## **Supplementary Table 1**

Accuracy and speed z-scores [median (interquartile range)] in each CNB subtest for participants with chronic kidney disease (CKD) (n=92). Age-specific z-scores are based on norms from the Philadelphia Neurodevelopmental Cohort (PNC, n=1790). Wilcoxon signed rank tests were performed to determine if observed z-scores for CKD participants for each subtest were significantly different from the expected z-scores of 0 based on the PNC reference population; Wilcoxon 95% confidence intervals and *P* values are as shown.

Neuro- behavioral function	Domain	Test Name	Accuracy z-scores for CKD participants, median (IQR)	Wilcoxon 95% CI	P value for difference from expected z-score of 0	Speed z-scores for CKD participants, median (IQR)	Wilcoxon 95% CI	P value for difference from expected z-score of 0
Executive control	Abstraction/ mental flexibility	Penn Conditional Exclusion Test (PCET)	-0.24 (-1.23, 0.49)	-0.48, -0.04	0.03	-0.11 (-0.83, 0.44)	-0.39, 0.03	0.10
	Attention	Penn Continuous Performance Test (PCPT)	0.07 (-0.72, 0.51)	-0.35, 0.10	0.34	-0.33 (-1.02, 0.20)	-0.65, -0.20	<0.001
	Working memory	Short Letter N-Back Test (SLNB)	-0.04 (-1.06, 0.28)	-0.52, -0.09	0.01	0.28 (-0.49, 0.68)	-0.13, 0.32	0.36
Episodic memory	Verbal memory	Penn Word Memory (CPW)	-0.21 (-1.07, 0.35)	-0.62, -0.04	0.006	-0.05 (-0.84, 0.44)	-0.42, 0.02	0.08
	Facial memory	Penn Face Memory (CPF)	-0.40 (-1.17 , 0.39)	-0.64, -0.13	0.004	0.16 (-0.34, 0.64)	-0.08, 0.28	0.22
	Spatial memory	Visual Object Learning Test (VOLT)	-0.30 (-0.92, 0.43)	-0.53, -0.05	0.02	0.16 (-0.47, 0.67)	-0.10, 0.29	0.28
Complex cognition	Verbal reasoning	Penn Verbal Reasoning Test (PVRT)	-0.49 (-1.41, 0.06)	-0.83, -0.37	<0.001	-0.16 (-0.78, 0.47)	-0.39, 0.02	0.07
	Nonverbal reasoning	Penn Matrix Reasoning Test (PMAT)	-0.54 (-1.12, 0.15)	-0.69, -0.28	<0.001	0.47 (0.03, 0.78)	0.18, 0.50	<0.001
	Spatial processing	Penn Line Orientation Test (PLOT)	-0.45 (-1.04, 0.35)	-0.60, -0.16	0.001	0.00 (-0.61, 0.62)	-0.30, 0.18	0.74
Social cognition	Emotion identification	Penn Emotion Identification Test (ER40)	-0.17 (-1.20, 0.75)	-0.52, 0.02	0.08	-0.17 (-0.76, 0.28)	-0.42, -0.06	0.009
	Emotion differentiation	Penn Emotion Differentiation Test (MEDF)	0.09 (-1.01, 0.72)	-0.38, 0.14	0.36	-0.01 (-0.52, 0.63)	-0.18, 0.18	0.92
	Age differentiation	Penn Age Differentiation Test (ADT)	-0.34 (-1.08, 0.36)	-0.59, -0.13	0.005	0.24 (-0.28, 0.55)	0.00, 0.31	0.05