

## Projects Underway or completed utilizing KPRB resources

Prior to 2012
GO Project: A Resource for Genetic Epidemiology Research in Adult Health and Aging
GWAS of Bipolar Disorder
GWAS of Prostate Cancer
2012
Prostate Cancer (1)
Prostate Cancer (2)
HIV Infection, Antiretroviral Therapy, Cancer Incidence and Progression
HIV Infection, Immunodeficiency and Keratinocyte Carcinoma Risk
Gestational Diabetes
Frequency of Vitamin Consumption in the RPGEH population
Prevalence of LUTS and ED by Race/Ethnicity
LUTS among men with HIV/AIDS
GWAS of Mammographic Density
Genetics of Migraine
Genetics of Height, Weight, BMI, and Lean Body Mass
2013
Pharmacogenomic Studies of Metformin Response in Type 2 Diabetes Patients
Genetics of Narcolepsy
GWAS study of alcohol consumption
Genetic and non-genetic risk factors for multiple sclerosis
GWAS of Physical Activity and Sedentary Behavior
Sociodemographic and Other Factors Affecting Response to a Regional FIT Outreach Effort
GWAS of Staphylococcus aureus infection
Genetic study of gout susceptibility (Role of ABCG2 in the disposition and anti-hyperuricemic effects of allopurinol)
GWAS of cutaneous squamous cell carcinoma
GWAS of Hearing Impairment
Genetics of Breast Cancer In Latina Women
Sequencing not required: Imputing rare variants into a cohort of 100,000 on aging
2014
Common genetic predictors of chronic obstructive pulmonary disease and lung cancer
Validation of a set of multi-locus genetic risk scores for estimation of coronary risk across ethnic groups
Genetic and Environmental Factors in Hyperlipidemia and Its Treatment
Genetic and Environmental Determinants of Allergy
Genetic Determinants of Response to Metformin
Genetic Testing for Sports Injury Risk
Genetic and Environmental Determinants of Hernia
Exploring the Use of EMR-Linked Biorepositories for Pharmacogenomic Application and Discovery
Folate and Peripartum Depression
2015
Genetic Architecture of Human Reproduction
Gene discoveries in subjects with Crohn's disease of African descent
GWAS of asthma status and severity
Cross-Cancer Genome-wide Association Study
Comparative Genomewide Association of Aortic Stenosis With and Without Coronary Artery Disease

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CT2G Focus Groups: Perspectives on the Boundary Between Research & Clinical Care
Evaluating Risk Prediction Models for Lung Cancer
Neighborhood Environment and Telomere Length
Lifestyle and Molecular Factors of Bone Health in Breast Cancer Survivors
<b>2016</b>
Discovery of Pharmacogenomic Biomarkers for Metformin Response
GWAS for blood pressure traits
Genetic variation and occurrence of congestive heart failure, kidney disease, and related phenotypes
Genetic determinants of blood cell traits
<b>2017</b>
Investigating the effects of KIR and HLA gene polymorphisms on psoriasis in the KP RPGEH cohort
Early Life Exposure to Endocrine Disrupting Chemicals and Child Growth, Adiposity, and Neurodevelopment (ELEGANT)
An evaluation of member attitudes and preferences with regard to return of research-related genomic-testing results
<b>2018</b>
Discovery of Genetic Variants Associated with Colorectal Tumors
Scientific journal article describing KPRB
Exploring Risk and Determinants of Mental Health in Lesbian, Gay, and Bisexual Older Adults
GWAS of breast cancer prognosis and treatment outcomes
Susceptibility Genes for Erectile Dysfunction
The Role of Refractive Error in the Etiology of Glaucoma
<b>2019</b>
Maternal immune profile during pregnancy and neurodevelopmental outcomes
Genetic associations with infection susceptibility and outcome
<b>2020</b>
Pharmacogenomics of QT interval in a diverse cohort
Optimizing lung cancer risk stratification through prediction of lung cancer screening eligibility and family history of lung cancer
Role of neighborhood environments, health behaviors, and disease risk factors in cardiovascular disease disparities
The association between e-cigarette use and health care utilization, cardiovascular disease, pulmonary outcomes, and COVID-19 illness
COVID-19 Pandemic Effects on Social, Behavioral, Mental, and Socioeconomic Factors
Physical Activity in Lung Cancer Screening
Alzheimer's disease and related dementias in a diverse cohort
Genome-wide association study (GWAS) of COVID-19 cases in the KP Research Bank
<b>2021</b>
Air Pollutants and Cardiovascular Risk: Investigating Thresholds with Pooled Cohorts and Electronic Health Records
Understanding the impact of the COVID-19 pandemic on physical, mental, and social health outcomes
Closing the Gap Between the Observational Research and Randomized Trials for Prevention of Alzheimer's Disease and Dementia
Development, validation, and testing of an interoperable predictive model to estimate inadequate health literacy
Building an evidence case for capturing educational attainment in the EHR as a social determinant of health

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The Impact of COVID-19 Pandemic on Health Care Utilization and Social Isolation among the Elderly Members of an Integrated Health Care System
Identification of genetic loci and pathways underlying hidradenitis suppurativa risk
COVID-19 Pandemic: Impacts on Cancer Detection & Health Disparities
GWAS of bloodstream infection incidence. GERA cohort
<b>2022</b>
Statin Treatment and Incident Alzheimer's Disease and Related Dementias in a Large, Multi-ethnic Health Plan
Bipolar Disorder and Parkinson's Disease
Metabolomics Profiling Reveals the Metabolites that both Predict and Associate with Gestational Diabetes Mellitus
Radiomic and genomic predictors of breast cancer risk
Precision prostate cancer screening with genetically adjusted prostate-specific antigen levels
Genetics at an extreme: an efficient genomic study of individuals with clinically severe major depression receiving ECT
Characterization of the Shared Genetic Basis of Dementia and Cancer
<b>2023</b>
Clustering of behavioral health risk factors and risk of cardiovascular disease and obstructive sleep apnea in persons with and without HIV
Cardiovascular health indicators and telomere length among sexual and gender minority individuals in integrated health system settings
Loneliness, isolation and associations with factors predictive of cancer-specific mortality
Moderna CMV Child Hearing and Autism (MOCCHA)
Optimization of statin regimens for atherosclerotic cardiovascular disease prevention using polygenic risk scores and real-world evidence
<b>2024</b>
Leveraging Diversity in Cancer Epidemiology Cohorts and Novel Methods to Improve Polygenic Risk Scores
Genetic Susceptibility to Idiopathic Bronchiectasis
Reference Ranges for Blood Biomarkers Relevant to Alzheimer's Disease
The role of genetic and non-genetic factors and causal mechanisms underlying cataract susceptibility for risk prevention
Genetic study of eGFR and CKD progression determinants
Polygenic Risk for Early-Onset Coronary Heart Disease
Genetic and social determinants of pharmacological health outcomes in ancestrally diverse populations
The association of herpes zoster vaccination with new diagnoses of dementia
Genetic and non-genetic factors affecting weight loss variability after bariatric surgery
The Role of Genetic Risk Factors in Keratinocyte Carcinoma
<b>2025</b>
Using genomics to help tailor post-polypectomy surveillance for colorectal cancer prevention
Long-term effectiveness of BPH/LUTS pharmacological therapies and using machine learning based predictive analytics to tailor treatment
REACH: Reducing EndometriAI Cancer disparities to advance Health equity
Polygenic Risk Score and Atherosclerotic Cardiovascular Disease
Polygenic risk for psychiatric outcomes related to stress and trauma exposure
Antiobesity Medications Genetic Risk Score Pilot
<b>2026</b>
The Role of Glaucoma Genetic Risk Loci in Low and High Intraocular Pressure Environments

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Assessing Disparities in Aging-related Health Outcomes in Sexual Minorities using the Kaiser Permanente Research Bank
Prevention and Treatment of Hearing and Vision Impairments for Reducing AD/ADRD Risk
Computational Strategies to Tailor Existing Interventions for First Major Depressive Episodes to Inform and Test Personalized Interventions
Integration of radiomics, clinical and genomics information to improve breast cancer subtype specific risk-based screening and prevention
Evaluating clinical implications for ACKR1/DARC associated neutropenia
Analyzing CVD Risk in NHOPIs
A novel co-occurrence genetic model for preeclampsia