

crisp3prd 1.0



## Abstract

**Grant Number:** 5F32NR007574-02

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**PI Title:**

**Project Title:** PHARMACOGENOMICS STUDIES OF HUMAN HYPERTENSION

**Abstract:** *Hypertension (HTN) is a multifactoral trait, and pharmacological methods to control blood pressure (BP) in older adults have not been effective. As a result, the majority of Americans with HTN do not have their BP under control. A research gap exists in comparing the different antihypertensive pharmacological treatments with each other. The proposed study will focus on the genetic susceptibility of the sympathetic nervous system's role in HTN as part of the GenHAT (Genetics of Hypertension Associated Treatment) study. The primary specific aim for this study is to determine the role of multiple HTN susceptibility genes in interindividual variation in BP response to alpha-blockers. The study will be an experimental laboratory design. The sample size available for analysis is 9,081 patients that were randomly assigned to the a blocker doxazosin. Treatment-genotype interactions will be explored. It is hypothesized that the response to doxazosin will differ with selected hypertensive variants. A study on the relation of genetics and BP pharmacological treatment may direct future intervention that is specific for the pathology of the patient's HTN and, therefore, more effective at controlling BP.*

**Thesaurus Terms:**

*antihypertensive agent, blood pressure, genetic susceptibility, hypertension, pharmacogenetics*

*alpha antiadrenergic agent, angiotensin receptor, angiotensinogen, lipoprotein lipase human data, human genetic material tag*

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