

CURRICULUM VITAE

ALEXANDER S. ARUIN

PROFESSIONAL ADDRESS:

Department of Physical Therapy
University of Illinois at Chicago
(M/C 898) 1919 West Taylor Street
Chicago, Illinois 60612
Tel: (312) 355-0904 (Office)
(312) 355-0902 (Laboratory)
Fax: (312) 996-4583
E-mail: aaruin@uic.edu

<http://ahs.uic.edu/physical-therapy/directory/aruin-alex/>
<http://ahp.uic.edu/Aindex.html>

EDUCATION

- D.Sc. (Ph.D.) in Biomechanics, Institute of Traumatology and Orthopedics, Latvia, 1990
- M.S. in Exercise and Sport Science, Central Institute of Physical Culture, USSR, 1982
- Ph.D. in Biological and Medical Cybernetics (Biomedical Engineering), Institute of Artificial Organs and Transplantation, Moscow, USSR, 1978
- M.S. in Electrical Engineering, Moscow Institute of Electronic Engineering, USSR 1969

PROFESSIONAL INFORMATION

- Professor, Director of the Knecht Movement Science Laboratory, Department of Physical Therapy. University of Illinois at Chicago, 2006 to present
- Professor, Department of Bioengineering. University of Illinois at Chicago, 2006 to present
- Associate Professor, Director of the Knecht Movement Science Laboratory, Department of Physical Therapy. University of Illinois at Chicago, 2000 - 2006
- Director of Graduate Studies, Department of Physical Therapy, University of Illinois at Chicago, 2006 to present
- Director of PhD Program in Rehabilitation Sciences, College of Applied Health Sciences 2015 to present
- Associate Professor, Department of Bioengineering. University of Illinois at Chicago, 2000 to 2006
- Faculty, Interdisciplinary PhD Program in Disability Studies. College of Applied Health Sciences, University of Illinois at Chicago, 2000-2009
- Preceptor, MD/PhD Training Program. University of Illinois at Chicago, 2003 – present
- Core faculty member, Interdisciplinary Training Program in Neuroscience. University of Illinois at Chicago, 2003 to present

- Senior Research Scientist/Director of the Motion Analysis Laboratory. Rehabilitation Foundation, Inc., Marianjoy Rehabilitation Hospital and Clinics, Wheaton, Illinois, 1997 - 2000
- Associate Professor, Professor, Department of Physical Medicine & Rehabilitation. Rush University Medical College, Chicago, Illinois, 1997 to present
- Senior Scientist (full professor rank). Department of Kinesiology. Pennsylvania State University, Pennsylvania, 1995 - 1997
- Assistant Professor, Department of Physical Medicine & Rehabilitation. Rush-Presbyterian St. Luke's Medical Center, Chicago, Illinois, 1992 - 1995
- Full Professor, Deputy Chairman, Department of Exercise and Sport Science, and Director of the Laboratory of Ergonomic (Occupational) Biomechanics. Moscow Institute of Electronic Engineering, Moscow, 1990-1992
- Associate Professor, Deputy Chairman on Research, Department of Exercise and Sport Science, and Director of the Laboratory of Ergonomic (Occupational) Biomechanics. Moscow Institute of Electronic Engineering, Moscow, 1982-1990
- Assistant Professor, Research Associate. Department of Exercise and Sport Science. Moscow Institute of Electronic Engineering, USSR, 1969-1982

HONORS AND AWARDS

- Professor of the Year. University of Illinois at Chicago, AHS, 2014. The Award honors exceptional contributions to scholarship and teaching
- Graduate Mentoring Award. University of Illinois at Chicago, 2013. For outstanding commitment to, and development of graduate students mentoring
- The UIC Chancellor's Innovation Fund (CIF) 2013 Proof-of-Concept (POC) Award
- INSPIRE Award, University of Illinois at Chicago, 2012. The award recognizes individuals who have consistently and over long periods of time based their every action on UIC's Core Values, "Integrity, Nurture, Service, Pride, Intellect, Respect, and Excellence."
- UIC Provost and Deiss Award. (2015) to Bing Chen, PhD student (Mentor A. Aruin)
- UIC Chancellor's Graduate Research Fellowship Award (2011) to Sambit Mohapatra, PhD student (Mentor A. Aruin)
- UIC Provost and Deiss Award. (2011) to Neeta Kanekar, PhD student (Mentor A. Aruin)
- Educator of the Year, University of Illinois at Chicago, CAHS, 2009. For outstanding contributions to teaching students and inspiring and transforming their lives.
- WOW Award. University of Illinois at Chicago. For long-term, consistent, and outstanding professional service to the UIC community, 2009
- John Streff O.D. Vision Achievement Medal. Neuro-Optometric Rehabilitation Association International, 2005
- International Development Fund Award, John Nuveen Center for International Affairs, 2002

- Faculty Foreign Travel Award, UIC, 2002
- Silver Medal of the Russian Academy of Natural Sciences for the Achievements in Medicine and Public Health, 2000
- NIH First Independent Research Award, 1998
- The Best Inventor of the City of Moscow, USSR, 1987
- Gold Medal. All-USSR Competition in Research in Sports, 1982
- Gold Medal. USSR Department of Higher Education for the Direction of the Best Student Thesis Project in the Natural, Technical, and Social Fields, 1977
- Silver and Bronze Medals. National Exhibition for New Investigations of Human Movements, USSR, 1974, 1981

PUBLICATIONS

! refers to publications with a student

* refers to invited publications

1. Kaewmanee T[!], Liang H, **Aruin AS**. The role of predictability of the magnitude of a perturbation in control of vertical posture when catching an object. *Hum Mov Sci*. 2021 Nov 5;80:102890. doi: 10.1016/j.humov.2021.102890. Epub ahead of print. PMID: 34749197.
2. Ganesan M, Skias D, **Aruin AS**. Enhancement of balance, and mobility in individuals with multiple sclerosis using visual cue guided multidirectional step training - A pilot study. *Mult Scler Relat Disord*. 2021 Jul 24;55:103167. doi: 10.1016/j.msard.2021.103167. Epub ahead of print. PMID: 34339932.
3. Curuk E[!], **Aruin AS**. The effect of a textured insole on anticipatory postural adjustments. *Somatosens Mot Res*. 2021 May 24:1-6. doi: 10.1080/08990220.2021.1918659. Epub ahead of print. PMID: 34030581.
4. Kaewmanee T[!], Liang H, **Aruin AS**. Effect of predictability of the magnitude of a perturbation on anticipatory and compensatory postural adjustments [published online ahead of print, 2020 Jul 21]. *Exp Brain Res*. 2020;;238(10):2207-2219 doi: 10.1007/s00221-020-05883-y. Epub 2020 Jul 21. PMID: 32696073.
5. Lee Y, Curuk E[!], **Aruin AS**. Effect of Light Finger Touch, a Cognitive Task, and Vision on Standing Balance in Stroke [published online ahead of print, 2020 Apr 13]. *J Mot Behav*. 2021;53(2):157-165. doi: 10.1080/00222895.2020.1742082. PMID: 32281912.

6. Liang H, Kaewmanee T¹, **Aruin AS**. The role of an auditory cue in generating anticipatory postural adjustments in response to an external perturbation. *Exp Brain Res*. 2020;238(3):631-641. doi:10.1007/s00221-020-05738-6 Mar;238(3):631-641. PMID: 32009192.
7. Curuk E¹, Lee Y, **Aruin AS**. Individuals with stroke improve anticipatory postural adjustments after a single session of targeted exercises. *Hum Mov Sci*. 2020;69:102559. doi:10.1016/j.humov.2019.102559
8. Alwadani FA¹, Liang H, **Aruin AS**. Effects of Ankle Angular Position and Standing Surface on Postural Control of Upright Stance [published online ahead of print, 2020 Jan 23]. *Motor Control*. 2020;1-13. doi:10.1123/mc.2019-0079
9. Lee Y, Goyal N¹, Luna G, **Aruin AS**. Role of a single session of ball throwing exercise on postural control in older adults with mild cognitive impairment. *Eur J Appl Physiol*. 2020;120(2):443-451. doi:10.1007/s00421-019-04289-1
10. Lee YJ, Liang JN, Chen B¹, **Aruin AS**. Characteristics of medial-lateral postural control while exposed to the external perturbation in step initiation. *Sci Rep*. 2019;9(1):16817. Published 2019 Nov 14. doi:10.1038/s41598-019-53379-9
11. Curuk E¹, Goyal N, **Aruin AS**. The Effect of Motor and Cognitive Tasks on Gait in People with Stroke. *J Stroke Cerebrovasc Dis*. 2019;28(11):104330. doi:10.1016/j.jstrokecerebrovasdis.2019.104330
12. Goyal N¹, Lee Y, Luna G, **Aruin AS**. Individual and combined effects of a cognitive task, light finger touch, and vision on standing balance in older adults with mild cognitive impairment. *Aging Clin Exp Res*. 2020;32(5):797-807. doi:10.1007/s40520-019-01262-y
13. Goyal N, Lee Y, Luna G, **Aruin AS**. Individual and combined effects of a cognitive task, light finger touch, and vision on standing balance in older adults with mild cognitive impairment. *Aging Clin Exp Res*. 2019 Jul 10. [Epub ahead of print] PMID: 31292932.
14. Curuk E, Lee Y, **Aruin AS**. Individuals With Stroke Use Asymmetrical Anticipatory Postural Adjustments When Counteracting External Perturbations. *Motor Control*. 2019 Mar 3:1-11. doi: 10.1123/mc.2018-0083. [Epub ahead of print] PMID: 30827177.
15. Goyal N, Luna G, Curuk E, **Aruin AS**. Role of motor and cognitive tasks in gait of individuals with mild cognitive impairment. *Int J Rehabil Res*. 2019, 42(2):174-179. PMID: 30807368

16. Trafimow J, **Aruin AS**. The Use of Negative Acceleration as Accessory Force during Lifting. Adv Orthop. 2018 Dec 2; 2018:9164590. doi: 10.1155/2018/9164590. PMID: 30631604;
17. Curuk E¹, Lee Y, **Aruin AS**. The Effect of a Textured Insole on Symmetry of Turning. Rehabilitation Research and Practice, vol. 2018, Article ID 6134529, 6 pages, 2018. <https://doi.org/10.1155/2018/6134529>. PubMed PMID: 29755790
18. Chen B¹, Lee YJ, **Aruin AS**. Standing on a sliding board affects generation of anticipatory and compensatory postural adjustments. J Electromyogr Kinesiol. 2018;38:168-174. doi: 10.1016/j.jelekin.2017.12.008. PubMed PMID: 29328985; PubMed Central PMCID: PMC5808904.
19. Lee Y, Goyal N¹, **Aruin AS**. Effect of a cognitive task and light finger touch on standing balance in healthy adults. Exp Brain Res. 2018;236(2):399-407. doi: 10.1007/s00221-017-5135-9. PubMed PMID: 29164286
20. Lee YJ, Chen B¹, Liang JN, **Aruin AS**. Control of vertical posture while standing on a sliding board and pushing an object. Exp Brain Res. 2018;236(3):721-731. doi: 10.1007/s00221-017-5166-2. PubMed PMID: 29305618.
21. **Aruin AS**, Rao N. The effect of a single textured insole in gait rehabilitation of individuals with stroke. Int J Rehabil Res. 2018, 41(3):218-223. doi: 10.1097/MRR.0000000000000287. PubMed PMID: 29649054.
22. **Aruin AS**, Ganesan M, Lee Y. Improvement of postural control in individuals with multiple sclerosis after a single-session of ball throwing exercise. Multiple Sclerosis and Related Disorders. 2017, 17:224-229. PMID: 29055463
23. Chen B¹, Lee YJ, **Aruin AS**. Role of point of application of perturbation in control of vertical posture. Exp Brain Res. 2017. 235(11):3449-3457. doi: 10.1007/s00221-017-5069-2. PubMed PMID: 28840283.
24. Ida H, Mohapatra S, **Aruin A**. Control of vertical posture while elevating one foot to avoid a real or virtual obstacle. Exp Brain Res. 2017; 235:1677-1687. PubMed PMID: 28271221.
25. Ma CC¹, Rao N, Muthukrishnan S, **Aruin AS**. A textured insole improves gait symmetry in individuals with stroke. Disabil Rehabil. 2017, 7:1-5. PubMed PMID: 28783984.
26. Lee YJ, Liang JN, Chen B¹, Ganesan M, **Aruin AS**. Standing on wedges modifies side-specific postural control in the presence of lateral external perturbations. J Electromyogr Kinesiol. 2017, 36:16-24. PubMed PMID: 28662461.

27. Oludare SO¹, Ma CC¹, **Aruin AS**. Unilateral Discomfort Increases the Use of Contralateral Side during Sit-to-Stand Transfer. Rehabil Res Pract.2017;2017:4853840. doi: 10.1155/2017/4853840. PubMed PMID: 28529804; PubMed Central PMCID: PMC5424184
28. Arena R, Girolami, **Aruin A**, Keil A, Sainsbury J, Phillips S. Integrated approaches to physical Therapy education: a new comprehensive model from the University of Illinois Chicago. Physiother Theory Pract. 2017;33(5):353-360. doi: 10.1080/09593985.2017.1305471. PubMed PMID: 28379048.
29. Ma CC¹, Lee YJ, Chen B¹, **Aruin AS**. Immediate and short-term effects of wearing a single textured insole on symmetry of stance and gait in healthy adults. Gait Posture. 2016 9;49:190-195. PubMed PMID: 27448047.
30. Chen B¹, Lee YJ, **Aruin AS**. Control of grip force and vertical posture while holding an object and being perturbed. Exp Brain Res. 2016, 234:3193-3201. PubMed PMID: 2742129
31. **Aruin AS** Editorial. Enhancing Anticipatory Postural Adjustments: A Novel Approach to Balance Rehabilitation. J Nov Physiother 2016, 6:e144.doi:10.4172/2165-7025.1000e144
32. Shiratori T, Girolami GL, **Aruin AS**. Anticipatory postural adjustments associated with a loading perturbation in children with hemiplegic and diplegic cerebral palsy. Exp Brain Res. 2016, 234 (10) 2967-2978. PubMed PMID: 27324084.
33. Jagdhane S¹, Kanekar N, **Aruin AS**. The Effect of a Four-Week Balance Training Program on Anticipatory Postural Adjustments in Older Adults: A Pilot Feasibility Study. Curr Aging Sci. 2016. 9(4) 295-300. PubMed PMID: 27071477.
34. Trafimow J, Xaygnaraj J¹, Trafimow D, **Aruin AS**. The importance of negative acceleration of the load in free-style lifting. Percept Mot Skills. 2015;121(1):163-9. doi: 10.2466/26.25.PMS.121c14x9. PubMed PMID: 26302192.
35. Lee YJ, Chen B¹, **Aruin AS**. Older adults utilize less efficient postural control when performing pushing task. J Electromyogr Kinesiol. 2015, 25(6):966-72. doi: 10.1016/j.jelekin.2015.09.002. Epub 2015 Sep 9. PubMed PMID: 26403099;
36. Ganesan M, Kanekar N, **Aruin AS**. Direction-specific impairments of limits of stability in individuals with multiple sclerosis. Ann Phys Rehabil Med. 2015;58:145-50. PubMed PMID: 25960358.

37. Chen B, Lee YJ, **Aruin AS**. Anticipatory and compensatory postural adjustments in conditions of body asymmetry induced by holding an object. *Exp Brain Res*. 2015 , 233:3087-96. doi: 10.1007/s00221-015-4377-7. PubMed PMID: 26195166; PubMed Central PMCID: PMC4626333.
38. Rao N, **Aruin AS**. Role of ankle foot orthoses in functional stability of individuals with stroke. *Disabil Rehabil Assist Technol*. 2015, 31:1-4. PubMed PMID: 25826046.
39. **Aruin AS**, Kanekar N¹, Lee YJ. Anticipatory and compensatory postural adjustments in individuals with multiple sclerosis in response to external perturbations. *Neurosci Lett*. 591:182-186. doi:10.1016/j.neulet.2015.02.050. PubMed PMID: 25711800
40. **Aruin AS**. Are Two Hands Sensing the Load Better Than One? *Motor Control*. 2015; 19(2):127-30. PubMed PMID: 25588150.
41. **Aruin AS**. Kanekar N¹, Ganesan M¹, Lee Y-J¹, Enhancement of anticipatory postural adjustments in older adults as a result of a single-session of ball throwing exercise. *Experimental Brain Research*. 2015, 233(2): 649-655 N PubMed PMID: 25424864
42. Lee YJ¹, **Aruin AS**. Effects of asymmetrical stance and movement on body rotation in pushing. *J. Biomechanics*. 2015;48(2):283-9 doi: 10.1016/j.jbiomech.2014.11.032. PubMed PMID: 25498915
43. Ida H, Mohapatra S¹, **Aruin AS**. How does foot elevation height during upright standing affect the activity of leg muscles on the supporting and lifting side? *International Journal of Psychophysiology* 2014, 94: 2 page 255
44. Kanekar N¹, **Aruin AS**. Improvement of anticipatory postural adjustments for balance control: effect of a single training session. *J Electromyogr Kinesiol*. 2015; 25(2):400-5 doi: 10.1016/j.jelekin.2014.11.002. PubMed PMID: 25434280
45. Ganesan M¹, Lee YJ¹, **Aruin A**. The Effect of Footrest on Standing Postural Control. *Motor Control*. 2015 ,19(3):207-22. PMID: 25029216.
46. Rao N, Wening J, Hasso D, Gnanapragasam G, Perera P, Srigiriraju P, **Aruin AS**. The effects of two different ankle-foot orthoses on gait of patients with acute hemiparetic cerebrovascular accident. *Rehabil Res Pract*. 2014;2014:301469. doi: 10.1155/2014/301469. Epub 2014 Sep 9. PMID: 25276433; PMCID: PMC4174983.
47. Kanekar N¹, **Aruin AS**. Aging and balance control in response to external perturbations: role of anticipatory and compensatory postural mechanisms. *Age (Dordr)*. 2014; 36(3):9621 PubMed PMID: 24532389

48. Kanekar N¹, **Aruin AS**. The effect of aging on anticipatory postural control. Exp Brain Res. 2014, 232:1127-1136. PubMed PMID: 24449006
49. Ganesan M¹, Lee Y-J¹, **Aruin AS**. The effect of lateral or medial wedges on control of postural sway in standing. Gait and Posture. 2014. 39(3):899-903. PubMed PMID: 24365327
50. Mohapatra S¹, Kukkar KK¹, **Aruin AS**. Support surface related changes in feedforward and feedback control of standing posture. J Electromyogr Kinesiol. 2014 Feb;24(1):144-52. PubMed PMID: 24268589.
51. Mehendale K¹, **Aruin AS** Exercise Approaches to Ameliorate Fatigue in People with Multiple Sclerosis. J Nov Physiother 2013, 3: 179. doi:10.4172/2165-7025.1000179
52. Kanekar N¹, Lee YJ¹, **Aruin AS**. Frequency analysis approach to study balance control in individuals with multiple sclerosis. J Neurosci Methods. 2014 30:222:91 PubMed PMID: 24192227
53. Lee YJ¹, **Aruin AS**. Isolated and combined effects of asymmetric stance and pushing movement on the anticipatory and compensatory postural control. Clin Neurophysiol. 2014;125:768-76. doi: 10.1016/j.clinph.2013.09.036. PubMed PMID: 24161607
54. Chen B¹, **Aruin AS**. Does the type of somatosensory information from the contralateral finger touch affect grip force control while lifting an object? Neuroscience Letters. 2013, 556:196-9. PubMed PMID: 24157853
55. **Aruin AS**, Kanekar N¹. Effect of a textured insole on balance and gait symmetry. Exp Brain Res. 2013, 231(2):201-8. PubMed PMID: 23979014.
56. Kanekar N¹, **Aruin AS**. The role of clinical and instrumented outcome measures in balance control of individuals with multiple sclerosis. Multiple Sclerosis International 2013:190162. doi: 10.1155/2013/190162. Epub 2013 May 25. PubMed PMID:23766907
57. Trafimow J, **Aruin AS**. Obtaining Glenoid Positioning Data from Scapular Palpable Points In Vitro. Advances in Orthopedics, vol. 2013, Article ID 391260, 4 pages, 2013. doi:10.1155/2013/391260
58. **Aruin AS**. Inserts improve symmetry, velocity in stroke patients. Lower Extremity Review. June 2013, 11 pages
59. Lee YJ¹, **Aruin AS**. Three components of postural control associated with pushing in symmetrical and asymmetrical stance. Exp Brain Res. 2013, 228:341-51. PMID: 2372782

60. Kanekar N¹, Lee YJ¹, **Aruin AS**. Effect of light finger touch in balance control of individuals with multiple sclerosis. Gait Posture. 2013;38(4):643-7 PubMed PMID: 24192227
61. Rao N, Zielke D, Keller S, Burns M, Sharma A, Krieger R, **Aruin AS**. Pregait balance rehabilitation in acute stroke patients. Int J Rehabil Res. 2013, 36:112-7. PMID: 3047373
62. Panwalkar N¹, **Aruin AS**. Role of Ankle Foot Orthoses in the Outcome of Clinical Tests of Balance. Disability and Rehabilitation: Assistive Technology. 2013, 8:314-320. PubMed PMID:23078248
63. Mohapatra S¹, **Aruin AS**. Static and dynamic visual cues in feed-forward postural control. Exp Brain Res. 2013 Jan;224(1):25-34. PubMed PMID: 23064846
64. **Aruin AS**, Rao N, Sharma A, Chaudhuri G. Compelled body weight shift approach in rehabilitation of individuals with chronic stroke. Top Stroke Rehabil. 2012, 19(6):556-563. PubMed PMID: 23192720
65. ***Aruin AS**. Discomfort-Induced Approach in Physical Therapy and Rehabilitation. Journal Novel Physiotherapies. 2012. 3:131 doi: 10.4172/2165-7025.1000131
66. Nunes PM, de Oliveira DG, **Aruin AS**, Santos MJ. A Relationship between Hand Function and Grip Force Control in Individuals with Hand Osteoarthritis. Journal of Rehabilitation Research and Development. 2012. 49(6): 855-866
67. Mohapatra S¹, Eviota AS, Ringquist KL, Muthukrishnan SR, and **Aruin AS**. Compelled Body Weight Shift Technique to Facilitate Rehabilitation of Individuals with Acute Stroke. ISRN Rehabilitation. Volume 2012 (2012), ID 328018, 7 pages. doi:10.5402/2012/328018 PMID: 25530888
68. Krishnan V¹, Kanekar N¹, **Aruin AS**. Feedforward postural control in individuals with multiple sclerosis during load release. Gait & Posture. 2012, 36:225-30. PubMed PMID: 22483546
69. Mohapatra S¹, Krishnan V¹, **Aruin AS**. Postural control in response to an external perturbation: effect of altered proprioceptive information. Exp Brain Res. 2012, 217:197-208. PubMed PMID: 22198575
70. Krishnan V¹, Kanekar N¹, **Aruin AS**. Anticipatory postural adjustments in individuals with multiple sclerosis. Neuroscience Letters. 2012, 506:256-60. PubMed PMID: 22154279
71. Kanekar N¹, Krishnan V¹. **Aruin AS**. Enhancement of anticipatory postural control following a single training session. Gait & Posture. 2012, 36:S56.

72. Krishnan V¹, Latash ML, **Aruin AS**. Early and Late Components of Feed-forward Postural Adjustments to Predictable Perturbations. Clinical Neurophysiology. 2012, 123:1016–1026. PubMed PMID: 21983281
73. Girolami GL¹, Shiratori T, **Aruin AS**. Anticipatory postural adjustments in children with hemiplegia and diplegia. Journal of Electromyography and Kinesiology. 2011, 21:988-97. Pubmed: 21983006
74. de Oliveira DG, Nunes PM, **Aruin AS**, Santos MJ. Grip Force Control in Individuals with Hand Osteoarthritis. J Hand Therapy. 2011, 24:345-55.
75. Mohapatra S¹, Krishnan V¹, **Aruin AS**. The effect of decreased visual acuity on control of posture. Clinical Neurophysiology. 2012. 123:173-82. Epub 2011 Jul 22.
76. Krishnan V¹, **Aruin AS**. Postural control in response to a perturbation: role of vision and additional support. Exp Brain Res 2011, 212, 47-63
77. Krishnan V¹, **Aruin AS**, Latash ML. Two stages and three components of the postural preparation to action. Exp Brain Res. 2011 212(1):47-63. [Epub ahead of print] PubMed PMID: 21537967.
78. **Aruin A**, Rao N. Ankle -Foot Orthoses: proprioceptive outputs and balance implications. Journal of Prosthetics and Orthotics. 2010, 10, 34-37.
79. Rao N, **Aruin AS**. Auxiliary sensory cues improve automatic postural responses in individuals with diabetic neuropathy. Neurorehabilitation and Neurorepairs, 2011 25(2):110-7. Pubmed: 20829412
80. Girolami GL¹, Shiratori T, **Aruin AS**. Anticipatory postural adjustments in children with typical motor development. Experimental Brain Research, 2010, 205:153-65.
81. Rao N, Nashner L, **Aruin AS**. Perceived body position in standing individuals with recent stroke. Clin Neurophysiol. 2010 Nov;121(11):1934-8. PMID: 20472497
- 82.** Santos MJ, Kanekar N¹, Aruin AS. The Role of Anticipatory Postural Adjustments in Compensatory Control of Posture. 1. Electromyographic Analysis. Journal of Electromyography and Kinesiology. 2010, 20:388-97. Pubmed: 19660966 **Most Cited Journal of Electromyography & Kinesiology Article since 2009**
- 83.** Santos MJ, Kanekar N¹, Aruin AS. The Role of Anticipatory Postural Adjustments in Compensatory Control of Posture. 2. Biomechanical Analysis. Journal of Electromyography and Kinesiology. 2010, 20:398-405. Pubmed: 20156693 **Most Cited Journal of Electromyography and Kinesiology Articles since 2009.**

84. Iyengar V¹, Santos M¹, Ko M., **Aruin A.** Grip force control in individuals with multiple sclerosis. Neurorehabilitation and Neurorepairs 2009, (8):855-861
85. Iyengar V¹, Santos M¹, Ko M., **Aruin A.** Effect of contralateral finger touch on grip force control in individuals with multiple sclerosis. Clinical Neurophysiology. 2009, 120(3): 626-631
86. Iyengar V¹, Santos M¹, **Aruin A.** Role of movement velocity on the magnitude of grip force while lifting an object with touch from the contralateral finger. Motor Control. 2009, 13: 1-14.
87. Li X¹, **Aruin A.** The effect of short-term changes in body mass distribution on feed-forward postural control. J Electromyography and Kinesiology 2009, 19(5):931-941
88. Kanekar N¹, Santos MJ¹, **Aruin AS.** Anticipatory postural control following fatigue of postural and focal muscles. Clinical Neurophysiology. 2008, 119(10):2304-2313. Pubmed: 8752990
89. Santos M¹, **Aruin A.** Timing of the vibration of arm muscles affects grip force control. Journal of Human Kinetics, 2008, 19, 25-38
90. Rao N, Chaudhuri G, Hasso D, D'Souza K, Wening J, Carlson C, **Aruin AS.** Gait assessment during the initial fitting of an ankle foot orthosis in individuals with stroke. Disabil Rehabil Assist Technol. 2008, 3(4):201-207
91. Li X¹, **Aruin A.** Anticipatory postural adjustments in conditions of simulated reduced gravity. Gait & Posture, 2008, 28(4):538-544.
92. Zultowski I¹, **Aruin A.** Carrying loads and postural sway in standing: the effect of load placement and magnitude. WORK, a Journal of Prevention, Assessment and Rehabilitation. 2008; 30: 359-368.
93. Santos M¹, **Aruin A.** Effects of lateral perturbations and changing stance conditions on anticipatory postural adjustment. J Electromyography and Kinesiology 2009, 19(3):532-541.
94. Santos M¹, **Aruin A.** Role of lateral muscles and body orientation in feedforward postural control. Experimental Brain Research, 2008;184(4):547-559
95. Iyengar V¹, Santos M¹, **Aruin A.** Does the location of the touch from the contralateral finger application affect grip force control while lifting an object? Neuroscience Letters, 2007, 425(3):151-155.

96. Shenoy S¹, **Aruin A.** Effect of chair design on feedforward postural control in sitting. Motor Control, 2007 11(4): 309-321
97. Li X¹, Zhou P, **Aruin A.** Teager-Kaiser Energy Operation of Surface EMG Improves Muscle Activity Onset Detection. Annals of Biomedical Engineering. 2007 35(9):1532-1538. PMID:17473984
98. Li X¹, **Aruin A.** The effect of short-term changes in the body mass on anticipatory postural adjustments. Experimental Brain Research, 2007, 181(2):333-46.
99. Shiratori T, **Aruin A.** Modulation of anticipatory postural adjustments associated with unloading perturbation: effect of characteristics of a motor action. Experimental Brain Research. 2007, 178:206-15
100. Rao N, **Aruin A.** Automatic postural responses in individuals with peripheral neuropathy and Ankle Foot Orthoses. Diabetes Research and Clinical Practice. 74(1):48-56 (2006)
101. **Aruin A.** The effect of asymmetry of posture on anticipatory postural adjustments. Neuroscience Letters. 401(1-2):150-153 (2006)
102. **Aruin A.** Support-specific modulation of grip force in individuals with hemiparesis. Archives of Physical Medicine and Rehabilitation. 86:768-775 (2005)
103. ***Aruin A.** Biomechanics. In: Encyclopedia of Disability, Ed. G. Albrecht, Sage Publications, 2006.
104. Shiratori T¹, **Aruin A.** Anticipatory postural adjustments associated with rotational perturbations while standing on fixed and free-rotating supports. Clinical Neurophysiology, 115:797-806 (2004)
105. **Aruin A**, Shiratori T¹. The effect of the amplitude of motor action on anticipatory postural adjustments. Journal of Electromyography and Kinesiology, 14: 455-462 (2004)
106. **Aruin A**, Shiratori T¹. Anticipatory postural adjustments while sitting: the effects of different leg supports. Experimental Brain Research, 151: 46-53 (2003)
107. **Aruin A.**, Hanke T. & Sharma A. Base of support feedback in gait rehabilitation. International Journal of Rehabilitation Research, 26:309-12 (2003)
108. **Aruin A.** The effect of changes in the body configuration on anticipatory postural adjustments. Motor Control, 7: 264-277 (2003)

109. **Aruin A**, Mayka M¹. & Shiratori T¹. Could a motor action that has no direct relation to expected perturbation be associated with anticipatory postural adjustments? Neuroscience Letters, 341: 21-24 (2003)
110. ***Aruin A**. The organization of anticipatory postural adjustments. Journal of Automatic Control, 12: 31-37 (2002)
111. Slijper H¹, Latash M., Rao N. & **Aruin A**. Task specific modulation of anticipatory postural adjustments in individuals with hemiparesis. Clinical Neurophysiology, 113: 642-655 (2002).
112. Rodriguez G¹, **Aruin A**. The effect of shoe wedges and shoe lifts on symmetry of stance and weight bearing in hemiparetic individuals. Archives of Physical Medicine and Rehabilitation, 83: 478-483 (2002).
113. ***Aruin A**. The biomechanical foundations of a safe labor environment: Bernstein's vision in 1930. Motor Control, 6: 1-18 (2002).
114. **Aruin A.**, Shiratori T¹. & Latash M. The role of action in postural preparation for loading and unloading in standing subjects. Experimental Brain Research, 138: 458-466 (2001).
115. **Aruin A.**, Ota T. & Latash M. Anticipatory postural adjustments associated with lateral and rotational perturbations during standing. Journal of Electromyography and Kinesiology, 11: 39-51 (2001).
116. **Aruin A**. Simple lower extremity two-joint synergy. Perceptual and Motor Skills, 92:563-568 (2001).
117. **Aruin A.**, Sharma A, Larkins R. & Chaudhuri G. Knee position feedback: its effect on management of pelvic instability in a stroke patient. Disability & Rehabilitation, 22:690-692 (2000).
118. Chaudhuri ¹, **Aruin A**. Dynamic postural control in individuals with hemiparesis: the effect of compelled weight shift. Archives of Physical Medicine and Rehabilitation, 81: 1498-1503 (2000).
119. ***Aruin A.S**. Sports after Amputation. The Encyclopedia of Sports Medicine: Biomechanics in Sport. Blackwell Science/International Olympic Committee Book, p.637-650 (2000).
120. **Aruin A.**, Hanke T, Chaudhuri G, Harvey R. & Rao N. Compelled weight bearing in patients with hemiparesis following stroke: the effect of a lift insert and goal-directed

- balance exercise. Journal of Rehabilitation Research and Development, Vol. 37:65-72
PMID: 10847573, 2000
121. Rao N., **Aruin A.S.** The effect of ankle foot orthosis on balance impairment. Journal of Prosthetics and Orthotics, 11:15-19
122. Latash M.L., **Aruin A.S.** & V.M. Zatsiorsky. The basis of a simple synergy: reconstruction of joint equilibrium trajectories during unrestrained arm movements. Human Movement Science, 18: 3-30 (1999).
123. **Aruin A.S.**, Forrest WR¹ & Latash M.L. Anticipatory postural adjustment in conditions of postural instability. Electroencephalography and Clinical Neurophysiology, 109: 350-359 (1998).
124. **Aruin A.S.**, Nicholas J.J. & Latash M.L. Anticipatory postural adjustments during standing in below the knee amputees. Clinical Biomechanics, 12: 52-59 (1997).
125. **Aruin A.S.**, Almeida G.L. A coactivation strategy in anticipatory postural adjustment in persons with Down syndrome. Motor Control, 2: 178-191 (1997).
126. **Aruin A.S.** Adaptive changes in postural reactions after unilateral leg amputation. Behavioral and Brain Science. 19: 68-69 (1996).
127. **Aruin A.S.**, Latash M.L. Anticipatory postural adjustments during self-initiated perturbations of different magnitude triggered by standard motor action. Electroencephalography and Clinical Neurophysiology, 101: 497-503 (1996).
128. **Aruin A.S.**, Almeida G.L. & Latash M.L. Organization of a simple two-joint synergy in individuals with Down syndrome. American Journal of Mental Retardation 101:256-268 (1996).
129. **Aruin A.S.**, Neyman I., Nicholas J.J. & Latash M.L. Are there deficits in anticipatory postural adjustments in Parkinson's disease? NeuroReport, 7: 1794-1796 (1996).
130. **Aruin A.S.**, Latash M.L. The role of motor action in anticipatory postural adjustments studied with self-induced and externally triggered perturbations. Experimental Brain Research, 106: 291-300 (1995).
131. Latash M.L., **Aruin A.S.** & Shapiro MB¹. The relation between posture and movement: a study of a simple synergy in a two-joint task. Human Movement Science, 14: 79-107 (1995).

132. Shapiro MB¹, **Aruin A.S.** & Latash M.L. Velocity-dependent activation of postural muscles in a simple two-joint synergy. Human Movement Science, 14: 351-369 (1995).
133. **Aruin A.S.**, M. L. Latash. Directional specificity of postural muscles in feed-forward postural reactions during fast voluntary arm movements. Experimental Brain Research, 103: 323-332 (1995).
134. Latash M.L., **Aruin A.S.**, Neyman I, Nicholas J.J. & Shapiro M.B. Feed-forward postural adjustments in a simple two-joint synergy in patients with Parkinson's disease. Electroencephalography and Clinical Neurophysiology, 97: 77-89 (1995).
135. Latash M.L., **Aruin A.S.**, Neyman I. & Nicholas J.J. Anticipatory postural adjustments during self-inflicted and predictable perturbations in Parkinson's disease. Journal of Neurology, Neurosurgery & Psychiatry, 58: 326-334 (1995).
136. **Аруин А.С.** Совершенствование спортивного инвентаря и оборудования // Современная система спортивной подготовки, Москва, СААМ, 1995, С. 337-342 (in Russian).
137. Almelda G.L., **Aruin A.S.** & Latash M.L. Organization of a simple, two-joint synergy in individuals with Down syndrome. Brazilian International Journal of Adapted Physical Education Research, 1: 141-142 (1994).
138. **Aruin A.S.**, Almeida G.L. & Latash M.L. Anticipatory postural adjustments during predictable and self-inflicted perturbations in Down syndrome. Brazilian International Journal of Adapted Physical Education Research, 1: 146-147 (1994).
139. ***Aruin, A.S.** Biomechanical foundations of human environmental design. Teorija i Praktica Fizitcheskoi Kulturi, 1: 20-23. (In Russian) (1993)
140. **Aruin, A.S.** Biomechanics of hard physical work. Modern Problems of Biomechanics, 7: 195-211 (1993).
141. Mirtov, J.N., **Aruin, A.S.** New Keyboard: A collection of single control movements. In: Ergonomics and Design of Robotics. pp.43-52, Moscow: Transactions of VNIITE, v.39 (1990).
142. **Aruin, A.S.** Computer-aided design of the work place. pp 1-17, Kiev: Znanie (in Russian) (1990).
143. **Aruin, A.S.**, Zatsiorsky, V.M. & Potjemkin, B.A. Damping of dynamic loads during locomotion. Modern Problems of Biomechanics, 6: 63-78. (1989).

144. **Aruin, A.S.**, Zatsiorsky, V.M., & Prilutsky BI. Decision of distributional problem using “logical” and “illogical” optimization criteria. Journal of Biomechanics Volume 22, Issue 10, Pages 981 (1989).
145. **Aruin, A.S.**, Zatsiorsky, V.M., & Prilutsky, B.I¹. Arms of forces and elongation of the lower extremity muscles at various values of joint angles. Archives of Anatomy, Histology, and Embryo, 6:52- 55 (1988).
146. ***Aruin A.S.** The truth about women's shoe heels. Engineering for youth, 3: 26-28 (in Russian)(1988).
147. Mirtov, J.N., **Aruin, A.S.**: Ergonomic principles of elaboration of an alphanumeric keyboard. pp. 1-27, Moscow: Transactions VINITI, v. 6972 (in Russian) (1988)
148. **Aruin, A.S.**, Prilutsky, B.I¹. Human body simulation in computer-aided design of workstations, Biology of Sport. 5, Suppl. 1: 199-206 (1988).
149. **Aruin, A.S.**, Zatsiorsky, V.M. & Prilutsky, B.I¹. The "biomechanical" method used for determining the arms of muscular force, In: B. Johnson (Ed.) Biomechanics Vol X-B, 1117-1121. Human Kinetics Publishers, Champaign, IL (1987).
150. **Aruin, A.S.**, Zatsiorsky, V.M. Perspectives on Development of Ergonomical Biomechanics. Kiev: Znanie (in Russian) (1987).
151. **Aruin, A.S.**, Prilutsky, B.I¹. Dependence of lengthening of the triceps surae muscle on knee and joint angles. Human Physiology, 13: 105-109 (1987).
152. *Zatsiorsky, V.M., **Aruin, A.S.** People on the computer screen. Science and Life, 8:54-57 (1987).
153. **Aruin, A.S.**, Zatsiorsky, V.M., Koretsky, A.V. Investigation of shock absorption properties of shoes using vibration tests. Kozevenno-Obuvnaja Promislennost, 4:22-23 (in Russian) (1987).
154. **Aruin, A.S.**, Aktov, A.V¹. & Koretsky, A.B¹. Shock absorption during locomotion. In: Trends in Human Biomechanics: Research and Application in Medicine and Surgery, 32-38, Riga: LNIITO (in Russian) (1986)
155. ***Aruin, A.S.** Table according to the height. Health, 11: 29-32, (in Russian), (1986).
156. **Aruin, A.S.**: Biomechanics of computer-aided design of workstations. Automation of design of radio electronic equipment, 3: 81-83 (in Russian) (1986).

157. Zatsiorsky, V.M., **Aruin, A.S.** Ergonomic biomechanics. Science and Life, 3:14-19 (1985).
158. **Aruin, A.S.**, Zatsiorsky VM. : Biomechanical Characteristics of Human Ankle Joint Muscles. The Year Book of Sports Medicine 1985. P. 240-241.
159. ***Aruin, A.S.** How to not get tired while cooking. Health, 11: 27-28, (in Russian), (1985).
160. **Aruin, A.S.**, Prilutsky, B.I¹. The relationship of biomechanical properties of muscles to their ability to utilize elastic deformation energy. Human Physiology, 11: 8-12 (1985).
161. **Aruin, A.S.** Aktuelle probleme der ergonomischen biomechanik. (Actual problems of ergonomic biomechanics). Betriebswirtschaftliche und arbeitswissenschaftliche Aspekte der Automatisierung, 30: 187-190 (in German), 1985.
162. ***Aruin, A.S.** Moving without strain. Health, 3: 23-24 (in Russian), (1985).
163. ***Aruin A.S.** Сумка на колесиках Журнал Здоровье (Health), 3, (in Russian) 1985
164. Zatsiorsky, V.M., **Aruin, A.S.**, Prilutsky, B.I¹, & Chaknasarov, A.I. Determination of arm of the forces exerted by foot muscles using biomechanical methods. Human Physiology, 11: 616-622 (1985).
165. ***Aruin, A.S.** Lifting without strain. Health, 7: 29-31 (in Russian), (1985).
166. Zatsiorsky, V.M., **Aruin, A.S.**, Prilutsky, B.I¹. & Chaknasarov, A.: Arms of muscular force of the flexor muscles of the foot. Factors Limiting Increased Capacity of Athletes to Work. Moscow, 21-35 (in Russian), (1985).
167. ***Aruin, A.S.**, Salnikova L.S. How to not get tired while doing housework. Health of the People, 120:23-25 (in Greek) (1984).
168. **Aruin, A.S.**, Zatsiorsky, V.M. Biomechanical characteristics of human ankle joint muscles. European Journal of Applied Physiology, 52:400-406 (1984).
169. **Aruin, A.S.**, Zatsiorsky, V.M. Occupational biomechanics of working with a computerized workstation, Moscow: Transactions VINITI, 2599 (in Russian) (1984).
170. **Aruin, A.S.**, Zatsiorsky, V.M. Biomechanics of shoes, Moscow: Transactions VINITI, 5458 (in Russian) (1984).
171. **Aruin, A.S.**, Zatsiorsky, V.M. Ergonomic aspects of biomechanics of man-ground

- interaction, Moscow: Transactions VINITI, 5533 (in Russian) (1984).
172. **Aruin, A.S.**, Zatsiorsky, V.M. Occupational biomechanics of arm working movements, Moscow: Transactions VINITI, 5684 (in Russian) (1984).
173. ***Aruin, A.S.** Let's talk about walking - How do you do it? Health of the People, 120: 25-26, (in Greek) (1984).
174. **Aruin, A.S.**, Zatsiorsky, V.M. Occupational biomechanics of typing movements, Moscow: Transactions VINITI, 1483 (in Russian) (1984).
175. **Aruin, A.S.** & Zatsiorsky, V.M. Ergonomic biomechanics of walking and running. Moscow: GZOLIFK (in Russian) (1983).
176. Zatsiorsky, V.M., **Aruin, A.S.**, Selujanov, V.N. Mass geometry of the human body (Part 1). Teorie und Praxis der Korper Kultur, 6: 416-423 (in German) (1982).
177. Zatsiorsky, V.M., **Aruin, A.S.**, Selujanov, V.N. Mass geometry of the human body (Part II). Teorie und Praxis der Korper Kultur, 7: 533-541 (in German) (1982).
178. Raitsin, L.M., **Aruin, A.S.**, Poltorapavlov, N.V¹. Method for investigating characteristics of movement of athletes. Teorija i Praktica Fizitcheskoi Kulturi, 12:51-52 (in Russian) (1981).
179. Zatsiorsky, V.M, **Aruin, A.S.**, Raitsin, L.M. & Panovko, G.J. The determination of the equivalent characteristics of the ankle joint muscles using vibration tests. In: G. Bianchi, K. Frolov & A. Oledzki (Eds.) Man Under Vibration: Suffering and Protection, 166-175. Amsterdam, Elsevier Scientific Publishing (1981).
180. Raitsin, L.M., **Aruin, A.S.**, & Balachnichev, V.V¹. Utilization of optical quantum generators (lasers) for controlling of sports technique. Teorija i Praktica Fizitcheskoj Kulturi, 7:49-51 (in Russian) (1980).
181. **Aruin AS.** On VII International Congress on Biomechanics (1979, Warsaw). Human Physiology, 4: 753-754 (1980).
182. **Aruin, A.S.**, Prilutsky, B.I., Raitsin, L.M., & Saveljev, I.A¹. Biomechanical properties of the muscles and efficiency of movements. Human Physiology, 5: 426-434 (1979).
183. **Aruin, A.S.**, Zatsiorsky, V.M., Panovko, G.J., & Raitsin, L.M. Equivalent biomechanical characteristics of the ankle joint muscles. Human Physiology, 4: 862-868 (1978).

184. **Aruin, A.S.**, Zatsiorsky, V.M., Panovko, G.J., & Raitsin, L.M.: A dynamic model of the human body during vibration. Medical Cybernetics, 3: 261-263. Suchumi, Georgia (1978).
185. **Aruin, A.S.**, Zatsiorsky, V.M. Biomechanical properties of the skeletal muscles. Teorija i Praktica Fizicheskoj Kulturi, 9: 21-35 (in Russian) (1979).
186. **Aruin, A.S.**, Zatsiorsky, V.M. Determining of damping properties of the foot. Orthopedics, Traumatology and Prosthetics, 6:85- 88 (1978).
187. **Aruin, A.S.**, Zatsiorsky, V.M. & Raitsin, L.M. Biomechanical properties of muscles of the human lower extremities. Teorija i Praktica Fizicheskoj Kulturi, 9:8-14 (in Russian) (1977).
188. **Aruin, A.S.**, Zatsiorsky, V.M., & Raitsin, L.M. Investigation of the mechanical properties of the human lower extremity muscles. In: Frolov K (Ed.). Influence of Vibration on the Human Body, 129-132, Moscow: Nauka. (in Russian) (1977).
189. Zatsiorsky, V.M, **Aruin, A.S.**, Raitsin, L.M., Prilutsky, B.I.¹ & Selujanov, V.N. Biomechanical characteristics of the human body. In: W. Bauman (Ed.) Biomechanics and Performance in Sports, 71-84, Schomdorf, Hofman Verlag (1977).
190. **Aruin, A.S.**, Volkov, N.I., Zatsiorsky, V.M. The effect of the elastic muscle force on the efficiency of muscle work. Human Physiology, 3: 420-426 (1977).
191. **Aruin, A.S.**, Raitsin, L.M., & Schirkovets, E.A. Method for investigation of the efficiency of muscular work. Teorija i Praktica Fizicheskoj Kulturi, 5:21-23, (in Russian) (1976).

BOOKS & TEXTBOOKS

1. **Aruin, A.S.**, Zatsiorsky, V.M.: Ergonomicheskaja Biomekhanika (Occupational Biomechanics), Moscow: Mashinostroenie Publishing House, (in Russian) (1989).
2. **Aruin, A.S.**, Zatsiorsky, V.M. & Prilutsky, B.I.: Morphometry of Muscles. Moscow: GZOLIFK, (in Russian) (1988).
3. **Aruin, A.S.**, Zatsiorsky, V.M.: Ergonomic Biomechanics of Exercise and Sport Science Moscow: GZOLIFK, (in Russian) (1985).
4. Zatsiorsky, V.M., **Aruin, A.S.**, Selujanov, V.N.: Biomechanik des Menschlichen Bewegungsapparates (Biomechanics of the Human Musculoskeletal System), Berlin:

Sportverlag, (in German) (1984).

5. Zatsiorsky, V.M., **Aruin, A.S.**, Selujanov, V.N.: Biomechanics of the Human Musculoskeletal System. Moscow: Fizkultura i Sport, (in Russian) (1981).
6. **Aruin, A.S.** & Zatsiorsky, V.M.: Biomechanical Properties of Skeletal Muscles and Tendons. Moscow: GZOLIFK, (in Russian) (1980).

THESES

1. **Aruin AS**. Biomechanical Foundations of Human Environmental Design. DSc (PhD) Thesis, Institute of Traumatology and Orthopedics, Latvia, 1990.
2. **Aruin AS**. Experimental Study and Modeling of Biomechanical Characteristics of Human Lower Extremities. PhD Thesis, Institute of Artificial Organs and Transplantation, Moscow, USSR, 1978.
3. **Aruin AS**. Apparatus for Recognition of Spoken Words. MS Thesis in Electrical Engineering, Moscow Institute of Electronic Engineering, USSR, 1969.

CONFERENCE PRESENTATIONS

1. Liang H, Kaewmanee T, **Aruin AS**. An Auditory Cue Can Elicit Anticipatory Adjustments for Unexpected Posterior Perturbations after Training. 45th Meeting of the American Society of Biomechanics. 2021.
2. Kaewmanee, Liang H, **Aruin AS**. The role of predictability of the magnitude of a perturbation in control of vertical posture when catching an object. CSfN, March 24, 2021
3. Kaewmanee, Liang H, **Aruin AS**. The role of predictability of the magnitude of a perturbation in control of vertical posture when catching an object. UIC Impact Day, Honor College, April 8, 2021
4. Liang H, Kaewmanee T, & **Aruin AS**. (2020) Older adults retain the ability to predict external perturbations using auditory cues only. Virtual poster presentation at the 44th American Society of Biomechanics annual meeting (physical conference cancelled due to the COVID-19 pandemic), scheduled at August 4-7.

5. Liang H, Kaewmanee T, & **Aruin AS**. (2020) Young adults can learn to predict unexpected posterior perturbations using an auditory cue. Virtual poster presentation at the 44th American Society of Biomechanics annual meeting (physical conference cancelled due to the COVID-19 pandemic), scheduled at August 4-7.
6. **Aruin AS**. Anticipatory postural control in people with neurological impairment: evaluation and retraining. ACRM, Chicago, November 6, 2019
7. **Aruin AS**. Восстановление симметрии ходьбы после инсульта: новое применение концепции Н. А. Бернштейна. Научно-практическая конференция «Психическое здоровье человека и общества. Актуальные междисциплинарные проблемы» Moscow, October 24, 2019.
8. **Aruin AS**. Discomfort-induced Approach to Gait Rehabilitation after Stroke. Action Club. PennState University, State College, PA. September 6, 2019.
9. **Aruin AS**. Discomfort-induced Approach to Gait Rehabilitation after Stroke University of Huston, PM&R. August 27, 2019.
10. Yun-Ju Lee, **Aruin AS**. External-lateral perturbations affect the center of pressure displacement in the medial-lateral direction prior to step initiation. ISB/ASB 2019 in Calgary July 31-Aug 4 2019.
11. **Aruin AS**. Feedforward and feedback control of posture. First International Forum on Psychological Sciences and Human Factors. Zhejiang University, 2018. April 27th-April 29th, Hangzhou, China
12. Lee Y, Ganesan M, **Aruin AS** “A single-session training of ball throwing exercise improves balance control in individuals with multiple sclerosis. Annual Meeting of the Consortium of Multiple Sclerosis Centers (CMSC) May 24-27, 2017, New Orleans, LA.
13. Curuk, Etem; Lee, Yunju and **Aruin**, Alexander S. “The Effect of the Discomfort-induced Insole on Symmetry of Turning in Healthy Individuals. Poster #304. UIC Student Research Forum and Impact Day. April 3, 2017
14. Goyal, Nikita; Lee, Yunju and **Aruin**, Alexander S The Effect of a Cognitive Task and Finger Touch on Standing Balance Control. Poster #307. UIC Student Research Forum and Impact Day. April 3, 2017
15. Lee YJ, Chen B and **Aruin AS**, “Biomechanical perspectives of control of vertical posture in the presence of a perturbation”. Conference on Theoretical and Applied Mechanics, CTAM 2016, Taiwan. 2016.

16. Ida H, Mohapatra S, **Aruin AS**. Three phases of postural adjustments during obstacle avoidance in a real and virtual environment. Society for Neuroscience, 2015. Poster#: 243.11/O25. Chicago
17. Chen B, Y-J Lee, **Aruin AS**. Society for Neuroscience, 2015 Conference. Role of body asymmetry in control of vertical posture. Poster#: 243.03/O17 Chicago
18. **Aruin AS**, Kanekar N, Jadghane S. "Training-related enhancement of anticipatory postural adjustments in older adults" 7th International Posture Symposium. Smolenice Castle, Slovakia, September 15-18, 2015.
19. Ganesan M, **Aruin AS**, "Multidirectional reactive step training: A novel approach to improve mobility in individuals with multiple sclerosis - a pilot study"- 28th Annual Meeting of the Consortium of Multiple Sclerosis Center (CMSC). May 28 – 31, 2014, Dallas, Texas.
20. Lee Y-J, **Aruin AS**. The role of asymmetry of posture and arm movement during performance of functional activities involving pushing. 2014 Combined Annual Meeting of CSCTR and MWAFMR. Chicago April 24-25.
21. Jagdhane S, Kanekar N, **Aruin AS**. Training-Related Enhancement of Anticipatory Postural Adjustments in Older Adults. UIC 2014 Students Research Forum. #85. April 8, 2014
22. Lee Y-J, **Aruin AS**. Biomechanical analysis of isolated and combined asymmetry in pushing. 7th World Congress of Biomechanics. 2014 July 6-11. Boston. USA
23. Ganesan M, Kanekar N, **Aruin AS**. Direction specific limits of stability in individuals with multiple sclerosis. National Multiple Sclerosis Society Conference, 2013. Denver, CO
24. **Aruin AS**. Novel approaches to physical rehabilitation. Marianjoy Research symposium. Wheaton, IL, October 24, 2013.
25. Lee Y-J, **Aruin AS**. Stance-related changes in postural control during hand pushing. International Conference Progress in Motor Control IX. Montreal Canada, July 13-16, 2013
26. **Aruin AS**, Rymer Z, Corcos D, Levin M, Sainburg R. Control of disordered movement. Are there limits to recovery? Motor Control Summer School X. Legioner, PA July 7-11, 2013.
27. **Aruin AS**, Latash M, Levin M, Perez M, Sainburg R. Control of disordered movement. Are there limits to recovery? Motor Control Summer School X. Legioner, PA July 7-11, 2013.

28. Ida H, Mohapatra S, **Aruin AS**. Postural control during real and virtual obstacle avoidance. Congress of ISPGR and Gait and Mental Function. Japan, Akita. June 22, 2013
29. **Aruin AS**. Novel Approaches to Stroke Rehabilitation. Z-Fest. April 5, 2013. Pennsylvania State University. State College PA
30. **Aruin AS**. Anticipatory postural adjustments: what we know and what we don't. Motor Control 2012. Poland, Wisla, 27-29 September 2012
31. **Aruin AS**. The Role of AFO's in the Outcomes of Clinical Tests of Balance. 2012 AOPA National Assembly and combined New England Chapter Meeting, September 6-9, Boston
32. **Aruin AS**. The Effect of AFOs on Balance: Proprioceptive Effects of AFOs. 2012 AOPA National Assembly and combined New England Chapter Meeting, September 6-9, Boston
33. **Aruin AS**. Feedforward and feedback components of postural control and their relationship: what's known and what's not? VI Congresso Brasileiro de Comportamento Motor. Sao Paulo, Brazil. July 5-7, 2012
34. Mohapatra S, Krishnan V, **Aruin AS**. Reduced acuity conditions during control of posture when subjected to external perturbations. 99th Indian Science Congress, India, January 3- 7, 2012.
35. **Aruin AS**. Sensory augmentation to improve balance and walking in people with peripheral neuropathy. 2nd International Symposium on Gait and Balance in Multiple Sclerosis: Interventions for Gait & Balance in MS. Portland, OR. October 19-20, 2012.
36. Kanekar N, Lee Y-J, **Aruin AS**. The role of light finger touch in enhancing balance control of people with multiple sclerosis. 2nd International Symposium on Gait and Balance in Multiple Sclerosis: Interventions for Gait & Balance in MS. Portland, OR. October 19-20, 2012.
37. Rao N, **Aruin AS**. Weight supported pre-gait balance rehabilitation in acute stroke patients. 2012 Association of Academic Physiatrists (AAP) Annual Meeting, Las Vegas, Nevada, February 28 – March 3, 2012
38. Kanekar N, Krishnan V, **Aruin AS**. The role of anticipatory postural adjustments in balance control of older adults. Abstracts of the 2011 Annual Meeting of the Society for Neuroscience, Washington, DC, November 12-16, 2011.
39. **Aruin AS**, Rao N. Compelled body weight shift technique to facilitate rehabilitation of individuals with stroke. The 9th Marianjoy Rehabilitation Hospital Research Symposium, Wheaton, IL, November 8, 2011

40. Kanekar N, Krishnan V, **Aruin AS**. Enhancement of anticipatory postural control following a single training session. 20th Annual Meeting of European Society of Movement Analysis for Adults and Children (ESMAC). Vienna Austria, September 15-17, 2011, p.P02. [Gait & Posture, Volume 36, Supplement 1, June 2012, Page S56]
41. **Aruin AS**, Rao N, Sharma A, Chaudhuri G, Mohapatra S, Eviota A, Ringquist K, Muthukrishnan SR. Compelled body weight shift technique to facilitate rehabilitation of individuals with stroke. 6th International Posture Symposium. Smolenice Castle, Slovakia, September 15-18, 2011, p. 19.
42. Latash M.L., Klous M., **Aruin A.S.**, Krishnan V. Two aspects of the feed-forward control of vertical posture. 6-th International Posture Symposium, Abstracts, p. 55, Smolenice, Slovak Republic, September 15-18, 2011.
43. Krishnan V, **Aruin AS**, Latash ML. Two stages and three components of the postural preparation to action. Progress in Motor Control VII, Cincinnati, OH, July 21-23, 2011
44. Kanekar N, **Aruin AS**, Santos MJ. The Role of Anticipatory Postural Adjustments in Compensatory Control of Posture. Progress in Motor Control VII, Cincinnati, OH, July 21-23, 2011
45. Santos MJ, de Oliveira DG, Nunes PM, **Aruin AS**. Grip Force Control in Individuals with Hand Osteoarthritis. Progress in Motor Control VII, Cincinnati, OH, July 21-23, 2011
46. Krishnan V, **Aruin AS**. Postural control in response to a perturbation: role of vision and additional support. Progress in Motor Control VII, Cincinnati, OH, July 21-23, 2011
47. **Aruin A**. Rao N. Ankle Foot Orthoses: Proprioceptive Inputs and Balance Implications. Marianjoy Research Symposium. Marianjoy Rehabilitation Hospital, September 14, 2010
48. **Aruin A**. Can control of posture and movement be improved with auxiliary sensory information? Seventh International Conference "From Basic Motor Control to Functional Recovery," Varna, Bulgaria, 24-26 September, 2010.
49. **Aruin AS**. AFOs: Proprioceptive Inputs and Balance Implications. X State-of-the-Science conference of the American Academy of Orthotists and Prosthetists. June 22-24, 2010, Chicago
50. **Аруин А.С.** Взаимодействие антисипаторных и компенсаторных настроек в управлении позой. Role of anticipatory and compensatory adjustments in control of posture. Всероссийская Конференция «БИОМЕХАНИКА 2010. P. 28 16 - 22 мая

2010 года. Саратов, Россия.

51. **Аруин А.С.** Улучшение силы захвата у больных рассеянным склерозом. Improvement of grip force in individuals with multiple sclerosis. Всероссийская Конференция «БИОМЕХАНИКА 2010. Р. 29. 16 - 22 мая 2010 года. Саратов, Россия.
52. Kanekar N, Santos MJ, **Aruin AS**. Balance Control in Humans: Interplay between Anticipatory and Compensatory Mechanisms. UIC Student Research Forum. April 20, 2010
53. Girolami GL, Shiratori T, **Aruin AS**. Anticipatory Postural Adjustments in Children with Typical Motor Development. American Physical Therapy Association, Section on Pediatrics Annual Conference: Moving Children Forward. Orlando, FL, January 10 – 12, 2010.
54. Girolami GL, Shiratori T, **Aruin AS**. Anticipatory Postural Adjustments in Children with Diplegic and Hemiplegic Cerebral Palsy. American Physical Therapy Association, Section on Pediatrics Annual Conference: Moving Children Forward. Orlando, FL, January 10 – 12, 2010.
55. Girolami GL, Shiratori T, **Aruin AS**. Anticipatory Postural Adjustments in Typically Developing Children. Clinical Problem Solving in the Context of NDT: Thinking, Treating and Documenting Like a Master Clinician, St Louis, MO. May 21 – 23, 2010.
56. Girolami GL, Shiratori T, **Aruin AS**. Anticipatory Postural Adjustments in Children with Diplegic and Hemiplegic Cerebral Palsy. Clinical Problem Solving in the Context of NDT: Thinking, Treating and Documenting like a Master Clinician, St Louis, MO. May 21 – 23, 2010.
57. **Aruin AS**, Rao N, Nashner L. Perceived body position in standing patients with stroke. Neuroscience Conference, October 2009, Chicago, 740.4/P2
58. Rao N, **Aruin A**. Sensory Cues Improve Automatic Postural Responses in Peripheral Neuropathy. Annual Assembly of American Academy of Physical Medicine and Rehabilitation. Austin, Texas, October 22-25, 2009
59. Rao N, Zielke D, **Aruin A**. Weight Supported Pre-Gait Balance Rehabilitation in Acute stroke patients: A Preliminary Study. Annual Assembly of American Academy of Physical Medicine and Rehabilitation. Austin, Texas, October 22-25, 2009
60. Aileen C. Eviota A, Ringquist K, Mohapatra S, Muthukrishnan SR, **Aruin A**. Compelled Body Weight Shift Therapy in Individuals with Acute Stroke: Preliminary Study. IPTA

Fall Conference September 25-29, 2009, Bloomington, Illinois.

61. **Aruin A.** Feedforward and feedback elements of postural control: how strong is their relationship? Sixth International Conference “From Basic Motor Control to Functional Recovery,” Varna, Bulgaria, 5-8 September, 2009.
62. Rao N, Nashner L, **Aruin A.** Perceived Body Vertical in Standing Patients with Stroke-Related Visuospatial Deficit. 5th World Congress of the International Society of Physical and Rehabilitation Medicine. Istanbul, Turkey, June 13-17, 2009.
63. Latash ML, **Aruin AS.** Two functions of anticipatory postural adjustments. ISPGR Satellite Symposium: Basic mechanisms underlying balance control under static and dynamic conditions. Pavia, Italy, June 19-20, 2009. P 52-53
64. **Aruin A,** Rao N, Chudhuri G. Biomechanical aspects of rehabilitation after a stroke: improvement of stance and gait. IX All-Russian Conference on Biomechanics. Nignii Novgorod 20-24 May, 2008
65. Iyengar V, Santos M.J, **Aruin AS.** Grip force control in patients with Multiple Sclerosis: effect of contralateral finger touch. UIC Student Research Forum, April 18, 2008, p.35
66. Kanekar, Neeta; Santos, M.J, **Aruin A.** Effect of muscle fatigue on anticipatory postural control. UIC Student Research Forum, April 18, 2008, p.40
67. **Aruin A,** Rao, N. New approaches in Stroke rehabilitation. International Conference From Basic Motor Control to Functional Recovery. Sofia, Bulgaria, September 30-October 3, 2007
68. Rao N, **Aruin A,** Hasso D, Chaudhuri G, D’Souza K. Gait Assessment in a Clinical Setting During the Initial Fitting of an Ankle-Foot Orthosis in Persons With Acute Stroke. 68 Annual Assembly of American Academy of Physical Medicine and Rehabilitation. September 27-30, Boston. Archives of Physical Medicine and Rehabilitation, Volume 88, Issue 9, September 2007, Page E88
69. Rao N, **Aruin AS.** Measurement of Perceived Body Vertical in Patients With Stroke-Related Visuospatial Deficit. 68 Annual Assembly of American Academy of Physical Medicine and Rehabilitation. Archives of Physical Medicine and Rehabilitation, Volume 88, Issue 9, September 2007, Page E101
70. Santos M, **Aruin A.** Activation of lateral muscles prior to multidirectional perturbation in standing. International Conference Progress in Motor Control VI. Santos, Brazil, August 9 - 12, 2007

71. **Aruin A**, Rao Noel, Nashner L. Perceived Body Vertical in Standing Patients with Stroke. International Conference Progress in Motor Control VI. Santos, Brazil, August 9 - 12, 2007
72. Santos M, **Aruin A**. Feedforward postural control in standing: role of lateral muscles and body orientation. 2007 Annual Conference of the American Society of Biomechanics, Stanford, CA, August 22-27, 2007
73. Rao N, **Aruin A**. Autonomic Postural Responses in Individual with Peripheral Neuropathy and Ankle-Foot Orthoses. 67th Annual Assembly of the American Academy of Physical Medicine and Rehabilitation. Honolulu, HI, November 9-12, 2006
74. Rao N, **Aruin A**, Chaudhuri G, Hasso D, D'Souza K, Carlson C. Autonomic Postural Responses in Individual with Peripheral Neuropathy and Ankle-Foot Orthoses. 67th Annual Assembly of the American Academy of Physical Medicine and Rehabilitation. Honolulu, HI, November 9-12, 2006
75. **Aruin A**, Kamdar M. Effect of auxiliary sensory cues on grip force control. Fourth International Conference "From Basic Motor Control to Functional Recovery," 244-252, Sofia, Bulgaria, 21-25 September, 2005(2005).
76. Shiratori T, **Aruin A**. Modulation of anticipatory postural adjustments in case of constant postural perturbation: effect of components of motor action. Abstracts of the XVIIth Conference Postural and Gait Research. Marseille, May 29th - June 2nd, 2005. *Gait & Posture*, 2005:21, Suppl.1, S47.
77. Li S, **Aruin A**. The effect of changes in body mass distribution on feed-forward postural control. Proceedings of the 27th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Shanghai, China, September 1-4, 2005, p. 7444-7447
78. Li S, **Aruin A**. Muscle Activity Onset Time Detection Using Teager-Kaiser Energy Operator Proceedings of the 27th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Shanghai, China, September 1-4, 2005, p. 7549-7552
79. **Aruin A**, Campbell S, Hasan Z, Pai C. Dealing with movement perturbation: Adaptation across the life span" Annual Conference of the American Physical Therapy Association (APTA), Chicago, (2004).
80. **Aruin A**. Support specific modulation of grip force in individuals with hemiparesis. Abstracts of the 64th Annual Assembly of American Academy of Physical Medicine & Rehabilitation, Chicago, IL (2003).

81. **Aruin A.** Anticipatory postural adjustments: What we know and what we don't. UIC School of Kinesiology Seminar, October 17, (2003).
82. **Aruin A.** Feedforward postural control: What's known and what's not. Third International Conference "From Basic Motor Control to Functional Recovery," 49-59, Varna, Bulgaria, (2003).
83. Shiratori.T, **Aruin.A.S.** Anticipatory postural adjustments associated with rotational perturbations: standing on fixed and free rotating support. International Conference "Progress in Motor Control" 2003, 116, Caen, France, (2003).
84. **Aruin A.** Development of new technologies for motor rehabilitation. UIC Bioengineering Department Seminar, November 15, 2002.
85. **Aruin A.** Anticipatory postural adjustments: What we know and what we don't. International Congress Movement, Attention & Perception 2002, 38. Poitiers, France, (2002).
86. **Aruin A.**, Chaudhuri G., Sharma A. Step width feedback in post stroke gait rehabilitation Improving Quality of Life through Applied Research. MRH Research Symposium 2002, Wheaton, IL (2002).
87. **Aruin A.**, Rao N., Latash M., Slijper H. Modulation of anticipatory postural adjustments in individuals with hemiparesis. Rush University Forum for Research and Clinical Investigation 2002, 29, Chicago, IL (2002).
88. **Aruin A.** Compelled weight bearing in stroke rehabilitation: International Conference "From Basic Motor Control to Functional Recovery II", 393-402, Varna, Bulgaria, (2001).
89. **Aruin A.** The effect of changes in the angular position of the upper body on anticipatory postural: Proceedings of the 11th Annual Meeting of the Society of Neural Control of Movement, B-09, Seville, Spain (2001).
90. **Aruin A.S.**, Shiratori T., Latash M.: The role of action in the generation of anticipatory postural adjustments in standing subjects. Abstracts of the 30th Annual Meeting Society for Neuroscience, Volume 30, Part 1, p.168, New Orleans, LA (2000).
91. **Aruin A.** Grip forces responses to changes in the provision of support: Proceedings of the 24th Annual Meeting of the American Society of Biomechanics, 153-154, Chicago (2000).

92. **Aruin A**, Support-related grip-force adjustments in individuals with hemiparesis: 10th Annual Meeting of the Society of Neural Control of Movement, V1, (2000).
93. **Aruin A**, Sharma A. Extrinsic feedback in gait rehabilitation of individuals with hemiparesis. Rush University Forum for Research and Clinical Investigation 2000, 31, Chicago, IL (2000).
94. Rodriguez G., **Aruin A**. The effect of the angled shoe on the symmetry of weight bearing in hemiparetic patients. Rush University Forum for Research and Clinical Investigation 2000, 30, Chicago, IL (2000).
95. **Aruin A**, Chaudhuri G, Hanke T, Harvey R, Rao N. Compelled weight bearing in stroke patients: The effect of lift insert and goal directed balance exercises. International Conference "Progress in Motor Control –II", 34, University Park, PA (1999).
96. **Aruin A**, Hanke T, Sharma A. Step width feedback in the rehabilitation of stroke patients: International Conference "From Basic Motor Control to Functional Recovery," 458-462, Varna, Bulgaria, (1999).
97. **Aruin A**, The effect of a posterior support on anticipatory postural adjustments: 9th Annual Meeting of the Society of Neural Control of Movement, S1, (1999).
98. **Aruin A.S.**, M.L. Latash. The effect of magnitude of perturbation on anticipatory postural adjustments. Rush University Research Forum, 174, Chicago, IL (1998).
99. **Aruin A.S.**, Forrest W.R. & M.L. Latash. Anticipatory postural adjustments in conditions of postural instability. Rush University Research Forum 1998, 174, Chicago, IL (1998).
100. Sharma A, Hanke T., & **Aruin A.S**. Restoration of gait in hemiparetic patient by feedback training with step width monitor. Symposium "Advances in Motor Rehabilitation", 17, Lisle, IL 1998.
101. **Aruin A.S.**, Almeida G.L., Latash M.L. Simple two-joint synergy in individuals with Down syndrome. Rehabilitation R&D Progress Reports, Veterans Health Administration, 35: 171.
102. **Aruin A.S.**, Nicholas J.J., Latash M.L. Postural adjustments during standing in below-knee amputees. Rehabilitation R&D Progress Reports, Veterans Health Administration, 35: 29-30.
103. Latash M, **Aruin A.**, Zatsiorsky V. Joint equilibrium trajectories during multi-joint movements. Journal of Sport & Exercise Psychology, 20, Supplement: S42, NASPSPA Annual Conference Chicago, June 11-14, 1998.

104. Shiratori T, **Aruin A.**, & Latash M. Anticipatory phase of step initiation in Parkinson's disease. Symposium "Advances in Motor Rehabilitation," 18, Lisle, IL 1998.
105. Latash M, **Aruin A.**, Zatsiorsky V. Joint equilibrium trajectories during multi-joint movements. NASPSA Conference, 35, St. Charles, IL (1998).
106. **Aruin A.S.** Anticipatory postural adjustments in health and disease. III International Congress of Motor Rehabilitation, Campinas, Brazil, October 5-8, 1998, Abstract published in: FISIOTERAPIA, 8 (1998).
107. Latash M.L., **Aruin A.S.**, Forrest W.R. Adaptive changes in anticipatory postural adjustments. Proceedings of an International Conference "Brain and Movement". p.115, St.Petersbrug- Moscow, July 5-10, 1997.
108. 120. Latash M.L., Domen K, **Aruin A.S.**, Zatsiorsky V.M. Equilibrium-point control of multi-joint movements. Proceedings of an International Conference "Brain and Movement". p.116, St. Petersburg-Moscow, July 5-10, 1997.
109. Latash M.L., **Aruin A.S.**, Neyman I., Nicholas J.J. Feedforward postural control in Parkinson's disease. Abstracts of the 4-th International Congress of Movement Disorders, Movement Disorders, v. 11, Suppl. 1, p. 112. June 17-21, 1996; Vienna, Austria.
110. Latash M.L., **Aruin A.S.**: Anticipatory postural adjustments and equilibrium-point hypothesis of motor control. NASPSA. Journal of Sport & Exercise Psychology, 18, 52 (1996).
111. **Aruin A.S.**, Latash M.L, Neyman I. & Nicholas J.J.: About the reason for lack of anticipatory postural adjustments in Parkinson's disease. Rush University Research Forum, 105, Chicago, IL (1996).
112. Latash M.L, **Aruin A.S.**: Reconstruction of joint equilibrium trajectories during unrestrained arm movements. Abstracts of the 26th Annual Meeting Society for Neuroscience, 1636 Miami, FL (1996).
113. **Aruin A.S.**, F. Davis, D. Stefoski & Nicholas J.J.: Walking patterns in multiple sclerosis. Rush University Research Forum, 99, Chicago, IL (1996).
114. Latash M.L, **Aruin A.S.**, Neyman I & J.J. Nicholas: Feed-forward postural control in Parkinson's disease. Abstracts of the 4th International Congress of Movement Disorders, 406, Vienna, Austria, (1996).
115. **Aruin A.S.**, Latash M.L.: The effects of postural stability on anticipatory postural

- adjustments. Proceedings of the 20th Annual Meeting of the American Society of Biomechanics, 169-170, Atlanta, GA (1996).
116. Latash M.L, **Aruin A.S.**: Reconstruction of joint equilibrium trajectories during unrestrained arm movements. Abstracts of the 26th Annual Meeting Society for Neuroscience, 1636 Miami, FL (1996).
117. Животченко В.Д., Лисица И.Б., Потемкин Б.А., Скворчевский А.К., **Аруин А.С.** астотные составляющие сигналов силовой платформы: приложения к задачам поддержания равновесия // 3-я Всероссийская конференция по биомеханике. Тезисы докладов. – Нижний Новгород, 1996. – Т.1. – с.129-130.
118. **Aruin A.S.**, Latash M.L. Anticipatory postural control in conditions of postural instability. Proceedings of the International Conference “Bernstein’s Traditions in Motor Control,” 27. University Park, PA (1996).
119. **Aruin A.S.**, Latash M.L. & Nicholas J.J.: Postural adjustments in standing of below knee amputees associated with perturbations Abstracts of the 12th Annual Scientific Symposium of Rush University, 99, Chicago, IL (1995).
120. Nicholas J.J., **Aruin A.S.** & Latash M.L.: Changes in moments of force of proximal leg muscles after below knee amputation. Abstracts of the 12th Annual Scientific Symposium of Rush University, 100, Chicago, IL (1995).
121. **Aruin A.S.**, Latash M.L.: Unstable posture and anticipatory adjustment during loaddropping. Abstracts of the 12th Annual Scientific Symposium of Rush University, 101, Chicago, IL (1995).
122. **Aruin A.S.**, Latash M.L.: The role of the prime muscle group in feed-forward postural adjustment during velocity independent perturbations. Abstracts of the 12th Annual Scientific Symposium of Rush University, 102, Chicago, IL (1995).
123. **Aruin A.S.**, G. Almeida & Latash M.L.: Feed-forward postural reactions in Down syndrome in a two-joint motor task. Abstracts of the 12th Annual Scientific Symposium of Rush University, 103, Chicago, IL (1995).
124. **Aruin A.S.**, G. Almeida & Latash M.L.: Do predictable and self-inflicted perturbations necessitate anticipatory postural adjustments in Down syndrome? Abstracts of the 12th Annual Scientific Symposium of Rush University, 104, Chicago, IL (1995).
125. **Aruin A.S.**, Latash M.L., Nicholas J.J., F. Davis & D Stefoski: Portable device for examination of gait in multiple sclerosis patients. Abstracts of the 12th Annual Scientific Symposium of Rush University, 105, Chicago, IL (1995).

126. **Aruin A.S.**, Latash M.L.: Motor action and predictability of perturbation in anticipatory postural adjustments. 19th Annual Meeting of the American Society of Biomechanics, 59-60, Stanford, CA (1995).
127. Latash M.L., **Aruin A.S.**, Neiman I, & Nicholas J.J.: Feed-forward postural reactions in patients with Parkinson's disease in a two-joint tasks. Conference in Biomechanics dedicated to the memory of N. A. Bernstein Vol. 1, p. 209, Gorkii, Russia (1994).
128. Latash M.L., **Aruin A.S.**, Neyman I, Nicholas J.J., & Shapiro M.B.: Feed-forward postural control in Parkinson's disease. Abstracts of the 11th Annual Scientific Symposium of Rush University, 109, Chicago, IL (1994).
129. **Aruin, A.S.**, Nicholas J.J., Gottlieb G.L., Lee K.C., & Latash M.L.: Postural adjustments during dropping and catching weights. Abstracts of the 11th Annual Scientific Symposium of Rush University, 107, Chicago IL (1994).
130. **Aruin A.S.**, Latash M.L, Shapiro M.B.: Polyfunctionality of postural muscles in feed-forward postural reactions. Abstracts of the 11th Annual Scientific Symposium of Rush University, 108, Chicago, IL (1994).
131. Shapiro M.B., **Aruin A.S.**, & Latash M.L.: EMG patterns during fast movements in a joint of a two-joint limb segment. Abstracts of the 11th Annual Scientific Symposium of Rush University, 21, Chicago, IL (1994).
132. Latash M.L., **Aruin A.S.**, Shapiro M.B., Neyman I, Nicholas J.J.: Feed-forward postural control in multi-joint movements. Abstracts of the International Conference "Neural Protheses: Motor System IY," p. 21. July 23-28 Columbus, OH (1994).
133. Shapiro M.B., **Aruin A.S.**, Latash M.L.: Muscle activation patterns during fast voluntary movements in a joint of a two-joint limb segment. Abstracts of the International Conference "Neural Protheses: Motor System IY," p. 21. July 23-28. Columbus, OH (1994).
134. **Aruin A.S.**, Latash M.L.: Directional specificity of postural muscles during fast arm movements. Proceedings of the 18th Annual Meeting of the American Society of Biomechanics, 169-170, Columbus, OH (1994).
135. Shapiro M.B., **Aruin A.S.**, Latash M.L.: Postural synergies during fast movements in a joint of two-joint limb segment. Proceedings of the 18th Annual Meeting of the American Society of Biomechanics, 212. Columbus, OH (1994).
136. **Aruin A.S.**, Latash M.L., Neyman I. & Nicholas J.J.: Postural adjustment during wrist

- and elbow movements in patients with Parkinson's disease. Abstracts of the 24th Annual Meeting Society for Neuroscience, 1779, Miami, FL (1994).
137. Almeida G.L., **Aruin A.S.** & Latash M.L.: Organization of a simple, two-joint synergy in individuals with Down syndrome. In: Latash M.L. (Ed.) "Motor Control in Down - Syndrome - II," 10-15, Rush University, Chicago, IL (1994).
138. **Aruin A.S.**, Almeida G.L. & Latash M.L.: Anticipatory postural adjustments during predictable and self-inflicted perturbations in Down syndrome. In: Latash M.L. (Ed.) "Motor Control in Down Syndrome-II," 28-33, Rush University, Chicago, IL (1994).
139. **Aruin, A.S.**, Nicholas J.J., Gottlieb G.L., Lee K.C., & Latash M.L.: Anticipatory reactions during dropping and catching weights. Proceedings of the American Society of Biomechanics, 55-56, Iowa (1993).
140. **Aruin, A.S.**, Nicholas J.J., Gottlieb G.L., & Latash M.L.: Anticipatory postural reactions while catching and dropping weights. Abstracts of the 55th Annual Assembly of American Academy of Physical Medicine & Rehabilitation, 112, Miami, FL (1993).
141. **Aruin, A.S.**: Damping of the striking effect in locomotion. In Abstracts of the First World Congress on Biomechanics, San Diego CA, V. 1, 93 (1990).
142. **Aruin, A.S.**: Biomechanics of heavy manual labor while standing. In: Proceedings of 4th All-Union Conference on Perspective of Development of Ergonomic Biomechanics, 4-31, Moscow- Sevastopol, Ukraine (1990).
143. **Aruin, A.S.**: Damping of striking effect in locomotion. First Congress of Biomechanics, August 30- September 4, 2009, La Jolla, California, USA
144. **Aruin, A.S.** Biomechanics of heavy manual labor while standing. In: Proceedings of 4th All-Union Conference on Perspective of Development of Ergonomic Biomechanics, 4-31, Moscow- Sevastopol, Ukraine (1990).
145. Mirtov, J.N., **Aruin, A.S.**: Ergonomic principles of elaboration of an alphanumeric keyboard. Ergonomics and Social Orientation of Progress. p. 110-111. Moscow (1989).
146. **Aruin, A.S.**: Ergonomic biomechanics of manual equipment. In: Abstracts of the 4th All-Union Conference on Biomechanics of Sports, 8-10. Chernigov, Ukraine (1989).
147. Mirtov J.N., **Aruin, A.S.**: Biomechanical and ergonomic foundations of a keyboard design. In: Transactions of the 1st All-Union Conference on Perspectives of Development of Ergonomic Biomechanics, 140-168, Moscow- Sevastopol, Ukraine (1988).

148. **Aruin, A.S.**, Prilutsky, B.I.: Optimization of arm working movements. In: Transactions of the 1st All-Union Conference on Perspectives of Development of Ergonomic Biomechanics, 4-19, Moscow- Sevastopol, Ukraine (1988).
149. Kopilov D.B. **Aruin, A.S.**: Biomechanical approach in computer-aided design of the work place. In: Transactions of the 1st All-Union Conference on Perspectives of Development of Ergonomic Biomechanics, 72-81, Moscow- Sevastopol, Ukraine (1988).
150. Mirtov, J.N., **Aruin, A.S.**: A new alphanumeric keyboard for the personal computer. Ergonomics of External Devices for Computers. Abstracts of the All-Union Conference, 91-92. Orel, USSR (1988).
151. **Aruin, A.S.**: Ergonomical aspects in the biomechanics of interaction with supports. 5th International Symposium of Biomechanics in Sport, Athens, Greece (1987).
152. **Aruin, A.S.**, Zatsiorsky, V.M. & Prilutsky, B.I.: Extension of the human lower extremity muscles as a function of a joint angle. Proceeding of Conference Dedicated to 150th Birthday of Lesgaft, 161. Leningrad, USSR (1987).
153. **Aruin, A.S.**, Sazonov, B.P.: The effect of different working postures on loading of the lower back, Problems of Biomechanics in Sports. All-Union Conference, 8-9, Moscow (1987).
154. **Aruin, A.S.**, Prilutsky, B.I.: Prediction of changes in length of different heads of the triceps surae muscle using the angles in the ankle and knee joints. 11th International Congress of Biomechanics, 16. Amsterdam, Netherlands (1987).
155. **Aruin, A.S.**, Zatsiorsky, V.M., Koretsky, A.V., Potjemkin, B.A.: Investigation of absorbing properties of shoes and their influence on the human body. 5th National Congress on Theoretical and Applied Mechanics, 349. Varna, Bulgaria (1985).
156. **Aruin, A.S.**: Modern problems of ergonomic biomechanics. Proceeding of the 30th International Wissenschaftliher Kollokvium, Technische Hochschule Ilmenau, Ilmenau, Germany (1985).
157. **Aruin, A.S.**: Biomechanical foundation of development of equipment for personal protection. All-Union Conference Health and Professional Ability of a Human, 24. Moscow, (1985).
158. **Aruin, A.S.**, Zatsiorsky, V.M. & Prilutsky, B.I.: The "biomechanical" method used for determining the arms of muscular forces. 10th International Congress of Biomechanics, 16. Umea, Sweden (1985).

159. **Aruin, A.S.:** Biomechanical aspects of robotics. Proceeding of the 28th International Wissenschaftliher Kollokvium Technische Hochschule Ilmenau, 241-243 Ilmenau, Germany (1983).
160. Averkovich, N.V., **Aruin, A.S.**, Beletsky.: A technique for investigation of the characteristics of movement of athletes. Electronics and Sports-VII, 121-123. Tula, USSR (1983).
161. **Aruin, A.S.:** A method for determining spring capacities of the foot. 7th International Congress of Biomechanics, 35. Nagoya, Japan (1981).
162. Zatsiorsky, V.M., **Aruin, A.S.**, Prilutsky B. & Raitsin, L.M.: Biomechanical Characteristics of Human Body. In: International Symposium on Biomechanics of Sport, 4-6 December, 1980. Koln. Germany
163. **Aruin, A.S.**, Zatsiorsky, V.M., Panovko, G.J., & Raitsin, L.M.: The investigation of the biomechanical properties of the lower extremities using the vibration test. In: Problems of Biomechanics. Abstracts of the 2nd All-Union Conference.35-37, Riga, Latvia (1979).
164. **Aruin, A.S.**, Zatsiorsky, V.M.: A method for evaluating of the spring function of the foot. In: Proceedings of the 5th All-Union Seminar Physical Methods and Problems of Metrology in Biomedical Measurements, 189-190. Moscow (1978).
165. **Aruin, A.S.**, Raitsin, L.M. & Schirkovets, E.A.: Measurements of the efficiency of muscle work. In: Proceedings of the 4th All-Union Seminar Physical Methods and Problems of Metrology in Biomedical Measurements, 162-163. Moscow (1976)
166. **Aruin, A.S.:** Mechanical properties of the flexors of the foot. In: Abstracts of the 2nd All-Union Conference Problems of Biomechanics of Sports, 8-9. Kiev, Ukraine (1976).
167. **Aruin, A.S.**, Averkovich, N.V., & Kholoptsev, V.I.: Optimization of the educational and training processes. Physical Education in Universities. Abstracts of the All-Russian Conference, 117-118. Krasnodar, Ukraine (1976).
168. **Aruin, A.S.:** Method of investigation of the mechanical properties of muscles. In: Proceedings of the 3rd All-Union Seminar Physical Methods and Problems of Metrology of Biomedical Measurements, 120-122. Moscow (1974).
169. **Aruin, A.S.:** Investigation of the mechanical properties of muscles of the human lower extremities. In: All-Union Conference of Biomechanics of Sport, 18. Moscow (1974).
170. **Aruin, A.S.**, Averkovich, N.V., & Kholoptsev, V.I.: Device for training of wrestlers. Electronics and Sports-III. Abstracts of the All-Union Conference, 74-75. Leningrad,

USSR, (1972).

171. **Aruin, A.S.**, Kulik, N.G., & Kholoptsev, V.I.: Digital storage of pulse. Electronics and Sports-III. Abstracts of the All-Union Conference, .52-53. Leningrad, USSR (1972).
172. **Aruin, A.S.**, Averkovich, N.V, Matchin, A.M. Device for physiological studies in sports. In: Proceedings of the All-Union Conference Theory and Practice in Designing of Devices, Apparatus, and Systems, 60-61. Moscow, USSR (1972).

SYMPOSIA

Aruin AS. Balance control in people with neurological impairment: rehabilitation perspectives on evaluation and retraining. 2019 ACRM Annual Conference. November 6, 2019. Chicago.

Aruin AS. Novel Approach to Pregait Balance Rehabilitation in Individuals with Acute Stroke. Marianjoy Research Symposium, March 22, 2013

Aruin AS. Sensory Augmentation to Improve Balance and Walking in Individuals with Peripheral Neuropathy. 2nd International Symposium on Gait and Posture in Multiple Sclerosis: Interventions for gait & balance in MS. Portland OR, October 19-20, 2012

Aruin AS. AFOs: Proprioceptive Inputs and Balance Implications. American Academy of Orthotists and Prosthetists 38th Annual Meeting and Scientific Symposium. Atlanta, March 23, 2012

Aruin AS. The Effects of AFOs on Balance. American Academy of Orthotists and Prosthetists' One Day Seminar for the Certificate Programs for Professional Development. Chicago, October 28, 2011

Aruin AS. AFOs: Proprioceptive Inputs and Balance Implications. 10th State-of-the-Science Conference of the American Academy of Orthotists and Prosthetists, June 22-24, 2010. Chicago, IL.

Aruin AS. AFOs: Proprioceptive Inputs and Balance Implications. Marianjoy Research Symposium, September 12, 2010.

Aruin AS. Finger touch-related minimization of grip force. Pennsylvania State University Action Club, State College, September 26, 2008

Aruin AS. Balance control after stroke: New approaches in assessment and rehabilitation. Neurorehabilitation Symposium, Chicago, October 10-11, 2008

- Aruin AS. Biomechanical aspects of rehabilitation after a stroke: improvement of stance and Gait. Marianjoy Research Symposium, June 3, 2008
- Aruin AS. Enhancement of automatic postural responses in individuals with diabetic peripheral neuropathy. Marianjoy Research Symposium, December 13, 2006
- Aruin AS. Feed-forward postural control in health and disease. Invited speaker at the Symposium "Balance Disorders: Recent Advances & Implications for Patient Management," NeuroCom International, Chicago, April 27, 2006
- Aruin AS. Control of posture in health and disease. Invited speaker at the 14th Annual Conference of the Neuro-Optometric Rehabilitation Association (NORA), Chicago, March 2005.
- Aruin A, Campbell S, Hasan Z, Pai C. Dealing with movement perturbation: Adaptations across the life span. Invited speaker at Annual Conference and Exposition of the American Physical Therapy Association, Chicago, June, 2004.
- Aruin AS. Anticipatory postural adjustments: What we know and what we don't. Invited speaker International Congress Movement, Attention & Perception, Poitiers, France, 2002.
- Aruin AS. Step width technique in the rehabilitation of stroke patients. Invited speaker. International Conference From Basic Motor Control to Functional Recovery, Varna, Bulgaria, 1999.
- Aruin AS. Anticipatory postural adjustments in health and disease." Invited speaker at III International Congress of Motor Rehabilitation, Brazil, October 5-8, 1998.
- Aruin AS. Anticipatory postural adjustment during predictable and self-inflicted perturbations in Down syndrome. Invited speaker. International Symposium Motor Control in Down Syndrome-II, Chicago, 1994.
- Aruin AS. Biomechanical and ergonomic foundations of keyboard design." Invited speaker. 5th All-Union USSR Conference on Perspectives of Development of Ergonomic Biomechanics. Sevastopol, Ukraine, 1991
- Aruin AS. Biomechanics of heavy manual labor. 4th All-Union USSR Conference on Perspectives of Development of Ergonomic Biomechanics. Sevastopol, Ukraine, 1990
- Aruin AS. Ergonomic aspects of biomechanics of walking and running." Invited speaker. 3rd All-Union Conference on Perspectives of Development of Ergonomic Biomechanics. Sevastopol, Ukraine, 1989

Aruin AS. Simulation of the human body in computer-aided design.” Invited speaker. 1th International Symposium on Computer Simulation in Biomechanics, Warsaw, Poland, 1988.

GRANTS AWARDED

- Advanced Training in Translational and Community Engaged Scholarship to Improve Community Living and Participation of People with Disabilities.
Co-Principal Investigator (T. Heller P.I.)
NIDRR/U.S. Department of Health and Human Services (Administration for Community Living) 2020-2025
- Balance Control in Older Adults with Mild Cognitive Impairment
(Principal Investigator- PI)
UIC CAHS, 2019-2020
- Innovative Physiotherapy in Stroke Rehabilitation during the Subacute Stage - a prospective randomized single blinded controlled trial and a qualitative study.
The Northern Norway Regional Health Authority, 2019-2022
Co-Principal Investigator (B. Normann P.I.)
- Enhancement of Anticipatory Postural Control in Individuals with MS
(Principal Investigator-P.I.)
National Multiple Sclerosis Society, 2016-2017
- Advanced Training in Translational and Community-Engaged Scholarship to Improve Community Living and Participation for People with Disabilities.
Co-Principal Investigator (Y. Balkazar P.I.)
NIDRR/U.S. Department of Education, 2015-2020
- Discomfort-induced approach to enhance gait rehabilitation in individuals with stroke
(Principal Investigator-P.I.)
American Heart/Stroke Association 2014-2017
- Design and Optimization of Gait Performance Enhancing Innersole
(Principal Investigator-P.I.)
The UIC Chancellor's Proof-of-Concept (POC) Award, 2014-2015
- Anticipatory Postural Control in Individuals with Multiple Sclerosis
(Principal Investigator-P.I.)
National Multiple Sclerosis Society, 2013-2014
- Rehabilitation Research Training to Enhance Functional performance in MS

(Principal Investigator-P.I.)

National Multiple Sclerosis Society, 2012-2017

- Translational and Transformational Research to Improve Outcomes for Persons with Disabilities

Co-Principal Investigator (T. Heller-P.I.)

NIDRR/U.S. Department of Education, 2011-2016

- Enhancement of postural control in individuals with stroke-related asymmetries

Mentor (N. Kanekar P.I.)

American Heart/Stroke Association 2011-2013

- Effects of the Ossur AFO Dynamic and a custom fabricated Polymer AFO on the gait of acute hemiplegic CVA subjects. Consultant (J. Wening P.I.)

Orthotic and Prosthetic Education and Research

Foundation (OPERF) 2010-2012

- The Role of Anticipatory Postural Adjustments in Balance Control of Older Adults

(P.I.)

NIH, National Institute of Child Health & Human Development, 2011-2013

- Weight Supported Pre-Gait Balance Rehabilitation in Acute Stroke Patients

Research Retirement Foundation, 2008-2010 (P.I.)

- Roles of Auxiliary Sensory Cues on Balance in Peripheral Neuropathy

(P.I.)

NIH, National Institute of Child Health & Human Development, 2007-2010

- “Enhancement of Grip Force Control in Individuals with Multiple Sclerosis.”

(P.I.)

National Multiple Sclerosis Society, 2006-2008

- “Advanced Interdisciplinary Postdoctoral Training in Transitional and Transnational research to Improve Vocational Outcomes for Persons with Disabilities.”

Co-Principal Investigator.

(Kielhofner G. P.I.)

NIDRR/U.S. Department of Education 9/1/06- 8/30/11

- “Compelled Body Weight Therapy in Individuals with Stroke Related Hemiparesis”

(P.I.)

NIH, National Institute of Child Health & Human Development, 2006-2010

- "The Organization of Anticipatory Postural Adjustments"

(P.I.)

NIH, National Center for Medical Rehabilitation Research, 1998-2005

- “Modulation of anticipatory postural adjustments in individuals with Parkinson Disease.” (P.I.)
UIC, College of Allied Health, 2001
- “Restoration of Function in Neurological Impairment” (Network Scientist.) (W. Z. Rymer P.I.)
NIH, National Center for Medical Rehabilitation Research, 2000-2004
- "Step Width Feedback in Rehabilitation of Stroke Patients" (P.I.)
Dr. Scholl Foundation, 2000
- “The Effect of Ankle Foot Orthoses on Balance of Patients with Diabetic Neuropathy” (P.I.)
Marianjoy Rehabilitation Hospital and Clinics, 1999-2000
- "The Effect of Isometric Abdominal Exercises on the Effectiveness of Treatment of Low- Back Pain" (P.I.)
RehabLink, 1999-2000
- “Development of a Clinical Tool to Improve Motor Recovery in Patients with Step Width Deficit” (P.I.)
Marianjoy Rehabilitation Hospital and Clinics, 1999
- “Bimanual Coordination in the Neurologically Impaired” (P.I.)
Marianjoy Rehabilitation Hospital and Clinics, 1999-2000
- "Compelled Weight Bearing in Stroke Patients" (P.I.)
Marianjoy Rehabilitation Hospital and Clinics, 1998-1999
- "Anticipatory Postural Reactions in Below Knee Amputees" (PI)
Rush University Committee on Research, 1995
- "Biomechanical Foundations of Human Environmental Design" (P.I.)
USSR State Committee for Higher Education, 1990-1992
- "Development of Laser Method for Measuring Athletes' Movements" (P.I.)
The Committee of Physical Education and Sports under the Council of Ministers of the USSR, 1988-1990

- "Development of Stereo-Photo Method of Recording Movements" (P.I.)
The Committee of Physical Education and Sports under the Council of Ministers of the USSR, 1983-1984
- "Method and Apparatus for Recognition of Spoken Words." (P.I.)
The Institute of Radio Technology of the USSR Academy of Science, 1969-1970

TEACHING

- Control of Posture and Locomotion. Graduate course. *University of Illinois at Chicago, IL, 2000, 2004, 2006, 2008, 2012, 2014, 2016, 2018, 2020,*
- Motor Control. Doctor of Physical Therapy (DPT) course. *University of Illinois at Chicago, IL, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021*
- Posture and Movement Across the Lifespan. DPT course. *University of Illinois at Chicago, IL, 2009, 2010*
- Gait Analysis: Technology and Clinical applications. Lecture for Physical Medicine & Rehabilitation medical residents. *Marianjoy Rehabilitation Hospital, Wheaton, IL, 2010*
- Instrumentation for Motor Control Research- KN/PT 574. Lecture for graduate students, *University of Illinois at Chicago, IL, 2010, 2012*
- Biophysics. DPT course. *University of Illinois at Chicago, IL, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011*
- Evidence-based Medicine in Physical Medicine and Rehabilitation. Lecture for Physical Medicine & Rehabilitation medical residents. *Marianjoy Rehabilitation Hospital, Wheaton, IL, 2007*
- Research Principles and Experiment Design, Basic Bio-statistics. Lectures for Physical Medicine & Rehabilitation medical residents. *Rush-Presbyterian St. Luke's Medical Center, Chicago, IL, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011*
- Research Principles and Experiment Design, Basic Bio-statistics. Lectures for Physical Medicine & Rehabilitation medical residents. *Marianjoy Rehabilitation Hospital, Wheaton, IL, 2003*
- Seminar in Physical Therapy. Graduate course. *University of Illinois at Chicago, IL, 2000, 2001, 2002, 2003, 2000, 2005, 2006, 2007*
- Kinesiology. Lectures for graduate students. *University of Illinois at Chicago, IL, 2000, 2002*
- Biomechanics. Lectures for Physical Medicine & Rehabilitation medical residents of *Rush Medical College, Loyola University, and the Rehabilitation Foundation, Chicago, IL, 1999,*
- Research Methods. Lectures for Physical Medicine & Rehabilitation medical residents. *Rehabilitation Foundation, Chicago, IL, 1998-1999*
- Motor Control. Graduate course (substitute). *Pennsylvania State University, PA, 1996*
- Kinesiology. Lectures for Physical Medicine & Rehabilitation medical residents, *Rush-*

Presbyterian St. Luke's Medical Center, Chicago, IL, 1995

- Ergonomic Biomechanics. *Central Institute of Physical Culture, USSR, 1987-1991*
- Occupational Biomechanics. *Institute of Aeronautical Engineering and Institute of Electronics and Automation. USSR, 1986-1991*
- Biomechanical Aspects of Ergonomics. *Moscow Institute of Electronic Engineering, USSR, 1985 –1990*
- Medical and Biological Foundations of Exercise and Sport Science. *Moscow Institute of Electronic Engineering. USSR, 1979 -1992*
- Biomechanics. Graduate Course. *Central Institute of Physical Culture, USSR, 1973-1978*

GRADUATE STUDENTS SUPERVISION

- PhD Thesis advisor (A. Ademiluyi) Rehabilitation Sciences. University of Illinois at Chicago, IL, 2019-present
- PhD Thesis committee chairman and advisor (T. Kaewmanee), Rehabilitation Sciences. University of Illinois at Chicago, IL, 2018-present
- PhD Thesis committee chairman and advisor (E. Curuk), Rehabilitation Sciences. University of Illinois at Chicago, IL, 2017-2021
- Ph.D. Thesis committee chairman and advisor (B. Chen). Rehabilitation Sciences. University of Illinois at Chicago, IL, 2013-2017
- PhD Thesis advisor (C. Ma), Rehabilitation Sciences. University of Illinois at Chicago, IL, 2015-2017
- MS Thesis advisor (E. Curuk), Rehabilitation Sciences. University of Illinois at Chicago, IL, 2015-2017
- MS Thesis advisor (N. Goyal), Rehabilitation Sciences. University of Illinois at Chicago, IL, 2016-present
- MS Thesis advisor (K. Alsayed), Rehabilitation Sciences. University of Illinois at Chicago, IL, 2017-present
- MS Thesis advisor (F. Alwadani), Rehabilitation Sciences. University of Illinois at Chicago, IL, 2017-present
- MS Thesis advisor (A. Ademiluyi) Rehabilitation Sciences. University of Illinois at Chicago, IL, 2017-present
- MS Thesis advisor (Y. Zhao), Rehabilitation Sciences. University of Illinois at Chicago, IL, 2013-2017
- MS Thesis advisor (S. Jagdhane), Rehabilitation Sciences. University of Illinois at Chicago, IL, 2013-2015
- Ph.D. Thesis committee member (Jeremy Eagles, Bioengineering). Northwestern University, IL, 2011-2015
- MS Thesis advisor (C. Ma), Rehabilitation Sciences. University of Illinois at Chicago, IL, 2013-2015
- MS Thesis advisor (S. Oludare), Rehabilitation Sciences. University of Illinois at Chicago, IL, 2014-2016

- Ph.D. Thesis committee chairman and advisor (N. Kanekar). Rehabilitation Science. University of Illinois at Chicago, IL, 2008-2013
- Ph.D. Thesis committee chairman and advisor (S. Mohapatra). Rehabilitation Science. University of Illinois at Chicago, IL, 2009- 2012
- Ph.D. Thesis committee chairman and advisor (G. Girolami). Kinesiology. University of Illinois at Chicago, IL, 2003- 2012
- Ph.D. Thesis committee chairman and advisor (X. Li), Bioengineering. University of Illinois at Chicago, IL, 2004-2008
- Ph.D. Thesis committee member (K. Dokka, Bioengineering). University of Illinois at Chicago, IL, 2007-2009
- Ph.D. Thesis committee member (C. Hurt, Kinesiology), University of Illinois at Chicago, IL, 2008-2011
- MS Thesis committee chairman and advisor (B. Chen). Rehabilitation Sciences. University of Illinois at Chicago, IL, 2010- 2013
- MS Thesis committee chairman and advisor (N. Panwalkar). Rehabilitation Sciences. University of Illinois at Chicago, IL, 2009- 2013
- MS Thesis committee chairman and advisor (K. Mehendale). Rehabilitation Sciences. University of Illinois at Chicago, IL, 2010- 2013
- MS Thesis committee chairman (J. Xaygnaraj). Bioengineering. University of Illinois at Chicago, IL, 2010- present
- MS Thesis committee chairman and advisor (D. Delholm, S. Shenoy, Kamdar, S. Joshi, V. Iyengar). Physical Therapy. University of Illinois at Chicago, IL, 2000- 2008
- DPT students advisor (10-12 per year) 2003-present
- Senior design project supervisor (Bansal, Garcia, Stevens, Wong), Department of Bioengineering, University of Illinois at Chicago, IL, 2004-2005
- Ph.D. Thesis committee member (H. Slijper), Pennsylvania State University, PA, 1998-2002
- MS Thesis committees member for a number of students (i.e. Moore, Bioengineering, Kale, Physical Therapy), University of Illinois at Chicago, IL, 2000- 2008
- Supervisor of Physical Medicine & Rehabilitation medical residents working on research projects, 1998 – present
- Consultant for the Northern Illinois University physical therapy and electrical engineering students on research, 1997-2000
- Supervised/advised a large number of graduate and undergraduate students working on Master's or Doctoral Thesis and research projects, Moscow Institute of Electronic Engineering, Central Institute of Physical Culture, Moscow, USSR (1976-1992). Two graduate students (B. Prilutsky, G. Ugolkova) received National Gold Medals for the Best Student Thesis Project in the Natural, Technical, and Social Fields in 1977

POSTDOCS AND MEDICAL RESIDENTS SUPERVISION

- Sarmistha Chaidhuri, MD. 1998-2000. Marianjoy Rehabilitation Hospital

- Gianna Rodriguez, MD. 1999-2001. Rush Medical College
- Takako Shiratori, PhD. 2001-2004. University of Illinois at Chicago
- Marcio J. Santos, PhD. 2006-2008. University of Illinois at Chicago
- Vennila Krishnan, PhD. 2009-2012. University of Illinois at Chicago
- Ravi Kasi, MD. 2010-2011. Rush University
- Hirohita Ido, PhD. 2011-2012. University of Illinois at Chicago
- Yun-Ju Lee, PhD. 2012-2016. University of Illinois at Chicago
- Mohan Ganesan, PhD. 2012-present. University of Illinois at Chicago
- Yunju Lee, PhD. 2016- 2018. University of Illinois at Chicago
- Huaqing Liang, PhD. 2018- 2020. University of Illinois at Chicago

PROFESSIONAL SERVICES

Committees

- Member of the Institutional Review Board, Marianjoy Rehabilitation Hospital 2002-2016.
- Chairman of the Institutional Review Board, Marianjoy Rehabilitation Hospital 2003-2004
- Member of the Education Committee, Rehabilitation Foundation, 1998-2000
- Member of the Scientific Review Committee, Marianjoy Rehabilitation Hospital, 1997-2002
- Member of the Master & Doctoral Thesis Committees in different universities in the former USSR, 1983-1992
- Senator. UIC Senate, 2010-2013
- Member of the UIC Senate Committee on Student Affairs, 2010-2013

Conferences & Symposia Organizer

- Member of the Organizing Committee. 7th International Conference “From Basic Motor Control to Functional Recovery.” Varna, Bulgaria, September 2010
- Member of the Organizing Committee. 6th International Conference “From Basic Motor Control to Functional Recovery.” Varna, Bulgaria, September 2009
- Member of the Organizing Committee. 5th International Conference “From Basic Motor Control to Functional Recovery.” Sofia, Bulgaria, September 2007
- Member of the Organizing Committee. 4th International Conference “From Basic Motor Control to Functional Recovery.” Varna, Bulgaria, September 21-25, 2005
- Member of the Scientific Committee. XVIIth Conference of International Society for Posture and Gait Research. Marseille, France, May 29- June 2, 2005
- Member of the Organizing Committee. 3rd International Conference “From Basic Motor Control to Functional Recovery.” Varna, Bulgaria, September 20-25, 2003
- Section Chair. 2nd International Conference “From Basic Motor Control to Functional

- Recovery.” Varna, Bulgaria, September 9-15, 2001
- Section Chair. International Conference “From Basic Motor Control to Functional Recovery.” Varna, Bulgaria, September 22-26, 1999
- Chairman of the Medical Resident’s Symposium on Research in Physical Medicine & Rehabilitation. Wheaton, Illinois, December 16, 1998
- Co-Chairman of the Symposium “Advances in Motor Rehabilitation.” Lisle, Illinois, June 19, 1998
- Chairman of the Organizing Committee of the 5th All-Union Conferences “Perspective of Development of Ergonomic Biomechanics.” Sevastopol, Ukraine, 4-8 October, 1990
- Chairman of the Organizing Committee of the 4th All-Union Conferences “Perspective of Development of Ergonomic Biomechanics.” Sevastopol, Ukraine, 3-7 October, 1989
- Section Chair, 1st International Symposium on Computer Simulation in Biomechanics, Warsaw, Poland, 1988
- Chairman of the Organizing Committee of the 1st, 2nd, and 3rd All-Union Conferences “Perspectives of Development of Ergonomic Biomechanics.” Sevastopol, Ukraine, 1986, 1987, 1988

College and University Service

- Campus Research Board 2005 - present
- Executive Committee 2000 - 2005, 2010
- Promotion and Tenure Committee 2000 - present
- MD/PhD Training Program 2003 - present
- Interdisciplinary Training Program in Neuroscience 2003 - present
- Interdisciplinary PhD Program in Disability Studies 2000 – 2011
- AHS Information Technology committee 2009- 2010
- UIC Senator 2010- 2013
- UIC Faculty Senate Committee on Student Affairs 2010- 2013
- PhD in Rehabilitation Science program.
Curriculum Committee member 2010- present
- Task force developing a new college-wide BS
program in Rehabilitation Sciences 2013
- Chairman. Tenure Track faculty search committee.
PT Department, UIC. 2014
- Director of PhD Program in Rehabilitation Sciences 2015- present

Department Service

- Promotion and Tenure Committee 2000 - present
- Director of Graduate Studies, MS in RS 2006 - present
- Space Committee 2003 – 2009, 2012-present

- Admission Committee, DPT 2004 - 2005
- Faculty Advisory Council 2004 – 2005, 2009, 2010, 2013, 2014
- IRB chair 2006 - 2014
- Graduate Admission Committee 2000 – present
- Faculty Search Committee 2008, 2010, 2011, 2013, 2014
- Department Head Search Committee 2013

Professional Societies

- Society for Neuroscience 1999 - present
- Neural Control of Movements 1999 - present
- International Society of Motor Control 2003 – present; Board of Directors 2018- present
- American Society of Biomechanics 1994 - present
- International Society for Posture and Gait Research 2005 - present
- Scientific Council for Biomechanics of Russian Academy of Sciences 1986 - 2003

Editorial Boards

- Associate Editor, Journal Motor Control
- Journal of Electromyography and Kinesiology
- Journal of Novel Physiotherapies

Manuscript Reviewer

- Acta Physiologica, 2010
- Applied Biomechanics, 2005
- Archives of Physical Medicine and Rehabilitation, 2005- 2014
- American Journal of Physical Medicine and Rehabilitation, 2010, 2012, 2014
- Brazilian Journal of Medical and Biological Research, 2007
- Brain, 2003
- Gait and Posture, 2004-2005, 2007-2020
- Clinical Neurophysiology, 2005, 2006, 2009-2014
- Clinical Biomechanics, 2005-2013
- Developmental Medicine & Child Neurology – 2009, 2010, 2011
- Disability and Rehabilitation: Assistive Technology, 2011
- Encyclopedia of Biomaterials and Biomedical Engineering, 2005
- Ergonomics, 2013, 2014
- Experimental Brain Research, 2001- present
- European Journal of Neuroscience, 2008
- European Journal of Applied Physiology, 2008

- Human Physiology, 1988 – 1991
- International Journal of Therapy and Rehabilitation, 2013
- Neurocase -2010
- Journal of Back and Musculoskeletal Rehabilitation 2012
- Journal of Hand Therapy, 2007
- Journal of Motor Behavior, 2003-present
- Journal of Neurophysiology, 2003, 2004, 2007-2013
- Journal of Neuroscience Methods, 2009
- Journal of Neurology, 2008, 2014
- Journal of Biomechanics, 2009, 2014, 2017
- Journal of Electromyography and Kinesiology, 2008- present
- Journal of Neurology, Neurosurgery & Psychiatry, 2005, 2006
- Journal of Novel Physiotherapies, 2012-present
- Journal of Rehabilitation Research and Development, 2006-2012
- Medicine and Science in Sport and Exercise, 1995, 2004
- Motor Control, 1996-2006, 2007-present
- Muscle & Nerve, 2000, 2001, 2004
- Neuroscience Letters, 2003-present
- Neuroscience, 2010
- Perceptual and Motor Skills, 1998, 2012
- Prosthetics & Orthotics International, 2010
- Theory and Practice in Physical Education, 1989-1990
- Topics in Stroke Rehabilitation, 2010-present
- Journal of NeuroEngineering and Rehabilitation, 2014
- International Journal of Therapy and Rehabilitation, 2013-present
- PLOS One, 2015-present

Grant Reviewer

- National Institutes of Health (NIH), 2000, 2015, 2016, 2018
- National Science Foundation (NSF), 2001
- Campus Research Board, UIC, 2001- 2006
- Fulbright Program in Ukraine, 2005, 2007
- Natural Sciences and Engineering Research Council of Canada- 2006, 2018
- National Medical Research Council, Singapore- 2009, 2014
- Association pour la Recherche sur la Sclérose Latérale Amyotrophique et autres maladies du motoneurone (ARSLa). France – 2011
- National Multiple Sclerosis Society. PMCR Study section member, 2012- present
- Swiss National Science Foundation (SNSF). Div. Mathematics, Physical and Engineering Sciences. Swiss - 2014
- Scottish Health Services Population Health Research Committee. UK-2014

- National Multiple Sclerosis Society. FAST FORWARD program. Member, 2015-present
- NIH Special Emphasis Panel: Physiology and Pathobiology of Musculoskeletal, Oral and Skin Systems. Member-2015

INVENTIONS AND PATENTS

1. **Aruin AS**, Ma C, Kanekar N, Graham A, Pfanner P. Shoe insole with protrusions and self-adjusting foam top. UIC Invention Disclosure #2015-104 (2/26/2015).
2. **Aruin AS**, Kanekar N¹. An aid, methods of using the same, and kits thereof. U.S. Patent Application #13/960,573, filed on August 6, 2013. Pub. No.: US 2014/0033565 A1 Pub. Date: Feb. 6, 2014. <http://appft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&u=%2Fmetahtml%2FPTO%2Fsearch-adv.html&r=2&p=1&f=G&l=50&d=PG01&S1=960573&OS=960573&RS=960573>
3. **Aruin AS**, Kanekar N¹. Gait performance enhancing innersole and method. UIC Invention Disclosure #2012- DG005 (2012).
4. **Aruin, A.S.** Device and method for motor rehabilitation. UIC Invention Disclosure # 2001- CV47 (2001).
5. **Aruin, A.S.** Apparatus and method for assessment and feedback training of step width coordination. USA Patent # 6,234,982 (2001).
6. **Aruin, A.S.**, Nicholas J. J. Knee and hip exercise device and method. USA Patent # 6,056,675 (2000).
7. **Aruin, A.S.** Leg exerciser and method. USA Patent # 5,879,275 (1999).
8. **Aruin, A.S.**, Raitsin L. M. Method and device for exercising the abdominal muscles. USA Patent # 5,823,913 (1998).
9. **Aruin, A.S.** Pedal assembly. PSU Invention Disclosure #96-1637.
10. **Aruin, A.S.** Leg exerciser. PSU Invention Disclosure #96-1591.
11. **Aruin, A. S.** Foot, ankle, and lower leg exercise system. PSU Invention Disclosure #95-1548.
12. Попов Г.И., Иванов В.В, **Аруин А.С.** Подошва рекуперирующая энергию (Regenerating energy insole). Russian Patent: RU (11) 2009651 (13) C1 (1994).

13. **Aruin, A.S.**, Gerasimenko, V.G., Tuleubaeva, G.F. & Shmeleva E.L. Device for providing stability of the foot. USSR Patent # 1782573 (1992).
14. **Aruin, A.S.**, Gerasimenko, V.G., Tuleubaeva, G.F. & Shmeleva, E.L. Device for training of the disabled persons. USSR Patent # 1761142 (1992).
15. **Aruin, A.S.**, Farber, B.S., Tcherbakov, N.N. & Shmeleva, E.L. Special pliers. Patent USSR # 1731620 (1992).
16. **Aruin, A.S.**, Gerasimenko, V.G., Farber, B.S. & Tuleubaeva, G.F. Device for treatment of the vascular edema. USSR Patent # 1731215 (1992)
17. **Aruin, A.S.**, Mirtov, J.N., Shmeleva, E.L. Keyboard. USSR Patent # 1705127 (1991).
18. Никитин Николай Георгиевич, Фарбер Борис Славинovich, Зациорский Владимир Михайлович, **Аруин Александр Семенович**. Способ изготовления защитного шлема. (Method of fabrication of the protective helmet). USSR Патент SU 1651834
19. Герасименко Владимир Георгиевич, **Аруин Александр Семенович**, Фарбер Борис Славинovich. Настил. (Surface). USSR Патент SU 1635991
20. **Aruin A.S.**, Farber B.S., Gerasimenko V.G. & Shmeleva E.L. Device for massage of the extremities. USSR Patent #1629059 (1990).
21. **Aruin, A.S.**, Gerasimenko, V.G. & Farber, B.S. Hand massager. USSR Patent # 1627178 (1990).
22. **Aruin, A.S.**, Farber, B.S., Gadatelev, A., Shmeleva, E.L. Method of fabrication of handles. USSR Patent # 1613316 (1990).
23. **Aruin, A.S.**, Farber, B.S, Duchovskoi SA, Sazonov VP. Belt-corset. USSR Patent # 1621919 (1990).
24. **Aruin, A.S.**, Gerasimenko, V.G. & Farber, B.S. Hoop for massage. Patent USSR Patent # 1595515 (1990).
25. **Aruin, A.S.**, Prilutsky, B.I. Method for determining human muscle stiffness and viscosity. USSR Patent #1586680 (1990).
26. **Aruin, A.S.**, Farber, B.S. & Nikitin, N.G. Orthopedic inner sole. USSR Patent # 1570723 (1990).
27. **Aruin, A.S.**, Zatsiorsky, V.M. Device for measuring the human body volume, USSR

- Patent # 1551348 (1989).
28. Mirtov, J.N., **Aruin, A.S.** Keyboard. USSR Patent # 1518144 (1989).
 29. **Aruin, A.S.**, Zatsiorsky, V.M. Method for determining the human body volume. USSR Patent # 1491448 (1989).
 30. **Aruin, A.S.**, Zatsiorsky, V.M. Method of lowering of fatigue of an operator. USSR Patent # 1419694 (1988).
 31. **Aruin, A.S.**, Zatsiorsky, V.M. Method for decreasing the load on the upper body. USSR Patent # 1393418 (1988).
 32. **Aruin, A.S.**, Zatsiorsky, V.M. Operator's workstation, USSR Patent # 1335277 (1988).
 33. **Aruin, A.S.** Device for measuring the parameters of the foot relocation. USSR Patent # 1331489 (1987).
 34. **Aruin, A.S.**, Zatsiorsky, V.M. Method for determination of biomechanical characteristics of the musculoskeletal system. USSR Patent # 1327877 (1987).
 35. **Aruin, A.S.** Foot arch insole Patent USSR # 1316670 (1987).
 36. **Aruin, A.S.**, Zivotchenko, V.D., Nikitin, N.G. & Farber, B.S. System for determining the moments of the forces in an extremity. USSR Patent # 1286161 (1986).
 37. **Aruin, A.S.**, Prilutsky¹, B.I., Shaknazarov, A.I. Device for measuring changes in length of muscles. USSR Patent # 1258377 (1986).
 38. **Aruin, A.S.**, Prilutsky¹, B.I. Method of determination of changes in the muscle length USSR Patent 1222247 (1985).
 39. **Aruin, A.S.**, Zatsiorsky, V.M. & Potjemkin, B.A. Method of determining the damping ability of an object. USSR Patent # 1208490 (1985).
 40. **Aruin, A.S.** Method of determining the damping ability of an object. USSR Patent # 137372 (1984).
 41. **Aruin, A.S.**, Raitsin, L.M. & Prilutsky¹, B.I. Method of assessment of biomechanical characteristics of muscles. USSR Patent # 1168193 (1982).
 42. Krilov, V.B., Lyashukova, S.M., Maksimov, I.B. & **Aruin, A.S.** Device for monitoring the movement of airplanes and transporting vehicles at airports. USSR Patent # 1067759

(1982).

43. Zatsiorsky, V.M., Raitsin, L.M., Balachnitchev, V.V. & **Aruin, A.S.** Device for measuring the characteristics of stride. USSR Patent # 754727 (1980).
44. **Aruin, A.S.**, Averkovich, N.V., & Kholoptsev, V.I. Device for recording rule-breaking phase in athletic walking. USSR Patent # 748471 (1980).
45. Zatsiorsky, V.M., **Aruin, A.S.**, Raitsin, L.M. & Balachnitchev, V.V. Device for measurement of the temporal and linear characteristics of stride. USSR Patent #705978 (1979).
46. **Aruin, A.S.**, Balachnitchev, V.V., Zatsiorsky, V.M. & Raitsin, L.M. Device for control of the crossing of a light border. USSR Patent # 669371 (1979).
47. **Aruin, A.S.** Device for measuring the dimensions of the foot under pressure. USSR Patent #668678 (1979).
48. Zatsiorsky, V.M., **Aruin, A.S.** Method for the examination of the foot. USSR Patent #544842 (1977).
49. **Aruin, A.S.**, Averkovich, N.V. & Kholoptsev, V.I. Stride-meter. USSR Patent # 469053 (1975).

SELECTED WEB-BASED AND PRINTED PUBLICATIONS IN NEWSPAPERS, MAGAZINES, AND INTERVIEWS ON RADIO AND TV PROGRAMS

“Students’ achievements in research” USSR Higher Education, September 17, 1977

“Success of researchers” Soviet Sport, March 25, 1982

“Ergonomics Biomechanics” Sevastopol Pravda, September 10, 1991

“Unique lab studies human joint, muscle movement” Daily Herald, March 10, 1998

“Open house shows new motion analysis facility” DuPage News, March 11, 1998

“Doctors muscle in on disabilities” Chicago Tribune, May 8, 1998

“Cardinal’s visit lights up Marianjoy patients” The Wheaton Sun, March 25, 1998

“First Person” Chicago Tribune, November 17, 1999

“Gentle Touch May Aid Multiple Sclerosis Patients.” 2009, Medical News Today, October 15, 2009 <http://www.medicalnewstoday.com/articles/167426.php>

“Control and coordination may aid multiple sclerosis patients perform daily activities independently.” The Medical News. October 15, 2009
<http://www.news-medical.net/news/20091015/Control-and-coordination-may-aid-multiple-sclerosis-patients-perform-daily-activities-independently.aspx>

“Multiple Sklerose: Berührung verbessert Motorik.” October 15, 2009, In German:
http://www.focus.de/gesundheit/ratgeber/gehirn/news/multiple-sklerose-beruehrung-verbessert-motorik_aid_445062.html

“Multiple Sclerosis Patients may be Helped by Gentle Touch” MedIndia, October 15, 2009
<http://www.medindia.net/news/Multiple-Sclerosis-Patients-may-be-Helped-by-Gentle-Touch-59464-1.htm>

“Sanfte Berührungen können Multiple-Sklerose-Patienten helfen.” October 16, 2009, In German: http://www.monstersandcritics.de/artikel/200942/article_158515.php/Sanfte-Ber%C3%BChrungen-k%C3%B6nnen-Multiple-Sklerose-Patienten-helfen

“Gentle Touch May Aid Multiple Sclerosis Patients” ScienceDaily October 17, 2009.
<http://www.sciencedaily.com/releases/2009/10/091014144727.htm>

“A gentle touch may help people with neurological diseases.” UIC News, November 4, 2009, p.6

“Gripping Trick for Neuro Patients: Light Touch Helps People with Neurological Impairment Get a Grip” - Bottomlinesecrets.com, May 4, 2010
http://www.bottomlinesecrets.com/article.html?article_id=100001260

Neue Erkenntnisse eines US-Forschungsteams: Berührungsreiz als zusätzliche Stimulation. 06.04.2010
<http://www.msundich.de/fuer-patienten/news/motorik-und-beruehrung.html>

Research Shows Ankle-Foot Braces Improve Balance in those with Diabetic Neuropathy. July 30, 2010 http://www.oandp.com/articles/NEWS_2010-07-30_01.asp

Cerebral Palsy Research News, 2011, October 17. Anticipatory postural adjustments in children with hemiplegia and diplegia. About a paper published in Journal Electromyography and Kinesiology by G. Girolami, T. Shiratori, and A. Aruin

“How Brain Controls Balance After Stroke.” UIC News, April 4, 2012, p.11

“Stroke survivors use insole to relearn balance.” CBC News, July 20, 2012
<http://www.cbc.ca/news/health/story/2012/07/20/stroke-insole.html>

“Lift and Shift: Shoe Insole Helps Stroke Patients Relearn Balance.” Science Daily. July 17, 2012 <http://www.sciencedaily.com/releases/2012/07/120717162136.htm>

Lift and Shift: Shoe Insole Helps Stroke Patients Relearn Balance.” 2012. Health Canal. 7/17/2012
<http://www.healthcanal.com/blood-heart-circulation/30855-Lift-and-Shift-Shoe-Insole-Helps-Stroke-Patients-Relearn-Balance.html>

“Helping stroke patients keep their balance” UIC News. August 5, 2012.
<http://www.uic.edu/htbin/cgiwrap/bin/uicnews/articledetail.cgi?id=16614>

“A little bit of sole helps victims of strokes improve walking.” Chicago Tribune, September 3, 2012

UIC Researcher Develops Therapeutic Shoe Insole To Restore Balance in Stroke Patients

Published on July 19, 2012

<http://www.rehabpub.com/2012/07/uic-researcher-develops-therapeutic-shoe-insole-to-restore-balance-in-stroke-patients/>

Stroke patients' walking improved with insoles. Los Angeles Times. September 5, 2012.
<http://www.latimes.com/ct-x-stroke-insole-0829-20120905-story.html>

Hemiparese: Einlagen helfen der Statik September 27, 2012.

<http://news.doccheck.com/de/311/hemiparese-einlagen-helfen-der-statik/>

Advance for Physical Therapy and Rehab Medicine. The Science of Shifting: Using shoe insoles correctly can help patients improve post-stroke walking - March 18, 2013. Volume 24, Issue 6, page 24-25.

<http://physical-therapy.advanceweb.com/ebook/magazine.aspx?EBK=PT031813#>

“Balance with loss of sensation in lower limbs.” O&P Almanac, Oct. 2013 Vol. 62, No. 10 page 20-22

http://issuu.com/americanoandp/docs/october_2013_almanac/21?e=6562073/5099387

Instinctive Balance Control in MS. By Lisa Emrich. Health Guide. March 27, 2013.
<http://www.healthcentral.com/multiple-sclerosis/c/19065/160009/instinctive-ms/>

Shoe Insoles Improve Walking. Marianjoy Matters. 2013, Volume 5, issue 2.

<file:///H:/For%20meeting%20with%20KY/MarianjoyMattersVol15Issue2.pdf>

Alexander Aruin - Rehabilitation research training to enhance functional performance in MS/ Anticipatory postural control in individuals with multiple sclerosis. National Multiple Sclerosis Society, Interview 2014.

<https://www.nationalmssociety.org/Chapters/ILD/About-this-Chapter/Local-Research/Illinois-Researchers/Dr-Alexander-Aruin>

Fun and games. Everything from virtual reality gadgets to medicine balls can help improve balance. Momentum. The Magazine of the National Multiple Sclerosis Society (Winter 2017-2018). <http://www.momentummagazineonline.com/fun-and-games/>