# Meet the Director: NIH



National Institute of Diabetes and Digestive and Kidney Diseases



# Griffin P. Rodgers, M.D.

How does an expert on blood diseases become the head of a "diabetes institute"? That's a question Griffin P. Rodgers, M.D., Director of the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), hears a lot. Since 2007, he has led NIDDK's staff of nearly 600 people. He also made his own monumental contributions to sickle cell disease research. NIH MedlinePlus Magazine asked Dr. Rodgers about entering medicine and addressing health disparities, and he told us what advice he would give young researchers starting in the field today.

### What drew you to study medicine?

I grew up in New Orleans. My father was a high school health and physical education teacher. My mother was a public health nurse, so I developed a love for science and health at an early age. Many of my mother's patients were from low-income households and often unable to come to clinics during the work week. She would sometimes visit their homes on weekends to provide care, give vaccinations to their kids, and that sort of thing. Seeing her give quality and compassionate care to all instilled in me a spirit of service to others, particularly to those who are medically underserved.

Then in high school, I had three close friends who had sickle cell disease. At that time, little could be done for this condition. Patients [with sickle cell disease] typically have periodic bouts of extreme bone and joint pain. All that could be done at that time was to give them strong pain medicines. Blood transfusion was also sometimes given to patients [for sickle cell anemia]. But very little could prevent or cure the disease. One of my friends died while I was still in high school, and the other two while I was in college. This experience drove me to medicine and hematology [the study of blood diseases].

### In the director's words

NIDDK's mission is to research some of the most common, chronic, costly, and impactful diseases nationwide: diabetes, obesity, kidney disease, metabolic disorders, liver disease, digestive diseases, nutritional disorders, urologic [related to the urinary system] conditions, blood diseases, and others. We want to **improve the health** and quality of life for people affected by these conditions. Learn more about this mission.

### How did you end up at NIDDK?

During my medical residency at Washington University in St. Louis, Missouri, several mentors there suggested that I come to the National Institutes of Health. It was a cool place to do research in many fields, including in sickle cell disease. I contacted the head of the sickle cell disease branch in the Extramural Research Program at the National Heart, Lung, and Blood Institute, and they referred me to Dr. Alan Schechter [Chief of the Molecular Medicine Branch at NIDDK]. He had published an "Seeing [my mother] give quality and compassionate care to all instilled in me a spirit of service to others, particularly to those who are medically underserved."

article on the status of research on sickle cell disease. I interviewed with his boss, I was offered a position that I accepted, and the rest is history.

### How did your research impact therapies for sickle cell disease?

Dr. Schechter and I worked together to help develop hydroxyurea. This was the first effective, FDA-approved therapy for sickle cell anemia in adults. It dramatically improved patients' lives and their overall survival. The FDA approved hydroxyurea for adults in 1998 and then for children in 2017, because the earlier results were so promising. Thinking back now, had this drug been available when I was in high school, I still might have my friends to talk to today.

If people respond to it, hydroxyurea is a great drug for reducing a number of symptoms, including pain frequency, and increasing life expectancy. But it doesn't actually cure the disease. To cure sickle cell disease, you have to replace the stem cells in the bone marrow. [From 2004 to 2013, our team, led by Dr. John Tisdale and Dr. Matt Hsieh] developed <u>ways to use bone marrow stem cell transplants</u> to expand the possibility of curing the disease.

### You were recognized for this work while also serving as Director of NIDDK. What have you learned about yourself as a leader?

What I've discovered is that it is good to be able to multitask. When you're a researcher in the laboratory, you focus on particular conditions that you may—if you're lucky—be able to make a major imprint on. Being an administrator for science, grants, contracts, and more, you can make a lasting contribution potentially to millions, perhaps hundreds of millions, of people worldwide.

# Boosting health equity at NIDDK

### **Strategic Plan for Research**

Published in 2021, this five-year plan is meant to guide NIDDK's mission to better understand biological and environmental contributors to health and disease. Many diseases under NIDDK's mission are connected. Understanding outcomes of one condition could teach researchers about another. The plan also makes recommendations to diversify the biomedical workforce, and to diversify participation in clinical trials. <u>Read the</u> <u>full plan here.</u>

### Health Disparities and Health Equity Research Implementation Plan

Expected to publish this spring, this is the first plan of its kind from NIDDK. Researchers and community members nationwide are working together to identify needed research on health equity and health disparities. This research can impact NIDDK's work tackling specific diseases and conditions. The plan will also include strategies to put this research into action. NIDDK hopes these diverse perspectives will help researchers understand the role of health disparities in illness and treatment for patients from underrepresented, disadvantaged, or racial and/or ethnic minority communities. Learn more about this plan.

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Dr. Griffin P. Rodgers, center, conducts research in addition to serving as Director of NIDDK.

# How are you tackling health disparities within that mission area?

Many of these conditions disproportionately affect certain racial, ethnic, and socially disadvantaged groups. For example, rates of diabetes are highest among Native American and Alaska Native populations, followed by non-Hispanic Black people. You're four times more likely to develop kidney failure if you're African American compared to other populations. And those groups have also been hit hardest by the COVID-19 pandemic.

But we have promoted health equity for quite some time. NIDDK supported research to develop better technology to manage type 1 diabetes. Because some minority groups are <u>less likely to use</u> these technologies, we funded <u>several new</u> <u>grants</u> to advance equitable diabetes technology usage and identify barriers to using these effective interventions.

## What advice would you give to younger researchers considering a career at NIH?

In five to seven years, even the things young scientists learned in medical school or during their early research career could be proven substantially out of date or even wrong. One must continue to learn and be in the position to take full advantage of the next technologies.

We're training our students, particularly in the medical and scientific fields, to address questions with technologies that haven't been invented yet. We want to solve problems that we're not yet aware of. It's even more important now to continue being a lifelong learner.

## How do you promote NIDDK's research to the public?

What's important is not only the research itself, but that the results that come from public investment in research are effectively disseminated—this means to the general public, health care providers, patients, and policymakers. To that end, I'm proud to say that our website tends to be one of the most frequently visited websites across the federal government.

We also put on a weekly syndicated radio show that I host called <u>Healthy Moments</u>. Its goal is to provide listeners with reliable, science-based healthy lifestyle tips. Over the past decade, we've grown to about 60 million listeners, particularly in areas with the highest rate of conditions within NIDDK's mission.

# What do you do for fun when you're not working?

I have two grown sons, and when I get to see them and their friends, I enjoy an occasional round of golf with them. Before the pandemic, my wife and I also enjoyed traveling. I look forward to cautiously resuming some of these travel activities in the post-pandemic space. We had scheduled for 2020 to visit the Maldives and some of the islands near Italy, so those might be among the first places we visit. Southeast Asia is definitely on the bucket list as well.