CLARIFY
speech analysis and keystroke tracking for early AD detection

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THE PROBLEM

MCI is underdiagnosed

ADRCs need cognitive assessments that are:
- Sensitive to early cognitive changes
- Culturally tailored & inclusive
- Low burden
- Fast implementation
- Cost-effective
- Scalable
THE SOLUTION: Remote Collection of Multimodal, Low-Burden, & Inexpensive Digital Biomarkers

ki:e SB-C
Harnessing AI and automatic speech analysis

Skye by KeyWise AI™
Fitness tracker for the brain

What do people do on their phones? They talk & they type.
**FEASIBILITY & VALIDITY**

**ki:e SB-C:**
- Validated across languages & cohorts robustly (AUC ~0.81) detects early stage cog decline
- High corr. w/ PACC 5 (r= 0.8; N=686)
- Employed in clinical AD trials as pre-screening tool (N>5000)

**KeyWise Skye:**
- Validated across languages & cohorts
- Mod-strong corr. w/ tests of exe. fxn & processing speed (r’s=0.5-0.6) & global cognition (r=0.4)
- Prelim work differentiates Hispanics w/ & w/o ADRD risk (N=158)
- Elucidates changes in circadian rhythms and IIV
THE IMPACT

- Increase screening efficiency & expand enrollment
- Early detection & tracking of cognitive deficits
- Reach participants historically underrepresented in ADRCs
- In the wild assessment - Less time-intensive & invasive
- Inexpensive - No need to purchase additional sensors or hardware
BEYOND THE DIGITAL BIOMARKER PILOT PROGRAM

- Clinical grade technologies - already deployed in clinical trials
- Gateway study for accelerating ADRC research
- Large-scale implementation in NACC sites
- Expansion of screening & assessment refinement in underrepresented & marginalized individuals
OUR TEAM

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THANK YOU FOR YOUR ATTENTION!