

CURRICULUM VITAE

HOMA VAHIDI, MSc

hvahidi2@uwo.ca

UNIVERSITY EDUCATIONAL BACKGROUND

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”

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. *Human Brain Mapping*. **(Submitted)**.

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*. **(Revisions Requested)**

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. **(In prep)**.

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 – present |
| 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 Jan. 2022 – Jan. 2023
Victoria Hospital

Patient Guide Jan. 2021 – Sep. 2021
London's COVID-19 Vaccination Clinic

Internal Relations Aug. 2020 – May 2021
Frontier College

Tutor and Team Leader Sep. 2019 – Aug. 2023
Frontier College

Patient Assistant Jan. 2020 – Jan. 2023
London Health Sciences Centre (LHSC)

Patroller and Operations Manager Sep. 2019 – May 2023
Western Foot Patrol

Cultural Ambassador Jan. 2020 – May 2020
Impact Experience