

**SANG MIN SUNG. MD, PhD.**

**PRESIDENT  
CONVERGENCE MEDICAL INSTITUTE OF TECHNOLOGY  
PUSAN NATIONAL UNIVERSITY HOSPITAL**

**PROFESSOR  
DEPARTMENT OF NEUROLOGY  
COLLEGE OF MEDICINE, PUSAN NATIONAL UNIVERSITY**

**179 GUDEOK-RO SEO-GU, BUSAN, 49241, SOUTH KOREA**

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**BIOGRAPHICAL DATA**

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- Name : Sang Min Sung, M.D., Ph. D.
- Place of Birth : Masan, Gyeongsangnam-do, South Korea
- Citizenship : Republic of Korea

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**ACADEMIC INTERSTS**

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- Thrombolytic therapy in acute ischemic stroke
- Interventional therapy in acute ischemic stroke
- Cell signaling pathway of proliferation and apoptosis in stroke

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**PROFESSIONAL WORK EXPERIENCES**

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- President, Convergence Medical Institute of Technology of PNUH ( 2024-present)
- Chairperson, Department of Neurology, Pusan National University Hospital, Busan, Korea (2012-2017)
- Chief public relations officer, Pusan National University Hospital, Busan, Korea ( 2015-2016)
- Director, Cardio-Cerebrovascular Center, Pusan National University Hospital, Busan, Korea (2013-2024)
- Director, Stroke Center, Pusan National University Hospital, Busan, Korea (2011-2024)
- Professor, Department of Neurology, School of Medicine, Pusan National University, Busan, Korea (2021-present)
- Associate Professor, Department of Neurology, School of Medicine, Pusan National University, Busan, Korea (2016-2021)
- Assistant Professor, Department of Neurology, School of Medicine, Pusan National University, Busan, Korea (2010-2016)
- Audit, Korean Neurocritical Care Society (2013-present)
- Member, Health Insurance Review and Assessment Service, Busan, Korea (2013-2019)
- Chief, Department of Neurology, Busan Medical Center, Ministry of Health and Welfare, Busan, Korea (2002-2009)
- Chairman of Education Committee, Busan Medical Center, Ministry of Health and Welfare, Busan, Korea (2002-2007)
- Member, Health Care Review and Evaluation Committee, National Health Insurance Review Agency, Korea (2007-2008)

- **Co-investigator, Medical Research Center, School of Medicine, Pusan National University, Busan , Korea**  
*Conducted research about the cell signaling pathway of cell proliferation and apoptosis*
- **Clinical Assistant Professor, Department of Neurology, Pusan National University Hospital, Busan, Korea (2002-2009)**  
*Diagnosed and treated over 2000 patients with stroke*
- **Clinical professor, Graduate School of Nursing, Dong-Eui University, Busan, Korea (2003-2007)**
- **Clinical Instructor, Department of Neurology, Pusan National University Hospital, Busan, Korea (2001-2002)**  
*Diagnosed and treated over 500 patients with various neurological diseases*
- **Chief, Dept. of Neurology, Wallace Memorial Baptist Hospital , Busan, Korea (2001-2002)**  
*Diagnosed and treated patients with various neurological diseases*
- **Chief, Dept. of Neurology, Korean Armed Forces Medical Command, Daegu, Korea (1998-2001)**  
*Served three years in Korean Army to provide medical service as a captain of army*
- **Residency, Department of Neurology, Pusan National University Hospital, Busan, Korea (1994-1998)**
- **Board Certified Doctor of Neurology, Korean Neurological Association, 1998**
- **Internship, Department of Medicine, Pusan National University Hospital, Busan, Korea (1993-1994)**
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#### EDUCATION

- **Ph.D., Graduate School of Medicine, Pusan National University, Busan, Korea, February 2007**  
*(Doctoral Thesis Title: Hypoxia/reoxygenation injury stimulates proliferation in neural progenitor cells isolated from postnatal mouse brain)*
- **Clinical fellowship, Stroke Center, University of California, San Diego, CA, U.S.A. (2007-2009)**
- **M.S., Graduate School of Medicine, Pusan National University, Busan, Korea, February 2003**
- **M.D., College of Medicine, Pusan National University, Busan, Korea, February 1993**  
*Obtained Medical Doctor License in Korea 1993 (Medical License Number: 51001)*  
*Pusan National university Entrance Scholarship 1987*  
*College of Medicine Dean's Honor Scholarship 1991*

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#### PROFESSIONAL MEMBERSHIPS AND AFFILIATIONS

- **Council Member, Director of Education, The Korean Neurological Association**
- **Member, Audit, The Korean Stroke Society**
- **Member, The Korean Dementia Association**
- **Member, American Heart/Stroke Association**
- **Corresponding Active member, American Academy of Neurology**
- **President, Busan-Gyeongnam-Ulsan Stroke Society**
- **President, YoungHonam Neurology Association**
- **Audit, Busan-Gyeongnam-Ulsan Dementia Association**
- **Director, Korean Association of whole personal carework**
- **Audit, The Korean Neurocritical Care Society**
- **Fellow of American Heart Association**

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#### EXPERIENCE IN CLINICAL TRIALS

- **Prevention of Cardiovascular events in iSchemic Stroke patients with high risk of Cerebral Hemorrhage : PICASSO study ( investigator Initiated Trial, Phase IV ) ( 2010-2016 )**
- **Rivaroxaban versus Warfarin in acute ischemic stroke with atrial fibrillation: Acute stroke with Xarelto to reduce intracranial bleeding, recurrent embolic stroke, and hospital stay, phase 2, conceptual multicenter trial : Triple Axel (2014-2016)**
- **Treat stroke to target : TST (investigator Initiated Trial, Phase IV) (2014-present)**

- Safety and efficacy of therapeutic induced hypertension in patients with acute non-cardioembolic ischemic stroke: A multicenter, randomized, open label, prospective, phase 3 study (SETIN-HYPERTENSION) (2013-present)
- Construction of Stroke Neuroimaging Database and Development of Imaging Biomarker for Outcome Prediction and Therapeutic Decision Making in Stroke : KOSNI (2013-present)
- Acute Stroke or Transient Ischemic Attack Treated With Aspirin or Ticagrelor and Patient Outcomes : SOCRATES trial (2015-2016)
- Ticlopidine+Ginkgobiloba versus Clopidogrel in Clopidogrel Resistant Patients Undergoing Carotid Artery Stent Placement. Synonym: Clopidogrel Resistance and Embolism in Carotid Artery Stenting : CRECAS trial (investigator Initiated Trial, Phase IV) (2015- present)

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#### GCP TRAINING

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- Completed training of Good clinical practice in 31. July. 2012.
- Completed training of Good clinical practice in 29. August. 2014.
- Completed training of Good clinical practice in 26. August. 2016.
- Completed training of Good clinical practice in 12. June. 2020.
- Completed training of Good clinical practice in 12. June. 2024.
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#### SCIENTIFIC PRESENTATIONS and PUBLICATIONS

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##### ABSTRACTS-PUBLISHED

##### 9<sup>th</sup> Asian Oceanian Congress of Neurology, 1-6, September, 1996, Seoul, Korea

1. The relation between Technetium-99m DTPA partition test and clinical course of Tuberculous meningitis.

Sang Min Sung, M.D., Kyu Hyun Park, M.D.

##### 16<sup>th</sup> World Congress of Neurology, 14-19, September, 1997, Buenos Aires, Argentina

2. Tc-99 HM-PAO SPECT in migraine between attacks abstract

Sang Min Sung, M.D., Dae Soo Jung, MD; Dae Seong Kim, M.D., Kyu Hyun Park, M.D., Yong Ki Kim, M.D.

Journal of the Neurological Sciences, Vol 150 Suppl 1, Sep 1997 S194-S195

##### 7<sup>th</sup> Congress of World Federation of Interventional and Therapeutic Neuroradiology, 1-5, November, 2003, Recife, Brazil

3. Endovascular stent-assisted coil embolization for wide-necked aneurysms and pseudoaneurysm of intracranial arteries and traumatic carotid-cavernous fistula.

Byung-Hee Lee, MD; Sang Min Sung, MD; Dong Hyun Kim, MD; Tae Yong Moon, MD;

4. Endovascular stent-assisted angioplasty for symptomatic intracranial artery stenosis

Tae Hong Lee, M.D., Byung-Hee Lee, MD; Sang Min Sung, MD; Dong Hyun Kim, MD; Tae Yong Moon, MD

##### 5<sup>th</sup> World stroke conference, Vancouver, BC, Canada (06/2004)

5. Acute Instant Thrombosis during Stenting of Intracranial Artery Stenosis: Rescue

Therapeutic Method with Intraarterial Administration of Glycoprotein IIb/IIIa Inhibitor. Sang Min Sung, MD; Tae Hong Lee, MD; Byung-Hee Lee, MD; Dong Hyun Kim, MD; Hak Jin Kim, MD; Tae Yong Moon, MD; Chang Hwa Choi, MD; Dae Soo Jung, MD

Stroke, Vol 35, 2004, e220

6. New Techniques for intracranial stent navigation

Tae Hong Lee, MD; Sang Min Sung, MD; Byung-Hee Lee, MD; Dong Hyun Kim, MD; Hak Jin Kim, MD; Tae Yong Moon, MD

Stroke, Vol 35, 2004, e219

**4<sup>th</sup> International Course on Carotid Angioplasty (ICCA IV) and other cerebrovascular Interventions, 21-23 October, 2004, Frankfurt, Germany**

7. New Techniques for Intracranial Stent Navigation in Patients with Tortuous Vessels

**Sang Min Sung**<sup>1</sup>, MD; Tae Hong Lee<sup>2</sup>, MD; Hae Woong Jeong<sup>3</sup>, MD; Sang Won Lee<sup>4</sup>, MD; Chang Hwa Choi<sup>4</sup>, MD; Keung Pil Park<sup>5</sup>, MD; Hak Jin Kim<sup>2</sup>, MD

**15<sup>th</sup> Meeting of European Neurological Society, 18-22 June, 2005, Vienna, Austria**

8. Urgent recanalisation using stents for acute internal carotid artery occlusion in progressive stroke syndromes with contralateral internal carotid stenosis.

**Sang Min Sung**<sup>1</sup>, MD; Tae Hong Lee<sup>2</sup>, MD; Keung Pil Park<sup>5</sup>, MD; Sang Won Lee<sup>4</sup>, MD; Hae Woong Jeong<sup>3</sup>, MD; Chang Hwa Choi<sup>4</sup>, MD; Hak Jin Kim<sup>2</sup>, MD  
Journal of Neurology, Vol 252, Suppl. 2, 2005, II/77

9. Techniques for intracranial stent navigation in patients with tortuous vessels

Sang Won Lee<sup>4</sup>, MD; Tae Hong Lee<sup>2</sup>, MD; **Sang Min Sung**<sup>1</sup>, MD; Keung Pil Park<sup>5</sup>, MD; Hae Woong Jeong<sup>3</sup>, MD; Chang Hwa Choi<sup>4</sup>, MD; Hak Jin Kim<sup>2</sup>, MD  
Journal of Neurology, Vol 252, Suppl. 2, 2005, II/77

**15<sup>th</sup> European Stroke Conference, 16-19 May, 2006, Brussels, Belgium**

10. Carotid Artery Stenting using FilterWire in Consecutive Symptomatic Patients with Severe Carotid Stenosis

**Sang Min Sung**<sup>1</sup>, MD; Tae Hong Lee<sup>2</sup>, MD; Hae Woong Jeong<sup>3</sup>, MD; Sang Won Lee<sup>4</sup>, MD; Chang Hwa Choi<sup>4</sup>, MD; Keung Pil Park<sup>5</sup>, MD; Hak Jin Kim<sup>2</sup>, MD  
Cerebrovascular Diseases, Vol 21, Suppl 4, 2006 149-150

**Joint World Congress on Stroke, 26-29 October 2006, Cape Town, South Africa,**

11. Intra-arterially Used Abciximab Immediately for Prevention of Reocclusion after Recanalization Using Low-Dose Urokinase in Acute Ischemic Stroke

**Sang Min Sung**<sup>1</sup>, MD; Bong Goo Yoo<sup>2</sup>, MD; Sung Min Yoon<sup>3</sup>, MD; Tae Hong Lee<sup>4</sup>, MD; Kyung Pil Park<sup>5</sup>, MD; Sang Won Lee<sup>6</sup>, MD.

12. Hemodynamic Efficacy Assessment of Endovascular Stent Placement for Middle Cerebral Artery Stenosis Using Statistical Analyses of Basal and Acetazolamide Tc-99m ECD Brain SPECT

Tae Hong Lee<sup>1</sup>, MD; **Sang Min Sung**<sup>2</sup>, MD; Kyung Pil Park<sup>3</sup>, MD; Sang Won Lee<sup>4</sup>, MD; Bong Goo Yoo<sup>5</sup>, MD; Sung Min Yoon<sup>6</sup>, MD.

13. Intra-arterially Administered Abciximab as a Rescue Method for Acute Intracranial In-Stent Thrombosis

Sang Won Lee<sup>1</sup>, MD; Bong Goo Yoo<sup>2</sup>, MD; Sung Min Yoon<sup>3</sup>, MD; Tae Hong Lee<sup>4</sup>, MD; **Sang Min Sung**<sup>5</sup>, MD; Kyung Pil Park<sup>6</sup>, MD;.

**2011 SNIS 8th Annual Meeting**

14. A self-expanding Wingspan stent-assisted recanalization for acute middle cerebral artery occlusion in case of failure or contraindication to intravenous thrombolysis

**Sang Min Sung**, Tae Hong Lee

**2011 EANS**

15. A self-expanding Wingspan stent-assisted recanalization for acute middle cerebral artery occlusion in case of failure or contraindication to intravenous thrombolysis.

**Sang Min Sung**, Tae Hong Lee, Sang Won Lee

**2012 SNIS 9th Annual Meeting**

16. Recanalization with Wingspan Stent for Secondary division of Middle Cerebral Artery Occlusion in Failure or Contraindication to Intravenous Thrombolysis

**Sang Min Sung**, Tae Hong Lee

**2013 6th Korea-Japan Joint Stroke Conference**

17. Acute recanalization with stenting for wake-up stroke  
**Sang Min Sung**, Tae Hong Lee, Han Jin Cho

**2014 23. European Stroke Conference**

18. Recanalization with Wingspan stent for Secondary division of Middle Cerebral Artery Occlusion in Failure or Contraindication to Intravenous Thrombolysis  
**Sang Min Sung**, Tae Hong Lee , Sang Won Lee

**2014 SNIS 11th Annual Meeting**

19. Acute recanalization with stenting for wake-up stroke  
**Sang Min Sung**, Tae Hong Lee

**2014 9th World Stroke Congress, Istanbul, Turkey**

20. ACUTE RECANALIZATION WITH STENTING FOR WAKE-UP STROKE  
**Sang Min Sung**, Tae Hong Lee , Sang Won Lee

**2015 XXII World Congress of Neurology, Santiago, Chile**

21. EMERGENT STENT-ASSISTED RECANALIZATION FOR WAKE-UP STROKE  
**Sang Min Sung**, Tae Hong Lee , Sang Won Lee

22. MOYAMOYA DISEASE INITIALLY MANIFESTING AS VASCULAR PARKINSONISM

**Sang Min Sung**, Tae Hong Lee , Sang Won Lee

**2016 2nd EAN Congress in Copenhagen, Denmark**

23. Factor affecting functional outcome after endovascular recanalization in Wake-Up Stroke  
**Sang Min Sung**, Tae Hong Lee , Sang Won Lee

**2017 International Stroke Conference**

24. Symptom Recognition-to Door Time is Associated With Outcomes from Endovascular Recanalization in Wake-up Stroke  
**Sang Min Sung**, Tae Hong Lee, Han Jin Cho

**2018 World Stroke Conference**

Clinical Implications of Basilar Artery Plaques in Pontine Infarction: A High-Resolution MRI Study  
**Sang Min Sung**, Jae Yong Shin, Hwan Jun Son, Kyung Hye Kim, Yoon Jung Kang, Han Jin Cho

**PUBLICATIONS**

**Domestic**

1. The Clinical Efficacy of Subcutaneous Sumatriptan (Imigran ) for Acute Treatment of Migraine  
 Jae Hyung Joo, M.D., Sang Chan Lee, M.D., **Sang Min Sung**, M.D., Dae Soo Jung, M.D., Kyu Hyun Park, M.D.

*Journal of the Korean Neurological Association* 13 (3) : 543-550, 1995

2. Tc-99m HM-PAO SPECT in migraine between attacks

**Sang Min Sung**, M.D., Sang Hwa Kim M.D., In Soo Moon, M.D., Dae Seong Kim, M.D., Dae Soo Jung, M.D., Kyu Hyun Park, M.D., Yong Ki Kim, M.D.

*Journal of the Korean Neurological Association* 15 (3) : 624-633, 1997

3. A case of pure word deafness

**Sang Min Sung**, M.D., Sang Hwa Kim M.D., Kyu Hyun Park, M.D.

*Journal of the Korean Neurological Association* 15 (2) : 377-381, 1997

4. Factors Affecting Depression and Life Satisfaction in Family Caregivers of Patients with Dementia

Kyung Won Park, M.D., Soo Young Kim, Ph.D., Eung-Gyu Kim, M.D., Jae Woo Kim, M.D., Tae-You Kim, M.D., **Sang Min Sung**, M.D., Taehong Sohn, Ph.D., Bong Goo Yoo, M.D., Soo Jin Yoon, M.D., Sung Min Yoon, M.D., Sang Chan Lee, M.D., Hae-Kwan Cheong, M.D., Mun Seong Choi, M.D., Tae-Yong Hong, M.D.

*Journal of the Korean Neurological Association* 23 (6) : 776-783, 2005

5. The Difference of Caregiver Burden in Patients with Alzheimer's Disease and Vascular Dementia  
Tae-You Kim, M.D., Soo Young Kim, Ph.D., Jae Woo Kim, M.D., Eung-Gyu Kim, M.D., Kyung Won Park, M.D., **Sang Min Sung**, M.D., Taehong Sohn, Ph.D., Bong Goo Yoo, M.D., Soo Jin Yoon, M.D., Sung Min Yoon, M.D., Sang Chan Lee, M.D., Mun Seong Choi, M.D., Tae-Yong Hong, M.D., Busan-Gyeongnam Dementia Association.

*Journal of the Korean Neurological Association* 23 (4) : 463-470, 2005

6. The Change of Cognitive Function and Prognostic Factor in Alzheimer's Disease: 1-Year Follow-up Study

Tae-You Kim, M.D., Sang-Yun Kim, M.D., Tae-Yong Hong, M.D., **Sang Min Sung**, M.D., Sung Min Yoon, M.D., Eun Ah Lee, M.D., Kang Ho Kwak, M.D., Yon Kwon Ihn, M.D.

*Journal of the Korean Neurological Association* 23 (1) : 21-27, 2005

7. The Differences of Clinical Features between Alzheimer's Disease and Vascular Dementia According to Progression

Tae-You Kim, M.D., Soo Young Kim, Ph.D., Eung-Gyu Kim, M.D., Jae Woo Kim, M.D., Kyung Won Park, M.D., **Sang Min Sung**, M.D., Taehong Sohn, Ph.D., Kyung-Sook Ann, Ph.D., Bong Goo Yoo, M.D., Soo Jin Yoon, M.D., Sung Min Yoon, M.D., Sang Chan Lee, M.D., Hae-Kwan Cheong, M.D., Mun Seong Choi, M.D., Tae-Yong Hong, M.D., Busan-Gyeongnam Dementia Association

*Journal of the Korean Neurological Association* 24 (4) : 337-346, 2006

8. The Differences of Behavioral and Psychological Symptoms in the Patients of Alzheimer's Disease and Vascular Dementia

Tae-You Kim, M.D., Soo Young Kim, Ph.D., Eung-Gyu Kim, M.D., Jae Woo Kim, M.D., Kyung Won Park, M.D., **Sang Min Sung**, M.D., Taehong Sohn, Ph.D., Kyung-Sook Ann, Ph.D., Bong Goo Yoo, M.D., Soo Jin Yoon, M.D., Sung Min Yoon, M.D., Sang Chan Lee, M.D., Hae-Kwan Cheong, M.D., Mun Seong Choi, M.D., Tae-Yong Hong, M.D., Busan-Gyeongnam Dementia Association

*Journal of the Korean Neurological Association* 24 (5) : 458-464, 2006

9. Multicenter Investigation on Clinical Characteristics, Cognitive Impairments, Behavioral and Psychological Symptoms of Demented Elderly in Busan-Gyeongnam Province

Kyung Won Park, M.D., Hyun Sook Kim, M.D., Jae Woo Kim, M.D., Soo Young Kim, Ph.D., Eung-Gyu Kim, M.D., Tae-You Kim, M.D., **Sang Min Sung**, M.D., Taehong Sohn, Ph.D., Bong Goo M.D., Soo Jin Yoon, M.D., Sung Min Yoon, M.D., Sang Chan Lee, M.D., Mun Seong Choi, M.D., Tae-Yong Hong, M.D.

*J Korean Geriatr Soc* 2007;11(3):111-116

10. Relationship between Behavioral and Psychological Symptoms of Dementia and Caregiver Burden  
Bong Goo Yoo, M.D., Eung Gyu Kim, M.D., Jae Woo Kim, M.D., Tae You Kim, M.D., Kyung Won Park, M.D., **Sang Min Sung**, M.D., Soo Jin Yoon, M.D., Sung Min Yoon, M.D., Sang Chan Lee, M.D., Mun Seong Choi, M.D., Tae Yong Hong, M.D., Soo Young Kim, Ph.D.

*Dementia and Neurocognitive Disorders* 2008; 7: 1-9

11. Moyamoya Disease Associated with Optic Disc Coloboma

Jae-Deuk Seo, MD, Kwang-Dong Choi, MD, **Sang-Min Sung**, MD, Dae-Soo Jung, MD, Kyu-Hyun Park, MD, Han-Jin Cho, MD

*J Korean Neurol Assoc* 30(1):33-36, 2012

12. Normal Pressure Hydrocephalus in Myotonic Dystrophy Type 1

Seong-Yi Cha, MD, Jae-Deuk Seo, MD, **Sang-Min Sung**, MD, Young-Eun Park, MD, Kyu-Hyun Park, MD, Eun-Joo Kim, MD  
J Korean Neurol Assoc 30(1):60-62, 2012

13. Cyclosporine-Induced Posterior Reversible Leukoencephalopathy Syndrome With Reduced Cerebral Perfusion  
Tae-Ho Kang, MD, Kee-Yong Cho, MD, **Sang-Min Sung**, MD, Dae-Soo Jung, MD, Kyu-Hyun Park, MD, Han-Jin Cho, MD  
J Korean Neurol Assoc 31(4):270-272, 2013

14. Adult-Onset Moyamoya Disease Manifesting as Vascular Parkinsonism  
Hae-Kyung Shin, MD, Tae-Ho Kang, MD, Myung-Jun Lee, MD, **Sang-Min Sung**, MD, Dae-Soo Jung, MD, Han-Jin Cho, MD  
J Korean Neurol Assoc 32(4):351-353, 2014

15. Cerebral Venous Sinus Thrombosis Developed during Infertility Treatment in a Male Patient  
Tae-Ho Kang, Ji-Yeong Jang, Kee-Yong Cho, Jong-Kil Joo, Tae-Hong Lee, **Sang-Min Sung**, Han-Jin Cho  
J Korean Neurol Assoc. 2015;33(4):358-360

16. Effects of Wandering Detector in Dementia Elder  
Seong Sook Jun, Hyo Eun Kim, **Sang Min Sung**  
Health and Social Welfare Review 2016; 36(3): 393-427

#### SCI(E)

1. Techniques for intracranial stent navigation in patients with tortuous vessels.  
Tae Hong Lee, Chang Hwa Choi, Kyung-Pil Park, Sang Min Sung, Sang Won Lee, Byung-Hee Lee, Dong Hyun Kim, Hak Jin Kim, Chang Won Kim, Suk Kim  
Am J Neuroradiol 2005 Jun-Jul;26(6);1375-1380

2. NAD(P)H oxidase-stimulating activity of serum from type 2 diabetic patients with retinopathy mediates enhanced endothelial expression of E-selectin.  
Mi Ran Yun, Dong Sun Im, Jong-Soo Lee, Seok Man Son, Sang Min Sung, Sun Sik Bae, Chi Dae Kim  
Life Sci. 2006 Apr 25;78(22) ; 2608-2614

3. Neuroprotection by cilostazol, a phosphodiesterase type 3 inhibitor, against apoptotic white matter changes in rat after chronic cerebral hypoperfusion.  
Jeong Hyun Lee, So Youn Park, Yung Woo Shin, Ki Whan Hong, Chi Dae Kim, **Sang Min Sung**, Ki Young Kim, Won Suk Lee  
Brain Res. 2006 Apr 12;1082(1);182-191

4. Oleic acid enhances vascular smooth muscle cell proliferation via phosphatidylinositol 3-kinase/Akt signaling pathway.  
Mi Ran Yun, Ji Young Lee, Han Seong Park, Hye Jin Heo, Ji Young Park, Sun Sik Bae, Ki Whan Hong, Sang Min Sung, Chi Dae Kim  
Pharmacol Res. 2006 Aug;54(2); 97-102

5. Human adipose tissue-derived mesenchymal stem cells improve postnatal neovascularization in a mouse model of hindlimb ischemia.  
Mi Hyang Moon, Sun Young Kim, Yeon Jeong Kim, Su Jin Kim, Jae Bong Lee, Young Chan Bae, Sang Min Sung, Jun Sup Jung  
Cell Physiol Biochem 2006 ; 17(5-6);279-290

6. Lysophosphatidylcholine suppresses apoptosis and induces neurite outgrowth in PC12 cells through activation of phospholipase D2.

- Doo Hee Yun, Eun Su Jeon, Sang Min Sung, Sung Ho Ryu, Jae Ho Kim  
Research Center for Ischemic Tissue Regeneration and Medical Research Institute  
Exp Mol Med 2006 Aug 31 : 38(4) : 375-384
7. Sphingosylphosphorylcholine induces apoptosis of endothelial cells through reactive oxygen species-mediated activation of ERK.  
Eun Su Jeon, Mi Jeong Lee, **Sang Min Sung**, Jae Ho Kim  
Journal of Cellular Biochemistry, 2007 Apr 15; 100(6); 1536-47
8. Oncostatin M stimulates expression of stromal-derived factor-1 in human mesenchymal stem cells.  
Mi Jeong Lee, Hae Young Song, Mi Ra Kim, **Sang Min Sung**, Jin Sup Jung, Jae Ho Kim  
The International Journal of Biochemistry & Cell Biology, 2007, 39(3); 650-9
9. Hypoxia/Reoxygenation stimulates proliferation through PKC-dependent activation of ERK and Akt in mouse neural progenitor cells.  
**Sang Min Sung**, Dae Soo Jung, Chae Hwa Kwon, Ji Yeon Park, Soo Kyung Kang, Yong Keun Kim  
Neurochem Res. 2007 Nov;32(11):1932-9
10. Urgent Recanalization with Stenting for Severe Intracranial Atherosclerosis after Transient Ischemic Attack or Minor Stroke  
Tae Sik Park, M.D., Beom Jin Choi, M.D., Tae Hong Lee, M.D., Joon Suk Song, M.D., Ph.D., Dong Youl Lee, M.D., Ph.D., **Sang Min Sung**, M.D.  
J Korean Neurosurg Soc. 2011 Oct;50(4):322-6
11. Recanalization with Wingspan Stent for Acute Middle Cerebral Artery Occlusion in Failure or Contraindication to Intravenous Thrombolysis: A Feasibility Study  
**S.M. Sung**, T.H. Lee, H.J. Cho, Y.L. Sol, K.H. Park, D.S. Jung, C.W. Kim  
AJNR Am J Neuroradiol. 2012 Jun;33(6):1156-61
12. Changes in Interhospital Transfer Patterns of Acute Ischemic Stroke Patients in the Regional Stroke Care System After Designation of a Cerebrovascular-specified Center  
Suck Ju Cho, **Sang Min Sung**, Sung Wook Park, Hyung Hoi Kim, Seong Youn Hwang, Young Hwan Lee and Jung Hong Cho  
Chonnam Med J 2012;48:169-173
13. A trial of imaging selection and endovascular treatment for ischemic stroke.  
Kidwell CS, Jahan R, Gornbein J, Alger JR, Nenov V, Ajani Z, Feng L, Meyer BC, Olson S, Schwamm LH, Yoo AJ, Marshall RS, Meyers PM, Yavagal DR, Wintermark M, Guzy J, Starkman S, Saver JL; MR RESCUE Investigators.  
N Engl J Med. 2013 Mar 7;368(10):914-23
14. Directional and spatial motor intentional disorders in patients with right versus left hemisphere strokes.  
Kim EJ, Lee B, Jo MK, Jung K, You H, Lee BH, Cho HJ, **Sung SM**, Jung DS, Heilman KM, Na DL.  
Neuropsychology. 2013 Jul;27(4):428-37
15. Bilateral optic neuritis associated with scrub typhus.  
Cho HJ, Choi JH, **Sung SM**, Jung DS, Choi KD.  
Eur J Neurol. 2013 Dec;20(12):e129-30.
16. Emergent intracranial stenting for acute M2 occlusion of middle cerebral artery.  
**Sung SM**, Lee TH, Lee SW, Cho HJ, Park KH, Jung DS.  
Clin Neurol Neurosurg. 2014 Apr;119:110-5.
17. Impact of thyroid autoantibodies on functional outcome in patients with acute ischemic stroke.  
Cho HJ, Kim SS, **Sung SM**, Jung DS.  
J Stroke Cerebrovasc Dis. 2014 Aug;23(7):1915-20.

18. Isolated vestibular syndrome in posterior circulation stroke: Frequency and involved structures  
Jae-Hwan Choi, Hyun-Woo Kim, Kwang-Dong Choi, Min-Ji Kim, Yu Ri Choi, Han-Jin Cho, **Sang-Min Sung**, Hak-Jin Kim, Ji-Soo Kim, and Dae-Soo Jung  
Neurology : clinical practice. October 2014 4:5 410-418
19. Emergent Recanalization with Stenting for Acute Stroke due to Athero-Thrombotic Occlusion of the Cervical Internal Carotid Artery : A Single Center Experience.  
Choi JY, Lee JI, Lee TH, **Sung SM**, Cho HJ, Ko JK.  
J Korean Neurosurg Soc. 2014 Jun;55(6):313-20.
20. Neuroanatomical correlation of urinary retention in lateral medullary infarction.  
Cho HJ, Kang TH, Chang JH, Choi YR, Park MG, Choi KD, **Sung SM**, Park KP, Jung DS  
Ann Neurol. 2015 Apr;77(4):726-33.
21. Functional outcome after recanalization for acute pure M1 occlusion of the middle cerebral artery as assessed by collateral CTA flow.  
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