

HOW DOES THE BRAIN CHANGE AS WE AGE?



RESEARCH QUESTION

Do older and younger adults have distinct differences in brain activity, and do these differences correlate to cognitive performance?

OBJECTIVE

Measure brain activity in older and younger adults using **functional near-infrared spectroscopy (fNIRS)**

ANALYSIS

Run t-test contrasts between **groups** (old vs young) and between **conditions** (1-back, 2-back, and 3-back)

Analysis for behavioural data and fNIRS data (what areas of the frontal and parietal lobe are active?)

METHODOLOGY

Employ working memory computer task (**N-back**) while participants wear fNIRS cap

Three tasks, increasing in difficulty (1-back, 2-back, 3-back)

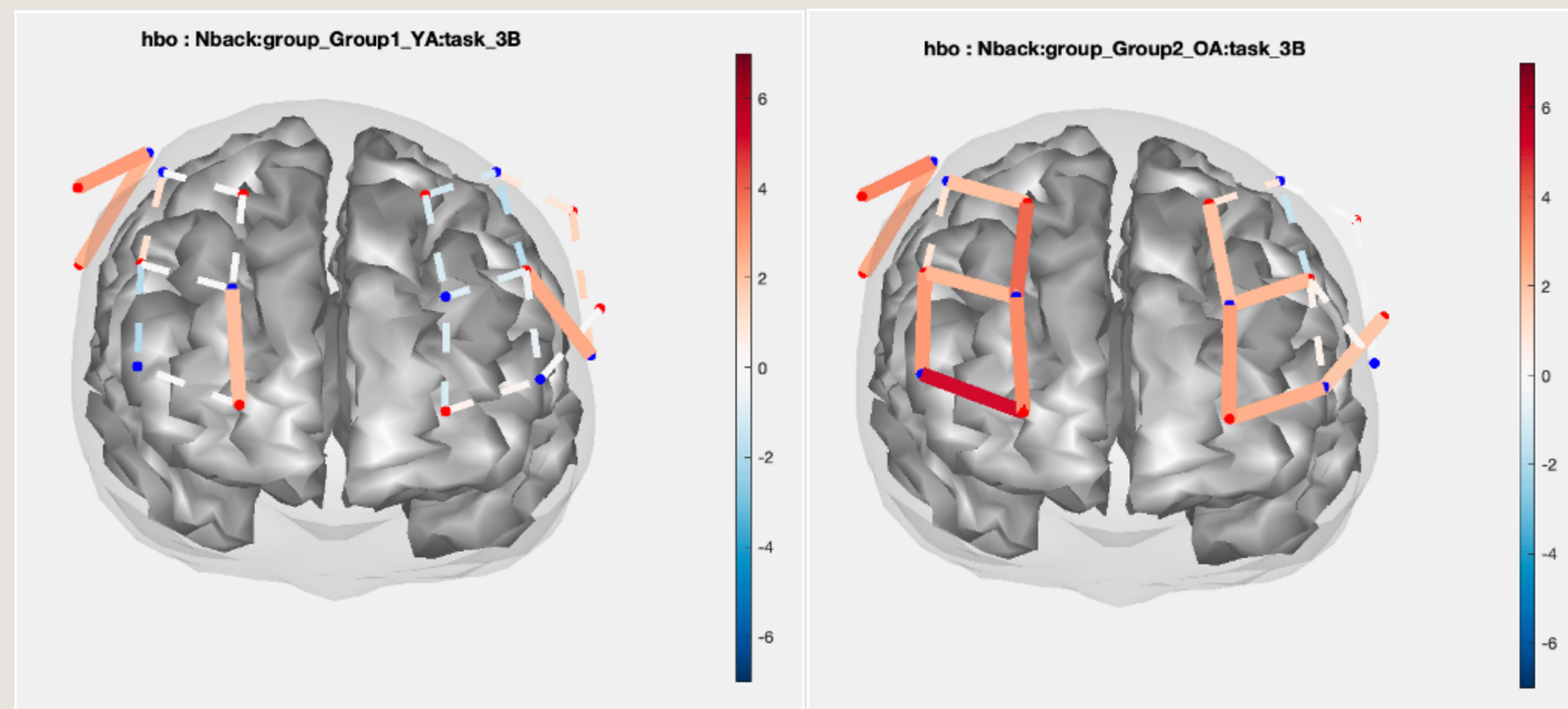


Jaida Lewis

Dr. Mark Rakobowchuk &
Dr. Claudia Gonzalez
Thompson Rivers University

RESULTS

Older adults demonstrating **increased** brain activity, and **decreased** performance on N-back task compared to younger adults



Refs:

