

Jennifer Kornelsen

j.kornelsen@uwinnipeg.ca

Education

Postdoctoral Research, Systems Neuroscience 2006 – 2007
Stanford University School of Medicine Palo Alto, California
Department of Anesthesia; Stanford Systems Neuroscience and Pain Laboratory

Ph.D., Physiology 2002–2006
University of Manitoba Winnipeg, Manitoba
Thesis: Contribution to the development of spinal functional magnetic resonance imaging as a tool in the investigation of spinal cord physiology.
Supervisor: Dr. P. Stroman, Queens University, Kingston, Ontario, Canada

M.A., Psychology 2000-2002
University of Manitoba Winnipeg, Manitoba
Thesis project: Effects of interference and priming in auditory attention
Supervisor: Dr. T. Mondor
*Degree not conferred; course credits transferred to graduate program in Physiology

B.A.H., Psychology 1995-1999
University of Winnipeg Winnipeg, Manitoba
Honours thesis: Effects of episodic interference on short term memory
Supervisor: Dr. B. Bolster

Teaching Experience

Sessional Faculty, Department of Psychology 2007-Present
University of Winnipeg Winnipeg, Manitoba

- Introductory Psychology
- Physiological Psychology I
- Topics in Physiological Psychology
- Introduction to Research Methods
- Physiological Psychology II
- Physiological Psychology II Laboratory

Stipendiary Instructor, Department of Psychology 2005-2006
University of Winnipeg Winnipeg, Manitoba

- Drugs and Behaviour
- Physiological Psychology I

Level II Teaching Assistant 2001-2002
University of Manitoba Winnipeg, Manitoba

- Laboratory Instructor for Data Analysis
- Laboratory Instructor for Introduction to Psychological Research

Level I Teaching Assistant

University of Manitoba

- Grader/marker for Introductory Psychology
- Grader/marker for Cognitive Psychology

2000-2002
Winnipeg, Manitoba**Academic Service****Department of Psychology Majors Committee**

University of Winnipeg

2006-present

Research and Scholarship Committee Graduate Student Representative 2000-2002

University of Manitoba

- Voluntarily reviewed and rated annual scholarship applications
- Voluntarily met with undergraduate students to discuss project research design

Graduate Association for Students of Psychology member

University of Manitoba

2000-2002

- Voluntarily prepared and presented lunch hour seminars for undergraduate students on topics such as applying to graduate school, graduate record examination (GRE) preparation

Awards**Dean's Postdoctoral Fellowship**

Stanford University School of Medicine

Department of Anesthesia; Stanford Systems Neuroscience and Pain Laboratory

Declined.

2007
Palo Alto, California**Publications**

Kornelsen, J. & Stroman, P. (2007). Detection of neuronal activity occurring caudal to the site of spinal cord injury that is elicited during lower limb movement tasks. *Spinal Cord* 45:485-90.

Kornelsen, J. & Mackey, S. (2007). Potential clinical applications for spinal fMRI. *Current Pain and Headache Report*, 11(3), 165-70.

Stroman, P.W., Kornelsen, J., Lawrence, J., Malisza, K.L. (2005). Functional magnetic resonance imaging based on SEEP contrast: Response function and anatomical specificity. *Magnetic Resonance Imaging* 23(8):843-50.

Stroman, P.W., Kornelsen, J. & Lawrence, J. (2005). An improved method for spinal fMRI with large volume coverage of the spinal cord. *Journal of Magnetic Resonance Imaging* 21: 520-526.

Kornelsen, J. & Stroman, P.W. (2004). fMRI of the lumbar spinal cord during a lower limb motor task. *Magnetic Resonance in Medicine* 52: 411-414.

Stroman, P.W., Kornelsen, J., Bergman, A., Krause, V., Ethans, K., Malisza, K.L., Tomanek, B. (2004). Noninvasive assessment of the injured human spinal cord by means of functional magnetic resonance imaging. *Spinal Cord* 42: 59-66.

Invited Talks

Kornelsen J. & Stroman, P. (2005). Imaging of neuronal function in the human spinal cord with fMRI. Invited speaker. Presented at International Spinal Research Trust Network Meeting, London, England.

Presentations

Kornelsen, J., Brown, J., Chatterjee, N., Watcha, D., Mackey, S. (2007). Characterization of spinal cord activity during task and rest using functional magnetic resonance imaging. Presented at International Symposium on Neural Regeneration, 12th Annual Meeting.

Stroman, P., Lawrence, J., Kornelsen, J. (2007). Functional magnetic resonance imaging of the spinal cord of children based on SEEP contrast. Presented at International Society for Magnetic Resonance in Medicine, 15th Annual Meeting.

Brown, J., Kornelsen, J., Watcha, D., Darnauer, J., Sarin, R., Glover, G., Mackey, S. (2007). A hemodynamic response function for functional MRI of the cervical spine using motor and nociceptive paradigms. Presented at International Society for Magnetic Resonance in Medicine, 15th Annual Meeting.

Watcha, D., Brown, J., Kornelsen, J., Darnauer, J., Sarin, R., Glover, G., Mackey, S. (2007). Processing of motor, tonic pain and phasic pain signals in the human spinal cord. Presented at American Pain Society, Washington D.C., USA.

Kornelsen, J. & Stroman, P. (2005). Investigation of neuronal activity of the injured spinal cord during lower limb movement with spinal fMRI. Presented at Society for Neuroscience 35th Annual Meeting, Washington D.C., USA.

Stroman, P.W., Kornelsen, J., Lawrence, J., Malisza, K. (2004). A novel technique for spinal fMRI with large volume three dimensional coverage of the spinal cord. Presented at International Society for Magnetic Resonance in Medicine, 12th Annual Meeting.

Stroman, P.W., Kornelsen, J., Lawrence, J., Malisza, K. (2004). Functional magnetic resonance imaging based on SEEP contrast: Reproducibility, hemodynamic response function, and anatomic specificity. Presented at International Society for Magnetic Resonance in Medicine, 12th Annual Meeting.

Stroman, P.W., Malisza, K., Lawrence, J., Kornelsen, J., Bergman, A. (2004). Functional MRI of the spinal cord. Presented at American Society of Spine Radiology.

Stroman, P.W., Onu, M., Malisza, K.L., Kornelsen, J., Bergman, A., Lawrence, J., Torchia M., Tyc, R., Tomanek, B. (2003). Proof of a second contrast mechanism in fMRI: Functional MRI at 0.2 T. Presented at International Society for Magnetic Resonance in Medicine, 11th Annual Meeting.

Stroman, P.W., Krause, V., Malisza, K., Kornelsen, J., Bergman, A., Lawrence, J., Tomanek, B. (2003). Spinal fMRI of Spinal Cord Injury in Human Subjects. Presented at International Society for Magnetic Resonance in Medicine, 11th Annual Meeting.

Stroman, P.W., Krause, V., Frankenstein, U., Malisza, K., Kornelsen, J., Bergman, A., Lawrence, J., Tomanek, B. (2003). Non-BOLD fMRI studies of the healthy and injured human spinal cord. Presented at The 10th Annual Banff Conference, Department of Neurosciences, University of Calgary.