Laura Mikula

Sensorimotor Control Lab
York University
4700 Keele St.
Toronto ON M3J 1P3
Canada

mikulal@yorku.ca
lauramikula.github.io

Education

2018 Ph.D., Cognitive Neurosciences, Université Claude Bernard Lyon 1, Lyon, France

2018 Ph.D., Vision Sciences, Université de Montréal, Montréal, Canada

2014 M.Sc., Neurosciences, Université Claude Bernard Lyon 1, Lyon, France

2012 B.Sc., Physiology, Université Claude Bernard Lyon 1, Lyon, France

Professional experience

2020-present Postdoctoral visitor, Sensorimotor Control Lab, York University, Toronto, Canada

2019-2020 Postdoctoral fellow, Visual Psychophysics and Perception Laboratory, School of Optometry, Université de Montréal, Montréal, Canada

2018-2019 Postdoctoral fellow, ImpAct team, Lyon Neuroscience Research Center, Bron, France

Publications

Peer Reviewed Journal Articles

2021 Patoine A, **Mikula L**, Mejía-Romero S, Chaumillon R, Michaels J, Keruzoré O, Bernardin D, Faubert J. Increased visual and cognitive demands emphasize the importance of meeting visual needs at all distances while driving. *PLoS ONE*. In Press. [Preprint]

2021 **Mikula L**, Blohm G, Koun É, Khan AZ, Pisella L. Movement drift in optic ataxia reveals deficits in hand state estimation. *Journal of Experimental Psychology: Human Perception and Performance*. Advance online publication. DOI: 10.1037/xhp0000901

2020 **Mikula L**, Mejía-Romero S, Chaumillon R, Patoine A, Lugo E, Bernardin D, Faubert J. Eye-head coordination and dynamic visual scanning as indicators of visuo-cognitive demands in driving simulator. *PLoS ONE*, 15(12): e0240201. DOI: 10.1371/journal.pone.0240201

2018 **Mikula L**, Jacob M, Tran T, Pisella L, Khan AZ. Spatial and temporal dynamics of pre-saccadic attentional facilitation before pro- and anti-saccades. *Journal of Vision*, 18(11):2, 1-16. DOI: 10.1167/18.11.2

2018 **Mikula L**, Sahnoun S, Blohm G, Pisella L, Khan AZ. Vibrotactile information improves proprioceptive reaching target localization. *PLoS ONE*, 13(7): e0199627. DOI: 10.1371/journal.pone.0199627

2018 **Mikula L**, Gaveau V, Pisella L, Khan AZ, Blohm G. Learned rather than online relative weighting of visual-proprioceptive sensory cues. *Journal of Neurophysiology*, 119(5), 1981-1992. DOI: 10.1152/jn.00338.2017

Fellowships & Awards

2020 Vision: Science to Applications (VISTA) Postdoctoral Fellowship, York University, Canada

2020 Postdoctoral Student Award, Road Safety Research Network (RRSR) of Quebec, Canada

2017 Excellence Scholarship, Faculté des Etudes Supérieures (FESP) & École d'Optométrie de l'Université de Montréal (ÉOUM), Canada

2017 Scholarship for end of PhD studies, Faculté des Etudes Supérieures et Postdoctorales (FESP), Canada

2017 Additional funding for students, Groupe de Recherche en Sciences de la Vision (GRSV), Canada

2016 Winner of the contest "Votre recherche en BD" (Your research in comics), Fédération des Associations Étudiantes du Campus de l'Université de Montréal (FAÉCUM), Canada

2015 Doctoral Mobility Fellowship, LabEx CORTEX, France

2015 Doctoral Mobility Fellowship, Programme Avenir Lyon Saint-Étienne (PALSE), France

Invited Talks

2021 Interpreting and integrating vision for adapting to dynamic environments. VISTA Annual Research Retreat. Online, February 18

2019 Multisensory integration for reaching movements. York University, Toronto, Canada, May 27

2018 Multisensory integration for reaching movements. Justus Liebig University Giessen, Germany, August 14

2018 Intégration visuo-proprioceptive pour l'action. Rencontres Mouvement et Handicap, Lyon, France, February 8

2017 Involvement of the posterior parietal cortex in online control of reaching. Doctoral School Neuroscience and Cognition Annual Scientific Meeting, Lyon, France, September 11

2016 Proprioceptive weights are independent of left and right hand sensory reliabilities. CORTEX Students Club, Lyon, France, April 25

2015 Intégration multi-sensorielle pour l'action chez les sujets sains et les patients avec ataxie optique. École d'optométrie, Université de Montréal, Canada, December 15

Conference Activity

2020 **Mikula L**, Mejía-Romero S, Chaumillon R, Patoine A, Lugo E, Bernardin D, Faubert J. Increased visual-cognitive demands in driving simulator result in modifications of eye-head coordination and dynamic visual scanning. *The Eye, The Brain & The Auto*, Online, December 7-8

2020 **Mikula L**, Mejía-Romero S, Chaumillon R, Patoine A, Lugo E, Bernardin D, Faubert J. Dynamic analysis of eye-head movements for estimating visuo-cognitive demands during driving. *Neuromatch Conference 3.0*, Online, October 26-30

2019 Pisella L, Jurkiewicz T, **Mikula L**. Troubles visuo-spatiaux et ataxie optique. *Journées de Neurologie de Langue Française*, Lille, France, April 16-19

2017 **Mikula L**, Pisella L, Blohm G, Khan AZ. Involvement of the posterior parietal cortex in online control of reaching. *Society for Neuroscience*, Washington, DC, November 11-17

2016 **Mikula L**, Jacob M, Pisella L, Khan AZ. Temporal dynamics of attention before anti-saccades. *Journal of Vision*, 16(12), 1044-1044.

2016 **Mikula L**, Jacob M, Tran T, Pisella L, Khan AZ. Temporal dynamics of attention before anti-saccades. *Vision Sciences Society*, St. Pete Beach, FL, May 13-16

2016 **Mikula L**, Jacob M, Tran T, Pisella L, Khan AZ. Temporal dynamics of attention before anti-saccades. *Doctoral School Neuroscience and Cognition Annual Scientific Meeting*, Lyon, France, May 3

2015 **Mikula L**, Pisella L, Blohm G, Khan AZ. Proprioceptive weights are independent of left and right hand sensory reliabilities. *21st Annual Meeting of the FRQS Vision Health Research Network*, Québec, QC, November 6

2015 **Mikula L**, Pisella L, Blohm G, Khan AZ. Proprioceptive weights are independent of left and right hand sensory reliabilities. *Society for Neuroscience*, Chicago, IL, October 17-21

2013 Claude L, Sauzeau J-B, **Mikula L**, Perchet C, Magnin M, Garcia-Larrea L, Mazza S, Bastuji H. Modulation of nociceptive information processing during paradoxical sleep: an intracerebral recording study in Humans. *Congress of the EFIC (European Federation of IASP Chapters)*, Florence, Italy, October 9-12

Ad-hoc Reviewer

Frontiers in Neuroscience

Teaching Experience

Université de Montréal, Teaching Assistant

Neurophysiology of Eye Movements (undergraduate, fall 2015)

Research Experience

2014 Student intership: "Contribution of visual and proprioceptive information to pointing movements", ImpAct team, Lyon Neuroscience Research Center, Bron, France. Advisors: Laure Pisella & Aarlenne Z Khan

2013 Student intership: "Modulation of nociceptive information processing during paradoxical sleep in humans", Neuropain team, Lyon Neuroscience Research Center, Bron, France. Advisor: Hélène Bastuji

Outreach

2017 Ma Thèse Pour Les Nuls (My Thesis for Dummies), Lyon Science Fair, October 14

2016 Ma Thèse en 180 secondes (Three Minute Thesis), Rhône-Alpes regional final, April 28

Languages

French: Native ■■■■■

English: Fluent ■■■■■

Spanish: Elementary reading, writing and speaking ■■■■■

References

Aarlenne Zein Khan
École d'optométrie, Université de Montréal, Room 260-25
3744 Jean-Brillant, Montréal, QC H3T 1P1, Canada
Email: aarlenne.khan@umontreal.ca
Tel: +1 514 343-6111 #4571

Laure Pisella
Inserm U1028, ImpAct
16 avenue du Doyen Lépine, 69500 Bron, France
Email: laure.pisella@inserm.fr
Tel: +33 (0)4 72 91 34 05

Gunnar Blohm
Queen's University, Centre for Neuroscience Studies, Botterell Hall, Room 229
18 Stuart Street, Kingston, ON K7L 3N6, Canada
Email: gunnar.blohm@queensu.ca
Tel: +1 613 533-3385

Delphine Bernardin
Essilor International
R&D Strategic Innovation Manager
Email: tranvoud@essilor.fr
Tel: +33 1 49 80 62 89

Jocelyn Faubert
École d'optométrie, Université de Montréal
3744 Jean-Brillant, Montréal, QC H3T 1P1, Canada
Email: jocelyn.faubert@umontreal.ca
Tel: +1 514 343-6111 #36873

Denise Henriques
School of Kinesiology & Health Science, York University
4700 Keele Street, Toronto, ON M3J 1P3, Canada
Email: deniseh@yorku.ca
Tel: +1 416 736-2100 #77215