Date of Document: March 29, 2024

CURRICULUM VITAE

Kajana Satkunendrarajah PhD

Associate Professor
Department of Neurosurgery
Division of Research

OFFICE ADDRESS:
VA Medical Center
5000 W National Ave
Milwaukee, WI 53295

FACULTY APPOINTMENTS:

04/15/2019 - 06/30/2023 Assistant Professor, Department of Neurosurgery, The Medical College of Wisconsin, Inc., Milwaukee, WI

07/01/2020 - Present Assistant Professor (Secondary Appointment), Department of Physiology, Medical College of Wisconsin, Milwaukee, WI

07/01/2023 - Present Associate Professor, Department of Neurosurgery, Medical College of Wisconsin, Milwaukee, WI

ADMINISTRATIVE APPOINTMENTS:

03/01/2021 - 07/01/2023 Co-Director (Fundamentals of Neuroscience), Medical College of Wisconsin, WI

EDUCATIONAL ADMINISTRATIVE APPOINTMENTS:

02/15/2021 - Present Co-Director (Fundamentals of Neuroscience,16271), NDP, IDP & Physiology, Graduate school, Medical College of Wisconsin, Milwaukee, WI

AWARDS AND HONORS:

07/2019 - 07/2020 Imagine More Award, Neuroscience Research Center, The Medical College of Wisconsin
- 2009 Postdoctoral Fellowship Award, Ontario Neurotrauma Foundation
- 2015 1st Place, Best Poster Award, Canadian Spinal Cord meeting
- 2016 AOSNA Young Investigator Research Grant Award, AOSpine North America
- 2003 Excellence in Science Award, American Academy for Advancement of Sciences
- 2017 AOSNA Young Investigator Research Grant Awards, AOSpine North America
- 2003 Thomas C. Rumble Graduate Fellowship, Wayne State University

MEMBERSHIPS IN HONORARY AND PROFESSIONAL SOCIETIES:

2009 - Present Society for Neuroscience (Member)
2015 - 2019 AOSpine North America (Member)
2019 - 2021 North American Neuromodulation Society (Member)

EDITORSHIPS/EDITORIAL BOARDS/JOURNAL REVIEWS:

Editorship

2021 - Present Frontiers in Neuroscience

Journal Review

2010 - Present The Journal of Spinal Cord Medicine
05/2017 - Present Experimental Neurology
11/05/2020 - Present eNeuro
08/05/2021 - Present Journal of Neuroscience Methods
05/21/2022 - Present BMC Neuroscience

Ad-Hoc Reviewer

2016 - Present PlosOne
03/17/2021 - Present Scientific Reports

NATIONAL ELECTED/APPOINTED LEADERSHIP AND COMMITTEE POSITIONS:

2020 - Present Reviewer, Review Panel, Oak Ridge Associated Universities and Pennsylvania Department of Health
2020 - Present Reviewer, Independent Scientific Merit Review Panel, New Jersey Commission on Spinal Cord Research

INTERNATIONAL ELECTED/APPOINTED LEADERSHIP AND COMMITTEE POSITIONS:

05/21/2021 - Present Reviewer, UK Wellcome Trust

RESEARCH GRANTS/AWARDS/CONTRACTS/PROJECTS:

Active

Peer Review

Title:	Stimulation of Cervical Excitatory Interneurons to Restore Breathing After Chronic Cervical Spinal Cord Injury
Source:	Department of Veterans Affairs (VA-ORD)
Role:	Co-I
PI:	Kurpad N. Shekar
Dates:	01/01/2021 - 12/31/2025
Direct Funds:	$673,000 (*** I am the de-facto PI on this grant, with the primary experimental and budget responsibilities. Due to VA regulations and citizenship status, I was not eligible to serve as a PI on this grant)

Title:	Neuromodulation of the sensory cortical locomotor pathway to restore walking after SCI
Source:	The Medical College of Wisconsin (MCW), Research Affairs Committee
Role:	PI
PI:	Kajana Satkunendrarajah
Dates:	12/15/2021 - 12/14/2022
Direct Funds:	$35,000

Title:	Spreading Depolarizations and Perfusion in Non-traumatic Spinal Cord Injury,
Source:	Department of Veterans Affairs (VA-ORD)
Role:	CO-I
PI:	MATTHEW BUDDE
Dates:	04/01/2022 - 03/31/2024
Direct Funds:	$230,000

Title:	Efficacy of the CCR5 Inhibitor Maraviroc in Promoting Tissue Protection and Recovery After SCI
Source:	MCW/Advancing A Healthier Wisconsin
Role:	Co-I
PI:	Antje Kroner
Dates:	05/01/2022 - 04/30/2023

Direct Funds:	$50,000
Title:	Use of the CCR5 inhibitor Maraviroc to promote functional recovery and tissue protection after SCI
Source:	Craig H Neilsen Foundation
Role:	Co-I
PI:	Antje Kroner
Dates:	07/31/2022 - 07/30/2024
Direct Funds:	$400,000
Title:	Nimodipine Treatment to Enable Motor Recovery After Paralyzing Spinal Cord Injury
Source:	Department of Defense, USAMRAA
Role:	Co-I
PI:	Carmelo Bellarditta
Dates:	09/01/2022 - 08/31/2025
Direct Funds:	$600,000
Title:	Role of the pro-inflammatory cytokines IL-12 and IL-23 in secondary damage after spinal cord injury
Source:	Department of Veterans Affairs (VA-ORD)
Role:	Co-I
PI:	Karin Swartz
Dates:	04/01/2023 - 03/31/2027
Direct Funds:	$660,000
Title:	Sensory cortical control of movement in health and disease
Source:	National Institutes of Health - NINDS
Role:	PI
Dates:	07/01/2023 - 06/30/2028
Direct Funds:	$1,575,000
Title:	Stimulation of Cervical Excitatory Interneurons to Restore Breathing After Chronic Cervical Spinal Cord Injury
Source:	Advancing a Healthier Wisconsin Endowment (AHW)
Role:	PI
PI:	Kajana Satkunendrarajah
Dates:	07/01/2023 - 06/30/2024
Direct Funds:	$50,000

Pending

Peer Review

Title:	MUSIC (Mathematical UnderpinningS of the Influence of Cadence (MUSIC)) on Brain Health and Cognition
Source:	The Weston Foundation
Role:	Co-I
PI:	Taufik Valiante
Dates:	02/15/2023 - 02/15/2026

Direct Funds: $1,699,889 (Funding approved)

Title: Dissecting the role of cervical spinal excitatory interneurons in breathing
Source: National Institutes of Health - NINDS
Role: PI
Dates: 07/01/2023 - 06/30/2028
Direct Funds: $1,548,165

Title: Respiratory plasticity via serotonergic-cervical excitatory interneuron circuitry
Source: Craig H. Neilsen Foundation
Role: PI
Dates: 07/31/2023 - 07/30/2025
Direct Funds: $400,000

Title: Stimulation of Cervical Excitatory Interneurons to Restore Breathing After Chronic Cervical Spinal Cord Injury
Source: Department of Defense (DOD) - USAMRAA
Role: PI
Dates: 09/01/2023 - 08/31/2026
Direct Funds: $500,000

Prior

Peer Review

Title: Neuroprotective approaches to enhance recovery in cervical spondylotic myelopathy
Source: North American Spine Society
Role: Co-I
PI: M. Fehlings
Dates: 2009 - 2011
Direct Funds: $100,000

Title: Transplantation of glutamatergic interneurons to enhance respiratory recovery following cervical spinal cord injury
Source: AO Spine North America (AOSNA)
Role: PI
Dates: 01/01/2016 - 01/01/2018
Direct Funds: $50,000

Title: Stimulation of Cervical Excitatory Interneurons to Restore Breathing After Chronic Cervical Spinal Cord Injury
Source: Advancing a Healthier Wisconsin
Role: PI
Dates: 06/01/2020 - 05/31/2021
Direct Funds: $50,000

Title: Nimodipine promotes motor recovery after spinal cord injury
Source: Craig H. Nielsen Foundation

Role:	PI
Dates:	08/01/2020 - 07/31/2022
Direct Funds:	$300,000
Title:	Modulation of sensory cortex to restore walking after spinal cord injury
Source:	Neuroscience Research Consortium (NRC), The Medical College of Wisconsin
Role:	PI
Dates:	08/01/2020 - 07/31/2021
Direct Funds:	$25,000

INVITED LECTURES/WORKSHOPS/PRESENTATIONS:

Local

Kajana Satkunendrarajah, Sensory control of movement, Milwaukee Neuroscience Research Day, Harley Davidson Museum, Wisconsin, USA, - 10/2019

Kajana Satkunendrarajah, Movement control in health and disease, Physical Medicine & Rehabilitation (Research Grand Rounds), Virtual, - 10/15/2021

Kajana Satkunendrarajah, Sensory control of movement, Grand Rounds, Department of Neurosurgery, Medical College of Wisconsin, Wisconsin, USA, - 09/2019

Kajana Satkunendrarajah, Sensory cortical control of movement, Department of Physiology, Medical College of Wisconsin, WI, USA, - 05/2020

National

Kajana Satkunendrarajah, Spinal circuit restores breathing after spinal cord injury, Spring Brain Conference, Sedona, Arizona, - 04/05/2020

Kajana Satkunendra, Sensory cortical locomotor pathway: A new target to restore movement after spinal cord injury, Gail F. Beach Memorial -Remote Lectureship Series, The Miami Project To Cure Paralysis, - 02/02/2022

International

Kajana Satkunendrarajah, Neuromodulation of sensory cortical-locomotor pathway to restore movement after spinal cord injury, Motor Control: Spinal Circuits and Beyond, University of St. Andrews, Scotland, 06/20/2023 - 06/23/2023

Kajana Satkunendrarajah, Brainstem-cervical eIN circuitry for respiratory plasticity, Gorden Research Conference: Central Nervous System Injury and Repair, Renaissance Tuscany IL Ciocco, 07/09/2023 - 07/14/2023

Kajana Satkunendrarajah, Sensation to Movement: A target neuronal circuit for movement recovery, International spinal research trust, London, United Kingdom, 09/08/2023 - 09/10/2023

Kajana Satkunendrarajah, Deciphering Neural Networks in Health and Disease, Department of Anatomy and Cell Biology Seminar, Wayne State University, Detroit, Michigan, USA, - 09/2018

Kajana Satkunendrarajah, Sensory Cortical Control of Movement, I-OSCIRS International Online SCI Research Seminars (IOSCIRS), Virtual, - 06/09/2020

PEER REVIEWED WORKSHOPS/PRESENTATIONS:

Local

Satkunendrarajah K, Nassiri F, Karadimas SK, Lip A, Fehlings MG., Riluzole promotes motor and respiratory recovery associated with enhanced neuronal protection and synaptic strengthening following high cervical hemisection, University of Toronto, Gallie Day, Toronto, Canada, - 05/09/2014

Wu Y, Satkunendrarajah K, Fehlings M., Evaluation of the sodium-glutamate blocker riluzole in a preclinical model of cervical spinal cord injury, Toronto Western Research Institute: Research Day, Toronto, Canada, - 05/19/2010

Moonen G, Satkuenendrarajah K, Wilcox JT, Badner A, Mothe AJ, Foltz WD, Fehlings M, Tator CH., Development of a Lumbar Spinal Cord Injury Model in the Rat., University of Toronto Spine Program,

SpineFest, Toronto, Canada, - 06/23/2014

National

Figley S., Karadimas SK., Salewski R., Satkunendrarajah K., Wilcox J., Fehlings MG., From Bench to Bedside: A scientific update from the laboratory From bench to bedside: A scientific update from the laboratory, 5th National Spinal Cord Injury Conference: Translation Neural Engineering and Novel Therapies, Toronto, Ontario, - 10/18/2012

Karadimas S., Satkunendrarajah K., Fehlings M., Chemogenetic Stimulation of the Lumbar Locomotor Network Enhances Motor Function Following Experimental Cervical Spinal Cord Injury: Translational Relevance for a Novel Therapeutic Strategy, Congress of Neurological Surgeons (Annual Meeting), San Diego, California, - 09/27/2016

Satkunendrarajah K, Karadimas SK, Khazaei M, Fehlings MG., Progressive cervical spinal cord compression injury (CSM) maintains adequate ventilation via compensatory modifications of the spinal respiratory circuits, Canadian Spinal Cord injury meeting 2015: from Lab to Life, Banff, Alberta, - 04/26/2015

Satkunendrarajah K, Karadimas SK, Fehlings MG., Altered forelimb neural circuitry associated with impaired manual dexterity in cervical spondylotic myelopathy, Cervical Spine Research Society, 43rd Annual Meeting, San Diego, California, USA., - 12/03/2015

Karadimas SK, Moon ES, Satkunendrarajah K, Fehlings MG., A novel animal model of cervical spondylotic myelopathy: an opportunity to identify new therapeutic targets, Canadian Spine Society, Annual Meeting, Whistler, British Columbia, - 02/29/2012

Lee J, Satkunendrarajah K, Fehlings MG., Development and characterization of a novel model of cervical spondylotic myelopathy: The impact of cord compression on clinical, neuroanatomical and neurophysiological outcomes, National Neurotrauma Society, Annual meeting, Las Vegas, Nevada, - 06/15/2010

Wu Y, Satkunendrarajah K, Fehlings MG., Assessment of pharmacokinetics and neuroprotective properties of sodium-glutamate blocker riluzole in preclinical model of cervical spinal cord injury, National Neurotrauma Society, Annual meeting, Las Vegas, Nevada, - 06/15/2010

Satkunendrarajah K, Huang D, Fehlings MG, Riluzole Promotes Significant Neurobehavioural and Respiratory Recovery in a new Model of C5-Clip Compression Injury, Canadian Spinal cord conference, Banff, Alberta, - 04/17/2010

Kajana Satkunendrarajah, Sensory cortical control of movement in health and disease, 26th Annual Kentucky Spinal Cord & Head Injury Research Trust (KSCHIRT) Symposium, University of Kentucky, - 05/29/2021

Satkunendrarajah K, Wu Y, Buttigieg J, Teng Y, Chow D, Fehlings MG., Delayed Postinjury administration of riluzole is neuroprotective in preclinical rodent model of cervical spinal cord injury., American Association of Neurological Suregion (AANS), 81st annual scientific meeting, New Orleans, Louisiana, USA, - 04/25/2013

Karadimas S, Satkunendrarajah K, Sivakumaran S, Gosgnach S, Fehlings MG., Cervical neurons regulate locomotion., Neuronal Circuits Cold Spring Harbor Laboratory, Cold Spring Harbor, New York, USA, - 04/06/2016

International

Carmelo Bellardita, Monica Perez, Frederic Broccard, Emerging Strategies to Treat Spasticity and Understand Its Role In Motor Control and Recovery After Spinal Cord Injury, Americal Spinal Injury Association, 2023 annual scientific meeting, Buckhead, Atlanta, 04/19/2023 - Present

Karadimas SK, Moon ES, Satkunendrarajah K, Fehlings MG., Novel experimental model of the cervical spondylotic myelopathy., American Association of Neurological Surgeons-Spine Section, Annual Meeting, Miami, Florida, - 03/17/2012

Satkunendrarajah K, Karadimas SK, Khazaei M, Fehlings MG., Rewiring of spinal respiratory neural network via cervical glutamatergic interneurons preserves respiratory function following chronic cervical spinal cord injury (cSCI), Modulation of neural circuits and behavior, Gordon seminar series, Hong Hong, China, - 06/21/2015

Ahuja C., Suzuki H., Salewski R., Li L., Satkunendrarajah K., Nagoshi N., Fehlings M., Chondroitinase ABC pretreatment enhances functional repair of the chronically injured cerical spinal cord by induced pluripotent stem cell-derived neural stems cells, The Spine Summit (The annual meeting of the the AANS/CNS section on disorders of the spine and peripheral nerves), Las Vegas, Nevada, - 03/11/2017

Satkunendrarajah K., Karadimas SK., LALIBERTE AM., Montandon G., Fehlings MG., Cervical excitatory

interneurons sustain breathing after spinal cord injury, Society for Neuroscience, Annual meeting, San Diego, - 11/05/2018

Liu Y, Ye H, Satkunendrarajah K, Yao GS, Bayon Y, Fehlings MG., A self-assembling peptide reduces glial scarring, attenuates post-traumatic inflammation and promotes neurological recovery following spinal cord injury, TERMIS-Americas 2013 Annual Conference & Exposition, Atlanta, Georgia, - 11/12/2013

Karadimas SK; Satkunendrarajah K, Khazaei M, Gosgnach S, Fehlings MG., Cervical spinal cord injury Modifies Distal Lumbar Locomotor Central Pattern Generator (CPG), Cervical Spine Research Society, 43rd Annual Meeting, San Diego, California, - 12/03/2015

Satkunendrarajah K, Fehlings MG, Nissiri F, Karadimas S., Riluzole associated plasiticty of spared axonal connections following high cervical hemilesion., North American Spine Society, Annual Meeting, Dallas, Texas, USA, - 10/26/2012

Satkunendrarajah K., Wilcox J., Ruff C., Fehlings M.G., Evaluating stem cell-based plasticity in a model of cervical spinal cord injury, Society for Neuroscience, Washington, DC., - 11/15/2011

Satkunendrarajah K, Karadimas SK, Khazaei M, Fehlings MG., Rewiring of spinal respiratory neural network via cervical glutamatergic interneurons preserves respiratory function in progressive cervical spinal cord compression injury (CSM)., 10th Federation of European Neurosciences Societies (FENS) Forum of Neuroscience., Copenhagen, Denmark, - 07/05/2016

Satkunendrarajah K., Sweetman H., Graham D., Kroner A., Gosgnach S., Olsen C., Sensory cortical-locomotor pathway restores walking after spinal cord injury, American Spinal Injury Association’s 50th Annual Scientific Meeting, Buckhead, Atlanta, - 04/19/2023

Karadimas S., Satkunendrarajah K., Gosgnach S., Fehlings M.G., Excitatory cervico-lumbar connectivity controls locomotor speed, Gordon Research Conference (Excitatory Synapses & Brain Function), Les Diablerets, Switzerland, - 05/30/2017

Karadimas SK, Yu WR, Satkunendrarajah K, Fehlings MG., A Novel Mouse Model of Cervical Spondylotic Myelopathy: An Opportunity to Exploit Genetics for the First Time in CSM, Cervical Spine Research Society, Annual Scientific Meeting, Los Angeles, California, - 12/04/2013

Satkunendrarajah K., Nguyen D.H., Fehlings M.G., Riluzole promotes significant neurobehavioural and respiratory recovery in a new model of C5-clip compression injury, Society for Neuroscience, San Diego, California, - 11/17/2010

Satkunendrarajah K, Karadimas SK, Khazaei M, Fehlings MG., Progressive cervical spinal cord compression injury (CSM) maintains adequate ventilation via compensatory modifications of the spinal respiratory circuits, 4th ISCoS ASIA joint Meeting, Montreal, Quebec, Canada, - 05/16/2015

Karadimas SK, Satkunendrarajah K, Laliberte A. M., Sivakumar S, Fehlings M.G., Stimulation of lumbar excitatory cells preserves function after cervical spinal cord injury, 17th International Symposium on Neural Regeneration, Asilomar, CA, USA, - 11/30/2017

Satkunendrarajah K, Karadimas SK, Sivakumar S, Samson P, Fehlings M.G., Respiratory plasticity via cervical glutamatergic interneurons preserves breathing after cervical spinal cord injury., The Brain Conferences: Learning, Memory and Synaptic Plasticity registration., Rungstedgaard, Denmark, - 04/23/2017

Satkunendrarajah K, Karadimas SK, Sivakumar S, Fehlings M.G., Respiratory plasticity via cervical glutamatergic interneurons preserves breathing after cervical spinal cord injury., International Winter Neuroscience Conference, Solden, Austria, - 03/26/2017

Kajana Satkunendrarajah, Spyridon Karadimas, Michael Wehlings, Cell replacement therapy improves breathing after cervical spinal cord injury, Cervical Spine Research Society, Annual Meeting, Toronto, Canada, - 12/01/2016

Satkunendrarajah K, Karadimas SK, Khazaei M, Mercado P, Yao G, Jacques-Smith K, Fehlings MG., Rewiring of spinal respiratory neural network via cervical glutamatergic interneurons preserves respiratory function following chronic cervical spinal cord injury (cSCI)., Pre meeting on rhythmic motor systems, Chicago, Illinois, USA, - 10/26/2015

Satkunendrarajah K, Karadimas SK, Khazaei M, Mercado P., Yao G., Jacques-Smith K., Fehlings MG., Rewiring of spinal respiratory neural network via cervical glutamatergic interneurons preserves respiratory function following chronic cervical spinal cord injury (cSCI)., Society for Neuroscience, Annual Meeting, Chicago, Illinois, USA, - 10/17/2015

Nascimento Dos Santos G., Levay K., Ayupe A. C., Lee J.K., Satkunendrarajah K., Park K., In vivo identification of long intergenic non-coding RNAs involved in regulatingneuronal survival after axonal injury, Society for Neuroscience, San Diego, California, - 11/16/2022

A. Brezinski, C. Dolick, S. Kurpad, K. Satkunendrarajah, Cervical excitatory interneuron mediated response to respiratory stress and spinal cord injury, Society for Neuroscience Annual Meeting, San Diego, California, - 11/15/2022

Satkunendrarajah K., Spinal interneurons contributing to plasticity and recovery after spinal cord injury, Society for Neuroscience Annual Meeting, Virtual, - 11/11/2021

Reinhardt D., Dolick C., Graham D., Stehlik K., Kroner A, Satkunendrarajah K., Nimodipine prevents spasticity and promotes motor recovery after spinal cord injury, Proceedings of Technological Advances in Science, Medicine and Engineering Conference 2021 (Tasme), Virtual, - 07/03/2021

Suzuki H., Christopher A.G., Salewski R.P., Li L., Satkunendrarajah K., Nagoshi N., Taguchi T., Fehlings M.G., Neural stem cell mediated recovery is enhanced by chondroitinase ABC pretreatment in chronic cervical spinal cord injury, Society for Neuroscience, Washington, DC, - 11/17/2017

Karadimas SK, Satkunendrarajah K, Fehlings MG, Cervical spinal cord injury model for studying locomotor dysfunction, Neural Networks in Arctic, Svalvard, Norway, - 06/06/2014

Satkunendrarajah K., Karadimas S., Fehlings M., Progressive Cervical Spinal Cord Compression Induces Compensatory Neuroplasticity Of The Spinal Respiratory Circuitry, Cervical Spine Research Society Annual meeting, Orlando, Florida, - 12/04/2014

Laliberte A., Karadimas K,, Vidal P., Satkunendrarajah K., Fehlings M., miR-21 deletion reduces inflammation and promotes locomotor recovery in spinal cord injury, Society for Neuroscience, Annual Meeting, Washington, DC, - 11/13/2017

Karadimas S., Satkunendrarajah K., Laliberte A., Sivakumaran S., Gosghnach S., Fehlings M.G., Stimulation of lumbar excitatory cells preserves function after cervical spinal cord injury, Society for Neuroscience, Washington DC, - 11/13/2017

Laliberte A.M., Karadimas S., Satkunendrarajah K., Vidal P., Fehlings M.G., miR-21 correlates with progression of degenerative cervical myelopathy and is a marker of hypoxia-induced inflammation, Society for Neuroscience Annual meeting, Chicago, Illinois, - 11/14/2016

Karadimas SK, Satkunendrarajah K, Goshgnach S, Samson P, Fehlings M.G., Stimulation of lumbar excitatory cells preserves function after cervical spinal cord injury, The Brain Conferences: Learning, Memory and Synaptic Plasticity, Rungstedgaard, Denmark, - 04/24/2017

Forgione N., Karadimas S.K., Foltz W., Satkunendrarajah K., Lip A., Fehlings M.G., Bilateral contusion-compression model of incomplete traumatic cervical spinal cord injury, Society for Neuroscience, Washington, DC, - 11/14/2014

Wilcox J.T, Satkunendrarajah K., Nasirzadeh Y., Zuccato J., Nassiri F., Fehlings M.G., Neural stem cell transplantation Improves forelimb function and tissue integrity of the injured spinal cord in a novel model of cervical injury, Society for Neuroscience, Annual meeting, Washington, DC, - 11/12/2013

Karadimas SK, Satkunendrajah K, Fehlings MG., Pharmacological modulation of distal spinal locomotor circuitry improves motor function after cervical spinal cord injury., Cervical Spine Research Society, Annual meeting, Toronto, Canada, - 12/01/2016

Satkunendrarajah K, Karadimas SK, Sivakumar S, Samson P, Fehlings M.G., Spinal excitatory interneurons restore breathing after cervical Spinal cord injury preserves breathing after cervical spinal cord injury., Gordon Research Conference (Excitatory Synapses & Brain Function), Les Diablerets Switzerland., - 06/01/2017

Satkunendrarajah K, Karadimas SK, Sivakumar S, Samson P, Fehlings M.G., Respiratory plasticity via cervical glutamatergic interneurons preserves breathing after cervical spinal cord injury., The Brain Conference: New Approaches to Imaging Neurons and Neural Circuits, Rungstedgaard, Denmark, - 04/24/2016

Satkunendrarajah K., Karadimas S., Laliberte A., Sivakumaran S., Fehlings M.G., Stimulation of cervical excitatory cells restores breathing after cervical SCI, Society for Neuroscience, Annual Meeting, Washington, DC, - 11/13/2017

Karadimas SK, Moon ES, Satkunendrarajah K, Fehlings MG., Novel Experimental Model of the Cervical Spondylotic Myelopathy, Cervical Spine Research Society, Annual Meeting, Scottsdale, Arizona, - 12/09/2011

Karadimas SK., Satkunendrarajah K., Laliberte A., Gosgnach S., Fehlings MG., Sensory cortical control of movement, Society for Neuroscience, Annual meeting, San Diego California, - 11/03/2018

Satkunendrarajah K, Karadimas SK, Laliberte A, Montandon G, Fehlings MG., Cervical excitatory neurons maintain breathing after spinal cord injury, Neurotrauma2018, symposium of the International and National Neurotrauma Societies and AANS/CNS section on Neurotraua and Critial Care. 3rd Joint Meeting, Toronto, Canada, - 08/16/2018

Satkunendrarajah K.(Chair), Bellardita C.(Co-Chair), Perez M., Brocard F., Emerging strategies to treat spasticity and understand its role in motor control and recovery after spinal cord injury, 50th ASIA Scientific Meeting, Pre-course April 16, Buckhead, Atlanta, - 04/16/2022

Konkel K., Dolik C., Kroner-Milsch A., Kiehn O., Bellardita C.,, Satkunendrarajah K.,, Nimodipine prevents spasticity and enables spontaneous motor recovery after cervical spinal cord injury, Society for Neuroscience Annual Meeting, San Diego, California, - 11/16/2022

Satkunendrarajah K, Karadimas SK, Fehlings MG., Progressive cervical spinal cord compression leads to compensatory neuroplasticity of the spinal respiratory circuitry., Society for Neuroscience, Annual meeting, Washington. DC, USA, - 11/16/2014

Satkunendrarajah K, Karadimas SK, Sivakumar S, Samson P, Fehlings M.G., Cervical glutamatergic interneurons preserves breathing after cervical spinal cord injury, 17th International Symposium on Neural Regeneration, Asilomar, CA, USA, - 11/30/2017

Satkunendrarajah K, Karadimas SK, Sivakumar S, Samson P, Fehlings M.G., Cervical glutamatergic interneurons preserves breathing after cervical spinal cord injury., The Oxford Conferences: The modeling and breathing conference, Oxford, UK, - 09/19/2017

Satkunendrarajah K, Nassiri F, Karadimas SK, Fehlings MG, Riluzole associated plasticity of spared axonal connections following high cervical hemilesion, Society for Neuroscience, Annual meeting, San Diego, California, USA, - 11/09/2013

Satkunendrarajah K, Karadimas SK, Sivakumar S, Fehlings M.G., Cervical glutamatergic interneurons sustain breathing after cervical spinal cord injury., 20th International Winter Neuroscience Conference, Solden, Austria, - 04/11/2018

Satkunendrarajah K, Karadimas SK, Gosgnach S, Fehlings MG, Cervical spinal cord injury degenerates distal locomotor central pattern generator (CPG), Society of Neuroscience, Annual meeting, San Diego, California, USA, - 11/15/2016

Satkunendrarajah K., Brezinski A., Schrank S., Dolick C., Raphe-cervical excitatory interneuron circuitry in the dynamic regulation of breathing in health and spinal cord injury, The 15th Oxford Conference on Modeling and Control of Breathing, Odawara, Japan, - 10/18/2022

Dolick C., Graham D., Kroner-Milsch A.,Olsen C., Gosgnach S, Satkunendrarajah K., Sensory cortical-locomotor pathway restores walking after spinal cord injury, Society for Neuroscience Annual Meeting, San Diego, California, - 11/13/2022

Karadimas SK, Satkunedrarajah K, Gosgnach S, Fehlings MG, Loss of cervical propriospinal interneurons alters distal lumbar locomotor CPG leading to specific locomotor deficits, International Symposium of Neural Regeneration, Asilomar, California, - 12/03/2015

Khazae M., Nagoshi N., Nakashima K., Satkunendrarajah K., Badner A., Mann A., Sayeg M., Fehlings M.G., Assessment of therapeutic efficacy and fate of GDNF expressing human induced pluripotent stem cell-derived neural precursor cells in cervical spinal cord injury, Society for Neuroscience, Chicago, Illinois, - 10/17/2015

COMMITTEE SERVICE:

Medical College of Wisconsin

2019 - Present Scientific Member, IACUC, VA Medical Center

MEDICAL COLLEGE TEACHING ACTIVITIES:

Graduate Student Education

01/06/2021 - 05/05/2021 Professional Development (Lecture on Resiliency in Science)

02/15/2021 - Present Fundamentals of Neuroscience

08/31/2021 - Present Professional Development (Lecture on Figures and Graphs)

EXTRAMURAL TEACHING:

Graduate Student Education

08/31/2011 - 12/31/2011 Brock University, St. Catherines Canada, Ion Channel Physiology of excitable cells (Lecturer of the entire course)

Nursing Student Education

01/2013 - 09/2013 Sheridan College, Davis Campus, Fundamentals of Anatomy and Physiology (Lecture full semester course)
01/2013 - 09/2013 Sheridan College, Davis Campus, Nutrition for Wellness (Lecture full semester course)

BIBLIOGRAPHY

Refereed Journal Publications/Original Papers

1. Kajana S, Goshgarian HG. Administration of phosphodiesterase inhibitors and an adenosine A1 receptor antagonist induces phrenic nerve recovery in high cervical spinal cord injured rats. Exp Neurol. 2008 Apr;210(2):671-80. PMCID: PMC2377457
2. Kajana S, Goshgarian HG. Spinal activation of the cAMP-PKA pathway induces respiratory motor recovery following high cervical spinal cord injury. Brain Res. 2008 Sep 26;1232:206-13. PMCID: PMC2573999
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