### **Study Purpose**

The purpose of this study is to discover and identify the genes that may play a role in how blood vessels change shape and size in arterial dysplasia and related diseases. Dysplasia can cause stenosis, aneurysms or dissections. We are investigating how these changes relate to cardiovascular diseases such as hypertension, stroke, heart attack and others.

#### Do You Have One of These?

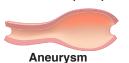
#### Conditions

## Examples of Diagnoses



Hypertension Stroke

Stenosis (FMD)



Rupture



Heart Attack Stroke



Rupture

**Cerebral Aneurysm** 





Hypertension

#### Renovascular Hypertension

By understanding the genetic mechanisms of rare vascular diseases, we hope to gain insight into the cellular and molecular pathways responsible for disease. This knowledge is needed to develop therapies aimed at the abnormal arterial remodeling and structure in these diseases.

# **Check Out Our Research Study Website**



- Learn More
- Enroll
- Connect With Us

#### **Contact Us**

email: MichiganADstudy@med.umich.edu

phone: (734) 232-5034



### **Lead Investigators**

Santhi K. Ganesh, MD, (Principal Investigator)

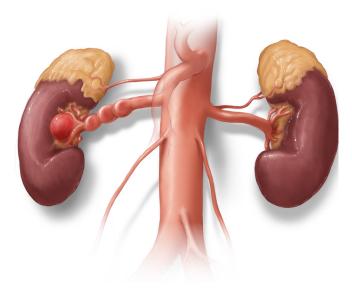
Professor

Department of Internal Medicine and Department of Human Genetics, Division of Cardiovascular Medicine, University of Michigan



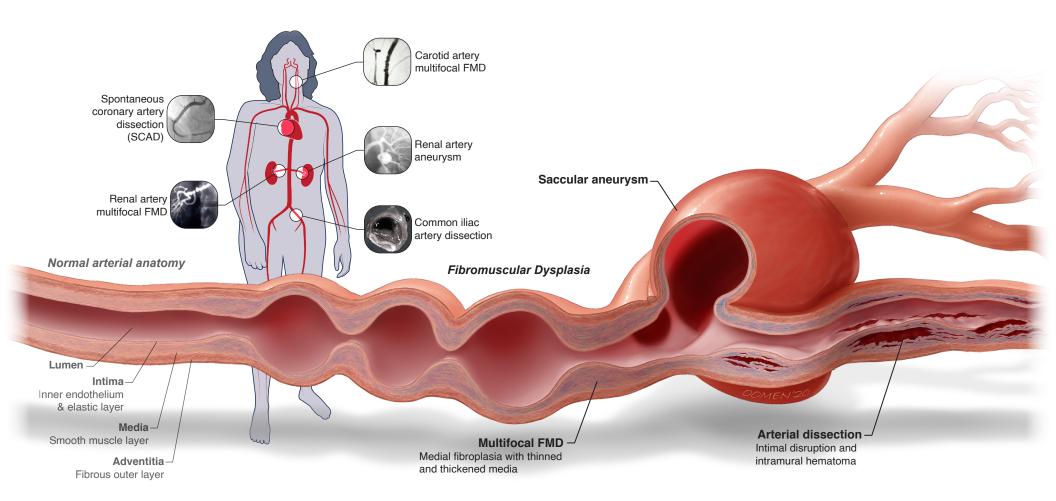






# **Arterial Dysplasia Genetic Study**

Our study looks at diseases that change the shape and structure of the arteries. This can affect the blood vessels supplying the kidneys (renal), heart (coronary), and brain (carotid). Common conditions include fibromuscular dysplasia, aneurysm, aortic dissection, and others. These can lead to concerning health problems including hypertension, stroke, heart attack, and more. By directly studying affected patients and their families, we aim to gain important new biologic understanding of these diseases.



## **Study Details**

This study aims to develop a biobank of DNA and tissue samples that will be used to study the genetics of arterial diseases such as fibromuscular dysplasia, pediatric renal artery stenosis and midaortic syndrome, aneurysms, and dissections. This group of vascular diseases may potentially affect multiple vascular beds, including carotid, coronary, renal, mesenteric, aortic and peripheral vasculature. Samples and clinical information are collected from both individuals affected by arterial dysplasia, and those without (controls) thus allowing for comparisons and new gene discoveries.

#### **What Your Involvement Requires**

Once enrolled in the study:

- We will collect blood and/or saliva samples

   (a blood sample is preferred) for genetic
   testing. Approximately 4 teaspoons of blood or
   2 teaspoons of saliva are collected
- You will be asked to complete two surveys.
   One inquires about personal health history, and the other asks about family health history.
- We also ask permission to review medical records. This allows us access to any testing or doctor's evaluations related to your diagnosis.

### **Eligibility**

Any adult or child who has been diagnosed with an arterial dysplasia (abnormal cell growth or arterial shape) is potentially eligible for this study. Family members of affected individuals are also eligible for participation in the study.

#### **Benefits**

While there is no immediate benefit for participation, this research study will help us to understand how vascular diseases occur and develop better treatments.