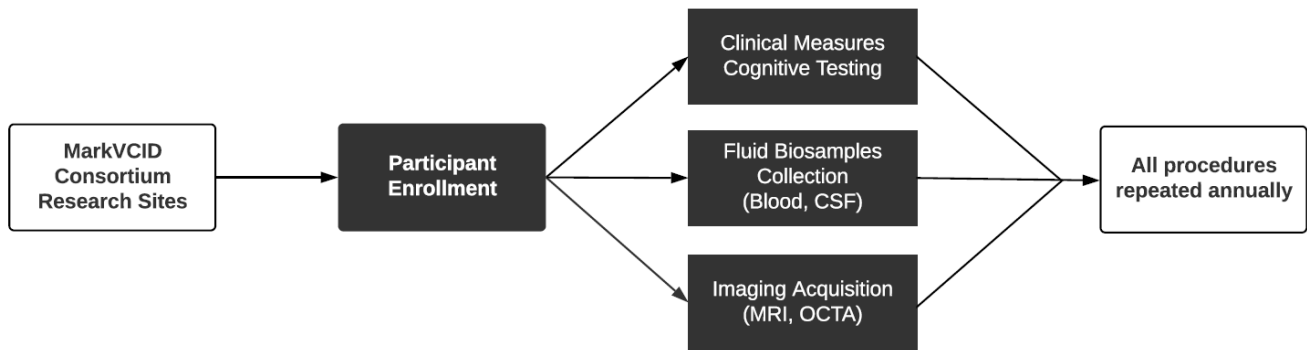


Supplemental Figure A Schematic of MarkVCID procedures



Supplemental Table 1 MarkVCID Committee & subcommittee membership**Steering Committee**

Co-chairs	Steven Greenberg (Coordinating Center), Roderick Corriveau (NIH)
Voting Members	Sudha Seshadri (CHARGE); Hanzhang Lu (JHU); Julie Schneider (Rush/IIT); Joel Kramer (UC); Donna Wilcock (UKy); Gary Rosenberg (UNM); Danny Wang (USC)
NIH	Linda McGavern, Francesca Bosetti, Claudia Moy, Debra Babcock, Jim Koenig, Jordan Gladman
Coordinating Center	Karl Helmer, Kristin Schwab, Pia Kivisäkk

Subcommittees:

Clinical Data, Physiological Data & Cognitive Assessments

Chair	Deborah Blacker (Coordinating Center)
Voting Members	Sudha Seshadri, Matthew Pase, Mitzi Gonzales (CHARGE); Marilyn Albert, Sandeepa Sur (JHU); Patricia Boyle, Melissa Lamar (Rush/IIT); Joel Kramer (UC); Richard Kryscio (UKy), Janice Knoefel, Jillian Prestopnik (UNM); John Ringman, Lina D'Orazio (USC)
NIH	Roderick Corriveau, Linda McGavern
Coordinating Center	Steven Greenberg, Karl Helmer, Lida Mazina, Kristin Schwab, Herpreet Singh, Anand Viswanathan, Victoria Williams, Hong Yu

Imaging-based Biomarkers

Co-chairs	Konstantinos Arfanakis (Rush/IIT), Karl Helmer (Coordinating Center)
Voting Members	Lenore Launer, Claudia Satizabal (CHARGE); Hanzhang Lu, Yang Li (JHU); Konstantinos Arfanakis (Rush/IIT); Charles DeCarli, Lara Stables, Pauline Maillard (UC); Brian Gold (UKy); Arvind Caprihan (UNM); Amir Kashani, Danny Wang (USC)
NIH	Roderick Corriveau, Linda McGavern
Coordinating Center	Bruce Fischl, Steven Greenberg, Andre van der Kouwe, Kristin Schwab, Herpreet Singh, Eric Smith

Fluid-based Biomarkers

Chair	Donna Wilcock (UKy)
Voting Members	Sudha Seshadri, Russell Tracy (CHARGE); Abhay Moghekar (JHU); Zoe Arvanitakis (Rush/IIT); Jason Hinman, Joel Kramer (UC); Donna Wilcock (UKy); Gary Rosenberg (UNM); Abhay Sagare (USC)
NIH	Roderick Corriveau, Linda McGavern
Coordinating Center	Steven Greenberg, Karl Helmer, Pia Kivisäkk, Kristin Schwab, Herpreet Singh, Anand Viswanathan

Protocol & Operations Standardization

Co-chairs	Gregory Jicha (UKy), Kristin Schwab (Coordinating Center)
Voting Members	Myriam Fornage (CHARGE); Sevil Yasar (JHU); Julie Schneider (Rush/IIT); Fanny Elahi (UC), Gregory Jicha (UKy); Jillian Prestopnik (UNM); Amir Kashani (USC)
NIH	Roderick Corriveau, Linda McGavern
Coordinating Center	Deborah Blacker, Karl Helmer, Kristin Schwab, Herpreet Singh

Sharing

Chair	Steven Greenberg (Coordinating Center)
Voting Members	Josh Bis (CHARGE); Paul Rosenberg (JH); Julie Schneider (Rush/IIT); Jason Hinman (UC); Larry Goldstein (UKy); Jillian Prestopnik, Erika Partridge (UNM); Arthur Toga (USC)
NIH	Roderick Corriveau, Linda McGavern
Coordinating Center	Deborah Blacker, Karl Helmer, Jonathan Rosand, Kristin Schwab, Alexander Sherman, Herpreet Singh

Abbreviations:

CHARGE, Cohorts for Heart and Aging Research in Genomic Epidemiology

JHU, Johns Hopkins University School of Medicine

Rush/IIT, Rush Medical Center & Illinois Institute of Technology

UC, Universities of California San Francisco, Davis, and Los Angeles

UKy, University of Kentucky

UNM, University of New Mexico Health Sciences Center

USC, University of Southern California

Supplemental Table 2 MarkVCID participant enrollment overview

Timeframe	Site	Source of Enrollment	Participant Groups	Key Inclusion/Exclusion Criteria
Prospective enrollment	JHU [1]	Clinic, community	MCI/ Mild dementia Cognitively normal	<ul style="list-style-type: none"> • Age 50 – 90 • No history major stroke, traumatic brain injury
	UC [2]	Clinic, community	MCI/ Dementia Cognitively normal	<ul style="list-style-type: none"> • Age >40
	UKy [3]	Clinic, community	MCI+SVD	<ul style="list-style-type: none"> • Age ≥60 years • Fazekas WMH score ≥2
			Cognitively normal + SVD	<ul style="list-style-type: none"> • Age ≥65 years • Fazekas WMH score ≥1 • Suboptimally controlled vascular risk factors (AHA criteria)
			Cognitively normal controls (-SVD)	<ul style="list-style-type: none"> • Age ≥65 years • No poorly controlled vascular risk factors (AHA criteria)
	UNM [4]	Clinic, community	SVD/MCI/MX (not demented)	<ul style="list-style-type: none"> • Cognitive symptoms
			Controls	<ul style="list-style-type: none"> • No vascular risk factors • No cognitive symptoms
	USC [5]	Community	MCI	<ul style="list-style-type: none"> • Age > 60
			Cognitively normal	<ul style="list-style-type: none"> • No history symptomatic stroke, traumatic brain injury
			Pedigree-based	<ul style="list-style-type: none"> • Symptomatic from or at-risk for inheriting autosomal dominant Alzheimer’s disease • Age >18 • No history major stroke, traumatic brain injury
UTHSCSA	Clinic, community	Hispanic MCI or cognitively normal, high vascular burden	<ul style="list-style-type: none"> • Hispanic ancestry by self-report • Age ≥ 55 • No dementia, other neurodegenerative disease, traumatic brain injury, stroke within prior 3 months • ≥3 vascular risk factors OR presence of MRI marker of small vessel disease OR prior stroke/transient ischemic attack 	
		Hispanic MCI or cognitively normal, low vascular burden	<ul style="list-style-type: none"> • 0-1 vascular risk factors AND absence of MRI marker of small vessel disease AND no prior stroke/transient ischemic attack 	
Pre-existing data	Rush/IIT [6,7]	Community	All cognitive statuses	<ul style="list-style-type: none"> • Age ≥65 • No traumatic brain injury, other gross non-vascular abnormalities
	CHARGE	Population	All cognitive statuses	<ul style="list-style-type: none"> • ARIC [8] • CARDIA [9] • AGES-Reykjavik [10] • CHS [11] • FHS [12]

Abbreviations:

JHU, Johns Hopkins University School of Medicine

UC, Universities of California San Francisco, Davis, and Los Angeles

UKy, University of Kentucky

UNM, University of New Mexico Health Sciences Center

USC, University of Southern California

UTHSCSA, (CHARGE) University of Texas Health Science Center San Antonio

CHARGE, (Legacy) Cohorts for Heart and Aging Research in Genomic Epidemiology

Rush/IIT, Rush Medical Center & Illinois Institute of Technology

MCI, mild cognitive impairment

SVD, cerebral small vessel disease

WMH, white matter hyperintensity

ARIC, Atherosclerosis Risk in Communities

CARDIA, Coronary Artery Risk Development in Young Adults

AGES, Age, Gene/Environment Susceptibility

CHS, Cardiovascular Health Study

FHS, Framingham Heart Study

Supplemental Table 3 Sample fluid collection and storage requirements

Sample type	Aliquot size	Aliquot number	Collection tube	Storage tube
Plasma	0.25ml	16-20	10ml BD Vacutainer EDTA Tube #366643	0.5ml Wheaton CryoELITE vial, DWK Life Sciences #W985874
Packed cells	1.0ml	3-4	Taken from plasma tube	1.2ml Wheaton CryoELITE vial, DWK Life Sciences #W985862
Platelet poor plasma	0.25ml	16-20	6ml BD Whole Blood Vacutainer Tube with ACD Solution B Additive #364816	0.5ml Wheaton CryoELITE vial, DWK Life Sciences #W985874
Serum	0.25ml	16-20	8.5ml BD SST Vacutainer Tube with Clot Activator and Separator Gel Additive #367988	0.5ml Wheaton CryoELITE vial, DWK Life Sciences #W985874
CSF	0.25ml	16-20	15 ml Polypropylene Conical Centrifuge Tubes Rose Scientific #17022	0.5ml Wheaton CryoELITE vial, DWK Life Sciences #W985874

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