

# Basma Yacoubi Keyhani

## Research Assistant Professor

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## EDUCATION

2016 - 2019	Postdoc.	<b>Neurophysiology</b> Department of Applied Physiology and Kinesiology University of Florida
2005 - 2014	Postdoc.	<b>Genetics and Bioinformatics</b> Department of Microbiology and Cell Science University of Florida
2005	Ph.D.	<b>Plant Molecular and Cellular Biology program</b> University of Florida
1999	M.S.	<b>Environmental Horticulture</b> Department of Environmental Horticulture University of Florida, Gainesville, Florida
1996	B.S.	<b>Cell Biology and Physiology</b> University Paris 7 Paris, France

## POSITIONS

2021-date	Lecturer	<b>Genetics / Human performance</b> Department of Applied Physiology and Kinesiology University of Florida
2019-date	Res. Ass. Prof.	<b>Neurophysiology</b> Department of Applied Physiology and Kinesiology University of Florida
2017 2016	Lecturer	<b>Neurophysiology</b> Department of Applied Physiology and Kinesiology University of Florida

## PUBLICATIONS

### INVITED BOOK CHAPTERS

1. **Yacoubi B** & Christou EA Mechanisms of Impaired Motor Control in Essential Tremor. In *Progress in Motor Control: Crossroads between Neurophysiology and Applications*, 2026. Human Kinetics, Champaign IL.
2. **Yacoubi B**, de Crécy-Lagard V. Integrative data-mining tools to link gene and function. *Methods Mol Biol.* 2014;1101:43-66.

### PEER-REVIEWED ARTICLES

48. Kim JJ, Delmas S, Choi YJ, Wong JK, Okun MS, **Yacoubi B**, Christou EA. Thalamic Neurostimulation and Effects on Movement Consolidation in Essential Tremor. *Neuromodulation.* 2026 Feb 20;S1094-7159(26)00011-5.
47. Kim JJ, Shankar VR, Delmas S, Choi YJ, Weintraub M, Malik RJ, **Yacoubi B**, Christou EA. Distinct effects of visual gain manipulation on force variability and smoothness during constant isometric contractions. *J Neurophysiol.* 2026 Jan 1;135(1):324-333.
46. Tobin ER, Delmas S, Kim JJ, Hubbard JC, **Yacoubi B**, Lou X, Presti MF, Kraus A, Berry RB, Jaffee MS, Christou EA, Vaillancourt DE. Force control deficits in rapid eye movement behavior disorder and Parkinson's disease. *Clin Neurophysiol.* 2025 Aug;176:2110763.
45. **Yacoubi B**, Christou EA. Last Word on Viewpoint: Rethinking force steadiness: a new perspective-Yank magnitude: a metric of unsteadiness during the constant isometric force task. *J Appl Physiol (1985).* 2024 May 1;136(5):1274-1275.
44. **Yacoubi B**, Christou EA. Motor Output Variability in Movement Disorders: Insights From Essential Tremor. *Exerc Sport Sci Rev.* 2024 Jul 1;52(3):95-101.
43. **Yacoubi B**, Christou EA. Rethinking force steadiness: a new perspective. *J Appl Physiol (1985).* 2024 May 1;136(5):1260-1262.
42. Kim JJ, Delmas S, Choi YJ, Hubbard JC, Weintraub M, Arabatzi F, **Yacoubi B**, Christou EA. Unique Neural Mechanisms Underlying Speed Control of Low-Force Ballistic Contractions. *J Hum Kinet.* 2024 Feb 2;90:29-44.
41. Choi YJ, Chalatzoglidis G, Trapezanidou M, Delmas S, Savva E, **Yacoubi B**, Arabatzi F, Christou EA. Adolescent boys who participate in sports exhibit similar ramp torque control with young men despite differences in strength and tendon characteristics. *Eur J Appl Physiol.* 2023 Jan 6.
40. Choi YJ, **Yacoubi B**, Casamento-Moran A, Delmas S, Wilkes BJ, Hess CW, Shukla AW, Foote KD, Vaillancourt DE, Okun MS, Christou EA. Suppression of Axial Tremor by Deep Brain Stimulation in Patients with Essential Tremor: Effects on Gait and Balance Measures. *Tremor Other Hyperkinet Mov (N Y).* 2022 Jul

- 1;12:23.
39. Delmas S, Choi YJ, Komer M, Weintraub M, **Yacoubi B**, Christou EA. Older adults use a motor plan that is detrimental to endpoint control. *Sci Rep*. 2021 Apr 7;11(1):7562.
  38. Delmas S, Watanabe T, **Yacoubi B**, Christou EA. Age-associated increase in postural variability relate to greater low-frequency center of pressure oscillations. *Gait Posture*. 2021 Mar;85:103-109.
  37. Casamento-Moran A, **Yacoubi B**, Wilkes BJ, Hess CW, Foote KD, Okun MS, Wagle Shukla A, Vaillancourt DE, Christou EA. Quantitative Separation of Tremor and Ataxia in Essential Tremor. *Ann Neurol*. 2020 May 17.
  36. **Yacoubi B**, Casamento-Moran A, Burciu RG, Subramony SH, Vaillancourt DE, Christou EA. Temporal Invariance in SCA6 Is Related to Smaller Cerebellar Lobule VI and Greater Disease Severity. *J Neurosci*. 2020 Feb 19;40(8):1722-1731.
  35. Casamento-Moran A, Delmas S, Park SH, **Yacoubi B**, Christou EA. Reaction to a Visual Stimulus: Anticipation with Steady and Dynamic Contractions. *J Hum Kinet*. 2019 Oct;69:17-27.
  34. Watanabe T, Nojima I, Sugiura H, **Yacoubi B**, Christou EA. Voluntary control of forward leaning posture relates to low-frequency neural inputs to the medial gastrocnemius muscle. *Gait Posture*. 2019 Feb;68:187-192.
  33. Park SH, Kim C, **Yacoubi B**, Christou EA. Control of oscillatory force tasks: Low-frequency oscillations in force and muscle activity. *Hum Mov Sci*. 2019 Apr;64:89-100.
  32. Kim C, **Yacoubi B**, Christou EA. Visual load and variability of muscle activation: Effects on reactive driving of older adults. *Hum Mov Sci*. 2019 Feb;63:172-181.
  31. Kim C, **Yacoubi B**, Christou EA. Speed but not amplitude of visual feedback exacerbates force variability in older adults. *Exp Brain Res*. 2018 Oct;236(10):2563-2571.
  30. Casamento-moran A, Fleeman R, Chen Y, Fox EJ, **Yacoubi B**, Christou EA. Neuromuscular Variability and Spatial Accuracy in Children and Older Adults. *J Electromyogr Kinesiol*. 2018;41(January):27-33.
  29. Ernster AE, Park SH, **Yacoubi B**, Christou EA, Casamento-Moran, Singer ML, Humbert IA. Motor transfer from the corticospinal to the corticobulbar pathway. *Physiology & Behavior*, 191, 155-161, 2018.
  28. Delmas S, Casamento-Moran A, Park SH, **Yacoubi B**, Christou EA. Motor planning perturbation: muscle activation and reaction time. *J Neurophysiol*. 2018 Oct 1;120(4):2059-2065.
  27. Park SH, Casamento-Moran A, Singer ML, Ernster AE, **Yacoubi B**, Humbert IA, Christou EA. Integration of visual feedback and motor learning: Corticospinal vs. corticobulbar pathway. *Hum Mov Sci*. 58:88-96, 2018.
  26. Christou EA, **Yacoubi B**, Kim C, Moon H, Onushko T, & Lodha N. Motor output variability impairs reactive driving in older adults: Reply to Stinchcombe, Dickerson, Weaver, and Bedard. *Journal of Gerontology, Series A: Biomedical Sciences and Medical Sciences*. 73(2):269-270, 2018.

25. Park SH, Casamento-Moran A, **Yacoubi B**, Christou EA. Voluntary reduction of force variability via modulation of low-frequency oscillations. *Exp Brain Res.* 235(9):2717-2727, 2017.
24. Casamento-Moran A, Hunter SK, Chen YT, Kwon MH, Fox EJ, **Yacoubi B**, Christou EA. Sex differences in spatial accuracy relate to the neural activation of antagonistic muscles in young adults. *Exp Brain Res.* 235(8):2425-2436, 2017.
23. Casamento Moran A, Chen YT, Lodha N, **Yacoubi B**, Christou EA. Motor plan differs for young and older adults during similar movements. *J Neurophysiol.* 117(4):1483-88, 2017.
22. Darin N, Reid E, Prunetti L, Samuelsson L, Husain RA, Wilson M, El **Yacoubi B**, Footitt E, Chong WK, Wilson LC, Prunty H, Pope S, Heales S, Lascelles K, Champion M, Wassmer E, Veggiotti P, de Crécy-Lagard V, Mills PB, Clayton PT. Mutations in PROSC Disrupt Cellular Pyridoxal Phosphate Homeostasis and Cause Vitamin-B(6)-Dependent Epilepsy. *Am J Hum Genet.* 2016 Dec 1;99(6):1325-1337.
21. Prunetti L, El **Yacoubi B**, Schiavon CR, Kirkpatrick E, Huang L, Bailly M, El Badawi-Sidhu M, Harrison K, Gregory JF, Fiehn O, Hanson AD, de Crécy-Lagard V. Evidence that COG0325 proteins are involved in PLP homeostasis. *Microbiology.* 2016 Apr;162(4):694-706.
20. Thiaville PC, El **Yacoubi B**, Köhrer C, Thiaville JJ, Deutsch C, Iwata-Reuyl D, Bacusmo JM, Armengaud J, Bessho Y, Wetzels C, Cao X, Limbach PA, RajBhandary UL, de Crécy-Lagard V. Essentiality of threonylcarbamoyladenine (t(6)A), a universal tRNA modification, in bacteria. *Mol Microbiol.* 2015 Dec;98(6):1199-221.
19. El **Yacoubi B**, de Crécy-Lagard V. Integrative data-mining tools to link gene and function. *Methods Mol Biol.* 2014;1101:43-66.
18. Thiaville PC, El **Yacoubi B**, Perrochia L, Hecker A, Prigent M, Thiaville JJ, Forterre P, Namy O, Basta T, de Crécy-Lagard V. Cross kingdom functional conservation of the core universally conserved threonylcarbamoyladenine tRNA synthesis enzymes. *Eukaryot Cell.* 2014 Sep;13(9):1222-31.
17. Lartigue C, Lebaudy A, Blanchard A, El **Yacoubi B**, Rose S, Grosjean H, Douthwaite S. The flavoprotein Mcap0476 (RlmFO) catalyzes m5U1939 modification in *Mycoplasma capricolum* 23S rRNA. *Nucleic Acids Res.* 2014 Jul;42(12):8073-82.
16. Seaver SM, Gerdes S, Frelin O, Lerma-Ortiz C, Bradbury LM, Zallot R, Hasnain G, Niehaus TD, El **Yacoubi B**, Pasternak S, Olson R, Pusch G, Overbeek R, Stevens R, de Crécy-Lagard V, Ware D, Hanson AD, Henry CS. High-throughput comparison, functional annotation, and metabolic modeling of plant genomes using the PlantSEED resource. *Proc Natl Acad Sci U S A.* 2014 Jul 1;111(26):9645-50.
15. de Crécy-Lagard V, Phillips G, Grochowski LL, El **Yacoubi B**, Jenney F, Adams MW, Murzin AG, White RH. Comparative genomics guided discovery of two missing archaeal enzyme families involved in the biosynthesis of the pterin

- moiety of tetrahydromethanopterin and tetrahydrofolate. *ACS Chem Biol.* 2012 Nov 16;7(11):1807-16.
14. Deutsch C, El **Yacoubi B**, de Crécy-Lagard V, Iwata-Reuyl D. Biosynthesis of threonylcarbamoyl adenosine (t6A), a universal tRNA nucleoside. *J Biol Chem.* 2012 Apr 20;287(17):13666-73.
  13. Phillips G, Grochowski LL, Bonnett S, Xu H, Bailly M, Blaby-Haas C, El **Yacoubi B**, Iwata-Reuyl D, White RH, de Crécy-Lagard V. Functional promiscuity of the COG0720 family. *ACS Chem Biol.* 2012 Jan 20;7(1):197-209.
  12. Gerdes S, El **Yacoubi B**, Bailly M, Blaby IK, Blaby-Haas CE, Jeanguenin L, Lara-Núñez A, Pribat A, Waller JC, Wilke A, Overbeek R, Hanson AD, de Crécy-Lagard V. Synergistic use of plant-prokaryote comparative genomics for functional annotations. *BMC Genomics.* 2011 Jun 15.
  11. Daugeron MC, Lenstra TL, Frizzarin M, El **Yacoubi B**, Liu X, Baudin-Baillieu A, Lijnzaad P, Decourty L, Saveanu C, Jacquier A, Holstege FC, de Crécy-Lagard V, van Tilbeurgh H, Libri D. Gcn4 misregulation reveals a direct role for the evolutionary conserved EKC/KEOPS in the t6A modification of tRNAs. *Nucleic Acids Res.* 2011 Aug;39(14):6148-60.
  10. El **Yacoubi B**, Hatin I, Deutsch C, Kahveci T, Rousset JP, Iwata-Reuyl D, Murzin AG, de Crécy-Lagard V. A role for the universal Kae1/Qri7/YgjD (COG0533) family in tRNA modification. *EMBO J.* 2011 Mar 2;30(5):882-93.
  9. Blaby IK, Phillips G, Blaby-Haas CE, Gulig KS, El **Yacoubi B**, de Crécy-Lagard V. Towards a systems approach in the genetic analysis of archaea: Accelerating mutant construction and phenotypic analysis in *Haloferax volcanii*. *Archaea.* 2010 Dec 23;2010:426239.
  8. Phillips G, Chikwana VM, Maxwell A, El **Yacoubi B**, Swairjo MA, Iwata-Reuyl D, de Crécy-Lagard V. Discovery and characterization of an amidinotransferase involved in the modification of archaeal tRNA. *J Biol Chem.* 2010 Apr 23;285(17):12706-13.
  7. El **Yacoubi B**, Lyons B, Cruz Y, Reddy R, Nordin B, Agnelli F, Williamson JR, Schimmel P, Swairjo MA, de Crécy-Lagard V. The universal YrdC/Sua5 family is required for the formation of threonylcarbamoyladenine in tRNA. *Nucleic Acids Res.* 2009 May;37(9):2894-909.
  6. El **Yacoubi B**, Phillips G, Blaby IK, Haas CE, Cruz Y, Greenberg J, de Crécy-Lagard V. A Gateway platform for functional genomics in *Haloferax volcanii*: deletion of three tRNA modification genes. *Archaea.* 2009 Feb 12;2(4):211-9.
  5. Phillips G, El **Yacoubi B**, Lyons B, Alvarez S, Iwata-Reuyl D, de Crécy-Lagard V. Biosynthesis of 7-deazaguanosine-modified tRNA nucleosides: a new role for GTP cyclohydrolase I. *J Bacteriol.* 2008 Dec;190(24):7876-84.
  4. de Crécy-Lagard V, El **Yacoubi B**, de la Garza RD, Noiriél A, Hanson AD. Comparative genomics of bacterial and plant folate synthesis and salvage: predictions and validations. *BMC Genomics.* 2007 Jul 23;8:245.
  3. El **Yacoubi B**, Brunings AM, Yuan Q, Shankar S, Gabriel DW. In planta horizontal transfer of a major pathogenicity effector gene. *Appl Environ*

- Microbiol. 2007 Mar;73(5):1612-21.
2. El **Yacoubi B**, Bonnett S, Anderson JN, Swairjo MA, Iwata-Reuyl D, de Crécy-Lagard V. Discovery of a new prokaryotic type I GTP cyclohydrolase family. *J Biol Chem.* 2006 Dec 8;281(49):37586-93.
  1. Castañeda A, Reddy JD, El **Yacoubi B**, Gabriel DW. Mutagenesis of all eight avr genes in *Xanthomonas campestris* pv. *campestris* had no detected effect on pathogenicity, but one avr gene affected race specificity. *Mol Plant Microbe Interact.* 2005 Dec;18(12):1306-17. doi: 10.1094/MPMI-18-1306.

## ABSTRACTS

### NATIONAL/INTERNATIONAL SELECTED POSTERS/TALKS\* (SINCE 2016)

39. A.M.A. Chagas, J.J. Kim, R.J. Malik, V.R. Shankar, T.W. Worthington, E.R. Tobin, **Yacoubi B**, D.E. Vaillancourt, E.A. Christou; "Force tremor as an early marker for Parkinson's Disease" Society for Neuroscience Annual Meeting San Diego, CA. 2025.
38. T. W. Worthington, J. J. Kim, S. Delmas, R. J. Malik, V. R. Shankar, A. M. A. Chagas, W. Sharma, J. Stone, E. R. Tobin, D. E. Vaillancourt, **Yacoubi B**, E. A. Christou; Bradykinesia and muscle activity in Parkinson's disease, Society for Neuroscience Annual Meeting San Diego, CA. 2025.
37. J.J. Kim, V.R. Shankar, A.M.A. Chagas, T.W. Worthington, **Yacoubi B**, D.E. Vaillancourt, E.A. Christou; "Impaired Retention of Goal-Directed Movements in Parkinson's Disease: A 2-Year Longitudinal Analysis" Society for Neuroscience Annual Meeting San Diego, CA. 2025.
36. Shankar VR, Kim JJ, Malik R, Chagas AM, Worthington TW, Delmas S, Tobin ER, Vaillancourt DE, **Yacoubi B**, Christou EA; Vocal Deficits in Rapid Eye Movement Sleep Behavior Disorder: A Potential Early Marker for Parkinson's Disease. Society for Neuroscience Annual Meeting San Diego, CA. 2025.
35. Malik RJ, Kim JJ, Chagas AMA, Shankar VR, Christou EA, **Yacoubi B**. Motor and non-motor features of performance fatigability in Parkinson's disease. Society for Neuroscience Annual Meeting, San Diego, CA. 2025.
34. V. Shankar, J. J. Kim, S. Delmas, J. Hubbard, R. J. Malik, B. **Yacoubi**, E. A. Christou; Applied Physiol. and Kinesiology, Univ. of Florida, Gainesville, FL "Decoupling Force Variability and Force Unsteadiness: Evidence from Visual Feedback Manipulations", SfN. 2024.
33. Malik RJ, Kim JJ, Delmas S, **Yacoubi B**, Christou EA. Steadiness and inconsistency in targeted ballistic contractions. Society for Neuroscience Annual Meeting, Chicago, IL. 2024.
32. Hubbard J.C., Kim J.J., Delmas S., Malik R.J., Choi Y., **Yacoubi B.**, Christou E.A. Speech unsteadiness and inconsistency in Parkinson's disease. Society for

- Neuroscience. Chicago, IL. 2024. (Poster).
31. Joongsuk J. Kim, Stefan Delmas, Yoon Jin Choi, Jessica C. Hubbard, Michael S. Okun, **Yacoubi B**, Evangelos A. Christou. The Effect of Deep Brain Stimulation on Motor Learning in Essential Tremor. Society for Neuroscience. Chicago, IL. 2024. (Poster).
  30. Delmas S, Choi YJ, **Yacoubi B**, Kim JJ, Hubbard JC, Okun MS, Christou EA. Ankle Dysmetria in Essential Tremor: Effect on Gait and Balance Disturbances. Society for Neuroscience. Chicago, IL. 2024.
  29. E.R. Tobin, S. Delmas, J. Hubbard, J.J. Kim, **Yacoubi B**, R.B. Berry, M.S. Jaffee, E. A. Christou, and D.E. Vaillancourt. Force Control Deficits in Rapid Eye Movement Behavior Disorder and Parkinson's Disease. Society for Neuroscience. Chicago, IL. 2024.
  28. Delmas S., Ratajska A., Choi YJ, **Yacoubi B**, Okun MS, Bowers D, Christou EA. Deficits in executive functioning and processing speed contribute to exacerbated endpoint control in advanced Essential Tremor. Society for Neuroscience. Washington, DC. Fall 2023.
  27. Choi YJ, Delmas S, **Yacoubi B**, Kim JJ, Hubbard JC, Okun MS, Christou EA. Deep brain stimulation improves obstacle clearance in essential tremor by reducing axial tremor. Society for Neuroscience. Washington, DC. Fall 2023.
  26. **Yacoubi B**, Delmas S, Kim JJ, Hubbard JC, Choi YJ, Okun MS, Christou EA. Performance fatigability in essential tremor and parkinsons disease. Society for Neuroscience. Washington, DC. Fall 2023.
  25. Hubbard JC, Kim JJ, Delmas S, Choi YJ, Salamekh S, **Yacoubi B**, Christou EA. Executive function overload increases dysmetria but not intra-individual variability. Society for Neuroscience. Washington, DC. Fall 2023.
  24. Kim JJ, Delmas S, Choi YJ, Hubbard JC, Weintraub M, Arabatzi F, **Yacoubi B**, Christou EA. Unique Neural Mechanisms Underlying Speed Control of Low-Force Ballistic Contractions Society for Neuroscience. Washington, DC. Fall 2023.
  23. Delmas S, Choi Y. J., **Yacoubi B**, Christou EA. Motor plan variability, not signal-dependent noise, explains motor variability. Society for Neuroscience. San Diego, California. Fall 2022.
  22. Kim J, Delmas S, Choi Y. J., Hubbard J, Weintraub M, **Yacoubi B**, Arabatzi F, Christou EA. Distinct neural activity for controlling the speed of ballistic contractions at low force levels. Society for Neuroscience. San Diego, California. Fall 2022.
  21. Choi Y. J., **Yacoubi B**, Delmas S, Kim J, Hubbard J, Okun M.S., Christou EA. Deep brain stimulation reduces obstacle clearance variability in Essential tremor patients. Society for Neuroscience. San Diego, California. Fall 2022.
  20. Hubbard J, Kim J, Delmas S, Choi Y. J., Christou EA, **Yacoubi B**. Coherent modulation of reaction time and motor response intra-individual variability occurs below 0.05 Hz. Society for Neuroscience. San Diego, California. Fall 2022.
  19. Weintraub M, Hubbard J, Delmas S, Kim J, Choi Y. J., **Yacoubi B**, Christou EA. Steadiness training with concentric or eccentric contractions: effects on ankle

- movement control and single leg balance. Society for Neuroscience. San Diego, California. Fall 2022.
18. **Yacoubi B**, Delmas S, Choi Y. J., Kim J, Hubbard J, Okun M.S., Christou EA. Performance fatigability in essential tremor. Society for Neuroscience. San Diego, California. Fall 2022.
  17. Delmas S, Choi Y. J., **Yacoubi B**, Christou EA. Trial-to-trial variability of multi motor unit activity accounts for worse endpoint control at low forces. Abstract Submission. Society for Neuroscience. Virtual. Fall 2021.
  16. **Yacoubi B**, Casamento-Moran A, Choi Y. J., Delmas S, Subramony S, Vaillancourt DE, Christou EA. Open loop training in Spinocerebellar Ataxia 6 (SCA6). Society for Neuroscience. Virtual. Fall 2021.
  15. Choi Y. J., **Yacoubi B**, Casamento-Moran A, Delmas S, Wilkes B, Hess C. W., Shukla A., Okun M, Foote K, Vaillancourt DE, Christou EA. Reducing the midline tremor with deep brain stimulation improves gait and balance in essential tremor patients. Society for Neuroscience. Virtual. Fall 2021.
  14. Forbes J., Delmas S., Choi Y. J., **Yacoubi B**, Christou EA. Voice power spectra of sustained vowel and fricative phonemic condition. Society for Neuroscience. Virtual. Fall 2021.
  13. Christou EA, Delmas S., Weintraub M., Choi Y. J., **Yacoubi B**. Force control in young adults: effects of visual feedback length of time. Society for Neuroscience. Virtual. Fall 2021.
  12. Choi, Y. J., Delmas, S., **Yacoubi, B.**, Vaillancourt, D., Okun, M., & Christou, EA. Deep Brain Stimulation Reduces Midline Tremor During a Static Postural Balance Task in Essential Tremor Patients. Archives of Physical Medicine and Rehabilitation, Fall 2020.
  11. **\*Yacoubi B.**, Casamento-Moran A., Burciu R.G., Subramony S.Vaillancourt D.E., Christou EA. Temporal Invariance in SCA6: Smaller Cerebellar Lobule VI and Greater Disease Severity. Human Movement Variability Conference. Omaha, NE, 2019.
  10. **\*Yacoubi B.**, Casamento-Moran A., Burciu R.G., Subramony S.Vaillancourt D.E., Christou EA. Motor Output Variability and Disease Severity in Spinocerebellar ataxia 6. American College of Sports Medicine Annual Meeting. Orlando, FL, 2019.
  9. Casamento-Moran A., Delmas S., Bracksieck S., **Yacoubi B.**, Okun M., Shukla A., Vaillancourt D., Christou E.A. Deep Brain Stimulation in Essential Tremor: Tremor and Dysmetria in the Upper and Lower Limb. *Society for Neuroscience. San Diego, CA. 2018.*
  8. Casamento-Moran A, Janwadkar R, Delmas S, **Yacoubi B**, Okun M, Shukla A, Vaillancourt D.E., Christou EA. Deep Brain Stimulation in Essential Tremor: Tremor and Dysmetria in the Upper Lower Limb. *Neural Control of Movement. Santa Fe, NM. Spring 2018*
  7. Park SH, Kim C, **Yacoubi B**, Christou EA. Control of dynamic force tasks: low-frequency oscillations in force and modulation of muscle activity. Society for Neuroscience, 2018.

6. Ernster AE, Park SH, **Yacoubi B**, Christou EA, Casamento-Moran, Singer ML, Humbert IA. Cross-pathway transfer between the ankle and tongue. Dysphagia Research Society, 2018
5. Park SH, Casamento-moran A, Singer ML, Ernster AE, **Yacoubi B**, Humbert IA, Christou EA. Motor learning for corticospinal and corticobulbar pathways. Society for Neuroscience, 2017.
4. Delmas S, Casamento-Moran A, Park SH, **Yacoubi B**, Christou EA. Motor output variability increases reaction time variability. Progress in Motor Control, 2017.
3. **\*Yacoubi B.**, Casamento-Moran A., Chen, Y.-T., Kwon M.H., Christou, E.A. Reinforcement but not error-based learning contributes to motor transfer. Abstract Submission & Nanosymposium. *Society for Neuroscience. San Diego, CA. Fall 2016.*
2. Casamento-Moran A, Park SH, **Yacoubi B**, Christou EA Low frequency oscillations in force slow reaction time. Abstract Submission & Poster presentation. *Society for Neuroscience. San Diego, CA. 2016.*
1. Park SH, Casamento-Moran A, **Yacoubi B**, Christou EA Voluntary reduction in force variability via modulation of low-frequency oscillations. Abstract Submission. *Society for Neuroscience. San Diego, CA. 2016.*

#### LOCAL SELECTED POSTERS (SINCE 2016)

56. Kim JJ, Malik RJ, Shankar VR, Chagas AMA, Worthington TW, Lee JH, **Yacoubi B**, Vaillancourt DE, Christou EA. Impaired Retention of Goal-Directed Movements in Parkinson's Disease: A 2-Year Longitudinal Analysis. Neuromuscular Plasticity Symposium. Gainesville, FL. 2026.
55. Kim JJ, Malik RJ, Shankar VR, Chagas AMA, Worthington TW, Lee JH, **Yacoubi B**, Vaillancourt DE, Christou EA. Impaired Retention of Goal-Directed Movements in Parkinson's Disease: A 2-Year Longitudinal Analysis. D.K. Stanley HHP Research Symposium. Gainesville, FL. 2026.
54. V.R. Shankar, R. Vora, J.J. Kim, R.J. Malik, A.M.A. Chagas, T.W. Worthington, **B Yacoubi**, D.E. Vaillancourt, E.A. Christou. Vocal Deficits in Rapid Eye Movement Sleep Behavior Disorder: A Potential Early Marker for Parkinson's Disease. D.K. Stanley Day, University of Florida College of Health and Human Performance, Gainesville, FL. 2026.
53. V.R. Shankar, R. Vora, J.J. Kim, R.J. Malik, A.M.A. Chagas, T.W. Worthington, **B Yacoubi**, D.E. Vaillancourt, E.A. Christou. Vocal Deficits in Rapid Eye Movement Sleep Behavior Disorder: A Potential Early Marker for Parkinson's Disease. Neuromuscular Plasticity Symposium, University of Florida College of Public Health and Health Professions, Gainesville, FL. 2026.
52. A.M.A. Chagas, R.J. Vora, W. Kim, V.R. Shankar, R.J. Malik, T.W. Worthington, S. Keyhani, J.J. Kim, B. **Yacoubi**, E.A. Christou. Vocal Reaction Time as a Sensitive Marker of Age-Related Slowing in Information Processing and Exacerbated Motor Planning Variability. D.K. Stanley Day, University of Florida College of Health and Human Performance, Gainesville, FL. 2026.

51. A.M.A. Chagas, R.J. Vora, W. Kim, V.R. Shankar, R.J. Malik, T.W. Worthington, S. Keyhani, J.J. Kim, B. **Yacoubi**, E.A. Christou. Vocal Reaction Time as a Sensitive Marker of Age-Related Slowing in Information Processing and Exacerbated Motor Planning Variability. Neuromuscular Plasticity Symposium, University of Florida College of Public Health and Health Professions, Gainesville, FL. 2026.
50. Malik RJ, Kim JJ, **Yacoubi B**, Christou EA. Trajectory dynamics and endpoint accuracy in targeted ballistic contractions. Neuromuscular Plasticity Symposium, University of Florida College of Public Health and Health Professions, Gainesville, FL. 2026.
49. Malik RJ, Kim JJ, **Yacoubi B**, Christou EA. Trajectory dynamics and endpoint accuracy in targeted ballistic contractions. D.K. Stanley Day, University of Florida College of Health and Human Performance, Gainesville, FL. 2026.
48. Vinay R. Shankar, Joongsuk J. Kim, Stefan Delmas, Yoon Jin Choi, Jessica C. Hubbard, Reem J. Malik, Amanda M. Chagas Pereira, Basma **Yacoubi**, Evangelos A. Christou; "Decoupling Force Variability and Force Unsteadiness: Evidence from Visual Feedback Manipulations" D.K. Stanley Day, University of Florida. 2025.
47. Chagas AMA, Kim JJ, Malik RJ, Hubbard JC, Shankar VR, Worthington TW, Tobin ER, Vaillancourt DE, **Yacoubi B**, Christou EA. Is force tremor an early detectable marker of motor dysfunction in Rapid Eye Movement Sleep Behavior Disorder? D.K. Stanley Day, University of Florida. 2025.
46. T.W. Worthington, J.C. Hubbard, J.J. Kim, S. Delmas, W.S. Sharma, J.L. Stone, R.J. Malik, V.R. Shankar, A.M.A. Chagas, E.R. Tobin, D.E. Vaillancourt, B. **Yacoubi**, E.A. Christou. Rate of Force Development and Muscle Activity in Parkinson's Disease. D.K. Stanley Day, University of Florida. 2025.
45. Keyhani S., Malik R., Hubbard J., Kim J., Shankar V., Christou E., and **Yacoubi B**. "Characterizing Performance Fatigability in Parkinson's Disease: Contribution of motor and non-motor features", D.K. Stanley Day, University of Florida. 2025.
44. Hubbard JC, Kim JJ, Worthington TW, Malik RJ, Chagas AMA, Shankar VR, Delmas S, Choi YJ, Vaillancourt DE, **Yacoubi B**, Christou EA. Vocal Differences between Individuals with Parkinson's Disease and Healthy Adults. D.K. Stanley HHP Research Symposium. Gainesville, FL. 2025.
43. Malik RJ, Kim JJ, Chagas AMA, Shankar VR, Christou EA, **Yacoubi B**. Performance fatigability in Parkinson's disease: Insights from muscle activity. Neuromuscular Plasticity Symposium, University of Florida College of Public Health and Health Professions, Gainesville, FL. 2025.
42. Malik RJ, Kim JJ, Chagas AMA, Shankar VR, Christou EA, **Yacoubi B**. Performance fatigability in Parkinson's disease: Insights from muscle activity. D.K. Stanley Day, University of Florida College of Health and Human Performance, Gainesville, FL. 2025.
41. Kim JJ, Delmas S, Choi YJ, Hubbard JC, Okun MS, **Yacoubi B**, Christou EA. The Effect of Deep Brain Stimulation on Motor Learning in Essential Tremor.

- Neuromuscular Plasticity Symposium. Gainesville, FL. 2024.
40. Kim JJ, Delmas S, Choi YJ, Hubbard JC, Okun MS, **Yacoubi B**, Christou EA. The Effect of Deep Brain Stimulation on Motor Learning in Essential Tremor. D.K. Stanley HHP Research Symposium. Gainesville, FL. 2024.
  39. Malik RJ, Kim JJ, Delmas S, **Yacoubi B**, Christou EA. Yank and endpoint accuracy in targeted ballistic contractions. D.K. Stanley Day, University of Florida College of Health and Human Performance, Gainesville, FL. 2024.
  38. Hubbard JC, Kim JJ, Delmas S, Choi YJ, **Yacoubi B**, Christou EA. Executive function overload increases dysmetria but not intra-individual variability. Neuromuscular Plasticity Symposium. Gainesville, FL. 2024.
  37. Delmas S, Weintraub M, Hubbard J, Choi YJ, **Yacoubi B**, Christou EA. Steadiness training with concentric or eccentric contractions: Effects on ankle movement control. D.K. Stanley Lecture Research Symposium, Gainesville, FL. Spring 2023.
  36. Hubbard J.C., Kim J., Delmas S., Choi Y., Christou EA, **Yacoubi B**. Heart rate variability coheres with reaction time and motor response intra-individual variability. D.K. Stanley Lecture Research Symposium, Gainesville, FL. Spring 2023.
  35. Kim J, Delmas S, Choi YJ, Hubbard J, Weintraub M, **Yacoubi B**, Arabatzi F, Christou EA. Distinct neural activity for controlling the speed of ballistic contractions at low force levels. D.K. Stanley Lecture Research Symposium, Gainesville, FL. Spring 2023.
  34. Delmas S, Choi Y, **Yacoubi B**, Christou EA. Can DBS therapy benefit mobility in Essential Tremor? Fourth Annual T32-Fellows Symposium, Gainesville, FL, Fall 2022
  33. Kim J, Delmas S, Choi Y, Hubbard J.C, Christou E.A., **Yacoubi B**. Modulation of reaction time and motor response intra-individual variability. D.K. Stanley Lecture Research Symposium, Gainesville, FL. Spring 2022.
  32. Delmas S, Choi Y, **Yacoubi B**, Christou EA. Motor plan variability, not signal-dependent noise, explains greater motor variability at low force levels. D.K. Stanley Lecture Research Symposium, Gainesville, FL. Spring 2022.
  31. Choi YJ, **Yacoubi B**, Casamento-Moran A, Delmas S, Wilkes BJ, Hess CW, Shukla AW, Foote KD, Vaillancourt DE, Okun MS, Christou EA. Suppression of Axial Tremor by Deep Brain Stimulation in Patients with Essential Tremor: Effects on Gait and Balance Measures. D.K. Stanley Lecture Research Symposium, Gainesville, FL. Spring 2022.
  30. Delmas S, Choi Y, **Yacoubi B**, Christou EA. Motor plan variability, not signal-dependent noise, explains greater motor variability at low force levels. Neuromuscular Plasticity Symposium, Gainesville, FL. Spring 2022
  29. Choi YJ, **Yacoubi B**, Casamento-Moran A, Delmas S, Wilkes BJ, Hess CW, Shukla AW, Foote KD, Vaillancourt DE, Okun MS, Christou EA. Suppression of Axial Tremor by Deep Brain Stimulation in Patients with Essential Tremor: Effects on Gait and Balance Measures. Neuromuscular Plasticity Symposium, Gainesville,

- FL. Spring 2022
28. Delmas S, Choi Y, Komer M, Weintraub M, **Yacoubi B**, Christou EA. Older adults use a motor plan that is detrimental to endpoint control. Robert Levitt Awards for Student Research on Aging, Spring 2021
  27. Delmas S, Choi Y, Komer M, Weintraub M, **Yacoubi B**, Christou EA. Older adults use a motor plan that is detrimental to endpoint control. Neuromuscular Plasticity Symposium, Gainesville, FL. Spring 2021
  26. Delmas S, Casamento-Moran A, Park SH, **Yacoubi B**, Christou EA. Motor Planning Perturbation: Muscle Activation and Reaction Time. Graduate Student Three Minute Thesis, Gainesville, FL. Fall 2020
  25. Bracksieck S., Sajjadi E., Casamento-Moran A., **Yacoubi B.**, Christou E.A. Low-Frequency Modulation of Discrete Goal-Directed Force Contractions. *Stanley Lecture, University of Florida, Spring 2019.*
  24. Choi Y.J., Casamento-Moran A., Delmas S., Bracksieck S., **Yacoubi B.**, Okun M., Vaillancourt D.E., Christou E.A. Tremor and dysmetria contribute to gait and balance impairments in Essential Tremor. *Stanley Lecture, University of Florida, Spring 2019.*
  23. Casamento-Moran A., Komer M., Delmas S, Bracksieck S., **Yacoubi B**, Okun M, Shukla A, Vaillancourt D.E., Christou EA. Tremor and dysmetria in Essential Tremor: Are these symptoms related? *Stanley Lecture, University of Florida, Spring 2019.*
  22. Delmas S., Casamento-Moran A., **Yacoubi B.**, Subramony S.H., Vaillancourt D.E., Christou E.A. Movement initiation and motor output error in SCA6. *Stanley Lecture, University of Florida, Spring 2019.*
  21. Bracksieck S., Sajjadi E., Casamento-Moran A., **Yacoubi B.**, Christou E.A. Low-Frequency Modulation of Discrete Goal-Directed Force Contractions. *Neuromuscular Plasticity Symposuim, University of Florida, Spring 2019.*
  20. Casamento-Moran A, Komer M., Delmas S, Bracksieck S., **Yacoubi B**, Okun M, Shukla A, Vaillancourt D.E., Christou EA. Tremor and dysmetria in Essential Tremor: Are these symptoms related? *Neuromuscular Plasticity Symposuim, University of Florida, Spring 2019.* Outstanding Graduate student Poster Award
  19. Choi Y.J., Casamento-Moran A., Delmas S., Bracksieck S., **Yacoubi B.**, Okun M., Vaillancourt D.E., Christou E.A. Tremor and dysmetria contribute to gait and balance impairments in Essential Tremor. *Neuromuscular Plasticity Symposuim, University of Florida, Spring 2019.*
  18. Delmas S., Casamento-Moran A., **Yacoubi B.**, Subramony S.H., Vaillancourt D.E., Christou E.A. Movement initiation and motor output error in SCA6. *Neuromuscular Plasticity Symposuim, University of Florida, Spring 2019.*
  17. Park SH, Kim C, **Yacoubi B**, Christou EA. Steadiness of dynamic force tasks: low-frequency oscillations in force and muscle activity. Graduate Student Research Day, University of Florida, 2018.
  16. Park SH, Kim C, **Yacoubi B**, Christou EA. Control of dynamic force tasks: low-frequency oscillations in force and modulation of muscle activity. 13th Annual

- Neuromuscular Plasticity Symposium, College of Public Health and Health Professions, University of Florida, 2018.
15. Park SH, Kim C, **Yacoubi B**, Christou EA. Low-frequency oscillations in force and muscle activity during sinusoidal force tasks. The D. K. Stanley Lecture Series, College of Health & Human Performance, University of Florida, 2018.
  14. Ernster AE, Park SH, **Yacoubi B**, Christou EA, Casamento-Moran A, Singer ML, Humbert IA. Test of cross-systems transfer between corticobulbar and corticospinal pathways during goal directed tasks of the tongue and ankle. College of Public Health and Health Professions Research Day, University of Florida, 2017.
  13. Park SH, Casamento-moran A, **Yacoubi B**, Christou EA. Voluntary reduction of force variability via modulation of oscillations in force from 0-1 Hz. The D. K. Stanley Lecture Series, College of Health & Human Performance, University of Florida, 2017.
  12. Park SH, Casamento-moran A, **Yacoubi B**, Christou EA. Voluntary reduction of force variability via modulation of oscillations in force from 0-1 Hz. 12nd Annual Neuromuscular Plasticity Symposium, College of Public Health and Health Professions, University of Florida, 2017.
  11. Park SH, Casamento-moran A, **Yacoubi B**, Christou EA. Voluntary reduction of force variability via modulation of oscillations in force from 0-1 Hz. *Graduate Student Research Day, University of Florida, 2017.*
  10. Park SH, Casamento-moran A, **Yacoubi B**, Christou EA. Voluntary reduction of force variability via modulation of oscillations in force from 0-1 Hz. *Annual Diversity Graduate Research Symposium, University of Florida, 2017.*
  9. Delmas, S, Casamento-Moran, A, Park, SH, **Yacoubi B**, & Christou EA. Anticipation and reaction time. *Undergraduate Research Day, University of Florida, Fall 2017.*
  8. Korner, M.H., Casamento-Moran A., Chen, Y.-T., Kwon, M., Fox E.J., **Yacoubi B.**, & Christou E.A. Sensory prediction and motor control across the lifespan. *Undergraduate Research Day, University of Florida, Fall 2017.*
  7. Fleeman, R., Casamento-Moran A., Chen, Y.-T., Kwon, M., Fox E.J., **Yacoubi B.**, & Christou E.A. Error-based learning mediated differently across the lifespan. *Florida Undergraduate Research Conference, Florida Atlantic University, Fall 2017.*
  6. Fleeman, R., Casamento-Moran A., Chen, Y.-T., Kwon, M., Fox E.J., **Yacoubi B.**, & Christou E.A. The contribution of motor output variability to endpoint accuracy across the lifespan. *Undergraduate Research Day, University of Florida, Fall 2017.*
  5. Casamento-Moran, A., **Yacoubi B.**, S.H., Subramony, D.E. Vaillancourt, & Christou E.A. Feedforward motor control and functional capacity in SCA6. *Neuromuscular Plasticity Symposium, University of Florida, Spring 2017.*
  4. Park SH, Casamento-moran A, **Yacoubi B**, Christou EA. Voluntary reduction of force variability via modulation of oscillations in force from 0-1 Hz. *Graduate Student Research Symposium, College of Health & Human Performance, University of Florida, 2016.*

3. Park SH, Neha Lodha, & Christou EA. Greater asymmetry in motor control for TIA. *Annual Neuromuscular Plasticity Symposium, University of Florida, 2016.*
2. Casamento-Moran, A., **Yacoubi B.**, S.H., Subramony, D.E. Vaillancourt, & Christou E.A. Feedforward motor control and functional capacity in SCA6. *Stanley Lecture, University of Florida, Spring 2017.*
1. Casamento-Moran, A., Fleeman, R., Chen, Y.-T., Kwon, M., Fox E.J., **Yacoubi B.**, & Christou E.A. Error based learning mediated differently across the lifespan. *Health and Human Performance Research Day, University of Florida, Fall 2016.*

## FUNDING

### ONGOING

R01 NS131342 Christou & Okun (MPIs)  
*Advancing Thalamic Neurostimulation for Suppressing Essential Voice Tremor*  
2023-2028  
Role: co-I  
Effort: 9.6 Calendar months  
\$1,795,767

R01 NS58487 Vaillancourt (PI)  
*Preclinical Markers of Parkinsonism*  
2021-2026  
Role: co-I  
Effort: 2.4 Calendar months  
\$2,340,500

Eagles Pilot Grant Christou, Yacoubi, Hegland & Wong (MPIs)  
Norman Fixel Institute for Neurological Diseases  
*Acoustic Biomarkers for Parkinsons Disease*  
6/2025-5/2026  
Role: PI  
\$42,000

### SUBMITTED PENDING REVIEW

R21NS147240-01A1 Christou, Yacoubi & Wong( MPIs)  
Grant 14545893 UF  
2025  
*Neuromodulation of Performance Fatigability*  
Role: PI  
Priority score: 12%  
Pending IRG Review

## PREVIOUS

R21 NS119849 Christou & Okun (MPIs)

2020-2023

*Balance and Gait in Essential Tremor: Effects of Thalamic DBS*

Role: co-I

Effort: 9.6 Calendar months

\$412,500

## TEACHING

**2024-date**

**APK5620:** Genetics of Human Performance

Department of Applied Physiology and Kinesiology

University of Florida, Gainesville, FL

**2021- 2024**

**PET5936:** Cur Top Exer/Sport Science (Genetics of Human Performance)

Department of Applied Physiology and Kinesiology

University of Florida, Gainesville, FL

**2017 Fall**

**APK4115:** Neuromuscular Aspects of Exercise

**2016 Fall**

Department of Applied Physiology and Kinesiology

University of Florida, Gainesville, FL

**2014- Spring**

**PCB3063:** Genetics

Department of Botany

University of Florida, Gainesville, FL

## SERVICE

### AD-HOC REVIEWER

Medicine and Science in Sports and Exercise

Frontiers in Cognition

Motor Control