

## CURRICULUM VITAE

Tanaka, Yoshio, Ph.D.  
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**Name, Family name:**  
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Tanaka  
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**Education/Degrees:**

4/1/1980–3/31/1984

Faculty of Pharmaceutical Sciences  
The University of Tokyo, Hongo, Tokyo  
Awarded the degree of B.P.S. in Pharmaceutical Science

4/1/1984–3/31/1986

Department of Chemical Pharmacology  
Graduate School (Master course)  
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Awarded the degree of M.P.S. in pharmaceutical pharmacology for a thesis entitled “Potentiation by bovine serum albumin (BSA) of endothelium-dependent vasodilator response to acetylglycerol ether phosphorylcholine (AGEPC)”. Work supervised by Professor Yutaka Kasuya.

4/1/1986–8/31/1986

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Awarded the degree of Ph.D. in pharmaceutical pharmacology for a thesis entitled “Studies on the mechanism of stretch-induced contractile activation in vascular smooth muscle” (NO. 10816). Work supervised by Professor Koichi Nakayama.  
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**Employment History:**

9/1/1986–3/31/1987

Assistant Professor  
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Supervisor: Professor Koichi Nakayama

4/1/1987–9/31/1994

Assistant Professor  
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Supervisor: Professor Koichi Nakayama

10/1/1994–4/29/1997

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**Education/Degrees:**

- 4/1/1980–3/31/1984 Faculty of Pharmaceutical Sciences  
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- 4/1/1984–3/31/1986 Department of Chemical Pharmacology  
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**Employment History:**

- 9/1/1986–3/31/1987 Assistant Professor  
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- 4/1/1987–9/31/1994 Assistant Professor  
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Supervisor: Professor Koichi Nakayama
- 10/1/1994–4/29/1997 Postdoctoral fellow  
Department of Anesthesiology  
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5/1/1997–3/31/2002	Assistant Professor Department of Pharmacology Faculty of Pharmaceutical Sciences Toho University 2-2-1 Miyama, Funabashi-City Chiba 274-8510, JAPAN
4/1/2002–present	Associate Professor Department of Chemical Pharmacology Faculty of Pharmaceutical Sciences Toho University 2-2-1 Miyama, Funabashi-City Chiba 274-8510, JAPAN
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4/1/2012–3/31/2015	Vice dean of Faculty of Pharmaceutical Sciences Toho University 2-2-1 Miyama, Funabashi-City Chiba 274-8510, JAPAN
4/1/2012–present	Board member of Toho University Toho University 2-2-1 Miyama, Funabashi-City Chiba 274-8510, JAPAN
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4/1/2019–present	Vice President of Toho University 2-2-1 Miyama, Funabashi-City Chiba 274-8510, JAPAN

**Society memberships:**

The Japanese Pharmacological Society (Councilor)  
The Pharmaceutical Society of Japan  
Japanese Society for Circulation Research  
The Japanese Smooth Muscle Society (Councilor)  
Biophysical Society

**Managerial position of pharmaceutical education:**

Board member of the Association of Private Pharmaceutical Schools of Japan  
(4/1/2017–present)

**Main Scholarships and Awards:**

- 1990 Grant-in-Aid for Encouragement of Young Scientists from the Ministry of Education, Science and Culture of Japan (NO. 02771766) (PI)
- 1991 Grant-in-Aid for Encouragement of Young Scientists from the Ministry of Education, Science and Culture of Japan (NO. 03771794) (PI)
- 1992 Grant-in-Aid for Encouragement of Young Scientists from the Ministry of Education, Science and Culture of Japan (NO. 04772066) (PI)
- 1993 Grant-in-Aid for Encouragement of Young Scientists from the Ministry of Education, Science and Culture of Japan (NO. 05772040) (PI)
- 1994 Grant-in-Aid for Encouragement of Young Scientists from the Ministry of Education, Science and Culture of Japan (NO. 06772209) (PI)
- 1994 Grant-in-Aid for Encouragement of Young Scientists from the Foundational Juridical Person, Science and Education Encouragement Foundation of Shizuoka Prefecture (PI)
- 1997 Initial Investigatorship from the American Heart Association, Greater Los Angeles Affiliate (NO. 1128-F11) (PI)
- 1998 Grant-in-Aid for Encouragement of Young Scientists from Uehara Memorial Foundation (PI)
- 1998 Grant-in-Aid for Encouragement of Young Scientists from the Ichiro Kanehara Foundation (PI)
- 1998–1999  
Grant-in-Aid for Encouragement of Young Scientists from the Ministry of Education, Science, Sports, and Culture, Japan (NO. 10771342) (PI)
- 1999 Grant-in-Aid for Scientific Research from the Ministry of Education, Science, Sports, and Culture, Japan (NO. 11694319) (PI)
- 2000–2001  
Grant-in-Aid for Scientific Research (C) from Japan Society for the Promotion of Science (JSPS) (NO. 12672226) (PI)
- 2001 Grant-in-Aid from the Nestle Foundation (PI)
- 2001 Grant-in-Aid from the Pharmacological Research Foundation (PI)
- 2002–2003  
Grant-in-Aid for Scientific Research (C) from Japan Society for the Promotion of Science (JSPS) (NO. 14572165) (PI)
- 2003 Grant-in-Aid from the Naito Foundation (PI)
- 2004 Grant-in-Aid from the NOVARTIS Foundation (Japan) for the Promotion of Science (PI)
- 2004–2006  
The Science Research Promotion Fund from the Promotion and Mutual Aid Corporation for Private Schools of Japan (CoPI)
- 2006–2007  
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- 2006–2007  
Grant-in-Aid for Scientific Research (C) from Japan Society for the Promotion of Science (JSPS) (NO. 18590242) (CoPI)

2008–2010

Grant-in-Aid for Scientific Research (C) from Japan Society for the Promotion of Science (JSPS) (NO. 20590092) (PI)

2008 Grant-in-Aid for Scientific Research (C) from Japan Society for the Promotion of Science (JSPS) (NO. 20590262) (CoPI)

2008–2010

The Science Research Promotion Fund from the Promotion and Mutual Aid Corporation for Private Schools of Japan (CoPI)

2011–2013

Grant-in-Aid for Scientific Research (C) from Japan Society for the Promotion of Science (JSPS) (NO. 23590116) (PI)

2012 Science Research Promotion Fund from the Promotion and Mutual Aid Corporation for Private Schools of Japan (PI)

**Current Research Interests:**

Smooth muscle physiology and pharmacology

Cardiovascular physiology and pharmacology

## PUBLICATIONS:

### Original papers (published in international journal)

1. Shigenobu, K, Masuda, Y, Tanaka, Y, Kasuya, Y.: Platelet activating factor analogues: lack of correlation between their activities to produce hypotension and endothelium-mediated vasodilation. *J Pharmacobio-Dyn.* 8(2): 128–133 (1985).
2. Shigenobu, K, Tanaka, Y, Maeda, T, Kasuya, Y.: Potentiation by bovine serum albumin (BSA) of endothelium-dependent vasodilator response to acetylglyceryl ether phosphorylcholine (AGEPC). *J Pharmacobio-Dyn.* 10(5): 220–228 (1987).
3. Nakayama, K, Yamada, S, Tanaka, Y.: Effects of inorganic and organic promoters and inhibitors of calcium influx on stretch-induced myogenic tone of vascular tissues. *Microcirc. Endoth. Lymphatics* 5(1–2): 55–76 (1989).
4. Ashizawa, N, Kobayashi, Y, Tanaka, Y, Nakayama, K.: Relaxing action of okadaic acid, a black sponge toxin on the arterial smooth muscle. *Biochem Biophys Res Commun.* 162(3): 971–976 (1989).
5. Nakayama, K, Kashiwabara, T, Yamada, S, Tanaka, Y.: Assessment in pig coronary artery of long-lasting and potent calcium antagonistic actions of the novel dihydropyridine derivative mepiropidine hydrochloride. *Arzneim-Forsch/Drug Res.* 39(1): 50–55 (1989).
6. Nakayama, K, Tanaka, Y, Fujishima, K.: Potentiation of stretch-induced myogenic tone of dog cerebral artery by hemolysate and the inhibitory action of calcium antagonists. *Eur J Pharmacol.* 169(1): 33–42 (1989).
7. Tanaka Y, Nakayama K.: Responses of endothelium-intact and -denuded feline and canine cerebral arteries to quick stretch. *Asia Pacific J. Pharmacol.* 6: 159–163 (1991).
8. Nakayama K, Ishigai Y, Uchida H, Tanaka Y.: Potentiation by endothelin-1 of 5-hydroxytryptamine-induced contraction in coronary artery of the pig. *Br J Pharmacol.* 104(4): 978–986 (1991).
9. Nakayama K, Watanabe N, Yamazawa T, Takeshita N, Tanaka Y.: Effects of porcine galanin on the mesenteric microcirculation and arteriolar smooth muscle in the rat. *Eur J Pharmacol.* 193(1): 75–80 (1991).
10. Nakayama K, Morimoto K, Nozawa Y, Tanaka Y.: Calcium antagonistic and binding properties of semotiadil (SD-3211), a benzothiazine derivative, assessed in cerebral and coronary arteries. *J Cardiovasc Pharmacol.* 20(3): 380–391 (1992).
11. Nakazawa K, Higo K, Abe K, Tanaka Y, Saito H, Matsuki N.: Blockade by calmodulin inhibitors of  $Ca^{2+}$  channels in smooth muscle from rat vas deferens. *Br J Pharmacol.* 109(1): 137–141 (1993).
12. Tanaka Y, Hata S, Ishiro H, Ishii K, Nakayama K.: Quick stretch increases the production of inositol 1,4,5-trisphosphate ( $IP_3$ ) in porcine coronary artery. *Life Sci.* 55(3): 227–235 (1994).
13. Tanaka Y, Hata S, Ishiro H, Ishii K, Nakayama K.: Stretching releases  $Ca^{2+}$  from intracellular storage sites in canine cerebral arteries. *Can J Physiol Pharmacol.* 72(1): 19–24 (1994).
14. Tanaka Y, Morimoto K, Ishii K, Nakayama K.: Calcium antagonistic vasodilator mechanisms of brovincamine fumarate studied in canine cerebral artery. *Arzneim.-Forsch/Drug Res.* 44(7): 803–808 (1994).
15. Tanaka Y, Nakazawa T, Ishiro H, Saito M, Uneyama H, Iwata S, Ishii K, Nakayama K.:  $Ca^{2+}$  handling mechanisms underlying neuropeptide Y-induced contraction in canine basilar artery. *Eur J Pharmacol.* 289(1): 59–66 (1995).
16. Tanaka Y, Ishiro H, Nakazawa T, Saito M, Ishii K, Nakayama K.: Potentiation by endothelin-1 of  $Ca^{2+}$  sensitivity of contractile elements depends on  $Ca^{2+}$  influx through L-type  $Ca^{2+}$  channels in the canine cerebral artery. *Gen Pharmacol.* 26(4): 855–864 (1995).

17. Uneyama H, Tanaka Y, Iwata S, Ishiguro T, Nakayama K.: Pharmacological characteristics of the canine cerebrovascular contraction produced by neuropeptide Y. *Biol Pharm Bull.* 18(4): 501–506 (1995).
18. Nakahara T, Ishii K, Tanaka Y, Nakayama K.: Involvement of neurohumoral factors in the pressor mechanism of N<sup>G</sup>-nitro-L-arginine. *Eur J Pharmacol.* 287(1): 49–56 (1995).
19. Nakayama K, Nakazawa T, Fukuta Y, Tanaka Y.: Stereo-selective calcium antagonistic and binding properties of the enantiomers of lemlidipine in vascular tissues of pigs and dogs. *Arzneim-Forsch/Drug Res.* 46(11): 1045–1053 (1996).
20. Nakahara T, Ishii K, Tanaka Y, Nakayama K.: Infusions of pressor agents selectively attenuate depressor responses to acetylcholine in anesthetized dog. *Am J Physiol.* 271(1 Pt 2): H273–H281 (1996).
21. Saito W, Saito Y, Tanaka Y, Tanaka H, Shigenobu K.: Inhibitory effects of potassium channel openers on sympathetic nerve induced by contraction in isolated rat vas deferens. *Res Commun Pharmacol Toxicol.* 2: 229–239 (1997).
22. Tanaka H, Taniguchi H, Agata N, Tanaka Y, Shigenobu K.: Endothelium mediated vasorelaxant effects of Ca<sup>2+</sup>-ATPase inhibitors on thoracic aorta from neonatal and adults guinea pigs. *Res Commun Mol Pathol Pharmacol.* 98(2): 115–126 (1997).
23. Nakahara T, Ishii K, Tanaka Y, Nakayama K.: Flow regulates vasodilator responses to acetylcholine in the isolated canine mesenteric arterial bed. *Biol Pharm Bull.* 20(5): 568–570 (1997).
24. Nakahara T, Ishii K, Tanaka Y, Nakayama K.: Flow-dependent regulation of nitric oxide formation in the isolated canine mesenteric arterial bed. *Jpn J Pharmacol.* 74(3): 275–280 (1997).
25. Tanaka Y, Meera P, Song M, Knaus H.-G, Toro L.: Molecular constituents of maxi K<sub>Ca</sub> channels in human coronary smooth muscle: predominant  $\alpha + \beta$  subunits complexes. *J Physiol.* 502(Pt. 3): 545–557 (1997).
26. Nakayama K, Ueta K, Tanaka Y, Tanabe Y, Ishii K.: Stretch-induced contraction of rabbit isolated pulmonary artery and the involvement of endothelium-derived thromboxane A<sub>2</sub>. *Br J Pharmacol* 122(2): 199–208 (1997).
27. Tanaka Y, Horikawa N, Ishiro H, Kataha K, Nakazawa T, Watanabe N, Ishii K, Nakayama K, Yanaihara N, Shigenobu K.: Glibenclamide-sensitive mechanism is involved in helodermin-produced vasodilation in rat mesenteric artery. *Res Commun Mol Pathol Pharmacol.* 98(2): 141–156 (1997).
28. Tanaka Y, Shigenobu K, Nakayama K.: Inhibitory actions of various vasorelaxants on the myogenic contraction induced by quick stretch studied in canine cerebral artery. *Eur J Pharmacol.* 356(2–3): 225–230 (1998).
29. Tanaka Y, Nakayama K, Shigenobu K.: Inhibitory actions of ONO-3708 on the stretch-induced contraction potentiated by hemolysate/oxyhemoglobin studied in dog cerebral artery. *Res Comm Mol Pathol Pharmacol.* 98(3): 303–311 (1998).
30. Alioua A, Tanaka Y, Wallner M, Hofmann P, Ruth P, Meera P, Toro L.: The large conductance, voltage-dependent and calcium-sensitive K<sup>+</sup> channel, hsl $\alpha$ , is a target of cGMP-dependent protein kinase phosphorylation. *J Biol Chem.* 273(49): 32950–32956 (1998).
31. Horikawa N, Kataha K, Watanabe N, Ishii K, Yanaihara N, Tanaka Y, Shigenobu K, Nakayama K.: Glibenclamide-sensitive hypotension produced by helodermin assessed in the rat. *Biol Pharm Bull.* 21(12): 1290–1293 (1998).
32. Noguchi K, Shijuku T, Nakasone C, Tanaka Y, Tanaka H, Shigenobu K.: Possible involvement of nitric oxide-cGMP pathway in the negative chronotropic effect of CD-832, a novel dihydropyridine derivative. *Life Sci.* 62(10): 897–903 (1998).

33. Saito W, Aida M, Sasaki M, Saito Y, Tanaka Y, Tanaka H, Shigenobu, K.: Differential sensitivity to ATP-sensitive potassium channel openers of norepinephrine-induced contraction of guinea pig and rat aorta. *Life Sci.* 62(24): 2171–2179 (1998).
34. Tanaka Y, Aida M, Tanaka H, Shigenobu K, Toro L.: Involvement of maxiK<sub>Ca</sub> channel activation in atrial natriuretic peptide-induced vasorelaxation. *Naunyn-Schmiedeberg's Arch Pharmacol.* 357(6): 705–708 (1998).
35. Tanaka Y, Nakayama, K.: Measurement of intracellular Ca<sup>2+</sup> concentration changes by use of fura-2 in the generation of myogenic contraction of dog cerebral artery in response to quick stretch. *Res Commun Mol Pathol Pharmacol.* 99(2): 169–186 (1998).
36. Tanaka Y, Nakayama K.: Phenoxybenzamine-sensitive sites are not responsible for the mechanoreception of membrane stretch leading to myogenic contraction of dog cerebral artery. *Res Commun Mol Pathol Pharmacol.* 101(2): 200–208 (1998).
37. Tanaka Y, Nakayama K, Shigenobu, K.: Changes in cytosolic Ca<sup>2+</sup> measured by use of fura-2 and contraction produced by quick stretch and various stimulants in canine cerebral artery. *Res Commun Mol Pathol Pharmacol* 102(1): 79–92 (1998).
38. Tanaka Y, Yamaki F, Hirano H, Otsuka A, Tanaka H, Shigenobu K.: Endothelium is involved in the vasorelaxation by an ATP-sensitive K<sup>+</sup> channel opener, NIP-121. *Eur J Pharmacol.* 366(2–3): R9–R10 (1999).
39. Taniguchi H, Hirano H, Tanaka Y, Tanaka H, Shigenobu K.: Possible involvement of Ca<sup>2+</sup> entry and its pharmacological characteristics responsible for endothelium-dependent, NO-mediated relaxation induced by thapsigargin in guinea-pig aorta. *J Pharm Pharmacol.* 51(7): 831–840 (1999).
40. Taniguchi H, Tanaka Y, Hirano H, Tanaka H, Shigenobu K.: Evidence for a contribution of store-operated Ca<sup>2+</sup> channels to NO-mediated endothelium-dependent relaxation of guinea-pig aorta in response to a Ca<sup>2+</sup> ionophore, A23187. *Naunyn-Schmiedeberg's Arch Pharmacol.* 360(1): 69–79 (1999).
41. Masumiya H, Saitoh T, Tanaka Y, Horie S, Aimi N, Takayama H, Tanaka H, Shigenobu K.: Effects of hirsutine and dihydrocorynantheine on the action potentials of sino-atrial node, atrium and ventricle. *Life Sci.* 65(22): 2333–2341 (1999).
42. Masumiya H, Kase J, Tanaka Y, Tanaka H, Shigenobu K.: Effects of mibefradil, a selective T-type Ca<sup>2+</sup> channel antagonist, on sino-atrial node and ventricular myocardia. *Res Commun Mol Pathol Pharmacol.* 104(3): 321–329 (1999).
43. Nishimaru K, Sekine T, Tanaka Y, Tanaka H, Shigenobu K.: Temperature sensitive effects of  $\alpha$ -adrenergic stimulation in mouse ventricular myocardia. *Res Commun Mol Pathol Pharmacol.* 104(2): 173–180 (1999).
44. Uchida H, Tanaka Y, Ishii K, Nakayama K.: Measurement of intracellular Ca<sup>2+</sup> concentration changes induced by endothelium-dependent vasorelaxant substances in endothelial cells freshly isolated from porcine coronary artery. *Res Commun Mol Pathol Pharmacol.* 104(2): 127–44 (1999).
45. Sekine T, Kusano H, Nishimaru K, Tanaka Y, Tanaka H, Shigenobu K.: Developmental conversion of inotropism by endothelin 1 and angiotensin II from positive to negative in mice. *Eur J Pharmacol.* 374(3): 411–415 (1999).
46. Tanaka Y, Kaneko H, Tanaka H, Shigenobu K.: Pharmacologic characteristics of non-prostanoid, non-nitric oxide mediated and endothelium-dependent relaxation of guinea-pig aorta in response to substance P. *Res Commun Mol Pathol Pharmacol.* 103(1): 65–81 (1999).
47. Tanaka Y, Mochizuki Y, Hirano H, Aida M, Tanaka H, Toro L, Shigenobu K.: Role of MaxiK channels in vasoactive intestinal peptide-induced relaxation of rat mesenteric artery. *Eur J Pharmacol.* 383(3): 291–296 (1999).

48. Tanaka Y, Mochizuki Y, Tanaka H, Shigenobu K.: Significant role of neuronal non-N-type calcium channels in the sympathetic neurogenic contraction of rat mesenteric artery. *Br J Pharmacol.* 128(7): 1602–1608 (1999).
49. Tanaka Y, Otsuka A, Tanaka H, Shigenobu K.: Glycyrrhetic acid-sensitive mechanism does not make a major contribution to non-prostanoid, non-nitric oxide mediated endothelium-dependent relaxation of rat mesenteric artery in response to acetylcholine. *Res Commun Mol Pathol Pharmacol.* 103(3): 227–239 (1999).
50. Tanaka Y, Hayakawa S, Imai T, Akutsu A, Hirano H, Tanaka H, Nakahara T, Ishii K, Shigenobu K.: Possible involvement of endothelium-derived hyperpolarizing factor (EDHF) in the depressor responses to platelet activating factor (PAF) in rats. *Br J Pharmacol.* 131(6): 1113–1120 (2000).
51. Tanaka Y, Igarashi T, Kaneko H, Yamaki F, Mochizuki Y, Aida M, Taniguchi H, Tanaka H, Shigenobu K.: NO-mediated MaxiK<sub>Ca</sub> channel activation produces relaxation of guinea pig aorta independently of voltage-dependent L-type Ca<sup>2+</sup> channels. *Gen Pharmacol The Vascular System* 34(3): 159–165 (2000).
52. Tanaka Y, Imai T, Igarashi T, Takayanagi K, Otsuka K, Yamaki F, Tanaka H, Shigenobu K.: Comparison of the Ca<sup>2+</sup> entry channels responsible for mechanical responses of guinea-pig aorta to noradrenaline and thapsigargin using SK&F 96365 and LOE 908. *Naunyn-Schmiedeberg's Arch Pharmacol.* 362(2): 160–168 (2000).
53. Tanaka Y, Kamibayashi M, Yamaki F, Saitoh M, Nakazawa T, Tanaka H, Noguchi K, Hashimoto K, Shigenobu K.: Assessment in pig coronary artery of relaxant actions of the azulene-1-carboxamide derivative N<sup>1</sup>,N<sup>1</sup>-dimethyl-N<sup>2</sup>-(2-pyridylmethyl)-5-isopropyl-3,8-dimethylazulene-1-carboxamide (HNS-32). *Phar Pharmacol Commun.* 6: 397–404 (2000).
54. Tanaka Y, Someya S, Tanaka H, Tsuru H, Shigenobu K.: Potentiation of stretch-induced tone in the rabbit facial vein by an isoquinoline derivative, LOE 908. *Naunyn-Schmiedeberg's Arch Pharmacol.* 362(6): 577–580 (2000).
55. Yamaki F, Tanaka H, Shigenobu K, Tanaka, Y.: Nitric Oxide accounts for endothelium-dependent relaxation of pig coronary artery in response to noradrenaline. *Pharm Pharmacol Commun.* 6: 195–199 (2000).
56. Masumiya H, Kase J, Tanaka Y, Tanaka H, Shigenobu K.: Frequency-dependent blockade of T-type Ca<sup>2+</sup> current by efonidipine in cardiomyocytes. *Life Sci.* 68(3): 345–351 (2000).
57. Masumiya H, Tanaka Y, Tanaka H, Shigenobu K.: Inhibition of T-type and L-type Ca<sup>2+</sup> currents by aranidipine, a novel dihydropyridine Ca<sup>2+</sup> antagonist. *Pharmacology* 61(2): 57–61 (2000).
58. Masumiya H, Matsuda T, Tanaka Y, Tanaka H, Shigenobu K.: Possible requirement of phosphonate moiety for efonidipine effects on the sino-atrial node action potential. *Life Sci.* 66(16): PL239–PL244 (2000).
59. Nakahara T, Moriuchi H, Yunoki M, Kubota Y, Tanaka Y, Sakamoto K, Shigenobu K, Ishii K.: Involvement of K<sup>+</sup> channel in procainamide-induced relaxation of bovine tracheal smooth muscle. *Eur J Pharmacol.* 402(1–2): 143–149 (2000).
60. Nishimaru K, Tanaka Y, Tanaka H, Shigenobu K.: Positive and negative inotropic effects of muscarinic receptor stimulation in mouse left atria. *Life Sci.* 66(7): 607–615 (2000).
61. Noguchi K, Saitoh M, Nakazawa T, Tanaka H, Tanaka Y, Shigenobu K.: Cerebral artery selective inhibition of protein kinase C-mediated contraction by HNS-32, a novel azulene-1-carboxamide derivative. *Res Commun Mol Pathol Pharmacol.* 107(1–2): 45–54 (2000).
62. Tanaka H, Nishimaru K, Kobayashi M, Matsuda T, Tanaka Y, Shigenobu, K.: Acetylcholine-induced positive inotropy mediated by prostaglandin released from endocardial endothelium in mouse left atrium. *Naunyn-Schmiedeberg's Arch Pharmacol.* 363(5): 577–582 (2001).

63. Tanaka Y, Kamibayashi M, Someya S, Yamaki F, Tanaka H, Shigenobu K.: Potentiation by melatonin of 5-hydroxytryptamine-induced contraction in pig coronary artery. *Res Commun Pharmacol Toxicol.* 6(1–2): 47–57 (2001).
64. Tanaka Y, Mitani A, Igarashi T, Someya S, Otsuka K, Imai T, Yamaki F, Tanaka H, Saitoh M, Nakazawa T, Noguchi K, Hashimoto K, Shigenobu, K.: HNS-32, a novel azulene-1-carboxamide derivative, inhibits nifedipine-sensitive and -insensitive contraction of the isolated rabbit aorta. *Naunyn-Schmiedeberg's Arch Pharmacol* 363(3): 344–352 (2001).
65. Tanaka Y, Shigenobu K, Nakayama K.: Effects of endothelin-1 on the myogenic contraction of canine cerebral artery in response to quick stretch. *Res Commun Mol Pathol Pharmacol.* 109(1–2): 95–101 (2001).
66. Yamaki F, Kaga, M, Horinouchi T, Tanaka H, Koike K, Shigenobu K, Toro L, Tanaka Y.: MaxiK channel-mediated relaxation of guinea-pig aorta following stimulation of IP receptor with beraprost via cyclic AMP-dependent and -independent mechanisms. *Naunyn-Schmiedeberg's Arch Pharmacol.* 364(6): 538–550 (2001).
67. Imai T, Okamoto T, Yamamoto Y, Tanaka H, Koike K, Shigenobu K, Tanaka Y.: Effects of different types of K<sup>+</sup> channel modulators on the spontaneous myogenic contraction of guinea-pig urinary bladder smooth muscle. *Acta Physiol Scand.* 173(3): 323–333 (2001).
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69. Nakahara T, Moriuchi H, Tanaka Y, Yunoki M, Kubota Y, Sakamoto K, Shigenobu K, Ishii K.: Role of K<sup>+</sup> channels in N-acetylprocainamide-induced relaxation of bovine tracheal smooth muscle. *Eur J Pharmacol.* 415(1): 73–78 (2001).
70. Nishimaru K, Kobayashi M, Matsuda T, Tanaka Y, Tanaka H, Shigenobu K.:  $\alpha$ -Adrenoceptor stimulation-mediated negative inotropism and enhanced Na<sup>+</sup>/Ca<sup>2+</sup> exchange in mouse ventricle. *Am J Physiol. (Heart Circ Physiol.)* 280(1): H132–H141 (2001).
71. Nishimaru K, Makuta R, Tanaka Y, Tanaka H, and Shigenobu K.: Pharmacological properties of excitation-contraction mechanisms in isolated mouse left atria. *Pharmacology* 62(2): 87–91 (2001).
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