

祖父江 元

前名古屋大学大学院医学系研究科長・前医学部長 神経内科学 教授

1975 年名古屋大学医学部卒業、同年 4 月、名古屋第一赤十字病院臨床研修医。1981 年 3 月名古屋大学大学院医学研究科修了、同年 4 月名古屋大学医学部医員に。10 月からは愛知医科大学第四内科で講師を務める。その後渡米し、1982 年 7 月～1985 年 12 月まで、米国ペンシルベニア大学客員研究員。帰国後 1991 年に愛知医科大学第四内科助教授を経て 1995 年名古屋大学医学部神経内科教授に就任。2002 年名古屋大学大学院医学系研究科神経内科教授、2009 年 4 月から 2012 年 3 月まで名古屋大学大学院医学系研究科長・医学部長。

<専門・研究対象>

神経内科学

<受賞歴>

2005 年 時実利彦記念
2007 年 中日文化賞

<主な研究実績>

1. Sone J, Tanaka F, Koike H, Inukai A, Katsuno M, Yoshida M, Watanabe H and Sobue G: Skin biopsy is useful for the antemortem diagnosis of neuronal intranuclear inclusion disease. *Neurology*, 76, 1372-1376 (2011)
2. Senda J, Kato S, Kaga T, Ito M, Atsuta N, Nakamura T, Watanabe H, Tanaka F, Naganawa S and Sobue G: Progressive and widespread brain damage in ALS: MRI voxel-based morphometry and diffusion tensor imaging study. *Amyotroph Lateral Scler*, 12, 59-69 (2011)
3. Miyazaki Y, Koike H, Ito M, Atsuta N, Watanabe H, Katsuno M, Kusunoki S and Sobue G: Acute superficial sensory neuropathy with generalized anhidrosis, anosmia, and ageusia. *Muscle Nerve*, 43, 286-288 (2011)
4. Katsuno M, Adachi H, Banno H, Suzuki K, Tanaka F and Sobue G: Transforming growth factor-beta signaling in motor neuron diseases. *Curr Mol Med*, 11, 48-56 (2011)
5. Iida A, Takahashi A, Deng M, Zhang Y, Wang J, Atsuta N, Tanaka F, Kamei T, Sano M, Oshima S, Tokuda T, Morita M, Akimoto C, Nakajima M, Kubo M, Kamatani N, Nakano I, Sobue G, Nakamura Y, Fan D and Ikegawa S: Replication analysis of SNPs on 9p21.2 and 19p13.3 with amyotrophic lateral sclerosis in East Asians. *Neurobiol Aging*, 32, 757 e713-754 (2011)
6. Hirayama M, Nakamura T, Watanabe H, Uchida K, Hama T, Hara T, Niimi Y, Ito M,

- Ohno K and Sobue G: Urinary 8-hydroxydeoxyguanosine correlate with hallucinations rather than motor symptoms in Parkinson's disease. *Parkinsonism Relat Disord*, 17, 46-49 (2011)
7. Hashizume A, Koike H, Kawagashira Y, Banno H, Suzuki K, Ito M, Katsuno M, Watanabe H, Tanaka F, Naganawa S, Kaneko R, Ishii A and Sobue G: Central nervous system involvement in n-hexane polyneuropathy demonstrated by MRI and proton MR spectroscopy. *Clin Neurol Neurosurg*, (2011)
8. Banno H, Katsuno M, Suzuki K and Sobue G: Dutasteride for spinal and bulbar muscular atrophy. *Lancet Neurol*, 10, 113-115 (2011)
9. Yamashita F, Hirayama M, Nakamura T, Takamori M, Hori N, Uchida K, Hama T and Sobue G: Pupillary autonomic dysfunction in multiple system atrophy and Parkinson's disease: an assessment by eye-drop tests. *Clin Auton Res*, 20, 191-197 (2010)
10. Watanabe H, Ito M, Fukatsu H, Senda J, Atsuta N, Kaga T, Kato S, Katsuno M, Tanaka F, Hirayama M, Naganawa S and Sobue G: Putaminal magnetic resonance imaging features at various magnetic field strengths in multiple system atrophy. *Mov Disord*, 25, 1916-1923 (2010)
11. Ukai K, Matsuo K, Nakamura R, Sobue G, Kosaka K, Shibayama H, Iritani S, Ishihara R and Ozaki N: A case of dementia with Lewy bodies that temporarily showed symptoms similar to Creutzfeldt-Jakob disease. *Psychogeriatrics*, 10, 201-205 (2010)
12. Tomita M, Watanabe H, Morozumi S, Kawagashira Y, Iijima M, Nakamura T, Katsuno M, Koike H, Hattori N, Hirayama M, Kusunoki S and Sobue G: Pyramidal tract involvement in Guillain-Barre syndrome associated with anti-GM1 antibody. *J Neurol Neurosurg Psychiatry*, 81, 583-585 (2010)
13. Takazawa T, Ikeda K, Hirayama T, Kawabe K, Nakamura Y, Ito H, Kano O, Yoshii Y, Tanaka F, Sobue G and Iwasaki Y: Familial amyotrophic lateral sclerosis with a novel G85S mutation of superoxide dismutase 1 gene: clinical features of lower motor neuron disease. *Intern Med*, 49, 183-186 (2010)
14. Suzuki K, Katsuno M, Banno H, Takeuchi Y, Kawashima M, Suga N, Hashizume A, Hama T, Uchida K, Yamashita F, Nakamura T, Hirayama M, Tanaka F and Sobue G: The profile of motor unit number estimation (MUNE) in spinal and bulbar muscular atrophy. *J Neurol Neurosurg Psychiatry*, 81, 567-571 (2010)
15. Sone J, Niwa J, Kawai K, Ishigaki S, Yamada S, Adachi H, Katsuno M, Tanaka F, Doyu M and Sobue G: Dorfin ameliorates phenotypes in a transgenic mouse model of amyotrophic lateral sclerosis. *J Neurosci Res*, 88, 123-135 (2010)
16. Senda J, Ito M, Atsuta N, Watanabe H, Hattori N, Kawai H and Sobue G:

- Paradoxical brain embolism induced by *Mycoplasma pneumoniae* infection with deep venous thrombus. *Intern Med*, 49, 2003-2005 (2010)
17. Ohgami N, Ida-Eto M, Shimotake T, Sakashita N, Sone M, Nakashima T, Tabuchi K, Hoshino T, Shimada A, Tsuzuki T, Yamamoto M, Sobue G, Jijiwa M, Asai N, Hara A, Takahashi M and Kato M: c-Ret-mediated hearing loss in mice with Hirschsprung disease. *Proc Natl Acad Sci U S A*, 107, 13051-13056 (2010)
18. Nakamura T, Hirayama M, Yamashita F, Uchida K, Hama T, Watanabe H and Sobue G: Lowered cardiac sympathetic nerve performance in response to exercise in Parkinson's disease. *Mov Disord*, 25, 1183-1189 (2010)
19. Mo K, Razak Z, Rao P, Yu Z, Adachi H, Katsuno M, Sobue G, Lieberman AP, Westwood JT and Monks DA: Microarray analysis of gene expression by skeletal muscle of three mouse models of Kennedy disease/spinal bulbar muscular atrophy. *PLoS One*, 5, e12922 (2010)
20. Matsuda M, Hoshino T, Yamashita Y, Tanaka K, Maji D, Sato K, Adachi H, Sobue G, Ihn H, Funasaka Y and Mizushima T: Prevention of UVB radiation-induced epidermal damage by expression of heat shock protein 70. *J Biol Chem*, 285, 5848-5858 (2010)
21. Koike H and Sobue G: Expanding the concept of inflammatory neuropathies. *Brain*, 133, 2848-2851 (2010)
22. Koike H, Koyano S, Morozumi S, Kawagashira Y, Iijima M, Katsuno M, Hattori N, Vernino S and Sobue G: Slowly progressive autonomic neuropathy with antiganglionic acetylcholine receptor antibody. *J Neurol Neurosurg Psychiatry*, 81, 586-587 (2010)
23. Koike H, Kiuchi T, Iijima M, Ueda M, Ando Y, Morozumi S, Tomita M, Kawagashira Y, Watanabe H, Katsuno M, Shimoyama Y, Okazaki Y, Kamei H and Sobue G: Systemic but asymptomatic transthyretin amyloidosis 8 years after domino liver transplantation. *J Neurol Neurosurg Psychiatry*, (2010)
24. Koike H, Atsuta N, Adachi H, Iijima M, Katsuno M, Yasuda T, Fukada Y, Yasui K, Nakashima K, Horiuchi M, Shiomi K, Fukui K, Takashima S, Morita Y, Kuniyoshi K, Hasegawa Y, Toribe Y, Kajiura M, Takeshita S, Mukai E and Sobue G: Clinicopathological features of acute autonomic and sensory neuropathy. *Brain*, 133, 2881-2896 (2010)
25. Kawagashira Y, Watanabe H, Morozumi S, Iijima I, Koike H, Hattori N and Sobue G: Differential response to intravenous immunoglobulin (IVIg) therapy among multifocal and polyneuropathy types of painful diabetic neuropathy. *J Clin Neurosci*, 17, 1003-1008 (2010)
26. Kawagashira Y, Kondo N, Atsuta N, Iijima M, Koike H, Katsuno M, Tanaka F, Kusunoki S and Sobue G: IgM MGUS anti-MAG neuropathy with predominant muscle

- weakness and extensive muscle atrophy. *Muscle Nerve*, 42, 433-435 (2010)
27. Kawagashira Y, Koike H, Tomita M, Morozumi S, Iijima M, Nakamura T, Katsuno M, Tanaka F and Sobue G: Morphological progression of myelin abnormalities in IgM-monoclonal gammopathy of undetermined significance anti-myelin-associated glycoprotein neuropathy. *J Neuropathol Exp Neurol*, 69, 1143-1157 (2010)
28. Katsuno M, Banno H, Suzuki K, Takeuchi Y, Kawashima M, Yabe I, Sasaki H, Aoki M, Morita M, Nakano I, Kanai K, Ito S, Ishikawa K, Mizusawa H, Yamamoto T, Tsuji S, Hasegawa K, Shimohata T, Nishizawa M, Miyajima H, Kanda F, Watanabe Y, Nakashima K, Tsujino A, Yamashita T, Uchino M, Fujimoto Y, Tanaka F and Sobue G: Efficacy and safety of leuprorelin in patients with spinal and bulbar muscular atrophy (JASMITT study): a multicentre, randomised, double-blind, placebo-controlled trial. *Lancet Neurol*, 9, 875-884 (2010)
29. Katsuno M, Banno H, Suzuki K, Adachi H, Tanaka F and Sobue G: Clinical features and molecular mechanisms of spinal and bulbar muscular atrophy (SBMA). *Adv Exp Med Biol*, 685, 64-74 (2010)
30. Katsuno M, Adachi H, Minamiyama M, Waza M, Doi H, Kondo N, Mizoguchi H, Nitta A, Yamada K, Banno H, Suzuki K, Tanaka F and Sobue G: Disrupted transforming growth factor-beta signaling in spinal and bulbar muscular atrophy. *J Neurosci*, 30, 5702-5712 (2010)
31. Kato T, Emi M, Sato H, Arawaka S, Wada M, Kawanami T, Katagiri T, Tsuburaya K, Toyoshima I, Tanaka F, Sobue G and Matsubara K: Segmental copy-number gain within the region of isopentenyl diphosphate isomerase genes in sporadic amyotrophic lateral sclerosis. *Biochem Biophys Res Commun*, 402, 438-442 (2010)
32. Katada E, Nakamura T, Watanabe H, Matsukawa N, Ojika K and Sobue G: [Lambert-Eaton myasthenic syndrome associated with pulmonary squamous cell carcinoma and circulating anti-P/Q-type voltage-gated calcium channel antibody]. *Rinsho Shinkeigaku*, 50, 17-19 (2010)
33. Hoshino T, Matsuda M, Yamashita Y, Takehara M, Fukuya M, Mineda K, Maji D, Ihn H, Adachi H, Sobue G, Funasaka Y and Mizushima T: Suppression of melanin production by expression of HSP70. *J Biol Chem*, 285, 13254-13263 (2010)
34. Collins MP, Dyck PJ, Gronseth GS, Guillemin L, Hadden RD, Heuss D, Leger JM, Notermans NC, Pollard JD, Said G, Sobue G, Vrancken AF and Kissel JT: Peripheral Nerve Society Guideline on the classification, diagnosis, investigation, and immunosuppressive therapy of non-systemic vasculitic neuropathy: executive summary. *J Peripher Nerv Syst*, 15, 176-184 (2010)
35. Palazzolo I et al. Overexpression of IGF-1 in muscle attenuates disease in a mouse

- model of spinal and bulbar muscular atrophy. *Neuron*, 63, 316-328 (2009)
36. Iguchi Y et al. TDP-43 depletion induces neuronal cell damage through dysregulation of Rho family GTPases. *J Biol Chem*, 284, 22059-22066 (2009)
37. Katsuno M et al. Getting a handle on Huntington's disease: the case for cholesterol. *Nature Med*, 15, 253-254 (2009)
38. Tokui K et al. 17-DMAG ameliorates polyglutamine-mediated motor neuron degeneration through well-preserved proteasome function in an SBMA model mouse. *Hum Mol Genet*, 18, 898-910 (2009)
39. Banno H et al. Phase 2 trial of leuprorelin in patients with spinal and bulbar muscular atrophy. *Ann Neurol*, 65, 140-150 (2009)
40. Okada Y et al. Spatio-temporal recapitulation of central nervous system development by murine ES cell-derived neural stem/progenitor cells. *Stem Cells*, 26, 3086-3098 (2008)
41. Yang Z et al. ASC-J9 ameliorates spinal and bulbar muscular atrophy phenotype via degradation of androgen receptor. *Nature Med*, 13: 348-353 (2007)
42. Adachi H et al. CHIP overexpression reduces mutant androgen receptor protein and ameliorates phenotypes of the spinal and bulbar muscular atrophy transgenic mouse model. *J Neurosci*, 27: 5115-5126 (2007)
43. Katsumo M et al. Reversible disruption of dynactin 1-mediated retrograde axonal transport in polyglutamine-induced motor neuron degeneration. *J Neurosci*, 26: 12106-12117 (2006)
44. Banno H et al. Mutant androgen receptor accumulation in spinal and bulbar muscular atrophy scrotal skin: a pathogenic marker. *Ann Neurol*, 59: 520-526 (2006)
45. Waza M et al. 17-AAG, an Hsp90 inhibitor, ameliorates polyglutamine-mediated motor neuron degeneration. *Nature Med*, 11: 1088-1095 (2005)
46. Katsuno M et al. Pharmacological induction of heat shock proteins alleviates polyglutamine-mediated motor neuron disease. *Proc Natl Acad Sci USA*, 102: 16801-16806 (2005)
47. Jiang YM et al. Gene expression profile of motor neurons in sporadic amyotrophic lateral sclerosis. *Ann Neurol*, 57: 236-251 (2005)
48. Katsuno M et al. Sweet relief for Huntington's disease. *Nature Med*, 10: 123 (2004)
49. Katsuno M et al. Polyglutamine diminishes VEGF: Passage to motor neuron death? *Neuron*, 41: 677-679 (2004)
50. Katsuno M et al. Leuprorelin rescue polyglutamine-dependent phenotypes in a transgenic mouse model of spinal and bulbar muscular atrophy. *Nature Med*, 9: 768-773 (2003)

51. Katsuno M et al. Teststerone reduction prevents phenotypic expression in a transgenic mouse model of spinal and bulbar muscular atrophy. *Neuron*, 35: 843-854 (2002)
52. Hashimoto Y et al. A rescue factor abolishing neuronal cell death by a wide spectrum of familial Alzheimer's disease genes and A_B. *Proc Natl Acad Sci USA*, 98: 6336-6341 (2001)
53. Tanaka F et al. Tissue-specific somatic mosaicism in spinal and bulbar muscular atrophy is dependent on CAG-repeat length and Androgen receptor-gene expression level. *Am J Hum Genet*, 65: 966-973 (1999)
54. Inoue H et al. A gene encoding a transmembrane protein is mutated in patients with diabetes mellitus and optic atrophy (Wolfram syndrome). *Nature Genet*, 20: 143-148 (1998)
55. Kawakami H et al. Unique features of the CAG repeats in Machado-Joseph disease. *Nature Genet*, 9: 344-345 (1995)
56. Sobue G et al. Schwann cell galactocerebroside induced by derivatives of adenosine 3', 5'- monophosphate. *Science*, 224: 72-74 (1984)