

Jeong Woo Seo, MS

Research Associate

Swedish Medical Center

Englewood, Colorado

To whom it may concern

I wish to apply for the position of Associate Scientist at CMG. Currently I am a research associate in Neurotrauma Research at the Swedish Medical Center studying methamphetamine effect on isolated middle cerebral arterioles and cultured endothelial cells. Recently I submitted a manuscript to Journal of Neurosurgery as a 1st author and it was about endothelin pathway involvement in methamphetamine-treated cerebral vessels and endothelial cells. I studied effect of trace metals such as copper and iron in 6-hydroxydopamine-induced neuronal cell death in graduate school at Yonsei University, in the lab of Dr. Oh. After graduation, I started working as a research scientist on protein sequencing and analysis of biomaterials in LG Chem Research Park. Also I investigated in vitro pharmacological and in vivo behavioral effects of various natural and synthetic compounds for Alzheimer's disease, Cancer and Obesity in SK Chemicals Research Institute. One of the natural compounds we found is currently under phase 2 clinical trial in South Korea (SK-PC-B70).

Given my related experience and knowledge, I would appreciate your consideration for this job. My skills and experience would appear to be good matches for this position.

- B.S. in biology, M.S. in neurobiology from one of the best universities in South Korea (Yonsei University, 3rd South Korean Ranking by Academic Ranking of World Universities, 114th World University Rankings by QS World University Rankings)
- Over 8 years of work experience as a professional research scientist in a hospital, research center and pharmaceutical company and 2 years of laboratory experience in graduate school.
- Skills including cell culture and sterile techniques, Western blotting, ELISA assays, apoptosis assays, fluorescent staining on cultured cells, dissection and isolation of middle cerebral arterioles from mouse brain and testing dilation and constriction of vessels using cannulation technique, RT-PCR, subcloning, transfection of mammalian cells, in vivo experiments with mice and rats, protein sequencing by an automated protein sequencer using Edman degradation, testing toxicity and examining effect of drugs on cultured cells or isolated vessels
- 1st author manuscript under review (Journal of Neurosurgery 2013); 4th author paper published (Experimental Neurology 1998)
- Poster presentation in a national conference (2012 Society for Neuroscience)
- Member of IACUC (Institutional Animal Care and Use Committee) at Swedish Medical Center

- 2 years of experience as a teaching assistant of comparative anatomy course in medical schools
- Enrolled student in accredited colleges in the US for courses related to biology, anatomy and physiology, chemistry, organic chemistry, physics, English composition, public speaking and completed 63 credit hours with the best grades (4.0 /4.0).
- Relevant computer skills (Prism, Image J, EndNote, Photoshop, Microsoft Office, etc)

I would like to continue working as a researcher because of my positive experience before. Please review the enclosed CV. I would appreciate the opportunity to discuss the position and my candidacy with you.

Thank you for your time and consideration. I look forward to hearing from you soon.

Sincerely
Jeong Woo Seo

Jeong Woo Seo

Research Associate

Swedish Medical Center

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EDUCATION

Yonsei University, Seoul, Korea, 1998

B.S. in Biology

Yonsei University, Seoul, Korea, 2000

M.S. in Biology

Concentration: Neurobiology, Parkinson's disease

Thesis: Effect of trace metals (Copper and Iron) in 6-hydroxydopamine induced neuronal cell death (Yonsei Graduate Journal 2000)

Metropolitan State College of Denver & Community College of Denver, 2006-2009

Completed 63 Credit Hours (4.0/4.0) of courses related to biology, chemistry, organic

chemistry, anatomy and physiology, English composition, public speaking, etc.

WORK EXPERIENCE

Teaching Assistant, 1998-2000

Yonsei University, School of Medicine, Seoul, Korea

Course: Comparative Anatomy

Research Scientist, 2000-2001

LG Chem Research Park, Analytical Center, Daejeon, Korea

In Charge in Protein Sequencing by Automated Edman Sequencer and Analysis of Biomaterials
by HPLC

Research Scientist, 2001-2004

SK Chemicals Research Institute, Pharmacology and Toxicology, Suwon, Korea

In Charge in Examining Drug Effects on the Process of Drug Discovery for Alzheimer's disease,
Cancer and Obesity

Research Associate, 2010-Present

Swedish Medical Center, Neurotrauma Research, Englewood, Colorado

In Charge in Investigating Methamphetamine Effect on Neurovascular Disease Using Cultured
Endothelial Cells and Isolated Middle Cerebral Arterioles from Mouse Brain

RESEARCH SKILLS

- Mammalian Cell Culture and Sterile Techniques
- Western Blotting
- ELISA Assays (MTT, LDH, ET-1 Release Assay, etc)
- Apoptosis Assays (Caspase Assays, DNA Fragmentation, Cytotoxicity Assays, Propidium Iodide Staining, Cell Morphology Observation, Annexin V Staining)
- Dissection and Isolation of Middle Cerebral Arterioles from Mouse Brain
- Vessel Cannulation Using Dual (Perfusion and Holding) Micropipette System
- Testing Vasoconstriction and Vasodilation on Isolated Mouse Brain Arterioles
- ROS Detection Assays
- Protein Sequencing by Edman Degradation
- Neuroprotective Assay by Beta-Amyloid Treatment
- In Vivo Passive Avoidance Test in Rats
- Enzyme Assays
- Transfection of Mammalian Cells
- Cellular Fractionation
- Subcloning
- RT-PCR
- Paper Writing and Data Presentation
- Relevant computer skills (Prism, Image J, EndNote, Photoshop, Microsoft Office, etc)

AWARDS

SK Chemical Outstanding Project Awards 2004

*Title: Discovering Natural Lead Compound for Alzheimer's Disease ; Currently Under Phase 2
Clinical Trial (SK-PC-B70)*

PUBLICATION

Methamphetamine Induces Endothelin-Dependent Vasoconstriction of Isolated Intracerebral
Arterioles in Mice

Seo JW, Jones SM, Hostetter TA, Iliff JJ, West GA

Journal of Neurosurgery, Under Review

Overexpression of HA-Bax but not Bcl-2 or Bcl-XL attenuates 6-hydroxydopamine-induced
neuronal apoptosis.

Oh JH, Choi WS, Kim JE, Seo JW, O'Malley KL, Oh YJ

Exp Neurol. 1998 Nov ;154(1):193-8

ABSTRACT

Seo JW, Jones SM, West GA (2012)

Methamphetamine induces endothelin-dependant vasoconstriction of isolated intracerebral arterioles in mice

Society for Neuroscience, 2012. New Orleans, LA

REFERENCES

West, G Alexander, MD-PhD

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