

CRIC Funded Ancillary Studies

Study Title

Principal Investigator

University Affiliation

Year funded

Keywords

Nutrition Assessment in Chronic Renal Insufficiency Cohort (CRIC) Study Population

Cheryl Anderson, PhD, MPH

The Johns Hopkins University

2002

nutrition, cerebrovascular disease, protein-energy malnutrition, metabolism

A Structural Approach to Renal Bone Disease in CRIC

Mary Leonard, MD, MSCE

Children's Hospital of Philadelphia

2003

renal bone disease, renal osteodystrophy, bone mineral density

Hypertension and Hypercholesterolemia Control in Patients with CKD

Paul Muntner, PhD

University of Alabama at Birmingham

2003

hypertension, hypercholesterolemia, cardiovascular disease, hemodynamics, nutrition

CRIC Heart Failure Detection Cohort and the CRIC Heart Failure Progression Cohort

Michael Shlipak,

University of California, San Francisco

2003

Development and Validation of GFR Estimating Equations

Andrew Levey, MD

Tufts University

2004

estimated glomerular filtration rate, meta analysis, equation

Carotid Intima-Media Thickness in Chronic Kidney Disease

Sylvia Rosas, MD, MSCE

University of Pennsylvania

2004

carotid intima-media thickness, carotid plaque, progression, cardiac outcomes

Hispanic Recruitment in CRIC

Julio Vijil, Jr., MD

University of Illinois, Chicago

2004

recruitment, Hispanic

***Please note that this list is limited to approved CRIC ancillary studies that have received funding. The CRIC Steering Committee reviews and approves new proposals on a rolling basis and maintains a separate list of approved but not yet funded proposals which are also considered when vetting new submissions.**

CRIC Funded Ancillary Studies

Study Title**Principal Investigator****University Affiliation****Year funded****Keywords**

Cognitive Function in Chronic Renal Insufficiency

Kristine Yaffe, MD

University of California, San Francisco

2005

cognitive function, gfr, depression

Pulse Wave Velocity and Chronic Kidney Disease

Raymond Townsend, MD

University of Pennsylvania

2005

pulse wave velocity, hypertension, cardiovascular disease

Sleep Disturbances as a Non-traditional Risk Factor in CKD

Eve Van Cauter, PhD

University of Chicago

2005

sleep, risk factor, c-reactive protein

Diabetic and Hypertensive Retinopathy and CRI

Juan E. Grunwald, MD

University of Pennsylvania

2005

retinopathy, hypertension, diabetes, ophthalmology

Hispanic Chronic Renal Insufficiency Cohort

James Lash, MD

University of Illinois, Chicago

2005

hispanic, cardiovascular disease, progression

Cytokine Gene Polymorphism in the CRIC Cohort

Dominic Raj, MD

George Washington University

2006

cytokine, polymorphism, inflammation

Genetics of Atherosclerosis in Renal Disease

Muredach P. Reilly, MBBCH, MSCE

University of Pennsylvania

2006

genetics, atherosclerosis, metabolic syndrome, inflammation

CRIC Funded Ancillary Studies

Study Title**Principal Investigator****University Affiliation****Year funded****Keywords**

Vitamin D Deficiency, Physical Performance and Cardiovascular Disease

Mary Leonard, MD, MSCE

Children's Hospital of Philadelphia

2006

vitamin D, calcidiol, frailty, PTH

Sodium and Cardiovascular Disease in Patients with CKD

Jiang He, MD, PhD

Tulane University

2006

Sodium, electrolyte excretion, potassium, cardiovascular disease, cardiac outcomes

Study of Advanced Chronic Renal Insufficiency

Chi-yuan Hsu, MD, MSc

University of California, San Francisco

2006

progression, transition to ESRD, GFR

KDQOL and the Spanish-Speaking CKD Population

Julio Vijil, Jr., MD

University of Illinois, Chicago

2007

KDQOL, hispanic, HCRIC

Health Literacy and Acculturation in Hispanic Patients with Chronic Kidney Disease

Claudia Lora, MD

University of Illinois, Chicago

2007

HCRIC, health literacy, Hispanic, acculturation, risk factor, cardiovascular disease

Genomics of myocardial transcription factors in cardiac remodeling

Thomas P. Cappola, MD, ScM

University of Pennsylvania

2007

genetics, cardiac remodeling, transcription factors

Pulse Wave Velocity and Chronic Kidney Disease

Stephanie DeLoach, MD

Thomas Jefferson University

2007

pulse wave velocity, cardiovascular disease

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Corin Allele and Heart Disease

Daniel L. Dries, MD

Yale University

2007

genetics, cardiovascular disease, natriuretic peptide system, cardiac hypertrophy, corin

CRIC Plus – Race Group Analysis

Vanessa Grubbs, MD, MPH

University of California, San Francisco

2007

racial disparities, progression, CRIC-plus, ESRD

Carotid Intima-Media Thickness in Chronic Kidney Disease (Renewal)

Sylvia Rosas, MD, MSCE

University of Pennsylvania

2007

carotid intima-media thickness, carotid plaque, progression, cardiac outcomes

Using 2-D Gel to Identify Patterns of Urine Protein Excretion that Predict Loss of GFR

Chi-yuan Hsu, MD, MSc

University of California, San Francisco

2008

two-dimension differential gel electrophoresis, GFR, proteinuria

Molecular Predictors of Progressive Renal Failure in the Chronic Renal Insufficiency Cohort

Matthias Kretzler, MD

University of Michigan

2008

progression, molecular predictors, biomarkers

Clinical Outcomes of Pre-ESRD CKD Patients with Hepatitis C Infection

Akinlolu O. Ojo, MD, PhD, MPH

University of Michigan

2008

HCV, pre-ESRD

Genetic of Lipoprotein Metabolism and CVD in CKD

Daniel J. Rader, MD

University of Pennsylvania

2008

lipoproteins, metabolism, genetics

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Role of FGF-23 in Mineral Metabolism and CVD in Pre-dialysis CKD

Myles S. Wolf, MD, MMSc

University of Miami

2008

FGF-23, phosphate therapy, hyperphosphatemia, left ventricular mass

The Renin-Angiotensin-Aldosterone System and Cardiac Arrhythmias

Rajat Deo, MD

University of Pennsylvania

2009

atrial fibrillation, renin, aldosterone, angiotensin, cardiovascular disease

CKD, Metabolic Syndrome and Cardiovascular Disease

Harold I. Feldman, MD, MSCE

University of Pennsylvania

2009

metabolic syndrome, insulin resistance, cardiovascular disease, progression

GWAS in CKD: The CRIC Study

Harold I. Feldman, MD, MSCE

University of Pennsylvania

2009

GWAS, genetics, GFR, progression

Chronic Kidney Disease Biomarker Validation

Chi-yuan Hsu, MD, MSc and Kathleen D. Liu, MD, PhD, MAS

University of California, San Francisco

2009

biomarkers, kidney injury

The Role of Neuregulin in Human Cardiac Remodeling and Heart Failure

Bonnie Ky, MD, MSCE

University of Pennsylvania

2009

NRG-1, cardiac remodeling

Hypertension in Advanced Chronic Kidney Disease

Nisha Bansal, MD, MAS

University of California, San Francisco

2010

hypertension, progression, ESRD, blood pressure, cardiovascular disease

20190108

CRIC Funded Ancillary Studies

Study Title

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Year funded

Keywords

The Effect of Sickle Cell Trait upon Progression of Chronic Kidney Disease

Vimal Derebail, MD, MPH

University of North Carolina

2010

risk factors, sickle cell trait, hemoglobinopathy

Elevated Nighttime BP – Clinical and Demographic Features, Correlates, and Changes Over Time

Paul E. Drawz, MD, MHS

Case Western Reserve University

2010

hypertension, blood pressure, nighttime ABP

Joint Analysis of Longitudinal Outcomes and Clinical Events in Chronic Kidney Disease Cohorts

Tom Greene, PhD

University of Utah

2010

longitudinal analysis, statistical methods, multi-state models, causal models

Health Literacy, Acculturation and Social Support in Hispanics with Chronic Kidney Disease

Claudia Lora, MD

University of Illinois, Chicago

2010

HCRIC, health literacy, Hispanic, acculturation, risk factors, cardiovascular disease

Validation of the Beck Depression Inventory in Hispanics with Chronic Kidney Disease

Ana C. Ricardo, MD, MPH, MS

University of Illinois, Chicago

2010

Beck depression inventory, Hispanic, depression,

Carbamylated LDL and Cardiovascular Events

Sudhir V. Shah, MD

University of Arkansas

2010

carbamylated LDL, cardiovascular disease, risk factors, atherosclerosis

Pulse Wave Velocity (Renewal)

Raymond Townsend, MD

University of Pennsylvania

2010

pulse wave velocity, hemodynamics, blood pressure

CRIC Funded Ancillary Studies

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Modifiable and Novel Risk Factors for and Consequences of Acute Kidney Injury in the Setting of Chronic Kidney Disease: a CRIC Ancillary Study

Amanda Hyre Anderson, PhD, MPH

University of Pennsylvania

2011

acute kidney injury, progression, mortality

Do patient safety events account for adverse outcomes in CKD?

Jeffrey Fink, MD

University of Maryland

2011

safety incidents, outcomes, metabolic disturbance

Abrupt Transition to ESRD from CKD

Chi-yuan Hsu, MD, MSc

University of California, San Francisco

2011

ESRD, transition

CKD Blood Biomarker Discovery (sub-protocol of the CKD Biomarkers Consortium)

Lesley Inker, MD, MS

Tufts University

2011

biomarkers, progression, proteomics

Hispanic Chronic Renal Insufficiency Cohort (Renewal)

James Lash, MD

University of Illinois, Chicago

2011

Hispanic, cardiovascular disease, progression

Novel Paradigm to Understand Diabetic Complications

Kumar Sharma, MD

University of California, San Diego

2011

mitochondria, urine metabolomics, nephropathy, retinopathy

Cognitive Decline in Chronic Renal Insufficiency (Renewal)

Manjula Tamura, MD, MPH and Kristine Yaffe, MD

Stanford University

2011

cognitive function, gfr, decline, oxidative stress markers

20190108

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Health Disparities in Chronic Kidney Disease

James Lash, MD

University of Illinois, Chicago

2012

socioeconomic status, health literacy, health disparities

Acidosis, Net Acid Excretion and Morbidity in CKD

Julia Scialla, MD, MHS

Duke University

2012

metabolic acidosis, nutrition, bone and mineral metabolism, urinary electrolytes, progression, cardiovascular disease, mortality

Genetics of Race and Disordered Mineral Metabolism in CKD

Myles S. Wolf, MD, MMSc

Northwestern University

2012

phosphate, FGF23, klotho, CKD, CVD, genetics, ancestry, racial disparities

Mexico Chronic Renal Insufficiency Cohort (MCRIC)

James Lash, M.D.

University of Illinois, Chicago

2012

Chronic kidney disease progression, Hispanics, Mexico

Metabolomic Studies in Chronic Kidney Disease

Harold I. Feldman, MD, MSCE

University of Pennsylvania

2012

metabolomics

Gender Disparities and Endogenous Estrogen in Chronic Kidney Disease Outcomes

Ana Ricardo, MD, MPH, MS

University of Illinois, Chicago

2013

Sex hormones, gender disparities

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Study Title

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University Affiliation

Year funded

Keywords

Mediators & Prognostic Value of Muscle Mass & Function in Chronic Kidney Disease

Perry Wilson, M.D.

Yale University

2013

Sarcopenia, creatinine generation rate, chronic kidney disease, myostatin, caspase-3, activin A, inflammation, tnf-alpha, tgf-beta, frailty

FGF-23 and Clinical Outcomes in ADPKD Patients

Myles S. Wolf, MD, MMSc

Northwestern University

2013

FGF23, CKD, ADPKD, phosphate

Validation of the Kidney Knowledge Survey (KiKS) in Hispanics with Chronic Kidney Disease.

Claudia Lora

University of Illinois at Chicago

2013

Hispanics, Chronic Kidney Disease Knowledge, Spanish language

Estimating GFR from a Panel of Endogenous Filtration Markers (Panel eGFR)

Lesley Inker

Tufts Medical Center

2013

GFR, beta trace protein, beta 2 microglobulin, cystatin C, creatinine

Serum Bicarbonate and Cardiovascular Risk in Patients with Chronic Kidney Disease

Mirela Dobre, M.D.

Case Western Reserve University

2013

metabolic acidosis, metabolic alkalosis, cardiovascular disease, mortality

Role of Sclerostin in Disordered Mineral Metabolism in CKD

Tamara Isakova, MD, MMSc

Northwestern University

2013

CKD, sclerostin, FGF23, PTH, phosphate

Pathophysiological Role of Prorenin

Alfred Cheung, M.D.

University of Utah

2013

Prorenin, chronic kidney disease, retinopathy, cardiovascular disease, diabetes

20190108

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Enhancing appreciation of the clinical significance of acute kidney injury

Raymond Hsu

University of California, San Francisco

2013

Acute kidney injury (AKI), chronic kidney disease (CKD)

Vitamin D catabolism in chronic kidney disease

Ian de Boer

University of Washington

2013

Vitamin D, mineral metabolism, CKD

Plasma KIM-1 and Chronic Kidney Disease

Sushrut Waikar

Brigham and Women's Hospital

2014

Tubular injury; biomarkers of progression

Novel metabolites associated with renal outcomes

Tammy Sirich

Stanford University

2014

mass spectrometry, metabolomic, CKD

Is there a digital divide in chronic kidney disease?

Clarissa Diamantidis

Duke University

2014

CKD, health information technology, e-literacy, patient safety

Performance of Vitamin D-Binding Protein (DBP) ELISA by Genotype: Validation using Mass Spectrometry

Mary Leonard, Michelle Denburg

Stanford University/Children's Hospital of Philadelphia

2014

Vitamin D, vitamin D-binding protein, genotype

Visceral adiposity and fitness among CRIC participants (phase 3)

Sankar Navaneethan

Cleveland Clinic

2014

Obesity, fitness, and kidney disease

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Measures of fibrosis and clinical outcomes in chronic kidney disease

Amanda Hyre Anderson, PhD, MPH

University of Pennsylvania

2015

fibrosis, CKD progression, cardiovascular disease, galectin-3, CTGF or CCN2, collagen type III, MMP-2

Heart failure and arrhythmias in CKD

Nisha Bansal, MD, MAS

University of California, San Francisco

2015

heart failure, prediction, cardiac arrhythmias, biomarkers

Whole-exome sequencing study of diabetic nephropathy

Tanika Kelly

Tulane University

2015

diabetic nephropathy; next-generation sequencing; whole-exome sequencing; rare variants; low frequency variants

Longitudinal Changes in Metabolomic Biomarkers and CKD Progression

Eugene Rhee

Massachusetts General Hospital/Broad Institute

2015

metabolomics, CKD, CKD progression

Oxalate in CKD Pathogenesis and Progression

Sushrut Waikar

Brigham and Women's Hospital

2015

oxalate; chronic kidney disease; cardiovascular disease; decline in GFR

Epigenetic dysregulation in diabetic kidney disease

Katalin Susztak

University of Pennsylvania

2015

cytosine methylation, epigenetics

Prognostic biomarkers in chronic kidney disease

Farsad Afshinnia

University of Michigan

2015

chronic kidney disease, progression, end stage renal disease, biomarker, metabolomics, Mass spectrometry

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Pilot Study on Proteomics of Kidney Disease Progression in the CRIC Study

Rajat Deo

University of Pennsylvania

2015

proteomics, progressive kidney disease, SOMAscan

Targeted Biomarkers of Chronic Kidney Disease (CKD) and its Complications

Jeffrey Schelling

Case Western Reserve University

2015

Chronic kidney disease, diabetic nephropathy, biomarker, case-cohort study

Identifying Modifiable Biomarkers/Mediators for Cardiovascular Disease in Chronic Kidney Disease

Peter Ganz

University of California, San Francisco

2016

cardiovascular risk prediction model; chronic kidney disease; proteomics

Tubular Secretion and Chronic Kidney Disease Complications

Bryan Kestenbaum

University of Washington

2016

tubular secretion, biomarkers, kidney, hippurate

Assessing the accuracy of information in the CMS Medical Evidence Report (form CMS-2728)

Chi-yuan Hsu

University of California, San Francisco

2016

incident ESRD, co-morbidity, information bias

Novel Diagnostics and Therapeutic Targets for Calcification in CKD

Tamara Isakova

Northwestern University

2016

vascular calcification; calcification propensity; calciprotein particles

Assessment of nicotine exposure from toenail clippings of CRIC participants

Edgar Jaimes

MSKCC

2016

nicotine, smoking, chronic kidney disease (CKD)

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Metabolomics for Identifying Biomarkers of Dietary Intake & Kidney Disease Progression

Casey Rebholz

Johns Hopkins University

2016

diet; metabolomics; kidney disease progression

The Gut Microbiome and the metabolome in CKD

Amanda Anderson

University of Pennsylvania

2016

gut microbiota, metabolomics, metabolic profiling, CKD

Weight trajectory in chronic kidney disease and risk of adverse outcomes

Elaine Ku

University of California, San Francisco

2016

Weight loss, BMI, CKD, ESRD

Vitamin K status, CVD and arterial stiffness in chronic kidney disease: The Chronic Renal Insufficiency Cohort

Kyla Shea

Tufts University

2017

Vitamin K, matrix gla protein, kidney function, CVD, arterial stiffness

MicroRNAs in progressive renal disease – a pilot study in CRIC (MIRROR-TRIC)

Christos Argyropoulos

University of New Mexico

2017

microRNAs, Chronic Kidney Disease, Proteinuria, RNA-seq, biomarkers, measures of renal function

Developing and validating prognostic metabolomic signatures of diabetic kidney disease

Loki Natarajan

University of California, San Diego

2017

Diabetic kidney disease; metabolomics; prognostic models; variable selection

Health literacy and Self-Management in Chronic Kidney Disease: a CRIC Ancillary Study

Sarah Schrauben

University of Pennsylvania

2017

Self-management; CKD progression; Health literacy

CRIC Funded Ancillary Studies

Study Title

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University Affiliation

Year funded

Keywords

Hispanic CRIC Study renewal

James Lash

University of Chicago Illinois

2017

Hispanic/Latino; chronic kidney disease

Soluble Fms-Like Tyrosine Kinase-1 (sFlt-1), Placental growth factor (PlGF) and CVD in Participants with CKD

Saif Anwaruddin and Rajat Deo

University of Pennsylvania

2018

Cardiovascular disease, soluble Fms-Like Tyrosine Kinase-1, Placental growth factor (PlGF)

The effects of protein carbamylation in chronic kidney disease (CKD)

Sahir Kalim

Massachusetts General Hospital

2018

Protein carbamylation; CKD; kidney function; mortality; chronic renal insufficiency cohort (CRIC), CKD progression

Statistical Methods for Genomics of CKD

Andrea Foulkes

Mount Holyoke

2018

Acute kidney injury among patients with chronic kidney disease

Chi Hsu

University of California, San Francisco

2018

Acute kidney injury (AKI)

The role of functional iron deficiency in systemic complications of CKD

Monique Cho

University of Utah

2018

Iron, chronic kidney disease, hepcidin, cardiovascular disease