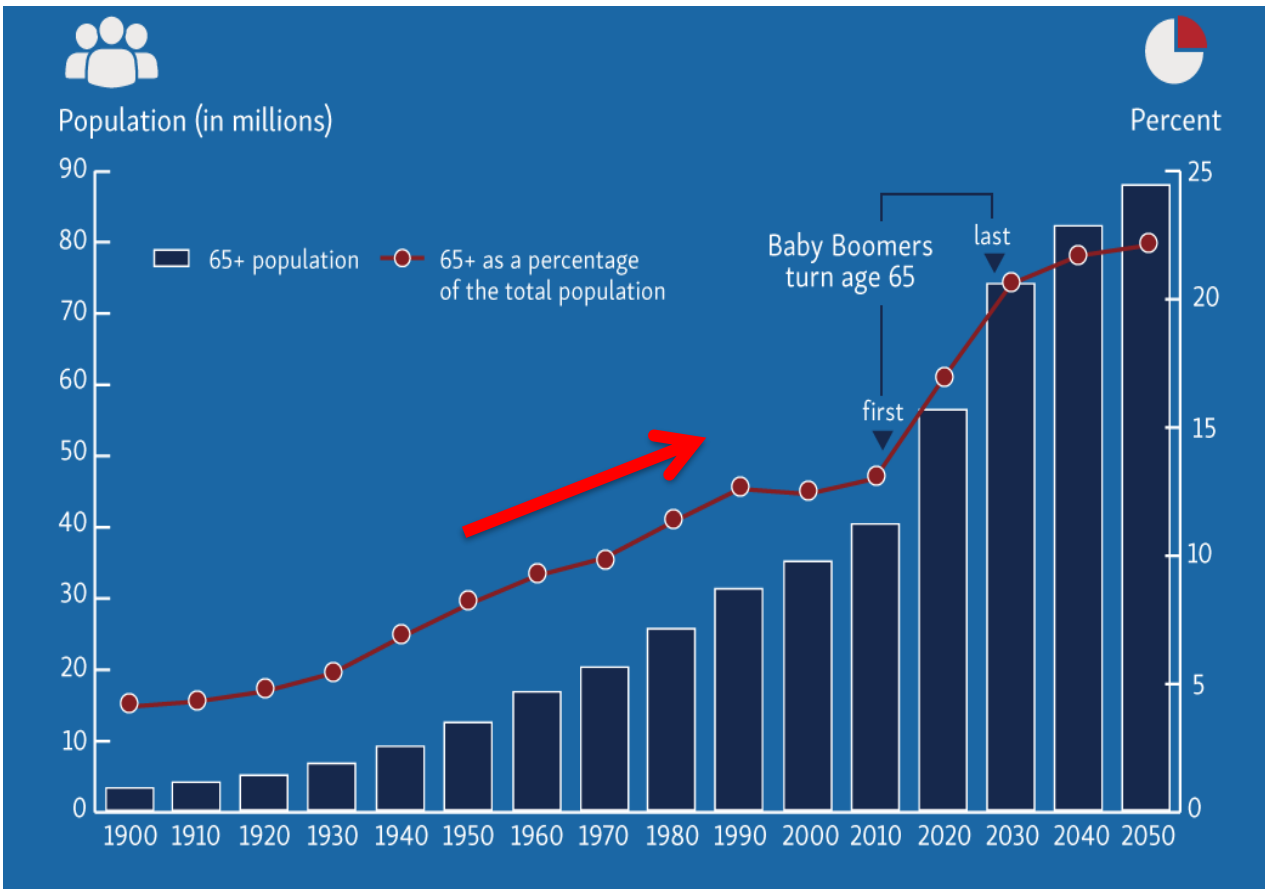


Performance on a visuo-spatial working memory task in adolescent and aged rhesus macaques

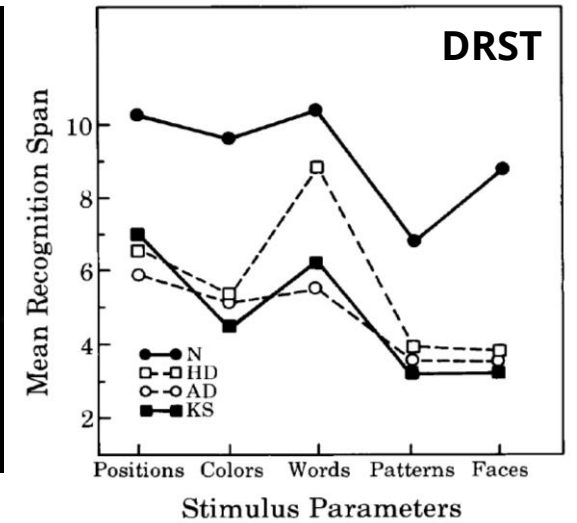
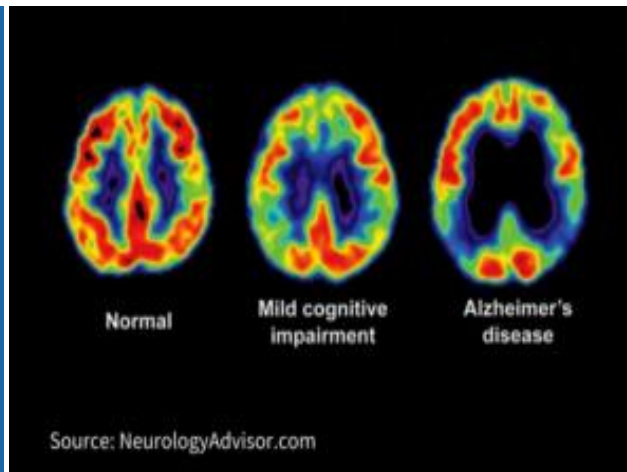
Monica N. Munoz
Buffalo Lab, Univ. of Washington
WaNPRC
Seattle, WA, USA



The United States has been aging steadily over the past century.



Federal Interagency Forum on Aging Related Statistics

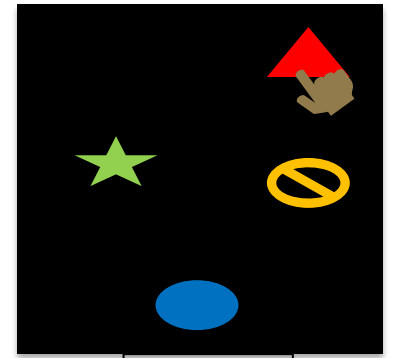
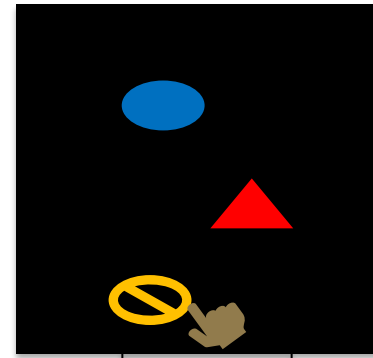
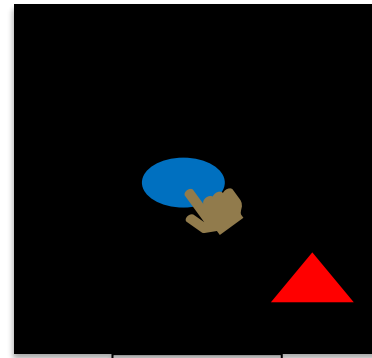
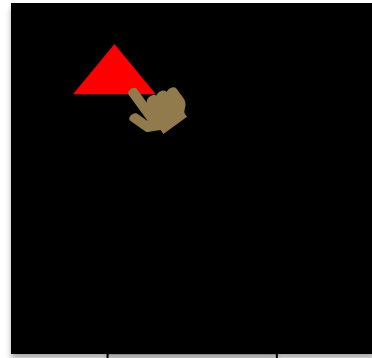


Marylin, A.S. (1996)

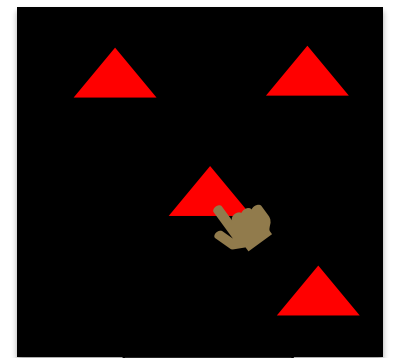
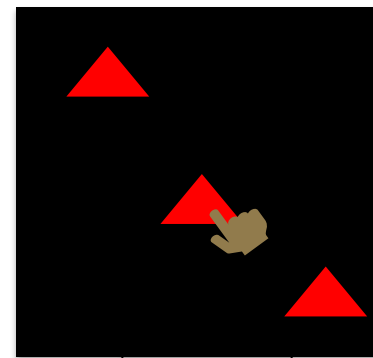
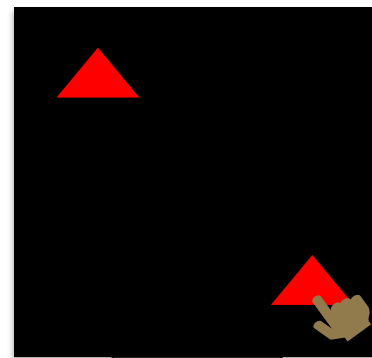
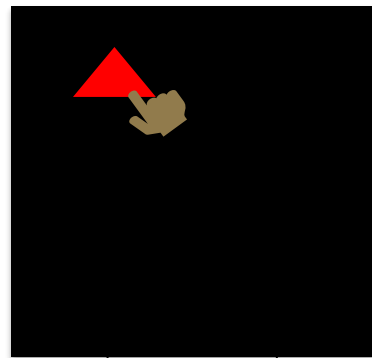


The Delayed Recognition Span Task (**DRST**) enables investigation of visuo-spatial memory demands

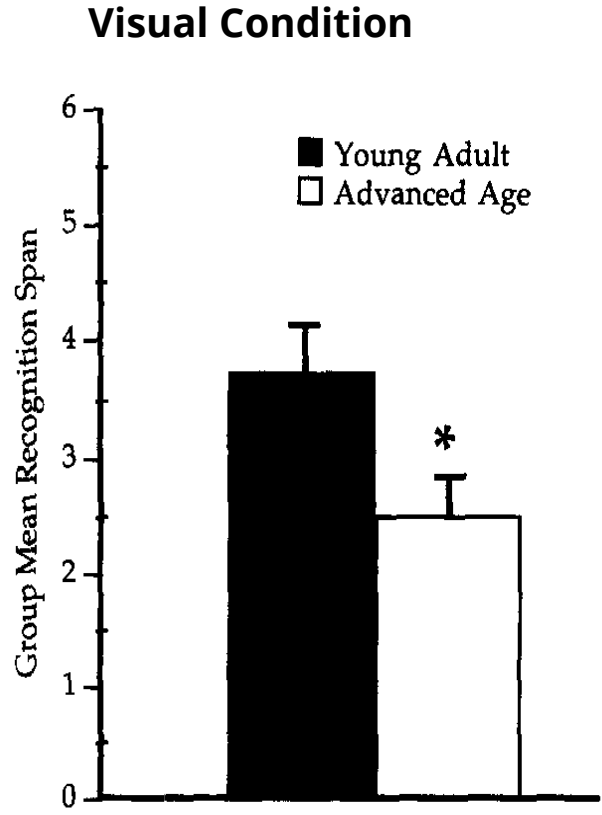
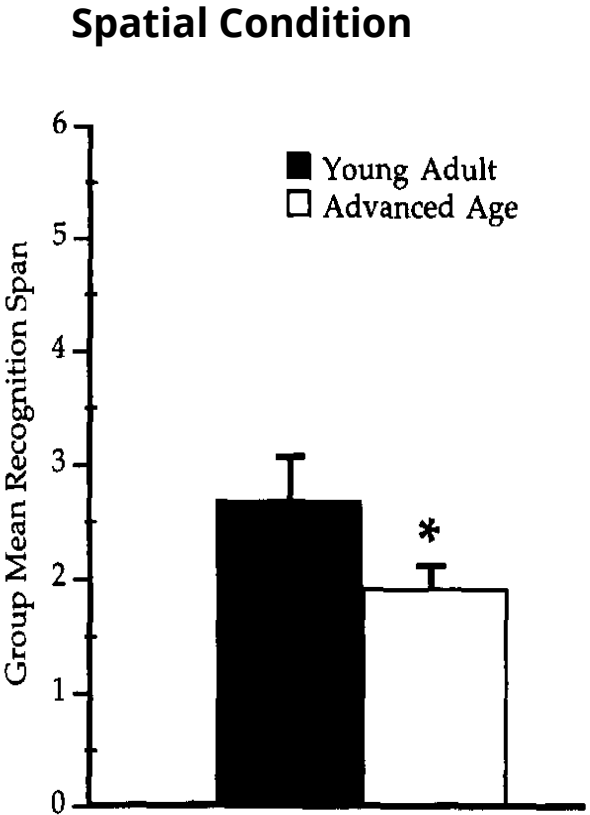
Visual Condition



Spatial Condition



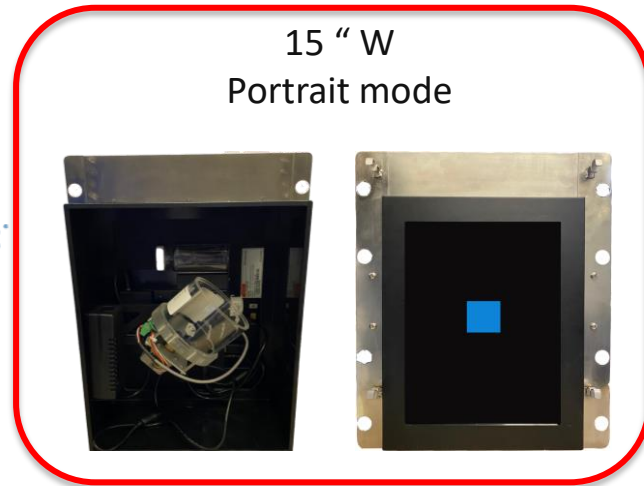
Aged macaques are impaired on visual and spatial conditions of DRST relative to younger macaques



Touchscreen version of DRST

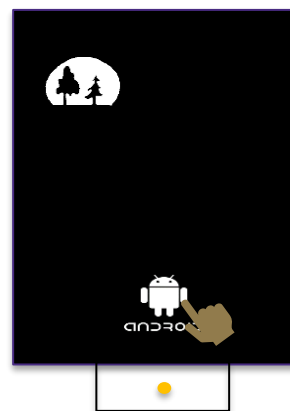
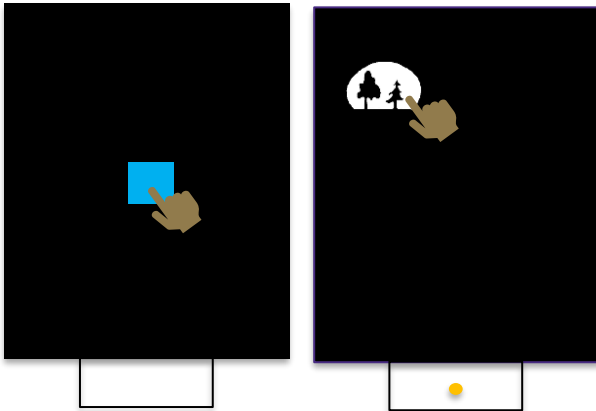


Trial Initiation

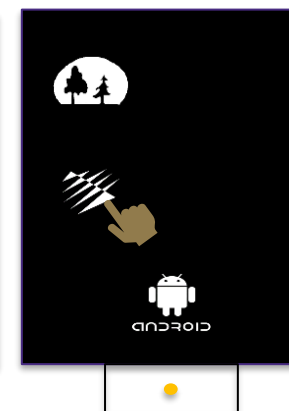


SUBJECTS			
Group	Macaque	Sex	Age at Testing
Young adult	Y1	female	6
	Y2	female	6
Aged	A1	female	25
	A2	female	20
	A3	female	20

Inter-stimulus
Delay (2s)



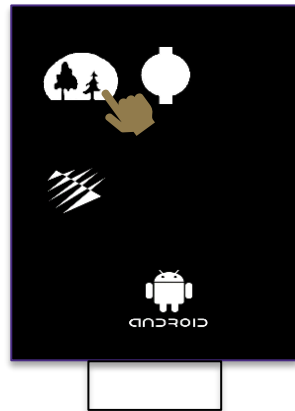
Inter-stimulus
Delay (2s)



Inter-stimulus
Delay (2s)

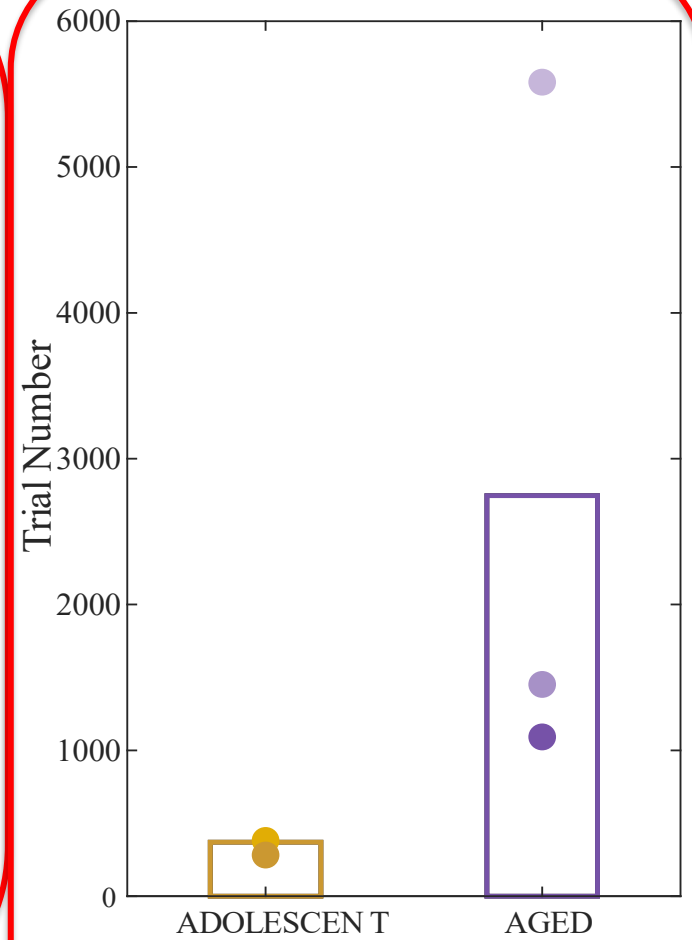
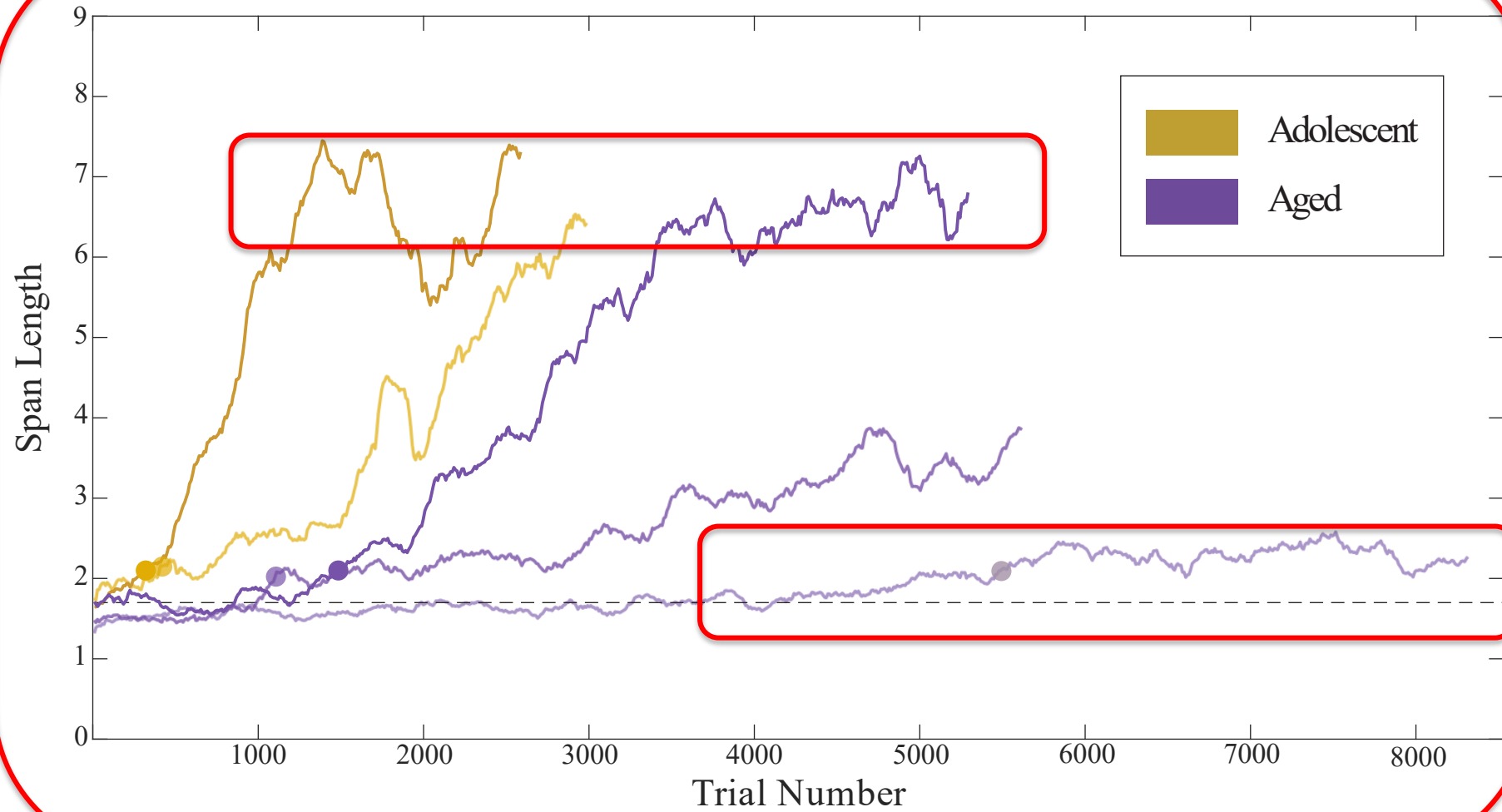


Span = 3



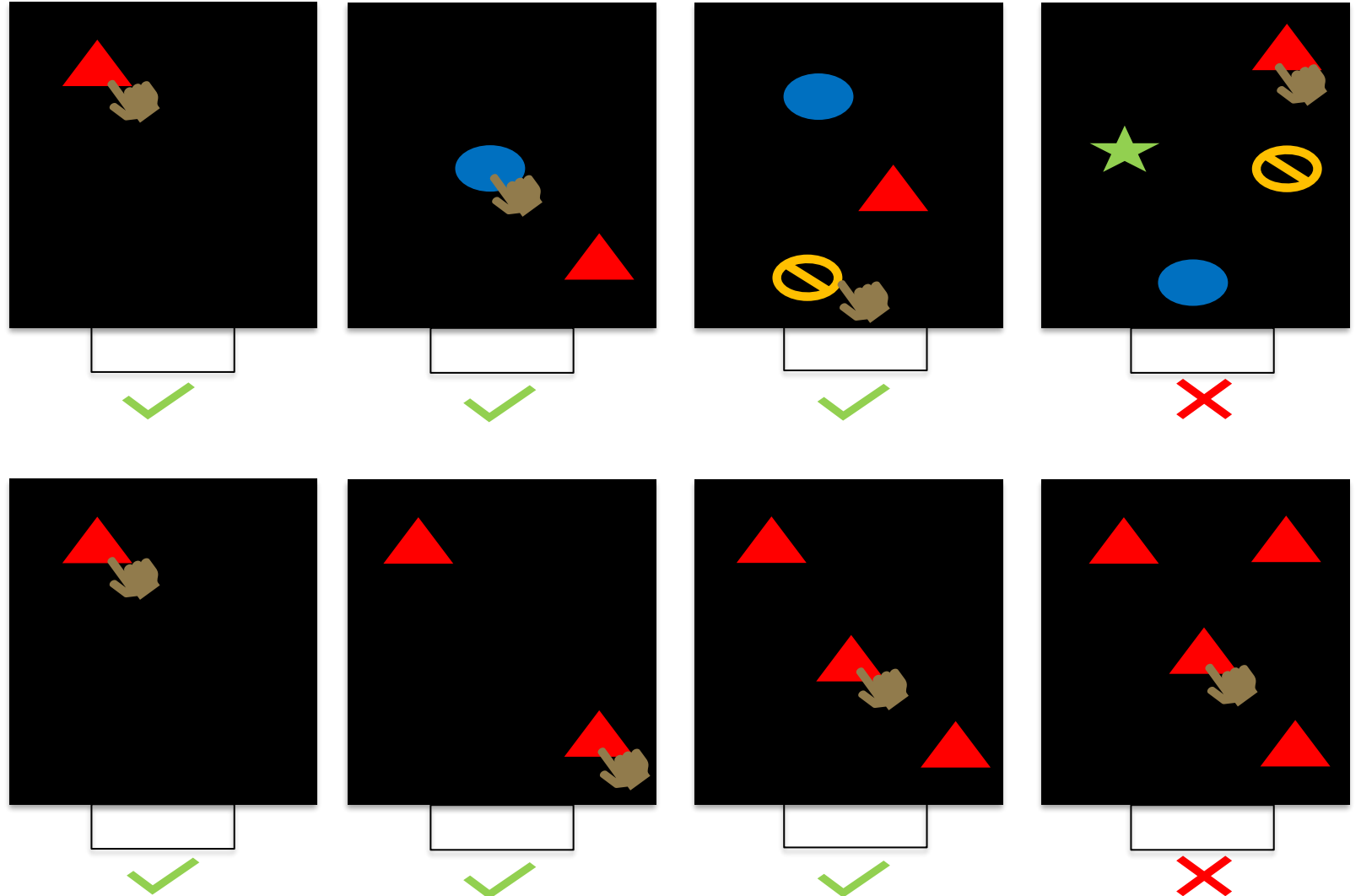
Visuo-spatial DRST – trial progression

Aged macaques are impaired relative to the adolescent group



Future directions

- Introduce longer intertrial delays (6s,10s,14s,etc)
- Spatial vs Visual DRST
- Electrophysiology
- Platform for testing novel therapeutics and compounds impacting cognition



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Elizabeth Buffalo
PI



Megan Jutras
Lab Manager



Aaron Garcia
PhD Candidate



Ian O'Leary
Research Technician



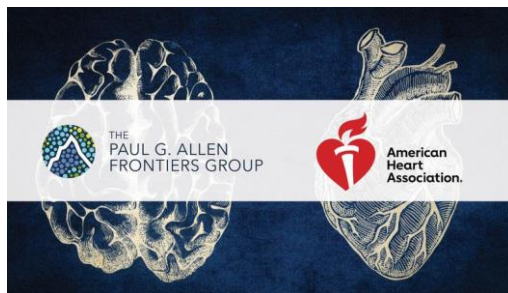
Stephanie Zhu
Volunteer



NIH-MARC Fellow

NIH-P51 Primate
Research Center Grant
to WaNPRC

AHA-Allen Initiative in
Brain Health and
Cognitive Impairment
Grant



UNIVERSITY of WASHINGTON