

The Eye, The Brain and The Auto Agenda

Monday, November 18, 2024

7:00 – 8:00 am Breakfast

Introduction

8:00 – 8:15 am Welcome

Nauman Imami, M.D., M.H.S.A., Chair, Department of Ophthalmology, Henry Ford Health, and David Goldman, M.D., M.B.A., Medical Director, Detroit Institute of Ophthalmology, Henry Ford Health, Detroit, Michigan

8:15 – 8:30 am Introduction to Conference, Cynthia Owsley, Ph.D., University of Alabama at Birmingham

8:30 – 9:00 am “Current Use and Future Needs of Data Acquisition Systems (DAS) in Naturalistic Driving”, Gerald McGwin, Ph.D., University of Alabama at Birmingham

Experience with Commercially Available DAS

9:00 – 9:30 am “Leveraging Commercial DAS to Characterize Functional and Cognitive Decline among Older Adult Drivers: Pearls and Perils”, Ganesh Babulal, Ph.D., Washington University, St. Louis, Missouri

9:30 – 10:00 am “Can We Build an Open-Source Platform to Support Naturalistic Driving Studies?”, Gang Luo, Ph.D., Schepens Institute, Harvard University, Boston, Massachusetts

10:00 – 10:30 am Coffee Break

Continuation: Experience with Commercially Available DAS

10:30 – 11:00 am “Experiences from the LongROAD Study: Compare and Contrast of Two Naturalistic Driving Collection Methods”, Linda Hill, Ph.D., University of California, San Diego, California

Novel Approaches

11:00 – 12:30 pm "Exploring Data Acquisition in Naturalistic Driving: An Overview of Existing Technologies and a Novel Modular Device", Elio Curcio and Stefano Rodino, Ph.D., University of Calabria, Italy

12:30 – 1:30 pm Lunch

Experiences at Massachusetts Institute of Technology (MIT)

1:30 – 2:30 pm "Insights and Innovations from 25 Years of Field and Naturalistic Data Logging Experience", Bryan Reimer, Ph.D., Massachusetts Institute of Technology, Boston, Massachusetts

Driving Performance Variables of Interest in Studying Medically/Functionally Compromised Drivers

2:30 – 3:00 pm "Visually-Impaired Driver and Machine: A Fraught But Ideally Synergistic Relationship" Joseph Rizzo, M.D., Harvard University, Boston, Massachusetts

3:00 – 3:30 pm Coffee Break

3:30 – 4:00 pm "Insights from On-road Assessments in Drivers with Vision Impairment", Joanne Wood, Ph.D., Queensland University of Technology, Brisbane, Australia

4:00 – 4:30 pm "Insights from closed-road assessments in drivers with vision impairment", Alex Black, Ph.D., Queensland University of Technology, Brisbane, Australia

4:30 pm – 6:00 pm Break

6:00 pm – 9:00 pm Bartimaeus Award Reception and Dinner

Tuesday, November 19, 2024

7:00 – 8:00 am Breakfast

Continuation: Driving Performance Variables of Interest in Studying Medically/Functionally Compromised Drivers

8:00 – 8:30 am “Considerations for Data Acquisition and Analysis in Naturalistic Recording of Drivers with Central Vision Impairment Who use Biotopic Telescopes”, Bradley Dougherty, O.D., Ph.D., Ohio State University, Ohio

Approaches to Data Reduction and Analysis

8:30 – 9:30 am “Data Acquisition Toolchain for Naturalistic Driving Studies”, Val Clement, CEESAR (European Centre for Safety Studies and Risk Analysis)

9:30 – 10:15 am “AI Computer Vision Solution for Naturalistic Driving Analysis”, Steve Hellin, WorkProduct, St. Louis, Missouri, and Tamas Szabo Ph.D., WORKProduct, Hungary

10:15 -10:30 am Coffee Break

10:30 – 11:15 am “Blind Spots: Contextualizing Driving Behavior with Environmental Factors”, David Brown, Ph.D., Washington University, St. Louis, Missouri

11:15am – 12:00pm Summary and Issues for Moving Forward: Cynthia Owsley, Ph.D. and Gerald McGwin, Ph.D., University of Alabama, Birmingham, Alabama

12:00pm - Departure