Resource Summary Report

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Genetics of Kidneys in Diabetes

RRID:SCR_000133

Type: Tool

Proper Citation

Genetics of Kidneys in Diabetes (RRID:SCR_000133)

Resource Information

URL: http://www2.bsc.gwu.edu/bsc/oneproj.php?pkey=28

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Description: Collect, store, and distribute genetic samples from cases and controls of type 1 diabetes and diabetic nephropathy for investigator-driven research into the genetic basis of diabetic nephropathy. As the risk of kidney complications in type 1 diabetes appears to have a considerable genetic component, this study assembled a large data resource for researchers attempting to identify causative genetic variants. The types of data collected allowed traditional case-control testing, a rapid and often powerful approach, and familybased analysis, a robust approach that is not influenced by population substructure. To identify genes that are involved in diabetic nephropathy, a large number of individuals with type 1 diabetes were screened to identify two subsets, one with clear-cut kidney disease and another with normal renal status despite long-term diabetes. Those who met additional entry criteria and consented to participate were enrolled. When possible, both parents also were enrolled to form family trios. As of November 2005, GoKinD included 3075 participants who comprise 671 case singletons, 623 control singletons, 272 case trios, and 323 control trios. Interested investigators may request the DNA collection and corresponding clinical data for GoKinD participants. Participating scientists will have access to three data sets, each with distinct advantages. The set of 1294 singletons has adequate power to detect a wide range of genetic effects, even those of modest size. The set of case trios, which has adequate power to detect effects of moderate size, is not susceptible to false-positive results because of population substructure. The set of control trios is critical for excluding certain falsepositive results that can occur in case trios and may be particularly useful for testing geneenvironment interactions. Integration of the evidence from these three components into a single, unified analysis presents a challenge. This overview of the GoKinD study examines in detail the power of each study component and discusses analytic challenges that investigators will face in using this resource. Half of the samples were collected at the Joslin Diabetes Center and the other half were collected from around the country by researchers at

The George Washington University. DNA samples were processed by scientists at the University of Minnesota and stored at the U.S. Centers for Disease Control and Prevention. Stored samples were available to the research community through a mechanism that has been determined by JDF. Clinical characteristics of patients, which are stored in a central database, are also made available to participating scientists. A similar collection is being carried out in the United Kingdom. This data resource allows researchers to test hypotheses that might explain why diabetic kidney disease clusters in families. This resource also is suitable for studying other complications and type 1 diabetes itself. For example, a total of 1,110 diabetes case trios was available at the end of three years.)

Abbreviations: GoKinD, Go KinD

Synonyms: Genetics of Kidneys in Diabetes (GoKinD) Study, Genetics of Kidneys in

Diabetes Study

Resource Type: material resource, biomaterial supply resource

Defining Citation: PMID:16775037

Keywords: clinical, genetics, genetic variant, gene, data set

Related Condition: Type 1 diabetes, Diabetes, Diabetic nephropathy, Kidney disease

Funding: JDRF;

NIH

Availability: To qualified researchers

Resource Name: Genetics of Kidneys in Diabetes

Resource ID: SCR_000133

Alternate IDs: nlx_152764

Old URLs: http://www.gokind.org/access

Record Creation Time: 20220129T080159+0000

Record Last Update: 20250424T064430+0000

Ratings and Alerts

No rating or validation information has been found for Genetics of Kidneys in Diabetes.

No alerts have been found for Genetics of Kidneys in Diabetes.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We have not found any literature mentions for this resource.