Ali Bani Ahmed, PT, DPT, CPT, CKTP, CES, CDNP, PhD

Assistant Professor

Department of Rehabilitation Sciences College of Applied Medical Sciences

Jordan University of Science and Technology (JUST) - Jordan

Mobile: (00962) 795564842

Office (Extension):

e.mail: ali.baniahmed@gmail.com aabaniahmed@just.edu.jo



Academic Preparation

2013 **PhD in Rehabilitation Science** (mentor, Carmen M Cirstea, MD, PhD)

University Of Kansas Medical Center, Kansas, USA

2009 Doctor of Physical therapy – DPT

The Foreign Credentialing Commission on Physical Therapy (FCCPT) License for Foreign educated physical therapists – Equivalency for Physical Therapy first degree of education in the United States of America (Doctor of Physical therapy - DPT)

2005 B.Sc. in Physiotherapy

Jordan University of Science and Technology, Irbid, Jordan

Teaching experience

Bachelor (Tabuk University)

- > Introduction to Physical Therapy
- > Musculoskeletal Anatomy
- Neuroscience
- > Pharmacology
- > Pathophysiology
- > Medical Terminologies
- Applied Kinesiology & Biomechanics
- > Neurologic Physical Therapy I
- > Neurologic Physical Therapy II
- > Pediatric Physical Therapy
- **➢** Geriatric Physical Therapy
- > Musculoskeletal physical Therapy I (Upper Extremity)
- > Musculoskeletal physical Therapy II (Lower Extremity)
- > Musculoskeletal physical Therapy III (Spine)
- Physical Therapy Test and Measures
- > Traumatology & Orthopedics

- > Physical Therapy in Burns and Surgical Condition
- Motor control and Motor Learning
- > Health Promotion through the Lifespan
- > Research Methods in Physical Therapy & Research Project
- Research in Evidence-Based PT Practice
- **➢** Clinical Practice I (Hospital)
- Clinical Practice II (Hospital)
- > Clinical Practice III (Hospital)
- > Clinical Practice IV (Hospital)

Bachelor (JUST)

- Advanced clinical neuroscience
- > Advanced neurologic physical therapy
- Advanced pediatrics physical therapy
- ➤ Clinical practice in neurology (1)
- ➤ Clinical practice in neurology (2)
- **▶** Clinical practice in paediatrics (1)
- **➢** Clinical practice in paediatrics (2)
- **➤** Clinical training in physical therapy (1)
- > Disability and the society
- > Introduction to physiotherapy
- Musculoskeletal anatomy
- Musculoskeletal anatomy (lab)
- ➤ Neuroscience (1)
- ➤ Neuroscience (1) lab
- > Pharmacology
- > PT in neurology (1)
- > PT in neurology (1) lab
- > PT in neurology (2)
- > PT in neurology (2) lab
- > PT in paediatrics
- > PT in surgical conditions & burns

Master (JUST)

- > Advanced Neurological Physical therapy
- > Advanced Clinical Training in Physical Therapy
- Advanced Pediatrics physical therapy
- Advanced Clinical Neuroscience

Clinical Certifications

- Certified Physical Therapist, Jordan 2005
- Diploma Certified Kinesiotape Practitioner (CKTP) . USA 2012
- Certified Personal Trainer (CPT), USA 2013
- Physical Therapist Consultant, KSA 2016
- Diploma Certified Ergon IASTM Technique Practitioner, Jordan 2018
- Diploma Certified Dry Needling Practitioner, USA 2019
- National Academy of Sports Medicine (NASM) 2020
 - ➤ Certified Personal Training (CPT)
 - ➤ Certified Group Fitness Instructor (CGFI)
 - > Performance Enhancement Specialization (PES)
 - Corrective Exercise Specialization (CES)
 - ➤ Nutrition Certification (CNC)
 - ➤ Behavior Change Specialization (BCS)

Special Training Accrued

2002 - 2005	Clinical Practice
	Department of Physiotherapy and Rehabilitation
	King Abdullah University Hospital, Irbid, Jordan
2005 - 2006	Clinical Internship
	Department of Physiotherapy and Rehabilitation
2007	King Abdullah University Hospital
2007	Physiotherapy differential diagnosis and treatment for peripheral joints Department of Physiotherapy and Rehabilitation
	Jordan University of Science & Technology
2011	Clinical Internship
	Shawnee Mission Medical Center. Kansas City, Kansas
2012	The Kinesio Taping® KT1, KT2 & KT3
	Cleveland Chiropractic College, Kansas City, KS
2010 - 2013	BIONESS L300 functional Electrical Stimulation post-Stroke
2014	Physical Therapist Selected terms in the domain university testing, measurements and evaluation Measurement and Evaluation Unit - University of Tabuk – KSA
	Taxonomy of course objectives, domains and levels of learning outcomes
2015	(Evaluation in the course syllabus) - University of Tabuk, Tabuk - KSA
2017	Establishing course file and field experience University of Tabuk - KSA
2018	Proper Hygiene and Handwashing Workshop University of Tabuk - KSA
2019	Assessment of Learning Outcomes University of Tabuk - KSA
2020	Selection and Application of Statistical Tests in Medical Research Studies University of Tabuk - KSA

"(Quality Matters) تطبيق مصفوفة معايير ضبط جودة تصميم المساقات الإلكترونية من مؤسسة" 2022

""تقييم العملية التدريسية والبحث العلمي لزيادة مستوى نجاح الطلبة وآليات تفعيل مشاركتهم في الصفوف الكبيرة 2022

Clinical Work Experience

Clinical Experience: 06/2005 – Present	Physical Therapist (Private clinical work)	
	Home health	
	Jordan	
10/2006 – 12/2007	Physical Therapist (Inpatient/outpatient/home-health)	
	Department of Physiotherapy and Rehabilitation	
	King Abdullah University Hospital - Jordan	
2010 – 2012	Physical Therapist – Musculoskeletal (Physical therapy interventions for Patients with Low Back Pain	
	University Of Kansas Medical Center	
2010 – 2013	Physical Therapist – HEAL lab (Physical therapy interventions for Diabetic Neuropathy)	
	University Of Kansas Medical Center	
2010 – 2013	$Physical\ The rap ist-HEAL\ lab\ (Physical\ the rap y\ interventions\ for\ Chronic\ stroke\ survivors\ -Bioness\ L300\ foot\ drop\ system)$	
	University Of Kansas Medical Center	
2011 – 2013	Physical Therapist – JoyDoc outpatient clinic	
	University of Kansas Medical Center	
2014 - 2020	Consultant of Physical Therapy – King Khalid Hospital	
	University of Tabuk	
2015 - 2020	Director of clinical Education and internship - University of Tabuk	
2021- Present	Clinical Practice Supervisor - Jordan University of Science and Technology	
Academic/research Experience		

2008-2013	Graduate teaching assistant
	Department of Physical Therapy and Rehabilitation Science
	University of Kansas Medical Center - USA
2008 – 2013	Graduate research assistant

Landon Center on Aging, Department of Physical Therapy and Rehabilitation Science

University of Kansas Medical Center - USA

2009 – 2013 Graduate research assistant

Hoglund Brain Imaging Center University of Kansas Medical Center

Department of Physical Therapy and Rehabilitation Science - USA

2011 – 2013 Graduate research assistant

Georgia Holland Research Lab

Department of Physical Therapy and Rehabilitation Science University of Kansas Medical Center

- USA

2013 Visiting Lecturer

Department of Physical Therapy - University of Saint Mary - USA

2014-2020 Assistant Professor - Department of Physical Therapy, University of Tabuk - KSA

2021 - Present Assistant Professor - Department of Rehabilitation Sciences - JUST - Jordan

Research experience

Distant research assistant (Human Brain Plasticity and Recovery Lab) - Carmen M. Cirstea, MD, PhD (Ongoing)

Stroke, Traumatic Brain Injury, Spinal Cord Injury, Brain Mapping, Development of New Restorative Therapies

Graduate research assistant, Landon Center on Aging, KUMC, 05/2008 - 05/2009 Research

adviser: Nandini Deshpande, PhD

Aging effect on Vestibular Functions (Dynamic visual Acuity) and its underlying mechanisms.

Graduate research assistant, Hoglund Brain Imaging Center, KUMC 05/2009 – 08/2013

Research advisor: Carmen M. Cirstea, MD, PhD

Understand the mechanisms underlying plastic changes in the injured/uninjured adult human central nervous system and their functional relevance.

Graduate research assistant, Landon Center on Aging, KUMC, 04/2009 – 12/2009 Research

adviser: Wen Liu, PhD

Examine the effects of a substitute vestibular information system using the BrainPort® balance device in stroke survivors with chronic vestibular dysfunction.

Graduate research assistant, Clinical Orthopedic Research Laboratory, KUMC, 01/2010 - 12/2011 Research

adviser: Neena Sharma, PT, PhD, CMPT

Understand biochemical and neural mechanisms contributing to chronic pain syndromes and the efficacy of various physical therapy interventions in modulating pain

Graduate research assistant, Georgia Holland Research Lab, KUMC, 06/2012 – 08/2013

Research adviser: Patricia Kluding, PT, PhD

Health promotion interventions for people with diabetes

Graduate research assistant, Bioness Inc, 01/2010 – 01/2013 Research

adviser: Patricia Kluding, PT, PhD

Functional Ambulation: Standard Treatment vs. Electronic Stimulation Therapy (FASTEST) Trial in Chronic Post-Stroke Subjects with Foot Drop

Graduate research assistant, Mechanical Engineering - University of Kansas, 06/2011 - 08/2012 Research

adviser: Kenneth J. Fischer, PhD

Stroke rehabilitation enhancement with dvd-guided visualization

Graduate research assistant, Research in Exercise and Cardiovascular Health (REACH) laboratory, KUMC, 02/2013 –

08/2013

Research adviser: Sandra Billinger, PT, PhD

Understanding cardiovascular and pulmonary adaptation in Stroke survivors

Graduate research assistant, Hoglund Brain Imaging Center- 01/2013 – 08/2013

Research advisor: William Brooks, PhD

Understand the mechanisms underlying normal function and recovery from traumatic brain injury

Academic Committees

Accreditation Committee, University of Tabuk

Academic Counseling Committee, University of Tabuk

Exit Exam Committee, University of Tabuk

Exams Revision Commission, University of Tabuk

Evaluation and Measurement Committee, University of Tabuk

Faculty of applied Medical Sciences (FAMS) Development and quality Committee, University of Tabuk

Nursing-PT department council committee, University of Tabuk

Student Research Committee, University of Tabuk

Clinical Practice and Internship committee (Head), University of Tabuk

Scientific Committee (FAMS), Member, University of Tabuk

Program and syllabi Revision committee, University of Tabuk

Professional memberships

Jordanian Physical Therapists Association (JPTA) - Jordan

American Physical Therapy Association (APTA) - USA

Saudi Physical Therapy Association (SPTA) - KSA

Aerobics and Fitness Association (AFAA) - USA

National Academy of Sports Medicine (NASM) - USA

American Physical Therapy Board of Healing Arts License (Kansas, USA) - in work

Society for Neuroscience

Society of Motor Control

The Kinesio Taping ® Association International (KTAI)

Functional Integrated Dry Needling Institute (FIDN-LTD UK)

Honors and Awards

- Honor for Graduation (first 10%) Department of Physiotherapy and Rehabilitation, Jordan University of Science and Technology (JUST), Irbid, Jordan, 2005
- Honor for Professional Work in Orthopedics Rehabilitation Dr. Mohammad Akram Awwad, MD, Orthopedic surgeon-King Abdullah University Hospital, Assistant professor- Jordan University for Science and Technology,
- Outstanding Student Performance Award Department of Physical Therapy and Rehabilitation Science, University of Kansas Medical Center, 2008
- The President's Honor Roll for outstanding achievement Kansas City Kansas Community College, 2009
- Honor for Outstanding Teacher Teaching the University of Kansas Doctor of Physical Therapy (DPT) curriculum.
 The highest number teaching hours than any Teaching assistant in the history of the program Department of Physical Therapy University of Kansas Medical Center (KUMC) (Dr. Lisa Stehno-Bittle), 2009 2013

Relevant leadership experience

Clinical Supervisor - undergraduate physical therapy students - Jordan University for Science and Technology (JUST) 01/2005 - 1/2008

 $\label{thm:continuous} \textbf{Graduate Teaching Assistant - Department of Physical Therapy and Rehabilitation Science, University of Kansas Medical Center, 08/2008 - 08/2013$

Clinical Supervisor - physical therapy students (DPT) – JoyDoc Clinic (University of Kansas Medical Center) 01/2011 – 08/2013

Clinical Supervisor - Physical therapy students - University of Tabuk (2014 – 2-20) Academic Coordinator/Director of Clinical Education, University of Tabuk (2014 - 2020)

Research Supervisor - Students' Graduation Projects

Director of Clinical Education and Internship - Department of Physical Therapy - University of Tabuk (2014 - 2020)

Publications

Peer-reviewed publications

- Tourtillott BM, Ferraro JA, **Bani-Ahmed A.**, Almquist E, Deshpande N. "Age-related changes in vestibular evoked myogenic potentials using a modified blood pressure manometer feedback metho d." Am J Audiol 19(2): 100-108. 2010
- Cirstea MC, Brooks WM, Craciunas CS, Popescu AE, Choi I, Lee S, **Bani-Ahmed A**, Yeh HW, Savage CR, Cohen LG, Nudo RJ. Primary motor cortex in stroke a functional MRI-guided proton magnetic resonance spectroscopic study. *Stroke*, ISSN 0039-2499, 42(2): 4002-9, 2011
- Craciunas SC, Bani-Ahmed A, Brooks WM, Nudo RJ, Popescu AE, Choi Y, Lee S, <u>Cirstea CM</u>. Metabolic profile of motor cortex in stroke. *Stroke* ISSN 1524-4628, 42: e266-267, 2011
- Cirstea MC, Savage CR, Nudo RJ, Cohen L, Yeh HW, Choi I, Lee S, Craciunas CS, Popescu AE, **Bani-Ahmed A**, Brooks WM. Handgrip-related activation in primary motor cortex relates to underlying neuronal metabolism after stroke.

 Neurorehabil Neural Repair. 2014 Jun;28(5):433-42. doi: 10.1177/1545968313516868. Epub 2013 Dec 27.
- Fischer KJ, Liu W, Clayton Wauneka C, **Bani-Ahmed A**, Kluding P. Stroke Rehabilitation Enhancement with dvd-guided Visualization. ASME 2013 Summer Bioengineering Conference, 2013. Paper No. SBC2013-14090, pp. V01AT20A006; 2 pages doi:10.1115/SBC2013-14090

Bani-Ahmed A. The Effect of Linguistic Ability on the variance of Students' Scores: Aproposed Approach For Validating Scores (2017). Journal of Education. Al-Azhar University. Issue 171 (Part one).

Abdullah N. Alshahrani, Mohammed N. Alshahrani, **Bani Ahmed A.** Evaluation of Knowledge regarding Shaken Baby Syndrome among Parents in Tabuk City. The Egyptian Journal of Hospital Medicine (July 2018) Vol. 72 (11), Page 5600-5603

Bani-Ahmed, A. (2018). The evidence for prolonged muscle stretching in ankle joint management in upper motor neuron lesions: considerations for rehabilitation – a systematic review. *Topics in Stroke Rehabilitation*, 26(2), 153–161. https://doi.org/10.1080/10749357.2018.1550958

Ali A. Bani-Ahmed. Functional Gait Parameters As Objective Assessment Tools In Patients With Chronic Low Back Pain: A Case Study. Int J Physiother Res (2019);7(2):2997-3002. DOI: 10.16965/jpr.2018.202

Bani-Ahmad A The Functional Recovery and the Associated Cortical Reorganization Following Constraint-Induced Movement Therapies (CIMTs) in Stroke. Journal of Physical Therapy Science (2019). DOI: 10.1589/jpts.31.950

Bani-Ahmad A. Mobility Safety in Chronic Elderly Stroke: Evaluation and Assessment A Narrative Review of the Current Literature and Future Directions. The Egyptian Journal of Hospital Medicine (2019). DOI: 10.12816/EJHM.2019.55485.

Bani-Ahmad A. Cirstea MC. Ipsilateral primary motor cortex and behavioral compensation after stroke: a case series study. Experimental Brain Research 238(4) (2020). DOI: 10.1007/s00221-020-05728-8.

Austin T, **Bani-Ahmed A**, Cirstea MC. N-Acetylaspartate Biomarker of Stroke Recovery: A Case Series Study. Front Neurol Neurosci Res. 2021;2:100007. Epub 2021 Mar 31. PMID: 34296219; PMCID: PMC8294783.

Ali A. Bani-Ahmed, Roqaya K. Al-Bawaneh, Eihab Khasawneh, Alham Al-Shorman, Hasan Al-Omari. Parental Awareness Regarding Shaken Baby Syndrome and Associated Factors in Jordan. Jordan Journal of Nursing Research, Volume 2, No. 4, 2023. DOI: https://doi.org/10.14525/JJNR.v2i4.05

Al-Sharman A, Al-Sarhan A, Aburub A, Shorman R, **Bani-Ahmad A**, Siengsukon C, Bani Issa W, Abdelrahim DN, Hijazi H, Khalil H. Quality-of-life among women with breast cancer: application of the international classification of functioning, disability and health model. Front Psychol. 2024 Feb 1;15:1318584. DOI: 10.3389/fpsyg.2024.1318584

Omar F. Khabour, Mahmoud A Alomari, **Bani-Ahmed A**. The Adverse Impact of Waterpipe Dependence on Emotions: The Obesity Factor. Asian Journal of social Health and Behavior (Accepted July 18, 2024)

Ali A. Bani-Ahmed, Dalia M. Al-Baghdadi, Rana A. Hussein. Variations in Depression and Anxiety among Jordanian Women Undergoing Mastectomy and Reconstruction Surgery: Impact of Familial Support. Asian Pacific Journal of Cancer Prevention (Accepted July 22, 2024).

Manuscripts under review (accepted under revision)

Bani-Ahmed A (2019). " The Phasic Influence of Vestibular Neural Inputs During Sit-to-Stand: A Case Report. Neuroreport.

Bani-Ahmed A, Cirstea MC (2019). Maladaptive contralesional primary motor cortex reorganizational changes in chronic stroke - a case series study. Experimental Brain Research.

Manuscripts in preparation

Bani-Ahmed A et al. Motor learning effects on functional connectivity within motor system after stroke. For J Neurological Physical Therapy

Cirstea MC, Bani-Ahmed A, et al. Intervention-related cerebral metabolites changes in stroke. For Stroke

Bani-Ahmed A. Molecular Mechanisms underlying exercise-induced angiogenesis: A review. For <u>Journal</u> of Novel Physiotherapies

Bani-Ahmed A, Cirstea MC, Primary motor cortex activation correlates better with subcomponents of that total Fugl-Meyer. For J Neurological Physical Therapy

Bani-Ahmed A, Cirstea MC Kinematic Versus Clinical Metrics of Arm Motor Impairment and Motor Related Primary Motor Cortex activation In Chronic Stroke. For International Journal For physical Therapy Research And Practice.

Manuscripts with acknowledgment

Primary somatosensory cortex in chronic low back pain – a ¹H-MRS study. Neena K Sharma, ¹ Kenneth McCarson, ² Linda Van Dillen, ⁵ Angela Lentz, ¹ Talal Khan, ³ and Carmen M Cirstea ^{1,4}. J Pain Res. 2011; 4: 143–150.

Abstracts

Bani-Ahmed A et al. Analysis and Management of Gait Abnormalities (graduation thesis). Jordan University for Science and Technology, 2005

Bani-Ahmed A et al. Trunk kinematics for maintaining dynamic visual acuity: effects of age. International Society for Gait and Posture Research, Bologna, Italy, June, 2009

Sharma NK, McCarson K, Van Dillen L, Brooks WM, Khan T, Wilson S, Bani-Ahmed A, Cirstea MC. 1H-MRS

- cortical measurements in chronic low back pain. Society for Neuroscience, 40th Annual Meeting San Diego, 2010
- Bani-Ahmed A, Brooks WM, Nudo RJ, Craciunas SC, Popescu EA, Choi I, Lee S, Yeh H, Cirstea MC. Metabolite distribution across primary and secondary motor areas in chronic stroke. Society for Neuroscience, 40th Annual Meeting San Diego, 2010
- Craciunas SC, Aschie M, Iliesiu A, **Bani-Ahmed A**, Cirstea MC.Intramedullary spinal cord tumors: neuroimaging features predic thistopathology. *Society for Neuroscience*, 40th Annual Meeting San Diego, 2010
- Cirstea MC, Brooks WM, Craciunas CS, Popescu AE, Choi I, Lee S, Yeh H, **Bani-Ahmed A**, Nudo RJ. Stroke recovery neural predictors. *Society for Neuroscience*, 40th Annual Meeting San Diego, 2010
- Sharma NK, McCarson K, Van Dillen L, Brooks WM, Khan T, Wilson S, **Bani-Ahmed A**, Cirstea MC. 1H-MRS cortical measurements in chronic low back pain. *Interdisciplinary World Congress on Low Back and Pelvic Pain*, LA, 2010
- Craciunas SC, **Bani-Ahmed A**, Brooks WM, Nudo RJ, Popescu AE, Choi Y, Lee S, Cirstea CM. Metabolic profile of motor cortex in stroke. *International Stroke Conference*, Los Angeles, 2011
- Sharma N, Talal N, McCarson K, Van Dillen L, Brooks WM, Lentz A, **Bani-Ahmed A**, Popescu EA, Cirstea MC. Effects of exercise training on cortical biochemistry in chronic low back pain. *Society for Neuroscience*, 41th Annual Meeting, Washington, 2011
- **Bani-Ahmed A**, Cirstea MC. Does cortical functional connectivity depend on stroke severity? *KUMC Students Research Forum*, Kansas City, 2011
- Bani-Ahmed A, Nudo RJ, Brooks WM, Savage CR, Yeh H, Cirstea MC. Cortical functional connectivity depends on stroke severity. *Progress in Motor Control VIII*, Cincinnati, 2011
- Cirstea MC, Yeh H, Popescu EA, **Bani-Ahmed A**, Choi I, Lee P, Craciunas CS, Brooks WM. Is metabolic across spared non-primary motor areas altered in stroke? ISMRM, 20th Annual Meeting, Melbourne, 2012
- Craciunas SC, **Bani-Ahmed A**, Nudo RJ, Brooks WM, Popescu AE, Cirstea MC. Motor and premotor cortices biochemistry and motor impairment in stroke. *Society for Neuroscience*, 42th Annual Meeting, New Orleans, 2012
- Cirstea MC, **Bani-Ahmed A**, Nudo RJ, Brooks MW, Savage CR, Craciunas CS, Popescu EA. Primary motor cortex in stroke relationship between functional and biochemical measures. *Society for Neuroscience*, 42th Annual Meeting, New Orleans, 2012
- Craciunas, CS, Gorgan RM, Bani-Ahmed A, Cirstea, MC. Is "metabolic coupling" across primary motor areas and cerebellum altered in cervical myelopathy? *Romanian Society of Neurosurgery Congress*, Bucharest, 2012
- Craciunas, CS, Gorgan RM, Medrea M, Bani-Ahmed A, Cirstea, MC. Cortical and cerebellar neurometabolic alterations in cervical myelopathy. AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, Phoenix, 2013
- Fischer KJ, Liu W, Clayton Wauneka C, **Bani-Ahmed A**, Kluding P. Stroke Rehabilitation Enhancement with dvd-guided Visualization. ASME 2013 Summer Bioengineering Conference, 2013
- **Bani-Ahmed A**, Cirstea MC. Primary motor cortex activation correlates better with subcomponents of than total Fugl-Meyer. *Kansas University Medical Center Students Research Forum*, Kansas City, 2013
- Mcfarlan K, **Bani-Ahmed A**, Cirstea MC. Motor cortex in sub-acute mild stroke amagnetic resonance spectroscopy study. *Kansas University Medical Center Students Research Forum*, Kansas City, 2013
- **Bani-Ahmed A**, Cirstea MC. Motor- premotor functional connectivity depends on stroke severity. *Kansas Physical Therapy Association*, Wichita 2013.
- **Bani-Ahmed A**, Nudo RJ, Savage CR, Brooks WM, Wick JA, Craciunas SC, Cirstea MC. Primary motor cortex activation correlates better with kinematic than clinical metrics of arm motor impairment in chronic stroke. *Society for Neuroscience*, 43th Meeting, San Diego, 2013
- Cirstea MC, Bani-Ahmed A, Nudo RJ, Savage CR, Brooks WM, Craciunas SC. Motor cortical reorganization and true recovery after stroke. *Society for Neuroscience*, 43rd Annual Meeting, San Diego, 2013
- Craciunas SC, **Bani-Ahmed A**, Gorgan MR, Cirstea output after decompressive surgery in cervical MC. Remote cerebral inflammatory response predicts clinical spondylotic myelopathy. Society for Neuroscience, 43th Annual Meeting, San Diego, 2013

Cirstea MC, Bani-Ahmed A, Nudo RJ, Savage CR, Brook WM. Yeh H_W. Primary motor cortex activation correlates better with kinematic than clinical metrics of arm motor impairment in chronic stroke. Society for Neuroscience (SFN) 2014

Bani-Ahmed A. Cirstea MC, Primary motor cortex and "true motor recovery in chronic Stroke. *Neurological Disorders and stroke 2016, 2nd international conference, Dubai 2016*

Bani-Ahmed A. The effect of Kinesiotape on Functional Gait Parameters in Patients with Chronic Low back Pain: A case study. *FAMS Research Day*. University of Tabuk 2018.

Yazan E. Al-kharabsheh, Anas S. Hmade, **Ali Bani-Ahmed**, Esam Al-Khawaja, Marwan Altaher, Ismail Alfalojy, Ifeoma Anunoby, 2 Carmen M. Cirstea. Spastic cerebral palsyA retrospective cohort study in Jordan: functional outcomes after selective dorsal rhizotomy surgery. AAP/ASCI/APSA JOINT MEETING 2022.

References

Carmen M. Cirstea, MD, PhD

Assistant Professor, Departments of Psychological Sciences and Physical Medicine & Rehabilitation University of Missouri Brain Imaging Center

Neuroscience Rehabilitation Laboratory 1416 Carrie

Francke Drive

205d Melvin Marx Building Columbia, MO 65211 Office: 573-882-3497

Fax: 573-884-3560

Email: cirsteac@missouri.edu

Nandini Deshpande, PT, PhD

Assistant Professor School of Rehabilitation Therapy Queen's University

Louise D. Acton Building, Room 229 Internal telephone extension: 32916 External telephone: 613 -533-2916 e-mail: nandini.deshpande@queensu.ca

William M. Brooks, PhD

Professor Director of Hoglund Brian Imaging Center Department of Neurology - School of Medicine Kansas University Medical Center

MS. 1052, 3901 Rainbow Blvd, Kansas City, KS 66160

Phone: 913-588-9075 Fax: 913-588-9071

Email: wbrooks@kumc.edu