

Publication Lists (Masatoshi Tagawa, M.D., Ph.D.)

1. Taniguchi, M., Kanno, M., Tokuhisa, T., Tagawa, M., Sumida, T., Takei, I., Ono, K. and Shigemoto, K.: An antigen-specific suppressor T cell factor composed of two distinct polypeptide chains. In: Humoral factors in host defense. Academic Press, p. 71-79, 1983.
2. Taniguchi, M., Tokuhisa, T., Saito, T., Takei, I., Sumida, T., Kanno, M., Tagawa, M., Ono, K., Itoh, T., Shigemoto, K., Iemoto, Y. and Imai, K.: Molecular aspects of the regulation of immune response. In: Progress in Immunology. ed. by Yamamura, Y. and Tada, T. Academic Press, p.861-870, 1984.
3. Taniguchi, M., Takei, I., Sumida, T., Kanno, M., Tagawa, M. and Itoh, T.: Suppressor T-cell hybridoma with a receptor recognizing KLH-specific suppressor factor. In: The biology of idiotypes. ed. by Green, M.I. and Nisonoff, A. Plenum Press, p435-447, 1984.
4. Tagawa, M., Tokuhisa, T., Ono, K., Taniguchi, M., Herzenberg, L. A. and Herzenberg, L. A.: Epitope-specific regulation IV. *In vitro* studies with suppressor T cells induced by carrier/hapten-carrier immunization. Cell. Immunol. 86: 327-336, 1984.
5. Taniguchi, M., Saito, T., Kanno, M., Tokuhisa, T., Sumida, T. and Tagawa, M.: Antigen-specific suppressor T cell factor: Functional and molecular structure. In: T cell hybridomas. ed. by Taussig, M.J. CRC Press, p197-208, 1985.
6. Hirabayashi, Y., Hamaoka, A., Matsumoto, M., Matsubara, T., Tagawa, M., Wakabayashi, S. and Taniguchi, M.: Syngeneic monoclonal antibody against melanoma antigen with interspecies cross-reactivity recognizing GM3, a prominent ganglioside of B16 melanoma. J. Biol. Chem. 260: 13328-13333, 1985.
7. Hirabayashi, Y., Sugimoto, M., Ogawa, T., Matsumoto, M., Tagawa, M. and Taniguchi, M.: Reactivity of mouse monoclonal antibody M2590 against B16 melanoma cells with chemically synthesized GM3 ganglioside. Biochim. Biophys. Acta, 875: 126-128, 1986.
8. Tagawa, M., Nakauchi, H., Herzenberg, L. A. and Nolan, G. P.: Formal proof that different-size Lyt-2 polypeptides arise from differential splicing and post-transcriptional regulation. Proc. Natl. Acad. Sci. USA, 83: 3422-3426, 1986.
9. Taniguchi, M., Imai, K., Matsushita, E., Sumida, T., Tagawa, M., Yamamoto, S. and Kanno, M.: Antigen receptor and functional molecule of suppressor T cell. The Sino-Jpn. J. Allerg. Immunol. 3: 225-229, 1986.
10. Nakauchi, H., Tagawa, M., Nolan, G. P. and Herzenberg, L. A.: Isolation and characterization of the gene for the murine T cell differentiation antigen and immunoglobulin-related molecule, Lyt-2. Nucleic Acids Res. 15: 4337-4347, 1987.
11. Nakauchi, H., Nolan, G. P., Tagawa, M. and Herzenberg, L. A.: Cloning, sequencing and differential splicing of the Lyt-2 gene. In: New horizons in animal models for autoimmune disease. ed. by Kyogoku, M. and Wigzel, H. Academic Press, Tokyo, p133-140, 1987.
12. Taniguchi, M., Takahashi, K., Hirabayashi, Y., Tagawa, M., Sakamoto, T., Okitsu, A. and Kusakabe, N.: Characterization of mouse melanoma associate antigen and genomic cloning.

In: Gann monograph on cancer research on cellular and molecular mechanisms of tumor immunity. ed. by Hashimoto, Y. and Hamaoka, T. J. Cancer Assoc. p51-58, 1988.

13. Tagawa, M., Sakamoto, T., Okitsu, A., Tamura, Y., Imai, K., Matsubara, H. and Taniguchi, M.: Melanoma antigen and related gene. In: Pigment Cell Res. Alanr. Liss, INC. supplement 1: 192-200, 1988.

14. Tagawa, M., Ito, T., Kanno, M., Okitsu, A., Imai, K., Kuwabara, I., Kosei, H., Matsubara, H., Lau, Y-F. and Taniguchi, M.: Methods of genomic DNA cloning by the combination of cosmid shuttle vector and monoclonal antibody. Microbiol. Immunol. 32: 1073-1078, 1988.

15. Okitsu, A., Tagawa, M., Tamura, Y., Kanno, M., Matsubara, H., Ito, T., Imai, K., Shigemoto, K., Nakamura, I., Koseki, H., Lau, Y-F. and Taniguchi, M.: Isolation of genomic DNA controlling mouse melanoma antigen defined by monoclonal antibody. Jpn. J. Cancer Res. 79: 718-725, 1988.

16. Taniguchi, M., Wakabayashi, S. and Tagawa, M.: Syngeneic monoclonal anti-melanoma antibodies and their applications for analysis of tumor antigens, gene cloning and *in vitro/in vivo* diagnosis. Pigment Cell Res. 2: 254-258, 1989.

17. Matsushita, E., Sumida, T., Tagawa, M. and Taniguchi, M.: Biochemical characterization of an antigen-specific suppressor T cell factor. Int. Arch. Allergy Appl. Immunol. 88: 323-331, 1989.

18. Tagawa, M., Sakamoto, T., Tamura, Y., Imai, K., Ito, T., Matsubara, H., Kanno, M., Shigemoto, K., Koseki, H. and Taniguchi, M.: Genomic DNA with transformation-related activity and melanoma antigen expression. J. Invest. Dermatol. 92: 284S-288S, 1989.

19. Griffith, L. G., Schulman, H. and Tagawa, M.: *In vivo* and *in vitro* phosphorylation of murine lymphocyte differentiation antigen CD5. Biochem. Biophys. Res. Commun. 159: 536-541, 1989.

20. Kuwabara, K., Tagawa, M., Harada, Y., Ito, T. and Taniguchi, M.: Properties of mouse melanoma antigen and its secretion mechanism from the cell surface. Jpn. J. Cancer Res. 80: 981-987, 1989.

21. Tagawa, M., Sakamoto, T., Shigemoto, K., Matsubara, H., Tamura, Y., Ito, T., Nakamura, I., Okitsu, A., Imai, K. and Taniguchi, M.: Expression of novel DNA-binding protein with zinc finger structure in various tumor cells. J. Biol. Chem. 265: 20021-20026, 1990.

22. Iizasa, T., Yamaguchi, Y., Tagawa, M., Saito, H., Fujisawa, T., Kato, K. and Taniguchi, M.: Establishment of human monoclonal antibody recognizing a new tumor-associated antigen from a patient with small cell lung carcinoma. Hybridoma 9: 211-219, 1990.

23 Tagawa, M. and Griffith, L. C.: Murine T-cell differentiation antigen CD8 is a direct substrate of protein kinase C. Biochem. Biophys. Res. Commun. 170: 10-16, 1990.

24. Iizasa, T., Yamaguchi, Y., Tagawa, M., Fujisawa, T., Saito, H., Kondo, H., Matsuo, Y., Minowada, J. and Taniguchi, M.: Human monoclonal antibody detects a cell surface antigen

expressed on hematopoietic malignant cells of lymphoid lineages. *Jpn. J. Cancer Res.* 82: 213-218, 1991.

25. Tagawa, M., Koike, T. and Griffith, L. C.: Phosphorylation of mouse thymocyte CD4 and CD8: regulation of surface expression. *Biochem. Int.* 24: 739-747, 1991.

26. Miya, T., Tagawa, M., Kato, N., Takahashi, K., Sato, K. and Fujimura, S.: Involvement of protein kinase C in proliferative response of osteoblastic cell line stimulated with prostaglandin E2. *Biochem. Mol. Biol. Int.* 29: 1023-1028, 1993.

27. Miya, T., Tagawa, M., Kato, N., Takahashi, K., Sato, K. and Fujimura, S.: Prostaglandin E2/Parathyroid hormone-induced suppression of alkaline phosphatase activity is mediated by protein kinase C. *Int. J. Biochem.* 26: 639-643, 1994.

28. Tagawa, M., Shirasawa, T., Fujimura, S. and Sakiyama, S.: Expression of protein tyrosine phosphatase genes in the developing brain of mouse and rat. *Biochem. Mol. Biol. Int.* 33: 1221-1227, 1994.

29. Tagawa, M., Watanabe, S., Fujita, Y., Fujimura, S. and Sakiyama, S.: Elevated protein tyrosine phosphatase activity in human colon cancer. *Oncol. Rep.* 1:783-786, 1994.

30. Tagawa, M., Shirasawa, T., Fujimura, S. and Sakiyama, S.: Identification of a rat protein tyrosine phosphatase gene preferentially expressed in the embryonal brain. *Cell. Mol. Biol. Res.* 40: 627-631, 1994.

31. Terakado, A., Tagawa, M., Goto, S., Yamazaki, M., Moriya, H. and Fujimura, S.: Elevation of alkaline phosphatase activity induced by parathyroid hormone in osteoblast-like cells from the spinal hyperostotic mouse *twy (twy/twy)*. *Calcified Tis. Int.* 56: 135-139, 1995.

32. Murata, M., Tagawa, M., Kimura, M., Kimura, H. and Watanabe, S.: Analysis of germ line polymorphisms of p53 gene in lung cancer patients; discrete results with smoking history. *Carcinogenesis* 17: 261-264, 1996.

33. Takenaga, K., Tagawa, M. and Sakiyama, S.: Therapeutic potency of transduction with herpes simplex virus thymidine kinase gene against multidrug resistant mouse leukemia cells. *Anticancer Res.* 16: 681-686, 1996.

34. Gunji, Y., Tagawa, M., Matsubara, H., Takenaga, K., Shimada, H., Kondo, F., Suzuki, T., Nakajima, K., Aoki, A., Asano, T., Ochiai, T., Isono, K., Kageyama, H., Nakamura, Y. and Sakiyama, S.: Murine colon carcinoma cells engineered to produce human interleukin-2 induce tumor specific antitumor response. *Int. J. Cancer* 66: 135-139, 1996.

35. Matsubara, H., Tagawa, M., Gunji, Y., Takenaga, K., Sugaya, M., Urashima, T., Koide, Y., Suzuki, T., Asano, T., Ochiai, T., Isono, K., Kageyama, H., Nakamura, Y. and Sakiyama, S.: Study of irradiation on cytokine secretion from retrovirally-transduced tumor cells: a model for tumor vaccination. *Anticancer Res.* 16: 645-650, 1996.

36. Gunji, Y., Tagawa, M., Matsubara, H., Takenaga, K., Shimada, H., Kondo, F., Suzuki, T., Nakajima, K., Sugaya, M., Asano, A., Ochiai, T., Isono, K., Horitsu, K., Kageyama, H., Nakamura, Y. and Sakiyama, S.: Antitumor effect induced by the expression of granulocyte

macrophage-colony stimulating factor gene in murine colon carcinoma cells. *Cancer Lett.* 101: 257-261, 1996.

37. Iwadate, Y., Fujimoto, S., Tagawa, M., Namba, H., Sueyoshi, K., Hirose, M. and Sakiyama, S.: Association of *p53* gene mutation and decreased chemosensitivity in human malignant gliomas. *Int. J. Cancer* 69: 236-240, 1996.

38. Takenaga, K., Nakamura Y., Tagawa, M., Kageyama, H. and Sakiyama, S.: Augmentation of *in vivo* growth of Lewis lung carcinoma cells transduced with granulocyte macrophage-colony stimulating factor gene. *Cancer Lett.* 105: 33-37, 1996.

39. Yahagi, Y., Tagawa, M., Tomoda, T. and Shirasawa, T.: Binary expression of olfactory bulb-protein tyrosine phosphatase in rat central nervous system: developmentally regulated in neonatal cerebral cortex and constitutively expressed in olfactory-piriform system. *Neurosci. Lett.* 211: 125-128, 1996.

40. Iwadate, Y., Namba, H., Tagawa, M., Takenaga, K., Sueyoshi, K. and Sakiyama, S.: *In vivo* bystander effect in the intracranial model with rat glioma cells reflects the clonal difference of HSV-TK positive cells. *Int. J. Oncol.* 9: 521-525, 1996.

41. Namba, H., Iwadate, Y., Tagawa, M., Kimura, M., Shimizu, H., Sato, Y., Sueyoshi, K. and Sakiyama, S.: Evaluation of the bystander effect in experimental brain tumors bearing herpes simplex virus-thymidine kinase gene by serial magnetic resonance imaging. *Hum. Gene Ther.* 7: 1847-1852, 1996.

42. Gunji, Y., Tagawa, M., Matsubara, H., Takenaga, K., Sugaya, M., Tasaki, K., Maeda, T., Kondo, F., Nakajima, K., Suzuki, T., Asano, T., Ochiai, T., Isono, K. and Sakiyama, S.: Inhibition of peritoneal dissemination of colon carcinoma in syngeneic mice immunized with interleukin-2-producing cells. *Cancer Lett.* 109: 171-176, 1996.

43. Gunji Y., Tagawa, M., Matsubara, H., Takenaga, K., Shimada, H., Kondo, F., Suzuki, T., Nakajima, K., Sugaya, M., Asano, T., Ochiai, T., Isono, K., Kageyama, H., Nakamura, Y. and Sakiyama, S.: Antitumor effect of murine colon carcinoma cells retrovirally transduced with interleukin-4 and granulocyte macrophage-colony stimulating factor genes. *Oncology* 54: 69-73, 1997.

44. Tagawa, M., Shirasawa, T., Yahagi, Y., Tomoda, T., Kuroyanagi, H., Fujimura, S., Sakiyama, S. and Maruyama, N.: Identification of a receptor-type protein tyrosine phosphatase expressed in postmitotic neurons: its structure and expression in central nervous system. *Biochem. J.* 321: 865-871, 1997.

45. Kimura, M., Tagawa, M., Takenaga, K., Nakagawara, A., Horitsu, K., Yamaguchi, T., Saisho, H., and Sakiyama, S.: Drug resistance to ganciclovir observed in suicide gene therapy is due to the loss of integrated herpes simplex virus-thymidine kinase gene. *Int. J. Oncol.* 10: 775-778, 1997.

46. Iwadate, Y., Fujimoto, S., Sueyoshi, K., Tagawa, M., and Yamaura, A.: Prediction of drug cytotoxicity in 9L rat brain tumor using flow cytometry with a deoxyribonucleic acid-binding dye. *Neurosurgery* 40: 782-788, 1997.

47. Kimura, M., Tagawa, M., Takenaga, K., Yamaguchi, T., Saisho, H., Nakagawara, A. and Sakiyama, S.: Inability to induce the alteration of tumorigenicity and chemosensitivity of p53-null human pancreatic carcinoma cells by the transduction of wild-type *p53* gene. *Anticancer Res.* 17: 879-884, 1997.
48. Kon, T., Yamazaki, M., Tagawa, M., Goto, S., Terakado, A., Moriya, H. and Fujimura, S.: Bone morphogenetic protein-2 stimulates differentiation of cultured spinal ligament cells from patients with ossification of the posterior longitudinal ligament. *Calcif Tissue. Int.* 60: 291-296, 1997.
49. Iwadate, Y., Namba, H., Tagawa, M., Takenaga, K., Sueyoshi, K. and Sakiyama, S.: Induction of acquired immunity in rats that have eliminated intracranial gliosarcoma cells by the expression of herpes simplex virus-thymidine kinase gene and ganciclovir administration. *Oncology* 54: 329-334, 1997.
50. Kuroyanagi, H., Tagawa, M., Yahagi, Y. and Shirasawa, T.: Identification of a receptor-type tyrosine phosphatase expressed in postmitotic maturing neurons: its structure and expression in the central nervous system. In: *Kinases and phosphatases in lymphocyte and neuron signaling.* ed. by Yakura, H. Springer-Verlag, Tokyo, p308-309, 1997.
51. Tasaki, K., Yoshida, Y., Tagawa, M., Takenaga, K., Asano, T., Ochiai, T., Isono, K., Kouzu, T., Saisho, H., Sakiyama, S.: Discordant production of released exogenous protein and infectious virions from retrovirus-packaging cells used for gene transduction. *Anticancer Res.* 17: 4415-4418, 1997.
52. Namba, H., Tagawa, M., Iwadate, Y., Kimura, M., Sueyoshi, K. and Sakiyama, S.: Bystander effect-mediated therapy of experimental brain tumor by genetically engineered tumor cells. *Hum. Gene Ther.* 9: 5-11, 1998.
53. Sugaya, M., Tagawa, M., Matsubara, H., Gunji, Y., Takenaga, K., Maeda, T., Koide, Y., Asano, T., Ochiai, T., Isono, K. and Sakiyama, S.: Induction of antitumor effect on human esophageal carcinoma cells by the retroviral expression of granulocyte macrophage-colony stimulating factor gene. *Int. J. Oncol.* 12: 321-324, 1998.
54. Murata, M., Tagawa, M., Kimura, H., Kakisawa, K., Shirasawa, H. and Fujisawa, T.: Correlation of the mutation of *p53* gene and the polymorphism at codon 72 in smoking-related non-small cell lung cancer patients. *Int. J. Oncol.* 12: 577-581, 1998.
55. Tagawa, M., Goto, S., Takenaga, K., Takeshita, A., Saotome, T., Takenouti, T., Tsurumachi, T., Gunji, Y., Matsubara, H. and Sakiyama, S.: Reduced tumorigenicity of human gastric carcinoma cells engineered to produce IL-2 in SCID mice reconstituted with peripheral blood cells from cancer patients. *Cancer Lett.* 123: 87-93, 1998.
56. Iwadate, Y., Tagawa, M., Fujimoto, S., Hirose, M., Namba, H., Sueyoshi, K., Sakiyama, S. and Yamaura, Y.: Mutation of *p53* gene in human astrocytic tumors correlates with increased resistance to DNA-damaging but not to anti-microtubule anti-cancer agents. *Br. J. Cancer* 77: 547-551, 1998.

57. Namba, H., Iwadate, Y., Iyo, M., Fukushi, K., Irie, T., Sueyoshi, K., Tagawa, M. and Sakiyama, S.: Glucose and methionine uptake by rat brain tumor treated with prodrug-activated gene therapy. *Nucl. Med. Biol.* 25: 247-250, 1998.
58. Yoshida, H., Enomoto, H., Miyauchi, M., Takenaga, K., Tanabe, M., Ohnuma, N., Sakiyama, S. and Tagawa, M.: Impaired tumorigenicity of IL-4-producing murine neuroblastoma cells in immunodeficient nude mice. *Int. J. Oncol.* 12: 1067-1071, 1998.
59. Kimura, M., Tagawa, M., Yoshida, Y., Takenouchi, T., Takenaga, K., Azuma, K., Yamaguchi, T., Saisho, H. and Sakiyama, S.: Impaired *in vivo* tumor growth of human pancreatic carcinoma cells retrovirally transduced with GM-CSF gene. *Anticancer Res.* 18: 165-170, 1998.
60. Yoshida, Y., Tasaki, K., Kimura, M., Takenaga, K., Yamamoto, H., Yamaguchi, T., Saisho, H., Sakiyama, S. and Tagawa, M.: Antitumor effect of human pancreatic cancer cells transduced with cytokine genes which activate Th1 helper T cells. *Anticancer Res.* 18: 333-336, 1998.
61. Goto, K., Yamazaki, M., Tagawa, M., Goto, S., Kon, T., Moriya, H. and Fujimura, S.: Involvement of insulin-like growth factor I in development of ossification of the posterior longitudinal ligament of the spine. *Calcif. Tissue Int.* 62: 158-165, 1998.
62. Tasaki, K., Tagawa, M., Gunji, Y., Matsubara, H., Takenaga, K., Muramatsu, M., Fujimura, S., Suzuki, T., Asano, T., Ochiai, T., Isono, K., Kouzu, T. and Sakiyama, S.: Inhibition of experimental lung metastasis of murine colon carcinoma cells depends on the amount of interleukin-2 secreted from the transduced cells. *Anticancer Res.* 18: 813-818, 1998.
63. Yoshida, H., Enomoto, H., Tagawa, M., Takenaga, K., Tasaki, K., Nakagawara, A., Ohnuma, N., Takahashi, H. and Sakiyama, S.: Impaired tumorigenicity and decreased liver metastasis of murine neuroblastoma cells engineered to secrete interleukin-2 or granulocyte macrophage-colony stimulating factor. *Cancer Gene Ther.* 5: 67-73, 1998.
64. Yoshida, H., Enomoto, H., Kawamura, K., Takenaga, K., Tanabe, M., Ohnuma, N., Sakiyama, S. and Tagawa, M.: Antitumor vaccine effect of irradiated murine neuroblastoma cells producing interleukin-2 or granulocyte macrophage-colony stimulating factor. *Int. J. Oncol.* 13: 73-78, 1998.
65. Okamura, A., Ohmura, Y., Islam, M. M., Tagawa, M., Horitsu, K., Moriyama Y. and Fujimura, S.: Increased hepatic nicotinamide N-methyltransferase activity as a marker of cancer cachexia in mice bearing colon 26 adenocarcinoma. *Jpn. J. Cancer Res.* 89: 649-656, 1998.
66. Kimura, M., Tagawa, M., Takenaga, K., Kageyama, H., Nakamura, Y., Yamaguchi, T., Saisho, H., Nakagawara, A. and Sakiyama, S.: Loss of tumorigenicity of human pancreatic carcinoma cells engineered to produce IL-2 and IL-4 in nude mice: a potentiality for cancer gene therapy. *Cancer Lett.* 128: 47-53, 1998.

67. Tagawa, M., Murata, M. and Kimura, H.: Prognostic value of mutations and a germ line polymorphism of p53 gene in non-small cell lung carcinoma: association with clinicopathological features. *Cancer Lett.* 128: 93-99, 1998.
68. Tasaki, K., Tagawa, M., Gunji, Y., Matsubara, H., Takenaga, K., Suzuki, T., Asano, T., Ochiai, T., Isono, K., Kouzu, T. and Sakiyama, S.: Induction of T cell dependent acquired immunity in syngeneic mice by the combinatory expression of interleukin-4 and granulocyte macrophage-colony stimulating factor gene in murine colon carcinoma cells. *Anticancer Res.* 18: 1453-1456, 1998.
69. Matsubara, H., Koide, Y., Sugaya, M., Gunji, Y., Asano, T., Ochiai, T., Takenaga, K., Sakiyama S. and Tagawa, M.: Antitumor response of genetically engineered IL-2 expression to human esophageal carcinoma cells in mature T cell-defective condition. *Int. J. Oncol.* 13: 1217-1222, 1998.
70. Gunji, Y., Tasaki, K., Tagawa, M., Matsubara, H., Takenaga, K., Suzuki, T., Asano, T., Ochiai, T., Isono, K. and Sakiyama, S.: Inhibition of peritoneal dissemination of murine colon carcinoma cells by administration retrovirus harboring IL-2 gene. *Cancer Gene Ther.* 5: 339-343, 1998.
71. Miyauchi, M., Shimada, H., Kadomatsu, K., Muramatsu, T., Matsubara, S., Ikematsu, S., Takenaga, K., Asano, T., Ochiai, T., Sakiyama, S. and Tagawa, M.: Frequent expression of midkine gene in esophageal cancer suggests a potential usage of its promoter for suicide gene therapy. *Jpn. J. Cancer Res.* 90: 469-475, 1999.
72. Matsubara, H., Kimura, M., Sugaya, M., Koide, Y., Gunji, Y., Takegana, K., Asano, T., Ochiai, T., Isono, K., Sakiyama, S. and Tagawa, M.: Expression of wild-type p53 gene confers increased sensitivity to radiation and chemotherapeutic agents in human esophageal carcinoma cells. *Int. J. Oncol.* 14: 1081-1085, 1999.
73. Murata, M., Tagawa, M., Watanabe, S., Kimura, H., Takeshita, T. and Morimoto, K.: Genotype difference of aldehyde dehydrogenase 2 gene in alcohol drinkers influences the incidence of Japanese colorectal cancer patients. *Jpn. J. Cancer Res.* 90: 711-719, 1999.
74. Kimura, M., Yoshida, Y., Narita, M., Takenaga, K., Takenouchi, T., Yamaguchi, T., Saisho H., Sakiyama, S. and Tagawa, M.: Acquired immunity in nude mice induced by expression of the *IL-2* or *IL-4* gene in human pancreatic carcinoma cells and anti-tumor effect generated by *in vivo* gene transfer using retrovirus. *Int. J. Cancer* 82: 549-555, 1999.
75. Yoshida, H., Tanabe, M., Miyauchi, M., Kawamura, K., Takenaga, K., Ohnuma, N., Sakiyama, S. and Tagawa, M.: Induced immunity by expression of interleukin-2 or GM-CSF gene in murine neuroblastoma cells can generate antitumor response to established tumors. *Cancer Gene Ther.* 6: 395-401, 1999.
76. Maeda, T., Matsubara, H., Sugaya, M., Miyazawa, Y., Gunji, Y., Ochiai, T., Sakiyama, S and Tagawa, M.: Loss of tumorigenicity of human breast cancer cells engineered to produce IL-2, IL-4 or GM-CSF in nude mice. *Int. J. Oncol.* 15: 943-947, 1999.

77. Mochizuki, S., Iwadate, Y., Namba, H., Yoshida, Y., Yamaura, A., Sakiyama, S. and Tagawa, M.: Homozygous deletion of the *p16/MTS-1/CDKN2* gene in brain tumors is infrequent among Japanese patients. *Int. J. Oncol.* 15: 983-989, 1999.
78. Matsubara, H., Kawamura, K., Sugaya, M., Koide, Y., Gunji, Y., Takenaga, K., Asano, T., Ochiai, T., Sakiyama, S. and Tagawa, M.: Differential efficacy of suicide gene therapy by herpes simplex virus-thymidine kinase gene reflects the status of p53 gene in human esophageal cancer cells. *Anticancer Res.* 19: 4157-4160, 1999.
79. Takasu, M., Tada, Y., Wang, J.O., Tagawa, M. and Takenaga, K.: Resistance to apoptosis induced by microenvironmental stresses is correlated with metastatic potential in Lewis lung carcinoma. *Clin. Exp. Metastasis* 17: 409-416, 1999.
80. Tasaki, K., Yoshida, Y., Maeda, T., Miyauchi, M., Kawamura, K., Takenaga, K., Yamamoto, H., Kouzu, T., Asano, T., Ochiai, T., Sakiyama, S. and Tagawa, M.: Protective immunity is induced in murine colon carcinoma cells by the expression of interleukin-12 or interleukin-18, which activate type 1 helper T cells. *Cancer Gene Ther.* 7: 247-254, 2000.
81. Tasaki, K., Yoshida, Y., Miyauchi, M., Maeda, T., Takenaga, K., Kouzu, T., Asano, T., Ochiai, T., Sakiyamna, S. and Tagawa, M.: Transduction of murine colon carcinoma cells with interleukin-15 gene induces antitumor effects in immunocompetent and immunocompromised hosts. *Cancer Gene Ther.* 7: 255-261, 2000.
82. Yoshida, Y., Tasaki, K., Miyauchi, M., Narita, M., Takenaga, K., Yamamoto, H., Yamaguchi, T., Saisho, H., Sakiyama, S. and Tagawa, M.: Impaired tumorigenicity of human pancreatic cancer cells retrovirally transduced with interleukin-12 or interleukin-15 gene. *Cancer Gene Ther.* 7: 324-331, 2000.
83. Narita, M., Takanaga, K., Yoshida, Y., Kadomatsu, K., Muramatsu, T., Matsubara, S., Hamada, H., Goto, S., Saisho, H., Sakiyama, S. and Tagawa, M.: Polyadenylation signal facilitates the expression of foreign gene that is driven by an internal promoter located in the reverse orientation to long terminal repeat of retrovirus. *Anticancer Res.* 20: 279-282, 2000.
84. Tagawa, M.: Cytokine therapy for cancer. *Curr. Pharm. Des.* 6: 681-699, 2000.
85. Kawamura, K., Tasaki, K., Hamada, H., Takenaga, K., Sakiyama, S. and Tagawa, M.: Expression of *Escherichia coli* uracil phosphoribosyltransferase gene in murine colon carcinoma cells augments the antitumoral effect of 5-fluorouracil and induces protective immunity. *Cancer Gene Ther.* 7: 637-643, 2000.
86. Maeda, T., Matsubara, H., Koide, Y., Sugaya, M., Miyazawa, Y., Tasaki, K., Isono, K., Ochiai, T., Sakiyama, S. and Tagawa, M.: Radiosensitivity of human breast cancer cells transduced with wild-type p53 gene is influenced by p53 status of parental cells. *Anticancer Res.* 20: 869-874, 2000.
87. Koshikawa, N., Takenaga, K., Tagawa, M. and Sakiyama, S.: Therapeutic efficacy of the suicide gene driven by the promoter of vascular endothelial growth gene against hypoxic tumor cells. *Cancer Res.* 60: 2936-2941, 2000.

88. Namba, H., Tagawa, M., Miyagawa, T., Iwadate, Y. and Sakiyama, S.: Treatment of rat experimental brain tumor by herpes simplex virus thymidine kinase gene-transduced allogeneic tumor cells and ganciclovir. *Cancer Gene Ther.* 7: 947-953, 2000.
89. Iwadate, Y., Mochizuki, S., Fujimoto, S., Namba, H., Sakiyama, S., Tagawa, M. and Yamaura, A.: Alteration of CDKN2/p16 in human astrocytic tumors is related with increased susceptibility to antimetabolite anticancer agents. *Int. J. Oncol.* 17: 501-505, 2000.
90. Tsujimoto, T., Mochizuchi, S., Iwadate, Y., Namba, H., Nagai, M., Kawamoto, T., Sunahara, M., Yamaura, A., Nakagawara, A., Sakiyama, S. and Tagawa, M.: The p73 gene is not mutated in oligodendrogliomas which frequently have a deleted region at chromosome 1p36.3. *Anticancer Res.* 20: 2495-2497, 2000.
91. Iwadate, T., Tagawa, M., Namba, H., Oga, M., Kawamura, K., Tasaki, K., Sakiyama, S. and Yamaura, A.: Immunological responsiveness to interleukin-2-producing brain tumors can be restored by concurrent subcutaneous transplantation of the same tumors. *Cancer Gene Ther.* 7: 1263-1269, 2000.
92. Kawamura, K., Namba, H., Bahar, R., Miyauchi, M., Maeda, T., Hamada, H., Sakiyama, S. and Tagawa, M.: Transduction of the human deoxycytidine kinase gene in rodent tumor cells induces in vivo growth retardation in syngeneic hosts. *Cancer Lett.* 156: 151-157, 2000.
93. Kawamura, K., O-Wang, J., Bahar, R., Koshikawa, N., Shishikura, T., Nakagawara, A., Sakiyama, S., Kajiwara, K., Kimura, M. and Tagawa, M.: The error-prone DNA polymerase ζ catalytic subunit (Rev3) gene is ubiquitously expressed in normal and malignant human tissues. *Int. J. Oncol.* 18: 97-103, 2001.
94. Kawamura, K., Bahar, R., Namba, H., Seimiya, M., Takenaga, K., Hamada, H., Sakiyama, S. and Tagawa, M.: Bystander effect in uracil phosphoribosyltransferase/5-fluorouracil-mediated suicide gene therapy is correlated with the level of intercellular communication. *Int. J. Oncol.* 18: 117-120, 2001.
95. Miyauchi, M., Yoshida, Y., Tada, Y., Narita, M., Maeda, T., Bahar, R., Kadomatsu, K., Muramatsu, T., Matsubara, S., Nakagawara, A., Sakiyama, S. and Tagawa, M.: Expression of herpes simplex virus-thymidine kinase gene controlled by a promoter region of the midkine gene confers selective cytotoxicity to ganciclovir in human carcinoma cells. *Int. J. Cancer* 91: 723-727, 2001.
96. Kajiwara, K., O-Wang, J., Sakurai, T., Yamashita, S., Tanaka, M., Sato, M., Tagawa, M., Sugaya, E., Nakamura, K., Nakao, K., Katsuki, M. and Kimura, M.: *Sez4* gene encoding an elongation subunit of DNA polymerase ζ is required for normal embryogenesis. *Genes Cells* 6: 99-106, 2001.
97. Matsubara, H., Maeda, T., Gunji, Y., Koide, Y., Asano, T., Ochiai, T., Sakiyama, S. and Tagawa, M.: Combinatory anti-tumor effects of electroporation-mediated chemotherapy and wild-type *p53* gene transfer to human esophageal cancer cells. *Int. J. Oncol.* 18: 825-829, 2001.

98. Shimada, H., Shimizu, T., Ochiai, T., Liu, T-L., Sashiyama, H., Nakamura, A., Matsubara, H., Gunji, Y., Kobayashi, S., Tagawa, M., Sakiyama, S and Hiwasa, T.: Preclinical study of adenoviral p53 gene therapy for esophageal cancer. *Surg. Today* 31: 597-604, 2001.
99. O-Wang, J., Kawamura, K., Tada, Y., Ohmori, H., Kimura, H., Sakiyama, S and Tagawa, M.: DNA polymerase κ implicated in spontaneous and DNA damage-induced mutagenesis, is overexpressed in lung cancer. *Cancer Res.* 61: 5366-5369, 2001.
100. Namba, H., Iwadate, Y., Kawamura, K., Sakiyama, S. and Tagawa, M.: Efficacy of the bystander effect in the herpes simplex virus thymidine kinase-mediated gene therapy is influenced by the expression of connexin43 in the target cells. *Cancer Gene Ther.* 8: 414-420, 2001.
101. Tomizawa, M., Ebara, M., Saisho, H., Sakiyama, S and Tagawa, M.: Irradiation with ultrasound of low output intensity increased chemosensitivity of subcutaneous solid tumors to an anti-cancer agent. *Cancer Lett.* 173: 31-35, 2001.
102. Matsubara, H., Gunji, Y., Maeda, T., Tasaki, K., Koide, Y., Asano, T., Ochiai, T., Sakiyama, S. and Tagawa, M.: Electroporation-mediated transfer of cytokine genes into human esophageal tumors produces anti-tumor effects in mice. *Anticancer Res.* 21: 2501-2504, 2001.
103. Maeda, T., O-Wang, J., Matsubara, H., Asano, T., Ochiai, T., Sakiyama, S. and Tagawa, M.: A minimum c-erbB-2 promoter-mediated expression of herpes simplex virus thymidine kinase gene confers selective cytotoxicity of human breast cancer cells to ganciclovir. *Cancer Gene Ther.* 8: 890-896, 2001.
104. Narita, M., Bahar, R., Hatano, M., Kang, M. M., Tokuhisa, T., Goto, S., Saisho, H., Sakiyama, S. and Tagawa, M.: Tissue-specific expression of a suicide gene for selective killing of neuroblastoma cells using a promoter region of the NCX gene. *Cancer Gene Ther.* 8: 997-1002, 2001.
105. Iwadate, Y., Yamaura, A., Sato, Y., Sakiyama, S. and Tagawa, M.: Induction of immunity in peripheral tissues combined with intracerebral transplantation of interleukin-2-producing cells eliminates established brain tumors. *Cancer Res.* 61: 8769-8774, 2001.
106. Kawamura, K., Bahar, R., Natsume, W., Sakiyama, S. and Tagawa, M.: Secretion of interleukin-10 from murine colon carcinoma cells suppresses systemic anti-tumor immunity and impairs protective immunity induced against the tumors. *Cancer Gene Ther.* 9: 109-115, 2002.
107. Yu, L., Kamo, S. and Tagawa, M.: Identification of a minimal c-erbB-2 promoter region that mediates preferential expression of a linked foreign gene in human breast cancer cells. *Int. J. Oncol.* 20: 607-610, 2002.
108. Tada, Y., O-Wang, J., Takiguchi, Y., Tatsumi, K., Kuriyama, T. and Tagawa, M.: T cell dependent and independent antitumor immunity generated by the expression of Fas ligand on mouse lung carcinoma cells. *Int. J. Mol. Med.* 9: 281-285, 2002.

109. Shimada, H., Matsubara, H., Gunji, Y., Tagawa, M. and Ochiai, T.: Gene therapy for esophageal cancer. *Res. Adv. Cancer* 2: 45-52, 2002.
110. Tada, Y., O-Wang, J., Takenaga, K., Takiguchi, Y., Tatsumi, K., Kuriyama, T. and Tagawa, M.: Expression of the TNF- α gene on mouse lung carcinoma cells suppresses spontaneous lung metastasis without affecting tumorigenicity. *Oncol. Rep.* 9: 585-588, 2002.
111. Yoshida, Y., Tomizawa, M., Bahar, R., Miyauchi, M., Yamaguchi, T., Saisho, H., Kadomatsu, K., Muramatsu, T., Matsubara, S., Sakiyama, S. and Tagawa, M.: A promoter region of midkine gene can activate transcription of an exogenous suicide gene in human pancreatic cancer. *Anticancer Res.* 22: 117-120, 2002.
112. Seimiya, M., Bahar, R., Wang, Y., Kawamura, K., Tada, Y., Okada, S., Hatano, M., Tokuhisa, T., Saisho, H., Watanabe, T., Tagawa, M. and O-Wang, J.: Clast 5/Strat 13 is a negative regulator of B lymphocyte activation. *Biochem. Biophys. Res. Commun.* 292: 121-127, 2002.
113. Tomizawa, M., Wang, Y-Q., Ebara, M., Saisho, H., Watanabe, K., Nakagawara, A. and Tagawa, M.: Decreased expression of the CCAAT/enhancer binding protein α gene involved in hepatocyte proliferation in human hepatocellular carcinoma. *Int. J. Mol. Med.* 9: 597-600, 2002.
114. Tada, Y., O-Wang, J., Seimiya, M., Takiguchi, Y., Tatsumi, K., Kuriyama, T. and Tagawa, M.: Antitumor effects are produced by forced expression of membrane-bound but not soluble Fas ligand in murine lung carcinoma cells. *Anticancer Res.* 22: 831-836, 2002.
115. O-Wang, J., Kajiwara, K., Kawamura, K., Kimura, M., Miyagishima, H., Kosei, A. and Tagawa, M.: An essential role for REV3 in mammalian cell survival: absence of REV3 induces p53-independent embryonic cells. *Biochem. Biophys. Res. Commun.* 293: 1132-1137, 2002.
116. Tada, Y., O-Wang, J., Takiguchi, Y., Tatsumi, K., Kuriyama, T., Okada, S., Tokuhisa, T., Sakiyama, S. and Tagawa, M.: A novel role for Fas ligand in facilitating antigen acquisition by dendritic cells. *J. Immunol.* 169: 2241-2245, 2002.
117. Bahar, R., O-Wang, J., Kawamura, K., Seimiya, M., Wang, Y., Hatano, M., Okada, S., Tokuhisa, T., Watanabe, T. and Tagawa, M.: Growth retardation, polyploidy and multinucleation induced by Clast3, a novel cell cycle-regulated protein. *J. Biol. Chem.* 277: 40012-40019, 2002.
118. Iwadate, Y., Namba, H., Sakiyama, S., Yamaura, A. and Tagawa, M.: Interleukin-12-mediated induction of systemic immunity in the periphery and recruitment of activated T cells into the brain produced limited antitumor effects compared with interleukin-2. *Int. J. Mol. Med.* 10: 741-747, 2002.
119. Seimiya, M., O-Wang, J., Bahar, R., Kawamura, K., Wang, Y., Saisho, H. and Tagawa, M.: Stage-specific expression of *Clast6/E3/LAPTM5* during B cell differentiation: elevated expression in human B lymphomas. *Int. J. Oncol.* 22: 301-304, 2003.

120. Tada, Y., O-Wang, J., Wada, A., Takiguchi, Y., Tatsumi, K., Kuriyama, T., Sakiyama, S. and Tagawa, M.: Fas ligand-expressing tumors induce tumor-specific protective immunity in the inoculated hosts but vaccination with the apoptotic tumors suppresses antitumor immunity. *Cancer Gene Ther.* 10: 134-140, 2003.
121. Tomizawa, M., Watanabe, K., Saisho, H., Nakagawara, A. and Tagawa, M.: Down-regulated expression of CCAAT/enhancer binding protein α and β genes in human hepatocellular carcinoma: a possible prognostic marker. *Anticancer Res.* 23: 351-354, 2003.
122. Ugai, S., Shimozato, O., Kawamura, K., Wang, Y-Q., Yamaguchi, T., Saisho, H., Sakiyama, S and Tagawa, M.: Expression of the interleukin-21 gene in murine colon carcinoma cells generates systemic immunity in the inoculated hosts. *Cancer Gene Ther.* 10: 187-192, 2003.
123. Wang, Y-Q., Wada, A., Ugai, S. and Tagawa, M.: Expression of the Mig (CXCL9) gene in murine lung carcinoma cells generated angiogenesis-independent antitumor effects. *Oncol. Rep.* 10: 909-913, 2003.
124. Tada, Y., O-Wang, J., Yu, L., Shimozato, O., Wang, Y-Q., Takiguchi, Y., Tatsumi, K., Kuriyama, T., Takenaga, K., Sakiyama, S. and Tagawa, M.: T-cell-dependent antitumor effects produced by CD40 ligand expressed on mouse lung carcinoma cells are linked with the maturation of dendritic cells and secretion of a variety of cytokines. *Cancer Gene Ther.* 10: 451-456, 2003.
125. Hamada, K., Kohno, S., Iwamoto, M., Yokota, H., Okada, M., Tagawa, M., Hirose, S., Yamasaki, K., Shirakata, Y., Hashimoto, K. and Ito, M.: Identification of the human IAI.3B promoter element and its use in the construction of a replication-selective adenovirus for ovarian cancer therapy. *Cancer Res.* 63: 2506-2512, 2003.
126. Wang, Y-Q., Ugai, S., Shimozato, O., Yu, L., Kawamura, K., Yamamoto, H., Yamaguchi, T., Saisho, H. and Tagawa, M.: Induction of systemic immunity by expression of interleukin-23 in murine colon carcinoma cells. *Int. J. Cancer* 105: 820-824, 2003.
127. Iwadate, Y., Yamaura, Y., Sakiyama, S., Sato, Y. and Tagawa, M.: Glioma-specific cytotoxic T cells can be effectively induced by subcutaneous vaccination of irradiated wild-type tumor cells without artificial cytokine production. *Int. J. Oncol.* 23: 483-488, 2003.
128. Shimada, H., Nabeya, Y., Tagawa, M., Okazumi, S., Matsubara, H., Kadomatsu, K., Muramatsu, T., Ikematsu, S., Sakuma, S. and Ochiai, T.: Preoperative serum midkine concentration is a prognostic marker for esophageal squamous cell carcinoma. *Cancer Sci.* 94: 628-632, 2003.
129. Yu, L., Ugai, S., O-Wang, J., Namba, M., Kadomatsu, K., Muramatsu, T., Matsubara, S., Sakiyama, S. and Tagawa, M.: Cell growth- and P53-dependent transcriptional activity of the midkine promoter confers suicide gene expression in tumor cells. *Oncol. Rep.* 10: 1301-1305, 2003.
130. Sakiyama, S., Yu, L., Tomizawa, M., Shimada, H., Kadomatsu, K., Muramatsu, T., Ikematsu, S., Nakagawara, A. and Tagawa, M.: Utilization of the promoter region of the

midkine gene as a tool to drive the therapeutic genes in a tumor specific manner. *Adv. Enzyme Regul.* 43: 57-66, 2003.

131. Tomizawa, M., Yu, L., Wada, A., Tamaoki, T., Kadomatsu, K., Muramatsu, T., Matsubara, S., Watanabe, K., Ebara, M., Saisho, H., Sakiyama, S. and Tagawa, M.: A promoter region of the midkine gene that is frequently expressed in human hepatocellular carcinoma can activate a suicide gene as effectively as the α -fetoprotein promoter. *Br. J. Cancer* 89: 1086-1090, 2003.

132. Ugai, S., Shimozato, O., Yu, L., Wang, Y-Q., Kawamura, K., Yamamoto, H., Yamaguchi, T., Saisho, H., Sakiyama, S. and Tagawa, M.: Transduction of the *IL-21* and *IL-23* genes in human pancreatic carcinoma cells produces natural killer cell-dependent and -independent antitumor effects. *Cancer Gene Ther.* 10: 771-778, 2003.

133. Tomizawa, M., Saisho, H. and Tagawa, M.: Regulatory regions of growth-related genes can activate an exogenous gene of the α -fetoprotein promoter to a comparable degree in human hepatocellular carcinoma cells. *Anticancer Res.* 23: 3273-3277, 2003.

134. Yu, L., Hamada, K., Namba, M., Kadomatsu, K., Muramatsu, T., Matsubara, S., Tagawa, M.: Insertion of an exogenous promoter in the E1A regulatory region of adenovirus does not disturb viral replication despite reduced E1A transcription. *Cancer Lett.* 203: 51-57, 2004.

135. Kawamura, K., Bahar, R., Seimiya, M., Chiyo, M., Wada, A., Okada, S., Hatano, M., Tokuhisa, T., Kimura, H., Watanabe, S., Honda, I., Sakiyama, S., Tagawa, M. and O-Wang, J.: DNA polymerase θ is preferentially expressed in lymphoid tissues and upregulated in human cancers. *Int. J. Cancer* 109: 9-16, 2004.

136. Shan, B., Yu, L., Shimozato, O., Li, Q. and Tagawa, M.: Expression of interleukin-21 and -23 in human esophageal tumors produced antitumor effects in nude mice. *Anticancer Res.* 24: 79-82, 2004.

137. Yu, L., Yamamoto, N., Kadomatsu, K., Muramatsu, T., Matsubara, S., Sakiyama, S. and Tagawa, M.: Midkine promoter can mediate transcriptional activation of a fused suicide gene in a broader range of human breast cancer compared with c-erbB-2 promoter. *Oncology* 66: 143-146, 2004.

138. Wang, Y.Q., Seimiya, M., Kawamura, K., Yu, L., Ogi, T., Takenaga, K., Shishikura, T., Nakagawara, A., Sakiyama, S., Tagawa, M. and O-Wang, J.: Elevated expression of DNA polymerase κ expression in human lung cancer is associated with p53 inactivation: Negative regulation of *POLK* promoter activity by p53. *Int. J. Oncol.* 25: 161-165, 2004.

139. Seimiya, M., Wada, A., Kawamura, K., Sakamoto, A., Ohkubo, Y., Okada, S., Hatano, M., Tokuhisa, T., Watanabe, T., Saisho, H., Tagawa, M. and O-Wang, J.: Impaired lymphocyte development and function in *Clast5/Stra13/DEC1* transgenic mice. *Eur. J. Immunol.* 34: 1322-1332, 2004.

140. Yu, L., Hamada, K., Namba, M., Kadomatsu, K., Muramatsu, T., Matsubara, S. and Tagawa, M.: Midkine promoter-driven suicide gene expression and -mediated adenovirus

replication produced cytotoxic effects to immortalized and tumour cells. *Eur. J. Cancer* 40: 1787-1794, 2004.

141. Yamaji, H., Iizasa, T., Koh, E., Suzuki, M., Otsuji, M., Chang, H., Motohashi, S., Yokoi, S., Hiroshima, K., Tagawa, M., Nakayama, T. and Fujisawa T.: Correlation between interleukin 6 production and tumor proliferation in non-small cell lung cancer. *Cancer Immunol. Immunother.* 53: 786-792, 2004.

142. Shirakawa, T., Hamada, K., Zhang, Z., Okada, H., Tagawa, M., Kamidono, S., Kawabata, M. and Gotoh, A.: A Cox-2 promoter-based replication-selective adenoviral vector to target the Cox-2-expressing human bladder cancer cells. *Clin. Cancer Res.* 10: 4342-4348, 2004.

143. Kohno, S., Nakagawa, K., Hamada, K., Harada, H., Yamasaki, K., Hashimoto, K., Tagawa, M., Nagato, S., Furukawa, K. and Ohnishi, T.: Midkine promoter-based conditionally replicative adenovirus for malignant glioma therapy. *Oncol Rep.* 12: 73-78, 2004.

144. Wada, A., Tada, Y., Shimozato, O., Takiguchi, Y., Tatsumi, K., Kuriyama, T. and Tagawa, M.: Expression of CD40 ligand in CD40-positive murine tumors activates transcription of the interleukin-23 subunit genes and produces antitumor responses. *Anticancer Res.* 24: 2713-2716, 2004.

145. Nagakawa, H., Shimozato, O., Yu, L., Takiguchi, Y., Tatsumi, K., Kuriyama, T. and Tagawa, M.: Expression of interleukin-22 in murine carcinoma cells did not influence tumor growth in vivo but did improve the survival of inoculated hosts. *Scand. J. Immunol.* 60: 449-454, 2004.

146. Chiyo, M., Shimozato, O., Iizasa, T., Fujisawa, T. and Tagawa, M.: Antitumor effects produced by transduction of dendritic cells-derived heterodimeric cytokine genes in murine colon carcinoma cells. *Anticancer Res.* 24: 3763-3768, 2004.

147. Wada, A., Tada, Y., Shimozato, O., Takiguchi, Y., Tatsumi, K., Kuriyama, T. and Tagawa, M.: Vaccination of apoptotic Fas ligand-expressing tumors decreased antitumor responses by enhanced production of immunosuppressive cytokines. *Anticancer Res.* 25: 299-304, 2005.

148. Chiyo, M., Shimozato, O., Yu, L., Kawamura, K., Iizasa, T., Fujisawa, T. and Tagawa, M.: Expression of IL-27 in murine carcinoma cells produces antitumor effects and induces protective immunity in inoculated host animals. *Int. J. Cancer* 115: 437-442, 2005.

149. Iwadate, Y., Inoue, M., Saegusa, T., Tokusumi, Y., Kinoh, H., Hasegawa, M., Tagawa, M., Yamaura, A. and Shimada, H.: Recombinant Sendai virus vector induces complete remission of established brain tumors through efficient *interleukin-2* gene transfer in vaccinated rats. *Clin. Cancer Res.* 11: 3821-3827, 2005.

150. Yu, L., Takenobu, H., Shimozato, O., Kawamura, K., Nimura, Y., Seki, N., Uzawa, K., Tanzawa, H., Shimada, H., Ochiai, T. and Tagawa, M.: Increased infectivity of adenovirus type 5 bearing type 11 or type 35 fibers to human esophageal and oral carcinoma cells. *Oncol. Rep.* 14: 831-835, 2005.

151. Masuda, K., Ouchida, R., Takeuchi, A., Saito, T., Koseki, H., Kawamura, K., Tagawa, M., Tokuhisa, T., Azuma, T. and O-Wang, J.: DNA polymerase θ contributes to the generation of C/G mutations during somatic hypermutation of Ig genes. Proc. Natl. Acad. Sci. USA, 102: 13986-13991, 2005.
152. Bavoux, C., Leopoldino, A. M., Bergoglio, V., O-Wang, J., Ogi, T., Bieth, A., Judde, J-G., Pena, S. D. J., Poupon, M., Helleday, T., Tagawa, M., Machado, C. R., Hoffmann, J. and Cazaux, C.: Up-regulation of the error-prone DNA polymerase κ promotes pleiotropic genetic alterations and tumorigenesis. Cancer Res. 65: 325-330, 2005.
153. Nezu, M., Tomonaga, T., Sakai, C., Ishii, A., Itoga, S., Nishimura, M., Matsuo, Y., Tagawa, M. and Nomura, F.: Expression of the fetal-oncogenic fibroblast growth factor-8/17/18 subfamily in human hematopoietic tumors. Biochem. Biophys. Res. Commun. 335: 843-849, 2005.
154. Shimozato, O., Ugai, S., Chiyo, M., Takenobu, H., Nagakawa, H., Wada, A., Kawamura, K., Yamamoto, H. and Tagawa, M.: The secretion form of the p40 subunit of interleukin (IL)-12 inhibits IL-23 functions and abrogates IL-23-mediated antitumor effects. Immunology 117: 22-28, 2005.
155. Ukai, A., Maruyama, T., Mochizuki, S., Ouchida, R., Masuda, K., Kawamura, K., Tagawa, M., Kinoshita, K., Sakamoto, A., Tokuhisa, T. and O-Wang, J.: Role of DNA polymerase θ in tolerance of endogenous and exogenous DNA damage in mouse B cells. Genes to Cells 11: 111-121, 2006.
156. Shan, B., Hao, J., Li, Q. and Tagawa, M.: Antitumor activity and immune enhancement of murine interleukin-23 expressed in murine colon carcinoma cells. Cell. Mol. Immunol. 3: 47-52, 2006.
157. Tagawa, M., Kawamura, K., Shimozato, O., Ma, G., Li, Q., Suzuki, N., Shimada, H. and Ochiai, T.: Virology- and immunology-based gene therapy for cancer. Cancer Immunol. Immunother. 55: 1420-1425, 2006.
158. Kawamura, K., Takiguchi, N., Wada, A., Takenobu, H., Kimura, H., Soda, H., Nagata, M., Asano, T. and Tagawa, M.: Up-regulated expression of the uridine phosphorylase gene in human gastric tumors is correlated with a favorable prognosis. Anticancer Res. 26: 4647-4652, 2006.
159. Wada, A., Tada, Y., Kawamura, K., Takiguchi, Y., Tatsumi, K., Kuriyama, T., Takenouchi, T., O-Wang, J., and Tagawa, M.: The effects of FasL on inflammation and tumor survival are dependent on its expression levels. Cancer Gene Ther. 14: 262-267, 2007.
160. Kawamura, K., Yu, L., Tomizawa, M., Shimozato, O., Ma, G., Li, Q., Sato, A., Yang, Y., Suzuki, T., Abdel-Azizi, N. M., Tagawa, M.: Transcriptional regulatory regions of the *survivin* gene activate an exogenous suicide gene in human tumors and enhance the sensitivity to a prodrug. Anticancer Res. 27: 89-94, 2007.

161. Tagawa, M., Kawamura, K., Shimozato, O., Ma, G., Li, Q., Sato, A., Yang, Y., Takiguchi, M., Suzuki, N., Shimada, H. and Ochiai, T.: Combinatory application of local oncolysis and topical cytokine secretion for cancer treatment. In: Gene Therapy 2007 ed. by Ochiai, T., Shimada, H. and Tagawa, M. Medical View, p162-175, 2007.
162. Numasaki, M., Tagawa, M., Hidaka, M., Suzuki, T., Nakamura, A., Okada, M., Iwakura, Y., Aiba, S. and Yamaya, M.: IL-28 elicits antitumor responses against murine fibrosarcoma. *J. Immunol.* 178: 5086-5098, 2007.
163. Hamada, K., Desaki, J., Nakagawa, K., Zhang, T., Shirakawa, T., Gotoh, A. and Tagawa, M.: Carrier cell-mediated delivery of a replication-competent adenovirus for cancer gene therapy. *Mol. Ther.* 15: 1121-1128, 2007.
164. Yu, L., Shimozato, O., Li, Q., Kawamura, K., Ma, G., Namba, M., Ogawa, T., Kaiho, I. and Tagawa, M.: Adenovirus type 5 substituted with type 11 or type 35 fiber structure increases its infectivity to human cells and enables dual gene transfer in CD46-dependent and -independent manners. *Anticancer Res.* 27: 2311-2316, 2007.
165. Terao, S., Shirakawa, T., Kubo, S., Bishunu, A., Lee, S-J., Goda, K., Tsukuda, M., Hamada, K., Tagawa, M., Takenaka, A., Fujisawa, M. and Gotoh, A.: Midkine promoter-based conditionally replicative adenovirus for targeting midkine-expressing human bladder cancer model. *Urology* 70: 1009-1013, 2007.
166. Li, Q and Tagawa, M.: Are novel interferon-lambdas promising anti-viral cytokines? *Curr. Trend. Immunol.* 8: 53-60, 2007.
167. Tagawa, M., Kawamura, K., Ueyama, T., Nakamura, M., Tada, Y., Ma, G., Li, Q., Suzuki, N., Shimada, H., Kuriyama, T. and Ochiai, T.: Cancer therapy with local oncolysis and topical cytokine secretion. *Front. Biosci.* 13: 2578-2587, 2008.
168. Shimada, H., Matsushita, K and Tagawa, M.: Recent advances in esophageal cancer gene therapy. *Ann. Thorac. Cardiovasc. Surg.* 14: 3-8, 2008.
169. Liu, L., Wang, S., Shan, B., Shao, L., Sato, A., Kawamura, K., Li, Q., Ma, G. and Tagawa, M.: IL-27-mediated activation of natural killer cells and inflammation produced antitumor effects for human oesophageal carcinoma cells. *Scand. J. Immunol.* 68: 22-29, 2008.
170. Ouchida, R., Yamasaki, S., Hikida, M., Masuda, K., Kawamura, K., Wada, A., Mochizuki, S., Tagawa, M., Sakamoto, A., Hatano, M., Tokuhisa, T., Koseki, H., Saito, T., Kurosaki, T. and Ji-Yang Wang.: A Lysosomal protein negatively regulates surface T cell antigen receptor expression by promoting CD3 ζ degradation. *Immunity* 29: 33-43, 2008.
171. Ouchida, R., Ukai, A., Mori, H., Kawamura, K., Dollé, E. T. M., Tagawa, M., Sakamoto, A., Tokuhisa, T., Yokosuka, T., Saito, T., Yokoi, M., Hanaoka, F., Vigg, J. and Ji-Yang Wang.: Genetic analysis reveals an intrinsic property of the germinal center B cells to generate A:T mutations. *DNA Repair* 7: 1392-1398, 2008.

172. Ma, G., Shimada, H., Hiroshima, K., Tada, Y., Suzuki, N. and Tagawa, M.: Gene medicine for cancer treatment: Commercially available medicine and accumulated clinical data in China. *Drug Des. Dev. Ther.* 2: 115-122, 2008.
173. Toyoda, E., Doi, R., Kami, K., Mori, T., Ito, D., Koizumi, M., Kida, A., Nagai, K., Ito, T., Masui, T., Wada, M., Tagawa, M. and Uemoto, S.: Adenovirus vectors with chimeric type 5 and 35 fiber proteins exhibit enhanced transfection of human pancreatic cancer cells. *Int. J. Oncol.* 33: 1141-1147, 2008.
174. Toyoda, E., Doi, R., Kami, K., Mori, T., Ito, D., Koizumi, M., Kida, A., Nagai, K., Ito, T., Masui, T., Wada, M., Tagawa, M. and Uemoto, S.: Midkine promoter-based conditionally replicative adenovirus therapy for midkine-expressing human pancreatic cancer. *J. Exp. Clin. Cancer Res.* 27: 30, 2008.
175. Tada, Y., Takiguchi, Y., Hiroshima, K., Shimada, H., Ueyama, T., Nakamura, M., Tatsumi, K., Kuriyama, T. and Tagawa, M.: Gene therapy for malignant pleural mesothelioma: presence and future. *Oncol. Res.* 17, 239-246, 2008.
176. Ma, G., Kawamura, K., Li, Q., Suzuki, N., Liang, M., Namba, M., Shimada, H. and Tagawa, M.: Cytotoxicity of adenoviruses expressing the wild-type *p53* gene to esophageal carcinoma cells is linked with the CAR expression level and indirectly with the endogenous *p53* status. *Cancer Gene Ther* (in press)
177. Shimozato, O., Sato, A., Kawamura, K., Chiyo, M., Ma, G., Li, Q. and Tagawa, M.: The secreted form of p28 subunit of interleukin (IL)-27 inhibits biological functions of IL-27 and suppresses anti-allogeneic immune responses. *Immunology* (in press)