

CURRICULUM VITAE

HOMA VAHIDI, MSc

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EDUCATIONAL BACKGROUND

Doctor of Medicine

2024 – present

School of Medicine, Stanford

Master of Science, Neuroscience

2021 – 2023

Western University, London

Thesis Title: “Use of Functional Near-Infrared Spectroscopy (fNIRS) to Assess Neurologic Function in Healthy Term Newborns”

Supervisors: Dr. Emma Duerden, Dr. Yalda Mohsenzadeh

Bachelor of Science, Honors Specialization in Neuroscience

2017 – 2021

Western University, London

Thesis Title: “Toward Understanding Real-world Actions: Validating Optical Neuroimaging for Studying Actions”

Supervisor: Dr. Jody Culham

RESEARCH-SPECIFIC HONORS, SCHOLARSHIPS AND AWARDS

Ontario Graduate Scholarship (OGS) (Declined)

May 2022 – May 2023

\$15000

Project Title: “Use of Functional Near-Infrared Spectroscopy (fNIRS) to Assess Neurologic Function in Healthy Term Newborns”

Canada Graduate Scholarship – Master’s (CGSM)

May 2022 – May 2023

\$17500

Project Title: “Use of Functional Near-Infrared Spectroscopy (fNIRS) to Assess Neurologic Function in Healthy Term Newborns”

London Health Sciences Centre Epilepsy Research Day Best Presenter Award

April 2024

Project Title: “Practical considerations for scanning patients using 7-Tesla MRI: Experience in a prospective cohort scanned at the Western CFMM”

Society for Functional Near-Infrared Spectroscopy (SfNIRS) Research Excellence Award
Oct 2021
\$200

Western University's Neuroscience Graduate Travel Award
Oct 2021
Up to \$500

Natural Sciences and Engineering Research Council (Canada) Undergraduate Student Research Award
May 2020 – Sept. 2020
Supervisor: Dr. Jody Culham
\$7840
Project Title: “Functional Near-Infrared Spectroscopy During Natural Reaching and Grasping”

Natural Sciences and Engineering Research Council (Canada) Undergraduate Student Research Award
May 2019 – Sept. 2019
Supervisor: Dr. Jody Culham
\$7840
Project Title: “Why Do People Gaze Towards the Top of An Object During Grasping?”

OTHER HONORS, SCHOLARSHIPS AND AWARDS

Dean's Honor List, 2018 – present

International Learning Award, 2019, \$1000

The Western Scholarship of Excellence, 2017, \$2000

PUBLICATIONS

Vahidi, H., Kowalczyk, A., Stubbs, K., Musabi, M., Roychaudhuri, S., Kent, M., Bhattacharya, S., De Ribaupierre, S., St. Lawrence, K., Mohsenzadeh, Y., Duerden, E. G. Investigating Task-Free Functional Connectivity Patterns in Newborns Using functional Near-Infrared Spectroscopy. *Brain and Behavior*. **(Revisions Requested)**.

Tang, L., Kebaya, L.M.N., Altamimi, T., Kowalczyk, A., Musabi, M., Roychaudhuri, S., **Vahidi, H.**, Meyerink, P., Mayorga, P.C., de Ribaupierre, S., Bhattacharya, S., Tristao, L., St. Lawrence, K., Duerden, E.G. Altered functional connectivity in preterm neonates with intraventricular hemorrhage using functional near-infrared spectroscopy. *Scientific Reports*. **(Accepted)**

Tang, L., Kebaya, L.M.N., Altamimi, T., Kowalczyk, A., Musabi, M., Roychaudhuri, S., **Vahidi, H.**, Meyerink, P., Mayorga, P.C., de Ribaupierre, S., Bhattacharya, S., Tristao, L., St. Lawrence, K., Duerden, E.G. Altered resting state functional connectivity in newborns with hypoxic

ischemic encephalopathy assessed using high-density functional near-infrared spectroscopy. *Scientific Reports*. **(Published)**

Kebaya, L.M.N., Tang, L., Altamimi, T., Kowalczyk, A., Musabi, M., Roychaudhuri, S., **Vahidi, H.**, Meyerink, P., Mayorga, P.C., de Ribaupierre, S., Bhattacharya, S., Tristao, L., St. Lawrence, K., Duerden, E.G. Bedside monitoring of altered resting-state functional connectivity in preterm infants with intraventricular hemorrhage using functional near infrared spectroscopy. *European Journal of Pediatric Neurology*. **(Under review)**.

Tang, L.*, Kebaya, L.M.*, **Vahidi, H.***, Meyerink, P., de Ribaupierre, S., Bhattacharya, S., Lawrence, K., Duerden, E.G. Predicting cortical-thalamic connectivity using functional near-infrared spectroscopy and graph convolutional networks. **(Submitted)**.

PEER-REVIEWED PRESENTATIONS

Vahidi, H., Kowalczyk, A., Stubbs, K., Musabi, M., Roychaudhuri, S., Kent, M., Bhattacharya, S., De Ribaupierre, S., St. Lawrence, K., Mohsenzadeh, Y., Duerden, E. G. Investigating Task-Free Functional Connectivity Patterns in Newborn Infants. *Society for Neuroscience 2023*. **(Presented)**.

Vahidi, H., Kowalczyk, A., Stubbs, K., Musabi, M., Roychaudhuri, S., Bhattacharya, S., De Ribaupierre, S., St. Lawrence, K., Mohsenzadeh, Y., Duerden, E. G. Spontaneous Functional Connectivity Increased with Gestational Age: A Functional Near-Infrared Spectroscopy Study in Healthy Newborns. *Society for Neuroscience 2022*. **(Presented)**.

Vahidi, H., Kowalczyk, A., Stubbs, K., Musabi, M., Roychaudhuri, S., Bhattacharya, S., De Ribaupierre, S., St. Lawrence, K., Mohsenzadeh, Y., Duerden, E. Increased intra-hemispheric connectivity at older gestational ages in healthy newborns. *Society for Functional Near-Infrared Spectroscopy 2022*. **(Presented)**.

Stubbs, K.*, **Vahidi, H.***, Rens, G., Duerden, E., Culham, J. C. Relating Quality Metrics to Cardiac and Functional Activation. *Society for Functional Near-Infrared Spectroscopy 2022*. **(Presented)**.

Vahidi, H., Rens, G., Sorger, B., Culham, J. C. Using Functional Near-Infrared Spectroscopy for the Study of Visually Guided Hand Actions. *Journal of Vision 2021;21(9):2958*. **(Presented)**.

Vahidi, H., Rens, G., Stubbs, K., Quinlan, D. J., Sorger, B., Culham, J. C. Using Functional Near-Infrared Spectroscopy for the Study of Visually Guided Hand Actions. *Society for Functional Near-Infrared Spectroscopy 2021*. **(Presented)**.

Kowalczyk, A., **Vahidi, H.**, Duerden, E., Bhattacharya, S. Use of Functional Near-Infrared Spectroscopy (fNIRS) to Compare Examine Neurologic Function in Healthy Term Newborns as Compared to Term Newborns with Hypoglycemia, Fetal Opioid Exposure or Those Who Are Small for Gestational Age (SGA): A Feasibility Study. *Canadian Pediatric Society 2021*. **(Presented)**.

EMPLOYMENT EXPERIENCE

Lab Manager AIMS Lab, Western University, London, ON	Aug. 2023 – Aug. 2024
Office Assistant Foot Patrol, Western University	May 2022 – Aug. 2022
Teaching Assistant Western University, Department of Computer Science	Sep. 2021 – May 2023
Research Assistant Culham Lab, Western University, London, ON	Oct. 2018 – Sep. 2021
Assistant Manager Henna Florist, Thornhill, ON	May 2017 – Sep. 2018

EXTRACURRICULAR ACTIVITIES

Student Representative for Neuroscience Graduate Program	Jun. 2022 – Jun. 2023
Vice-Chair of COVgen Programming Committee	Aug. 2021 – Aug. 2022
Society of Neuroscience Graduate Students Mentorship Committee Co-Chair Jan. 2022 – Aug. 2023	
Science Rendezvous Programming Committee Member	September 2021 – present

VOLUNTEER EXPERIENCE

Patient Guide at Outpatient Pediatric Clinic Victoria Hospital	Jan. 2022 – Jan. 2023
Patient Guide London's COVID-19 Vaccination Clinic	Jan. 2021 – Sep. 2021
Internal Relations Frontier College	Aug. 2020 – May 2021
Tutor and Team Leader Frontier College	Sep. 2019 – Aug. 2023
Patient Assistant London Health Sciences Centre (LHSC)	Jan. 2020 – Jan. 2023

Patroller and Operations Manager
Western Foot Patrol

Sep. 2019 – May 2023

Cultural Ambassador
Impact Experience

Jan. 2020 – May 2020