelve, M. & Saarma, M. (1988) Degradation of mRNA, ribosomal RNA and 2-5A-dependent inhibition of protein synthesis. Molecular Biology, 6, 1473-1481 (in Russian).

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70. Arumäe, U., Neuman, T., Sinijärv, R. & Saarma, M. (1989) Sensitive time-resolved fluoroimmunoassay of nerve growth factor and the disapparance of nerve growth factor from rat pheochromocytoma PC12 cells culture medium. J. Immunol. Meth. 122, 59-65.

71. Järvekülg, L., Söber, J., Sinijärv, R., Toots, I. & Saarma, M. (1989) Time-resolved fluoroimmunoassay of potato virus M with monoclonal antibodies. Ann. Appl. Biol., 114, 279-291.

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76. Saarma, M.J., Järvekülg, L.V., Andreeva, E.G., Ojamaa, M.M. & Sinijärv, R.K. (1989) Use of time-resolved fluoroimmunoassay for the simultaneous detection of viruses. In: "Genetic and cellular engineering and fundamental problems of biotechnology", Tartu-Kääriku, pp. 148-156.

77. Saarma, M., Järvekülg, L., Hemmilä, I., Siitari, H. & Sinijärv, R. (1989) Simultaneous quantification of two plant viruses by double-label time-resolved immunofluorimetric assay. J. Virol. Meth., 23, 47-54.

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79. Kalinichenko, E.N., Podkopaeva, T.L. Kelve, M., Saarma, M. & Mikhailopulo, I.A. (1990) 3'-fluoro-3'-deoxy analogs of 2-5'-monophosphate: binding to 2-5A-dependent endoribonuclease and susceptibility to (2'-5') phosphodiesterase degradation. **Biochem.** **Biophys. Res. Commun.**, *167*, 20-26.

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81. Örd, T., Kolmer, M., Villems, R. & Saarma, M. (1990) Structure of the human genomic region homologous to the bovine prochymosin-encoding gene, **Gene**, *91*, 241-246.

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89. Baratova, L.A., Grebenshchikov, N.I., Dobrov, E.N., Gedrovich, A.V., Kashirin, I.A., Shishkov, A.V., Efimov, A.V., Järvekülg, L., Radavsky, J.L. & Saarma, M. (1992) The organization of potato virus X coat proteins in virus particles studied by tritium planography and model building. **Virology**, *188,* 175-180.

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98. Arumäe, U., Pirvola, U., Palgi, J., Kiema, T.-R., Palm, K., Moshnyakov, M., Ylikoski, J. & Saarma, M. (1993) Neurotrophins and their receptors in rat peripheral trigeminal system during maxillary nerve growth. **J. Cell. Biol.**, *122*, 1053-1065.

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