

# CLAUDIA A CARRENO

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## EDUCATION

### **Ph.D. in Human Development**

Virginia Tech

Expected May 2025

### **M.S. in Applied Cognition and Neuroscience**

The University of Texas at Dallas

Received December 2017

### **B.A. (US & UK) in Psychology, Minor in Philosophy**

Richmond the American International University in London

Received January 2016

## EXPERIENCE

### **Research Associate**

Howell Mind Lab- PI: Dr. Brittany Howell

June 2022-Present

- Assisted in behavioral, MRI, and MEG data collection
- Managed physical and electronic research records

### **Lab Manager**

Wig Neuroimaging Lab - PI: Dr. Gagan Wig

The Center for Vital Longevity

April 2019 - May 2022

- Contributed to the study design of the Midlife Brain and Environment Study (NIH NIA R01 AG063930); executed recruitment, training of new research assistants, and data collection:
  - Administered and scored cognitive and motor assessments on adult participants (e.g., WAIS, NIH toolbox)
  - Screened and guided participants through fMRI sessions
  - Operated eye tracking software (EyeLink 1000 Plus) during fMRI sessions
  - Utilized REDCap to build and develop questionnaires and surveys for projects
- Maintained IRB, NIH, and Institutional Biosafety and Chemical Safety Committee (IBCC) documents, reviews, and reports
- Oversight of lab research training, meetings, logistics, budgeting, and expenditures
- Conducted FreeSurfer training for research assistants, PhD students, and postdoctoral trainees; supervised editing of 400+ brains
- Managed research assistants and managed upwards on an ad-hoc basis

### **Research Assistant**

Wig Neuroimaging Lab - PI: Dr. Gagan Wig

The Center for Vital Longevity

January 2017 - April 2019

- Utilized FreeSurfer to correct automatic segmentation and surface generation of MRI images (200+ brains)
- Monitored fMRI data (registration, surface mapping)
- Administered consent forms and MRI screenings
- Assisted with Transcranial Magnetic Stimulation (TMS) sessions
- Managed physical and electronic research records
- Performed basic data analysis on fMRI data using R software

## **Developmental Assessment- Field work**

Senior Lecturer/Clinical Supervisor- Donna Ewing

University of Texas at Dallas

September 2016 - December 2016

- Conducted developmental evaluations and assessments (e.g. BSID-III, DDST-II, BDI-II, ASQ) and reported results
- Scheduled appointments and conducted interviews with family members
- Video recorded sessions to monitor assessment administration quality

## **Teacher**

Primrose Schools

June 2017 - March 2019

- Prepared a curriculum and managed the daily operations for a class of children (age range 0-6 years)
- Assessed each child's developmental needs and milestones
- Communicated with parents and teachers about children's needs and development
- Taught American Sign Language and Spanish to children

## **Child and Youth Program Assistant**

RAF Lakenheath Child Development Center East

June 2015 - September 2015, April 2016 - July 2016

- Planned, coordinated, and conducted developmentally appropriate activity plans for children ranging from 6 weeks to 6 years of age
- Monitored, recorded, and assessed developmental milestones

## **PEER REVIEWED PUBLICATIONS**

Smith, E.T., Hennessee, J. P., Wig, G.S., Frank, S., Gonzalez, H. , Bacci, J., Chan, M.Y., Carreno, C.A., Park, D.C., (Submitted 2022). The relationship of longitudinal change in gray matter volume to changes in cognition differs across the lifespan and across different cognitive constructs. *Neurobiology of Aging*.

Chan, M.Y., Han, L., **Carreno, C.A.**, Zhang, Z., Rodriguez, R.M., LaRose, M., Hassenstab, J., Wig, G.S. (2021). Long-term prognosis and educational determinants of brain network decline in older adult individuals. *Nature Aging*. 1(11), 1053–1067. <https://doi.org/10.1038/s43587-021-00125-4>

## **CONFERENCE ABSTRACTS**

Agres, P.F., Han L., Chan, M.Y., Nair, A.S., **Carreno, C.A.**, Wig, G.S. (Submitted 2022) Independent effects of Alzheimer's disease dementia severity and aging on functional brain network organization at rest. Society for Neuroscience, San Diego, CA.

Zhang, Z., Chan, M.Y., Han L., **Carreno, C.A.**, Winter-Nelson, E., Alzheimer's Disease Neuroimaging Initiative (ADNI), Wig, G.S., (Submitted 2022) Independent effects of Alzheimer's disease dementia severity and aging on functional brain network organization at rest. Society for Neuroscience, San Diego, CA.

**Carreno, C.A.**, Munson, M., Barua, A., Nguyen, L., Lakanpal, S., Jaiswal, S., Brown, S., Reingle-Gonzalez, J.M., Park, D.C., Chan, M.Y., Wig, G.S. (Accepted 2022) The Midlife Brain and Environment Study: A longitudinal brain imaging study investigating the health, environment, and lifestyle factors that moderate brain and cognitive aging. Dallas Aging & Cognition Conference, Dallas, TX.

Zhang, Z., Chan, M.Y., Han, L., **Carreno, C.A.**, Winter-Nelson, E., Wig, G.S. (Accepted 2022) Alzheimer's Disease Neuroimaging Initiative (ADNI) Independent effects of Alzheimer's disease and aging on functional brain network organization at rest. Dallas Aging & Cognition Conference, Dallas, TX.

Chan, M.Y., **Carreno, C.A.**, Zhang, Z., Rodriguez, R.M., LaRose, M., Hassenstab, J., Wig, G.S. (2020). Lower education is accompanied by greater longitudinal brain network decline in older adults. Organization for Human Brain Mapping Annual Conference, Montreal, QC.

## **CERTIFICATIONS & SKILLS**

### **Software & Programing**

- Freesurfer
- REDCap
- Bash Scripting (Novice)
- R (Novice)
- SPSS
- Zotero
- EndNote
- PsychoPy
- MS Office (Word, Excel, PowerPoint)

### **Certifications & Training**

- Basic Life Support (CPR & AED)
- MRI Level II Personnel
- Independent MRI Operator Training (In Progress)

### **Languages**

- English (Native)
- Spanish (Intermediate)

## **CLUBS & ORGANIZATIONS**

### **Richmond the American International University in London**

- Richmond Psychological Association (September 2013 - January 2015)
- United in Diversity (September 2014 - January 2015)
- Fashion for a Cause (September 2014 - January 2015)

### **University of Arizona**

- Blue Chip Leadership Program (September 2012 - January 2013)
- Secular Student Alliance (September 2012 - May 2013)