Curriculum Vitae

NAME: **Turgay Akay, PhD**

ADDRESS: Dalhousie University
Dept. of Medical Neuroscience
Tupper Medical Building
5850 College Street, PO Box 15000
Halifax, NS B3H 4R2, CANADA

Phone: 902-494-2647
Fax: 902-494-1212
Email: turgay.akay@dal.ca

EDUCATION

1998-2002 **PhD in Biology, University of Cologne**, Institute for Zoology, Cologne, Germany.

2000 Summer School: "Neural Systems and Behavior" at the Marine Biological Laboratory, Woods Hole, MA, USA.

1994-1998 **Diploma degree in Biology, University of Bielefeld**, Bielefeld, Germany.

1989-1993 **Bachelor degree in Fishery Engineering, Süleyman Demirel University**, Eğirdir-Isparta, Turkey.

ACADEMIC POSITIONS

2019-present ***Associate Professor*** in the Department of Medical Neuroscience, **Dalhousie University**, Halifax, NS, Canada.

2014-2019 ***Assistant Professor*** in the Department of Medical Neuroscience, **Dalhousie University**, Halifax, NS, Canada.

2012-2014 ***Associate Research Scientist,*** Department of Neurological Surgery and Center for Motor Neuron Biology and Disease, **Columbia University**, New York, NY, USA.

2009-2012 ***Howard Hughes Medical Institute Research Specialist*** in the laboratory of Dr. Thomas M. Jessell, **Columbia University**, New York, NY, USA.

2007-2009 ***Howard Hughes Medical Institute Associate*** in the laboratory of Dr. Thomas M. Jessell, **Columbia University**, New York, NY, USA.

2004- 2007 ***Postdoctoral researcher*** with Dr. Keir G. Pearson, **University of Alberta**, Dept. of Physiology, Edmonton, AB, Canada.

2002-2004 ***Postdoctoral researcher*** with Dr. Michael P. Nusbaum, **University of Pennsylvania,** School of Medicine, Philadelphia, PA, USA.

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Peer-reviewed primary publications:

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9. Landoni LM, Myles JR, Wells TL**,** Mayer WP, and Akay T (2019). Role of C-boutons in locomotor compensation for severe motor neuron loss during amyotrophic lateral sclerosis disease progression.
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10. Santuz A*, Akay T*, Mayer WP**,** Wells TL**,** Schroll A, and Arampatzis A (2019). Modular organization of the murine locomotor pattern in presence and absence of sensory feedback from muscle spindles.
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11. Laflamme OD and Akay T (2018). Excitatory and inhibitory crossed reflex pathways in mice.
J. Neurophysiol. 120(6): 2897-2907.

12. Mayer WP, Murray AJ, Brenner-Morton S, Jessell TM, Tourtellotte WG, and Akay T (2018) Role of muscle spindle feedback in regulating muscle activity strength during walking at different speed.
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13. Mayer WP and Akay T (2018). Stumbling corrective reaction elicited by mechanical and electrical stimulation of the saphenous nerve in walking mice.
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14. Chedrawe MAJ, Holman SP, Lamport A-C, Akay T*, and Robertson GS* (2018). Pioglitazone is superior to quetiapine, clozapine and tamoxifen at alleviating experimental autoimmune encephalomyelitis in mice.
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15. Murray AJ, Croce K, Belton T, Akay T, and Jessell TM (2018). Balance control mediated by vestibular circuits directing limb extension or antagonist muscle co-activation.
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16. Hu X, Charles JP, Akay T, Hutchinson JR, and Blemker SS (2017). Are Mice Good Models For Human Neuromuscular Disease? Comparing Muscle Excursions in Walking Between Mice and Humans.
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19. Bui TV, Stifani N, Akay T, and Brownstone RM (2016). Spinal microcircuits comprising dI3 interneurons are necessary for motor functional recovery following spinal cord transection.
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22. Kariya S, Obis T, Garone C, Akay T, Sera F, Iwata S, Homma S, and Monani UR (2014). Requirement for enhanced Survival Motoneuron protein imposed during neuromuscular junction maturation.
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23. Kaplan A, Spiller KJ, Towne Ch, Kanning KC, Choe GT, Geber A, Akay T, Aebischer P, and Henderson ChE (2014). Neuronal matrix metalloproteinase-9 is a determinant of selective neurodegeneration.
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