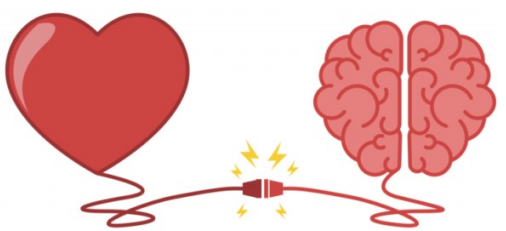
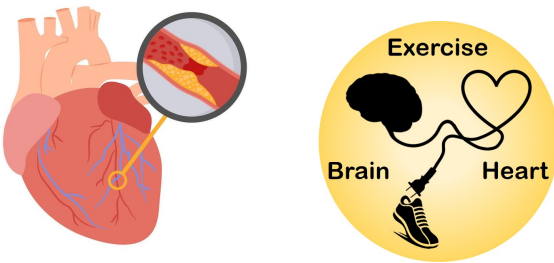
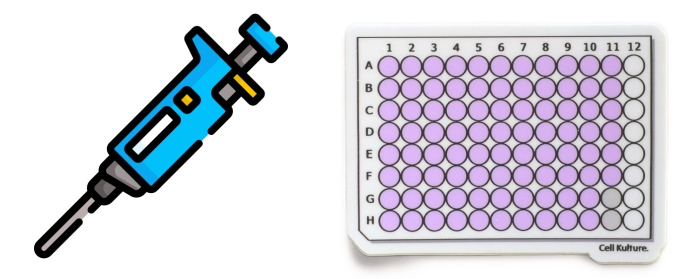
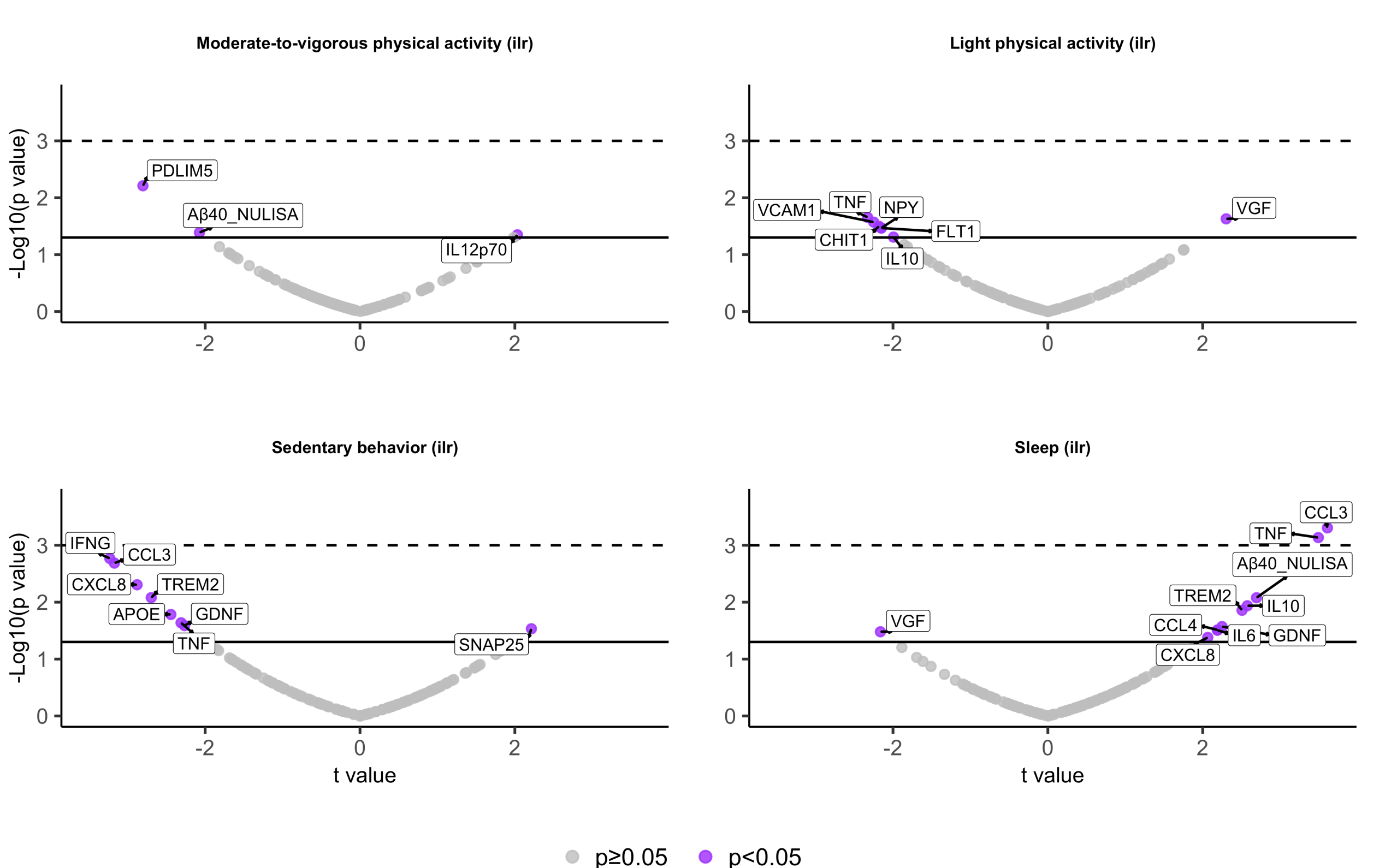


24-hour movement behaviors and CNS-focused plasma proteomics in people living with cardiovascular disease

Marcos Olvera-Rojas^{1*}, Patricio Solis-Urra^{1,2,3}, Jairo H. Migueles¹, Alessandro Sclafani¹, Angel Toval¹, Beatriz Fernandez-Gamez¹, Thomas K. Karikari⁴, Xuemei Zeng⁴, Kirk I. Erickson³, Eduardo Moreno-Escobar^{5,6}, Rocío García-Orta^{5,7}, Irene Esteban-Cornejo^{1,5,8} and Francisco B. Ortega^{1,8,9}

¹ Department of Physical Education and Sports, Faculty of Sport Sciences, Sport and Health University Research Institute (iMUDS), University of Granada, Granada, Spain. | ² Faculty of Education and Social Sciences, Universidad Andres Bello, Viña del Mar, Chile. | ³ AdventHealth Research Institute, Neuroscience, Orlando, FL, USA. | ⁴ Department of Psychiatry, School of Medicine, University of Pittsburgh, PA, USA. | ⁵ Instituto de Investigación Biosanitaria ibs.GRANADA, Granada, Spain. | ⁶ Cardiology Service, San Cecilio Clinical University Hospital, Granada, Spain. | ⁷ Cardiology Service, Virgen de las Nieves University Hospital, Granada, Spain. | ⁸ Centro de Investigación Biomédica en Red Fisiopatología de la Obesidad y Nutrición (CIBERObn), Instituto de Salud Carlos III, Madrid, Spain. | ⁹ Faculty of Sport and Health Sciences, University of Jyväskylä, Jyväskylä, Finland. ***Corresponding author: olvera@ugr.es**

24-h movement behaviors, mainly driven by sleep, may influence brain health in coronary artery disease individuals through an inflammatory-to-neurodegenerative pathway (specifically via CCL3 and TNF)

INTRODUCTION	METHODS	RESULTS	FUTURE AVENUES
 The Heart–Brain axis - Shared pathways interconnect cardiovascular and cerebrovascular systems. - Axis disruption contributes to cardiovascular disease and dementia. - 24-h movement behaviors are interrelated modulators of cardiometabolic and brain health.  Objective Using NULISaseq proteomics, we examined the associations between 24-h movement behaviors and CNS-focused plasma proteins in adults with coronary artery disease (CAD).	 Study design Cross-sectional including 104 adults with CAD (50–75y)  24-h movement behaviors Assessed via accelerometers (AX3, Axivity) and analyzed using Compositional data analysis (CoDA)  NULISaseq CNS proteomics 127-CNS disease panel	62y ± 7  18 (17%) 14y ± 4  22 (21 %) 29kg/m² ± 4   Figure 1. Associations between 24-h movement behaviors and discovery NULISaseq CNS disease panel proteins.	