

## Curriculum Vitae

Name, Family Name : Kawaguchi  
Forename : Yoshiharu

Sex : Male

Date of birth : 18 October, 1962

Place of birth: Toyama

Material status: Married

Nationality: Japanese

Present address: Department of Orthopaedic Surgery,  
Faculty of Medicine,  
University of Toyama  
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Major field of study: Spine surgery,  
Muscle pathology,  
Electrophysiology  
Molecular biology  
Lumbar disc disease  
Spinal stenosis  
Myelopathy  
Ossification of the posterior longitudinal ligament

### Education & Occupation:

1982-1988 Faculty of Medicine, Toyama Medical and  
Pharmaceutical University  
Awarded the degree of B.S.

1988-1989 Residency training at the Department of  
Orthopaedic Surgery, Toyama Medical and

Pharmaceutical University

1989-1990 Residency training at Nagano prefecture Suzaka  
hospital

- 1990-1994 Ph.D. student, postgraduate school of Toyama Medical and Pharmaceutical University  
In March 1994, awarded the degree of Ph D.
- 1994-1997 Assistant professor at Department of Orthopaedic Surgery, Toyama Medical and Pharmaceutical University
- 1994(Oct)-1995(Aug) Research fellow, University of Gothenburg, Sweden working with Professor Björn Rydevik
- 1997-2004 Lecturer at Department of Orthopaedic Surgery, Toyama Medical and Pharmaceutical University
- 2005 The name of Toyama Medical and Pharmaceutical University has been changed to University of Toyama
- 2008-2009 Associate Professor at Department of Orthopaedic Surgery, University of Toyama
- 2009- Clinical Professor at Department of Orthopaedic Surgery, University of Toyama
- 2019- Professor and Chairman of Department of Orthopaedic Surgery, University of Toyama

Membership of academic societies:

- 1) The Japanese Orthopaedic Association  
2015- Chair of international committee
- 2) Japan Spine Research Society  
2016- Member of international committee
- 3) Central Japanese Society of Orthopaedic and Traumatic Surgery
- 4) Japan Society of Electroencephalography and Electromyography
- 5) International Society for the Study of the Lumbar Spine, active member  
2003-2010 representative of Japan  
2014-2017 Program committee,  
2017 Program chair
- 6) Japanese Society of lumbar spine disorders
- 7) Japanese Society of Cartilage Metabolism

Awarded:

1992

Grant-in-Aid for Encouragement of Young Scientists from  
The Japan Ministry of Education, Science and culture

1993

Award of the Japan branch of the International society for the study of the  
lumbar spine

1994

Uehara memorial foundation postdoctoral fellowship

1995

Basic research award of Japanese Orthopaedic Association

1996

Grant-in-Aid for Encouragement of Young Scientists from  
The Japan Ministry of Education, Science and culture

1997-1998

Grant-in-Aid for Encouragement of Young Scientists from  
The Japan Ministry of Education, Science and culture

1999

AAOS New Program Travelling Fellow

1999-2000

Grant-in-Aid for Encouragement of Young Scientists from  
The Japan Ministry of Education, Science and culture

2001

Cervical spine research society, Clinical award

2002-2004

Grant-in-Aid for Encouragement of Senior Scientists from  
The Japan Ministry of Education, Science and culture

2003

Japanese Orthopaedic Association and Hong Kong Orthopaedic  
Association Exchange Travelling Fellow

2004

Clinical research award of Japanese Orthopaedic Association

2004

Award of the Japan branch of the International society for the study of the  
lumbar spine

2004-2017

Grant-in-Aid for Encouragement of Senior Scientists from  
The Japan Ministry of Education, Science and culture

2005

Cervical spine research society, Clinical award

2006

Toyama award

2007

Japanese Orthopaedic Association and American Academy Orthopaedic Society Exchange Travelling Fellow

2010

International Society of the Study of the Lumbar Spine, Best presentation award

2015

Japanese Orthopaedic Association, Best presentation award

2017

Journal of Orthopaedic Science, Best paper award

2022

English session award, Japanese Society for Spine Surgery and Related Research, annual meeting (co-author)

2023

English session award, Japanese Society for Spine Surgery and Related Research, annual meeting (co-author)

Chief Editor

- 1) Journal of Spine Research
- 2) Spine Surgery and Related Research

Deputy Editor

- 1) Global Spine Journal
- 2) Case report in Surgery

Referee for Scientific Journals:

- 1) Spine
- 2) Clinical Orthopaedics and Related Research
- 3) BioMed Central
- 4) Spinal cord
- 5) Journal of Orthopaedic Science
- 6) European Spine Journal
- 7) Case Reports in Medicine
- 8) Future Medicine
- 9) Clinical Rheumatology
- 10) Medical Science Monitor
- 11) Neuroscience Letters
- 12) Modern Rheumatology
- 13) The Journal of Clinical Endocrinology & Metabolism

- 14) International Journal of Diagnostic Imaging, Editorial Reviewer Board
  - 15) Journal of Spine Research, Chief editor
  - 16) Journal of Bone and Mineral Research
  - 17) Journal of Bone and Mineral Metabolism
  - 18) Plos One
  - 19) Clinical Neurology and Neurosurgery
  - 20) Central European Neurosurgery
  - 21) Science Technology
  - 22) Scoliosis and Spinal disorders
  - 23) World Journal of Clinical Cases
  - 24) The Spine Journal
- etc.

### **Social activities**

- 2007 World Forum for Spine Research, The Intervertebral Disc, Faculty member (Kyoto)
- 2008 AOSpine Advances Courses Faculty (Davos, Switzerland)
- 2010–12 AO Spine Japan, Research Council Chair
- 2013–2016 AO Spine Asia Pacific region, Research Council Chair
- 2014 ASSICON2014. Kolkata/27<sup>th</sup> Annual Conference of Association of Spine Surgeons of India/Scoliosis Research Society World Wide Conference, invited speaker
- 2014 AOSpine Master Courses Faculty (Davos, Switzerland)
- 2015 AOSpine Master Courses Chair in the cervical spine (Hong Kong)
- 2015 AOSpine Master Courses Faculty (Korea)
- 2015 AOSpine Master Courses Chair (Davos, Switzerland)
- 2016 NASS faculty in Thailand (Suerat Tani, Thailand)
- 2016 AOSpine Master Courses Faculty (China)
- 2016 AOSpine Master Courses Faculty (New Zealand)
- 2016 AOSpine Master Courses Educational Advisory (Davos, Switzerland)
- 2017 Foreign faculty of Eurasian Orthopaedic Forum (Moscow)
- 2018 Spine Summit, Courses Faculty (Hong Kong)
- 2019 Foreign faculty of ASSICON 2019. Armedabad/31<sup>th</sup> Annual Conference of Association of Spine Surgeons of India/Scoliosis Research Society World Wide Conference, (India)
- 2019 Spine Summit, Courses Faculty (Kuala Lumpur)
- 2019-2022 AOSpine Asia Pacific region, Orthopaedic Surgery, Education Chair

2019-2022 AOSpine member of AOSEC meeting  
2019-2022 AOSpine member of Diploma program  
2023 AOSpine Cadaver Courses Faculty (Thai)  
2020 Spine conference, special lecture (Izmir Turkey)

#### Guideline

2012 member of the Japanese guideline for low back pain  
2018 member of the Japanese guideline for management of chronic pain  
2018 chairman of the Japanese guideline for ossification of the spinal ligament  
2019 member of the Japanese guideline for lumbar spinal stenosis  
2023 member of the Japanese guideline for ossification of the spinal ligament, 2nd

## **Publications in English:**

### **Book or Chapter in English**

- 1) **Kawaguchi Y**, Kanamori M. Spinal stenosis without deformity. Operative treatment. 2. Procedures-Laminoplasty. The Lumbar Spine (3<sup>rd</sup> edition). pp.509-513,2004.
  
- 2) **Kawaguchi Y**. 5. Treatment of OPLL and OLF, 5.1 Cervical Spine, Long-term results. OPLL: Ossification of the posterior longitudinal ligament 2<sup>nd</sup> Edition, Springer. pp.219-223,2006.
  
- 3) **Kawaguchi Y**, Rydevic B. Section 3 Cervical Spine. subsection 1: Anatomy and assessment 52. Interventional Spine: an algorithmic approach. pp.557-572, 2008.
  
- 4) **Kawaguchi Y**. Chapter 60. Cervical myelopathy. Pain Management, 2<sup>nd</sup> Edition. by Waldman, Elsevier. pp.541-557, 2011.
  
- 5) **Kawaguchi Y**. Planning and designing an oral presentation. Education in research from the idea to the publication, eds Falavigna A and Avila JMJ. AO Spine Latin America. Chaptor 34, pp 365-369, 2015.
  
- 6) **Kawaguchi Y**. Lumbar Laminoplasty. The Lumbar Spine (4<sup>rd</sup> edition). 2017.
  
- 7) **Kawaguchi Y**. Spinal infection in geriatric patients. Chapter 10: Spinal Infection, for the AOSpine Masters Series. 2017.
  
- 8) Ariffin HM, **Kawaguchi Y**, Wong CC. Instrumentation and spinal infection. Chapter 4: Spinal Infection, for the AOSpine Masters Series. 2017.
  
- 9)

### **Review article in English**

- 1) **Kawaguchi Y**. Genetic background of degenerative disc disease in the

lumbar spine. Spine Surgery Related Research, 2018.

2) **Kawaguchi Y**. Ossification of posterior longitudinal ligament: Etiology, Prevalence, Progression and surgical strategies. Indian Spine Journal, 2018. (invited article)

3) **Kawaguchi Y**. Biomarkers of ossification of the spinal ligament (OSL). Global Spine Journal, 2018. accepted

### **Original article in English**

1) Kanamori M, Matsui H, Hirano N, **Kawaguchi Y**, Kitamoto R, Tsuji H. Trumpet laminectomy for lumbar degenerative spinal stenosis. J Spinal Disord. 1993 Jun;6(3):232-7.

2) **Kawaguchi Y**, Matsui H, Tsuji H. Back muscle injury after posterior lumbar spine surgery, part 1. histological and histochemical analyses in rats. Spine (Phila Pa 1976). 1994 Nov 15;19(22):2590-7.

3) **Kawaguchi Y**, Matsui H, Tsuji H. Back muscle injury after posterior lumbar spine surgery, part 2. histological and histochemical analyses in humans. Spine (Phila Pa 1976). 1994 Nov 15;19(22):2598-602.

4) Yamamoto N, Takano H, Kitagawa H, **Kawaguchi Y**, Tsuji H. Changes of evoked action potentials and histology of the spinal cord and hind limb dysfunction in spinal cord ischemia of cats. J Spinal Disord. 1994 Aug;7(4):285-95.

5) Yamamoto N, Takano H, Kitagawa H, **Kawaguchi Y**, Tsuji H, Uozaki Y. Monitoring for spinal cord ischemia by use of the evoked spinal cord potentials during aortic aneurysm surgery. J Vasc Surg. 1994 Nov;20(5):826-33.

6) Matsui H, Kitagawa H, **Kawaguchi Y**, Tsuji H. Physiologic changes of nerve root during posterior lumbar discectomy. Spine (Phila Pa 1976). 1995 Mar 15;20(6):654-9.

7) Matsui H, Tsuji H, Kanamori M, **Kawaguchi Y**, Yudoh K, Futatsuya R. Laminectomy-induced arachnoiditis. A postoperative serial MRI study. Neuroradiology. 1995 Nov;37(8):660-6.

- 8) Kitagawa H, Nakamura H, **Kawaguchi Y**, Tsuji H, Satone T, Takano H, Nakatoh S. Magnetic-evoked compound muscle action potential neuromonitoring in spine surgery. *Spine (Phila Pa 1976)*. 1995 Oct 15;20(20):2233-9.
- 9) Nakamura H, Kitagawa H, **Kawaguchi Y**, Tsuji H, Takano H, Nakatoh S. Intracortical facilitation and inhibition after paired magnetic stimulation in humans under anesthesia. *Neurosci Lett*. 1995 Oct 20;199(2):155-7.
- 10) **Kawaguchi Y**, Matsui H, Tsuji H. Back muscle injury after posterior lumbar spine surgery, A histological enzymatic analysis. *Spine (21)*,pp.941-944,1996.
- 10) **Kawaguchi Y**, Matsui H, Tsuji H. Back muscle injury after posterior lumbar spine surgery, A histological enzymatic analysis. *Spine (Phila Pa 1976)*. 1996 Apr 15;21(8):941-4.
- 11) **Kawaguchi Y**, Yabuki S, Styf J, Olmarker K, Rydevik B, Matsui H, Tsuji H. Back muscle injury after posterior lumbar spine surgery -Topographical evaluation of intramuscular pressure and blood flow in the porcine back muscle during surgery-. *Spine (Phila Pa 1976)*. 1996 Nov 15;21(22):2683-8.
- 12) Nakamura H, Kitagawa H, **Kawaguchi Y**, Tsuji H. Direct and indirect activation of human corticospinal neurons by transcranial magnetic and electrical stimulation. *Neurosci Lett*. 1996 May 24;210(1):45-8.
- 13) **Kawaguchi Y**, Matsui H, Tsuji H. Changes in serum creatine phosphokinase MM isoenzyme after lumbar spine surgery. *Spine(22)*,pp.1018-1023,1997.
- 14) Matsui H, Kanamori M, **Kawaguchi Y**, Kitagawa H, Nakamura H, Tsuji H. Clinical electrophysiologic characteristics of compressed lumbar nerve roots. *Spine(22)*,pp.2100-2105,1997.
- 15) Nakamura H, Kitagawa H, **Kawaguchi Y**, Tsuji H. Intracortical facilitation and inhibition after transcranial magnetic stimulation in conscious human. *J Physiol*. 1997 Feb 1;498 ( Pt 3):817-23.

- 16) **Kawaguchi Y**, Matsui H, Tsuji H. Changes in serum creatine phosphokinase MM isoenzyme after lumbar spine surgery. *Spine (Phila Pa 1976)*. 1997 May 1;22(9):1018-23.
- 17) Nakato S, Kitagawa H, **Kawaguchi Y**, Nakamura H, Takano H, Tsuji H. Effect of coil orientation and magnetic field shield on transcranial magnetic stimulation in cats. *Muscle Nerve*. 1998 Sep;21(9):1172-80.
- 18) Yabuki S, **Kawaguchi Y**, Nordborg C, Kikuchi S, Rydevik B, Olmarker K. Effects of lidocain on nucleus pulposus-induced nerve root injury. A neurophysiologic and histologic study of the pig cauda equina. *Spine (Phila Pa 1976)*. 1998 Nov 15;23(22):2383-9; discussion 2389-90.
- 19) **Kawaguchi Y**, Osada R, Kanamori M, Ishihara H, Ohmori K, Kimura T, Matsui H. An association between an aggrecan gene polymorphism and lumbar disc disease. *Spine (24)*,pp.2456-2460,1999.
- 20) **Kawaguchi Y**, Osada R, Kanamori M, Ishihara H, Ohmori K, Kimura T, Matsui H. An association between an aggrecan gene polymorphism and lumbar disc disease. *Spine (Phila Pa 1976)*. 1999 Dec 1;24(23):2456-60.
- 21) Gejo R, Matsui H, **Kawaguchi Y**, Ishihara H, Tsuji H. Serial changes in trunk muscle performance after posterior lumbar surgery. *Spine (Phila Pa 1976)*. 1999 May 15;24(10):1023-8.
- 22) **Kawaguchi Y**, Kitagawa H, Nakamura H, Gejo R, Kimura T. Neurophysiological evaluation of respiratory function by compound muscle action potentials from the diaphragm: a possible means to detect high cervical cord lesions. *J Bone Joint Surg Br*. 2000 Jul;82(5):695-701.
- 23) **Kawaguchi Y**, Matsui H, Ishihara H, Gejo R, Yasuda T. Surgical outcome of cervical expansive laminoplasty in diabetic patients. *Spine (Phila Pa 1976)*. 2000 Mar 1;25(5):551-5.
- 24) Gejo R, **Kawaguchi Y**, Kondoh T, Tabuchi E, Matsui H, Torii K, Ono T, Kimura T. Magnetic resonance imaging and histologic evidence of postoperative back muscle injury in rats. *Spine (25)*,pp.941-946,2000.
- 25) Zhao W, **Kawaguchi Y**, Matsui H, Kanamori M, Kimura T. Histochemistry and morphology of the multifidus muscle in lumbar disc

herniation: Comparative study between diseased and normal sides. *Spine (Phila Pa 1976)*. 2000 Sep 1;25(17):2191-9.

26) **Kawaguchi Y**, Kanamori M, Ishihara H, Nakamura H, Sugimori K, Tsuji H, Kimura T. Progression of ossification of the posterior longitudinal ligament following cervical laminoplasty. *J Bone Joint Surg Am*. 2001 Dec;83-A(12):1798-802.

27) **Kawaguchi Y**, Kanamori M, Ishihara H, Ohmori K, Fujiuchi Y, Matsui H, Kimura T. Clinical symptoms and surgical outcome in lumbar spinal stenosis patients with neurogenic bladder. *J Spinal Disord*. 2001 Oct;14(5):404-10.

28) Ohmori K, Kanamori M, **Kawaguchi Y**, Ishihara H, Kimura T. Clinical features of extraforaminal lumbar disc herniation based on the radiographic location of the dorsal root ganglion. *Spine (Phila Pa 1976)*. 2001 Mar 15;26(6):662-6.

29) Nakano M, Matsui H, Ishihara H, **Kawaguchi Y**, Gejo R, Hirano N. Serial changes of herniated intervertebral discs after posterior lumbar discectomy: The relation between magnetic resonance imaging of the postoperative intervertebral discs and clinical outcome. *J Spinal Disord*. 2001 Aug;14(4):293-300.

30) Nakatoh S, Kitagawa H, **Kawaguchi Y**, Nakamura H, Takano H. Changes of muscle motor-evoked potentials after motor cortex stimulation caused by acute spinal cord injury in cats. *J Spinal Disord*. 2001 Feb;14(1):32-8.

31) Ishihara H, Kanamori M, **Kawaguchi Y**, Osada R, Ohmori K, Matsui H. Prediction of neurologic outcome in patients with spinal cord injury by using hyperbaric oxygen therapy. *J Orthop Sci*. 2001;6(5):385-9.

32) Ishihara H, Osada R, Kanamori M, **Kawaguchi Y**, Ohmori K, Kimura T, Matsui H, Tsuji H. Minimal 10-year follow-up study of anterior lumbar interbody fusion for isthmic spondylolisthesis. *J Spinal Disord*. 2001 Apr;14(2):91-9.

33) Kanamori M, **Kawaguchi Y**, Ohmori K, Kimura T, Tsuji H, Matsui H. The fate of autogenous free-fat grafts after posterior lumbar surgery. Part 1.

A postoperative serial magnetic resonance imaging study. *Spine (Phila Pa 1976)*. 2001 Oct 15;26(20):2258-63.

34) Kanamori M, **Kawaguchi Y**, Ohmori K, Kimura T, Tsuji H, Matsui H. The fate of autogenous free-fat grafts after posterior lumbar surgery. Part 1. Magnetic resonance imaging and histologic studies in repeated surgery cases. *Spine (Phila Pa 1976)*. 2001 Oct 15;26(20):2264-70.

35) **Kawaguchi Y**, Ishihara H, Ohmori K, Kanamori M, Kimura T. Computer-assisted Magerl's Transarticular screw fixation for atlantoaxial subluxation. *J Orthop Sci*. 2002;7(1):131-6.

36) **Kawaguchi Y**, Gejo R, Kanamori M, Kimura T. Quantitative analysis of the effect of lumbar orthosis on trunk muscle strength and muscle activity in normal subjects. *J Orthop Sci*. 2002;7(4):483-9.

37) Iwasaki M, **Kawaguchi Y**, Kimura T, Yonenobu K. Long-term results of expansive laminoplasty for ossification of the posterior longitudinal ligament of the cervical spine: more than 10 years follow up. *J Neurosurg*. 2002 Mar;96(2 Suppl):180-9.

38) **Kawaguchi Y**, Kanamori M, Ishihara H, Ohmori K, Matsui H, Kimura T. The association of lumbar disc disease with vitamin-D receptor gene polymorphism. *J Bone Joint Surg Am*. 2002 Nov;84-A(11):2022-8.

39) Nakano M, Hirano N, Matsuura K, Watanabe H, Kitagawa H, Ishihara H, **Kawaguchi Y**. Percutaneous transpedicular vertebroplasty with calcium phosphate cement in the treatment of osteoporotic vertebral compression and burst fractures. *J Neurosurg*. 2002 Oct;97(3 Suppl):287-93.

40) **Kawaguchi Y**, Kanamori M, Ishihara H, Ohmori K, Nakamura H, Kimura T. Minimal 10-year followup after en bloc cervical laminoplasty. *Clin Orthop Relat Res*. 2003 Jun;(411):129-39.

41) Sugimori K, **Kawaguchi Y**, Kimura T. Significance of bone formation markers in patients with ossification of the posterior longitudinal ligament of the spine. *Spine (Phila Pa 1976)*. 2003 Feb 15;28(4):378-9.

42) **Kawaguchi Y**, Matsuno H, Kanamori M, Ishihara H, Ohmori K, Kimura T. Radiological findings of the lumbar spine in patients with

rheumatoid arthritis and a review of pathologic mechanism. *J Spinal Disord Tech.* 2003 Feb;16(1):38-43.

43) **Kawaguchi Y**, Furushima K, Sugimori K, Inoue I, Kimura T. Association of a polymorphism of the transforming growth factor- $\beta$ 1 gene with the radiological characteristic of ossification of the posterior longitudinal ligament. *Spine (Phila Pa 1976).* 2003 Jul 1;28(13):1424-6.

44) **Kawaguchi Y**, Kanamori M, Ishihara H, Ohmori K, Abe Y, Kimura T. Pathomechanism of myelopathy and surgical results of laminoplasty in elderly patients with cervical spondylosis. *Spine (Phila Pa 1976).* 2003 Oct 1;28(19):2209-14.

45) **Kawaguchi Y**, Kanamori M, Ishihara H, Ohmori K, Seki S, Kimura T. Preventive measures of axial symptoms following cervical laminoplasty. *J Spinal Disord Tech.* 2003 Dec;16(6):497-501.

46) Sugimori K, **Kawaguchi Y**, Morita M, Kitajima I, Kimura T. High-sensitivity analysis of serum C-reactive protein (CRP) in young patients with lumbar disc herniation. *J Bone Joint Surg Br.* 2003 Nov;85(8):1151-4.

47) Nishimura G, Kizu R, Kijima Y, Sakai K, **Kawaguchi Y**, Kimura T, Matsushita I, Shirahama S, Ikeda T, Ikegawa S, Hasegawa T. Spondyloepiphyseal dysplasia maroteaux type: Report of three patients from two families and exclusion of type II collagen defects. *Am J Med Genet A.* 2003 Aug 1;120A(4):498-502.

48) Liu H, Ishihara H, Kanamori M, **Kawaguchi Y**, Ohmori K, Kimura T. Characteristics of nerve root compression caused by degenerative lumbar spinal stenosis with scoliosis. *Spine J.* 2003 Nov-Dec;3(6):524-9.

49) **Kawaguchi Y**, Kanamori M, Ishihara H, Kikkawa T, Matsui H, Tsuji H, Kimura T. Clinical and radiological results of expansive lumbar laminoplasty in patients with spinal stenosis. *J Bone Joint Surg Am.* 2004 Aug;86-A(8):1698-703.

50) Ishihara H, Kanamori M, **Kawaguchi Y**, Nakamura H, Kimura T. Adjacent segment disease after anterior cervical interbody fusion. *Spine J.* 2004 Nov-Dec;4(6):624-8.

- 51) Nakano M, Hirano N, Ishihara H, **Kawaguchi Y**, Matsuura K. Calcium phosphate cement leakage after percutaneous vertebroplasty for osteoporotic vertebral fractures: risk factor analysis for cement leakage. *J Neurosurg Spine*. 2005 Jan;2(1):27-33.
- 52) Seki S, **Kawaguchi Y**, Chiba K, Mikami Y, Kizawa H, Oya T, Mio F, Mori M, Miyamoto Y, Masuda I, Tsunoda T, Kamata M, Kubo T, Toyama Y, Kimura T, Nakamura Y, Ikegawa S. A functional SNP in *CILP*, encoding cartilage intermediate layer protein, is associated with susceptibility to lumbar disc disease. *Nat Genet*. 2005 Jun;37(6):607-12. Epub 2005 May 1.
- 53) **Kawaguchi Y**, Kanamori M, Ishihara H, Kikkawa T, Matsui H, Tsuji H, Kimura T. Clinical and radiological results of expansive lumbar laminoplasty in patients with spinal stenosis. *Surgical Technique. J Bone Joint Surg Am*. 2005 Sep;87 Suppl 1(Pt 2):292-9.
- 54) **Kawaguchi Y**, Oya T, Abe Y, Kanamori M, Ishihara H, Yasuda T, Nogami S, Hori T, Kimura T. Spinal stenosis due to ossified lesions in the lumbar spine. *J Neurosurg Spine*. 2005 Oct;3(4):262-70.
- 55) Kanamori M, Ishihara H, **Kawaguchi Y**, Yasuda T. H-shaped autologous bone graft associated with a ceramic interspinous block for the posterior lumbar fusion. *J Lumbar Spine Disord* 2005 11:157-63.
- 56) **Kawaguchi Y**, Kanamori M, Ishihara H, Abe Y, Nobukiyo M, Shigeta T, Hori T, Kimura T. Postoperative delirium in spine surgery. *Spine J*. 2006 Mar-Apr;6(2):164-9.
- 57) Hori T, **Kawaguchi Y**, Kimura T. How does the ossification area of the posterior longitudinal ligament progress after cervical laminoplasty? *Spine (Phila Pa 1976)*. 2006 Nov 15;31(24):2807-12.
- 58) Nakano M, Hirano N, Ishihara H, **Kawaguchi Y**, Watanabe H, Matsuura K. Calcium phosphate cement-based vertebroplasty compared with conservative treatment for osteoporotic compression fractures: a matched case-control study. *J Neurosurg Spine* 2006;4:110-117.
- 59) Horikoshi T, Maeda K, **Kawaguchi Y**, Chiba K, Mori K, Koshizuka Y, Hirabayashi S, Sugimori K, Matsumoto M, Kawaguchi H, Takahashi M,

Inoue H, Kimura T, Matsusue Y, Inoue I, Baba H, Nakamura K, Ikegawa S. A large-scale genetic association study of ossification of the posterior longitudinal ligament of the spine. *Hum Genet.* 2006 Jul;119(6):611-6.

60) Seki S, **Kawaguchi Y**, Mori M, Mio F, Chiba K, Mikami Y, Tsunoda T, Kubo T, Toyama Y, Kimura T, Ikegawa S. Association study of COL9A2 with lumbar disc disease in the Japanese population. *J Hum Genet* 2006;51:1063-1067.

61) **Kawaguchi Y**, Ishihara H, Kanamori M, Yasuda T, Abe Y, Nogami S, Seki S, Hori T, Kimura T. Adjacent segment disease following expansive lumbar laminoplasty. *S Spine J.* 2007 May-Jun;7(3):273-9.

62) Hori T, **Kawaguchi Y**, Kimura T. How does the ossification area of the posterior longitudinal ligament thicken following cervical laminoplasty? *Spine (Phila Pa 1976).* 2007 Sep 1;32(19):E551-6.

63) Mio F, Chiba K, Hirose Y, **Kawaguchi Y**, Mikami Y, Oya T, Mori M, Kamata M, Matsumoto M, Ozaki K, Tanaka T, Takahashi A, Kubo T, Kimura T, Toyama Y, Ikegawa S. A functional polymorphism in COL11A1, which encodes the alpha 1 chain of type XI collagen, is associated with susceptibility to lumbar disc herniation. *Am J Hum Genet.* 2007 Dec;81(6):1271-7.

64) **Kawaguchi Y**, Seki S, Hori T, Kimura T. Characteristics of ossified lesions in the upper cervical spine associated with ossification of the posterior longitudinal ligament of the lower cervical spine. *J Bone Joint Surg Am.* 2008 Apr;90(4):748-53. doi: 10.2106/JBJS.G.00037.

65) Song Y-Q, Cheung KMC, Ho DWH, Poon SCS, Chiba K, **Kawaguchi Y**, Hirose Y, Alini M, Grad S, Ye AFY, Leong JCY, Luk KDK, Yip S-P, Karppinen J, Cheah KSE, Sham P, Ikegawa S, Chan, D. Association of the Asporin D14 allele with lumbar disc degeneration in Asians. *Am J Hum Genet.* 2008 Mar;82(3):744-7. doi: 10.1016/j.ajhg.2007.12.017. Epub 2008 Feb 21.

66) Hirose Y, Chiba K, Karasugi T, Nakajima M, **Kawaguchi Y**, Mikami Y, Furuichi T, Mio F, Miyake A, Miyamoto T, Ozaki K, Takahashi A, Mizuta H, Kubo T, Kimura T, Tanaka T, Toyama Y, Ikegawa S. A functional polymorphism in THBS2 that affects alternative splicing and MMP binding

is associated with lumbar-disc herniation. *Am J Hum Genet.* 2008 May;82(5):1122-9. doi: 10.1016/j.ajhg.2008.03.013.

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