



The Microvascular  
Research Foundation

FOR SPIKE PROTEIN AND LONG COVID

# Pioneers in Long COVID treatment & patient care

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# The Long COVID Crisis

Long COVID is shockingly prevalent.

Symptoms are wide-ranging, and can be severe, debilitating, and ongoing.

Repeat infections and lack of early treatment can increase the person's likelihood of experiencing it..

Source: KFF The Guardian

## General

- Fatigue
- Malaise
- Mitochondrial dysfunction

## Mental Health

- Anxiety
- Depression
- Sleep issues
- Substance abuse

## Nervous System

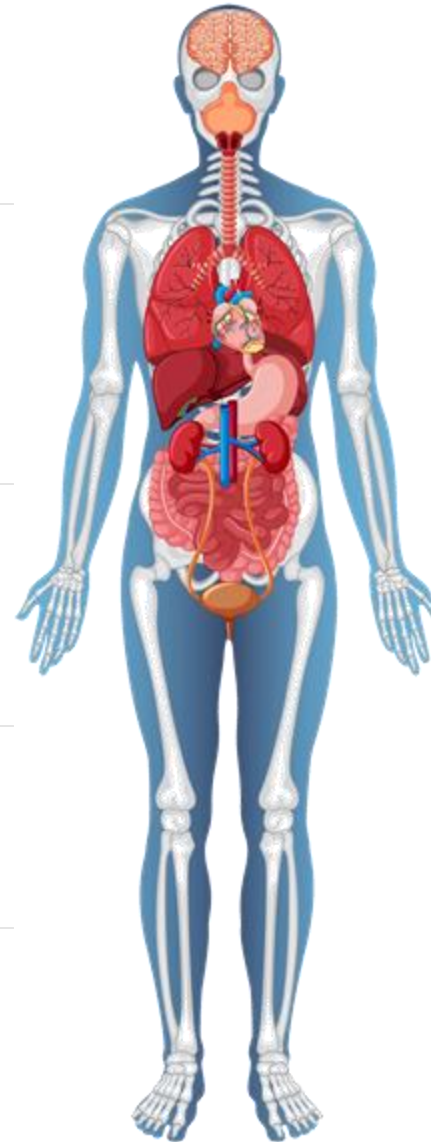
- Stroke
- Headaches Memory problems
- Loss of smell and taste

## Kidneys

- Acute kidney injury
- Chronic kidney disease

## Respiratory System

- Cough
- Low blood oxygen
- Shortness of breath



## Blood Disorders and cardiovascular disease

- Anemia
- Blood clots
- Arrythmia
- Palpitations
- Heart failure
- Acute coronary disease

## Metabolic and Endocrine System

- Obesity
- Diabetes
- High Cholesterol

## Gastrointestinal

- Diarrhea
- Acid Reflux
- Constipation

## Skin Disorders

- Rash
- Hair loss

~30%

of Adults Who Have Had COVID Report Getting Long COVID

~6.8%

of American adults are currently experiencing symptoms (15M+ adults)

# What Causes Long COVID?



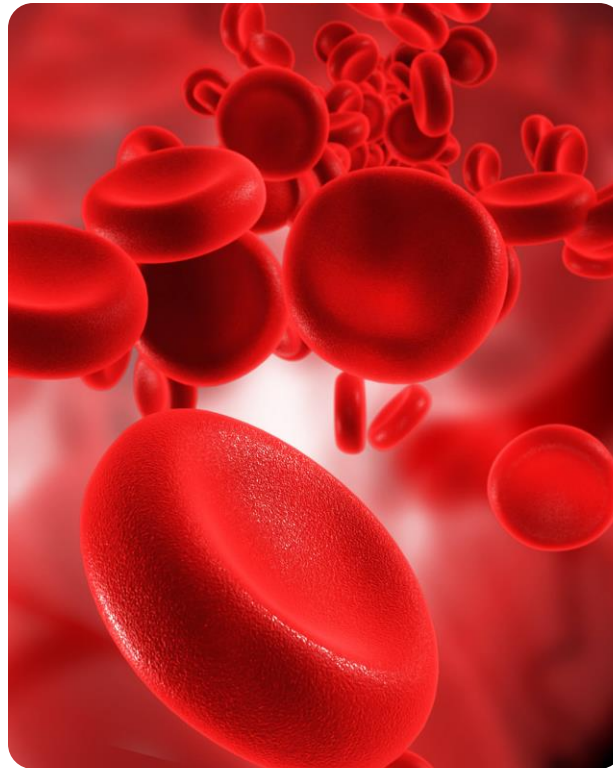
➤ Research indicates that Long COVID results from very small blood clots called “microclots”.

➤ In a healthy person, microclots are broken down by a process called *fibrinolysis*.

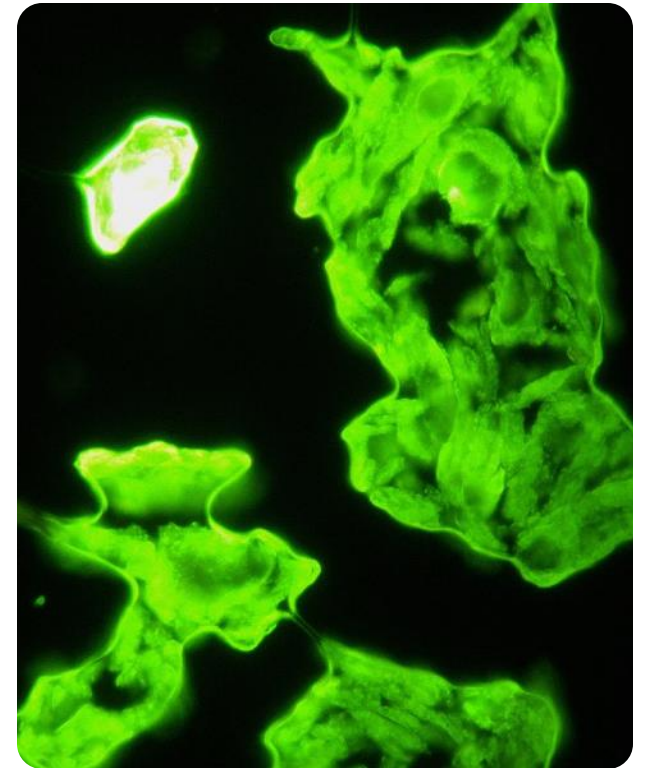
➤ In Long COVID patients, however, microclots are resistant to fibrinolysis, due to spike proteins from SARS-CoV-2 infection which continue to persist in the body.

➤ These resistant microclots damage small blood vessels and inhibit healthy oxygen delivery—a **microvascular** disease.

## HEALTHY HUMAN BLOOD



## LONG COVID PATIENT BLOOD







# Why is Treatment Difficult?

It is very difficult to find effective, research-backed treatment for long covid.

## Why?



Microclots are extremely difficult to detect & treat



A Medical Enigma: Long COVID is very new, and not fully understood



Few Proven, Research-Based, Clinical Results



Funding on treatment & medications has been slow to materialize



Patients are often told “there’s nothing wrong” or “there’s nothing we can do”

# The Microvascular Research Foundation (MVRF) is changing the paradigm of Long COVID & microvascular treatment.



- The MVRF is a nonprofit group dedicated to effective, research-based Long COVID treatment.
- Our founder pioneered new Long COVID treatments in his healthcare clinics, indicating a possible pathway to clinical treatment.
- Building on our momentum, we are now launching clinical trials & research to treat patients worldwide.

## Highlights



Founded by **Dr. Jordan Vaughn**, a worldwide leader in Long COVID clinical research & practical solutions



**2,000** Long Covid Patients Treated to Date



**~90%** Have Experienced Significant Reduction in Symptoms



Received Support for Long COVID Research & Treatment



Research, Clinical Trials & Worldwide Educational Focus



Extensive backup & infrastructure partner MedHelp (Founder's business, Long COVID Treatment Clinic)



# Our Story

Dr. Jordan Vaughn, Founder  
& President of the MVRF



## Healthcare Advocate

The son of Birmingham, Alabama physician Dr. Michael Vaughn, Jordan followed in his father's footsteps, attending the University of Alabama from bachelor's up to his residency in internal medicine



## Providing Innovative, Holistic Healthcare

Dr. Vaughn came to lead MedHelp Clinics, an extensive local healthcare organization founded by his father, serving over 190K patients annually



## COVID-19 & the Need For Innovation

During the pandemic, Dr. Vaughn spotted gaps in patient care and began searching outside the box due the striking need for treatment of millions falling victim to Long Covid



## Today - The Founding of the MVRF

Dr. Vaughn develops effective, research-based protocols to treat patients suffering from Long Covid. In turn, an understanding and awareness of the disease arises and ensues support for MVRF's Research & Clinical Trials beginning in 2024



# The Human Impact

## Laura's Story

“In fall of 2021, my husband had COVID. We went to the hospital for a chest X-ray and they admitted him. Four days into the hospital, I could tell he was getting worse and somebody connected me to Dr. Vaughn.

After not receiving any IV fluids and multiple issues with hospital care we decided to pull him out and let Dr. Vaughn treat him.

I was thankful when he walked into my house to examine my husband without any fear. He explained exactly what was happening to him and exactly what to expect the next few days. We worked with Dr. Vaughn and took all the medicine he prescribed. I watched with amazement how each dose brought my husband back to great health.

To this day, he has had no issues as I believe he received everything needed at the time.

From that day on, I worked with Dr. Vaughn in helping others to receive treatment. I have seen him work 24/ 7 nonstop. He has saved thousands upon thousands of lives.

**Birmingham is blessed that we had a physician willing to fight for their patients from the very beginning.”**

– Laura Sink



# Our Commitment to Education

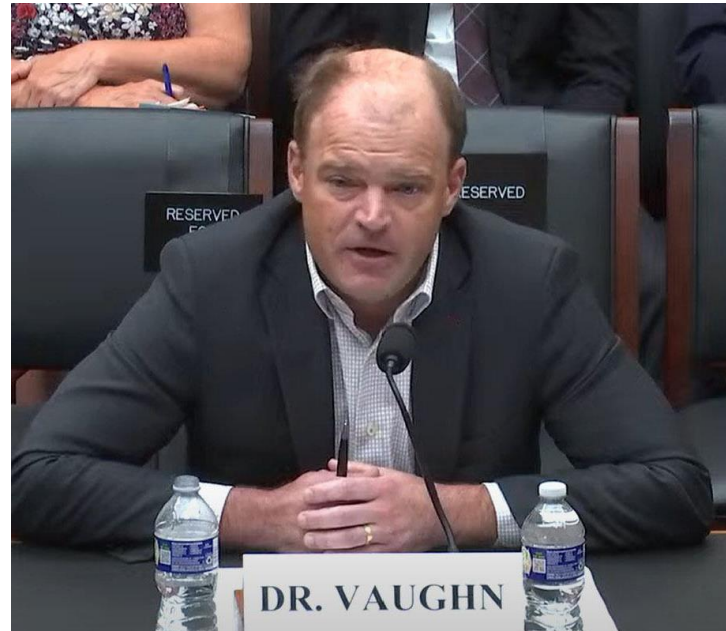


MVRF is working to bring our innovations in Long COVID & microvascular treatment to legislators, physicians, and educators around the world.

MVRF at the FLCCC  
educational conference



MVRF at the National Institute of Health  
An invitation from former CDC  
Director Robert Redfield



Dr. Vaughn speaking to senators &  
legislators about Long COVID treatment  
(June 26, 2024)







# Our Research Goals

## Understanding Changes in Small Vessels with Microclots

- Spike proteins lead to the formation of **amyloid fibrinmicroclots** – the source of many Long COVID symptoms.
- **Our research is dedicated to:**
  - A Quantitative Test for Amyloid Fibrin Microclots
  - Understanding AF Microclots & the damage they cause to small blood vessels

## Exploring Non-Invasive Treatments for IVC



The introduction of the spike protein can lead to damage of the left iliac vein – causing previously healthy individuals to become bedbound.



While Iliac vein stents can be placed, it is an invasive surgery.



Our research is dedicated to exploring **non-invasive treatments** that are effective & more accessible for patients, such as triple anticoagulation therapy treatment.



Beginning in 2024, MVRF is conducting clinical trials on therapies & research-based treatment protocols.

## TRIAL #1

### **Predisposing Risk Factors & Clinical Presentations of COVID**

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Targeted at identifying biomarkers & phenotypes of Long COVID using extracted EHR data from MedHelp clinics for statistical analysis

## TRIAL #2:

### **A Retrospective Review to Assess Iliac Vein Stenting as a Potential Long COVID treatment**

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Collaborating with MIPS, this study examines EHR data in stented patients before & after procedures

# Celestia Labs Partnership



MVRF is partnering with Celestia Diagnostics, a biotech startup focused on developing blood tests for long COVID and other infection-associated chronic conditions.

## Celestia's Innovation:

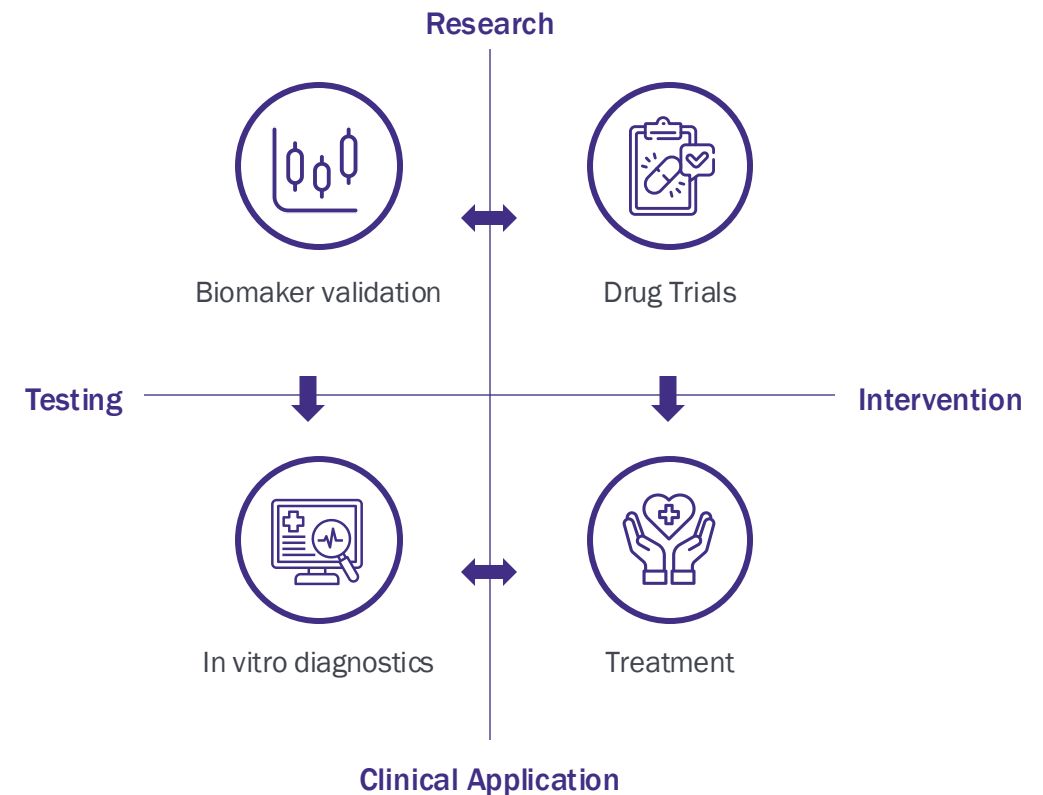
- Developed a scalable method for detecting and quantifying microclots & is looking to improve the accessibility & affordability of their test
- Researching the use of a blood test to detect persistent viral infection.

## Founding Team

Dr. Mendel Fishman

Dr. Hanan Chweih Vendrame, PhD

## With Accelerated Development Of Long COVID Diagnostics Panel







Join us today by visiting [mvresearch.org](https://mvresearch.org) to learn more and consider donating today! All proceeds go towards our Research & Clinical trials beginning 2024!





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