



quadrant

biosciences

Company: Quadrant Biosciences Inc.

Contact: Richard Uhlig, Founder & CEO

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STARTUPNY

UPSTATE
MEDICAL UNIVERSITY



PennState
College of Medicine

Quadrant Biosciences Inc. was founded in 2015

Quadrant Biosciences is an epigenetic diagnostics company working with more than more than 30 academic, medical or clinical sites across the U.S. and in Central America and Europe to develop epigenetic diagnostic tools for autism spectrum disorder, Parkinson's Disease and concussions.

Quadrant has also leveraged its expertise in RNA analyses and partnered with SUNY Upstate Medical University and others to develop and commercialize tests for COVID-19.

Our method

1

Develop privileged relationships with research universities and hospital systems

2

Evaluate and quantify the option value of new technologies

3

Co-develop intellectual property and secure exclusive license agreements

4

Accelerate product development with a market-proven management team

Quadrant translates medical research and discoveries into innovative clinical products

Our research partners



The first product from our Epigenetic research pipeline is Clarifi ASD

In December 2019 we launched the first commercial product from the Clarifi platform called **Clarifi ASD®**, the **first** epigenetic saliva test for autism spectrum disorder.

The test, intended for children 18 months through six years of age, provides a probability of an autism diagnosis based on epigenetic markers in the saliva.

What is it?

Clarifi ASD is an easy to administer, non-invasive, molecular test that accurately identifies children likely to have ASD. This test provides objective support for earlier diagnosis, when treatment is most efficacious.

Who is it for?

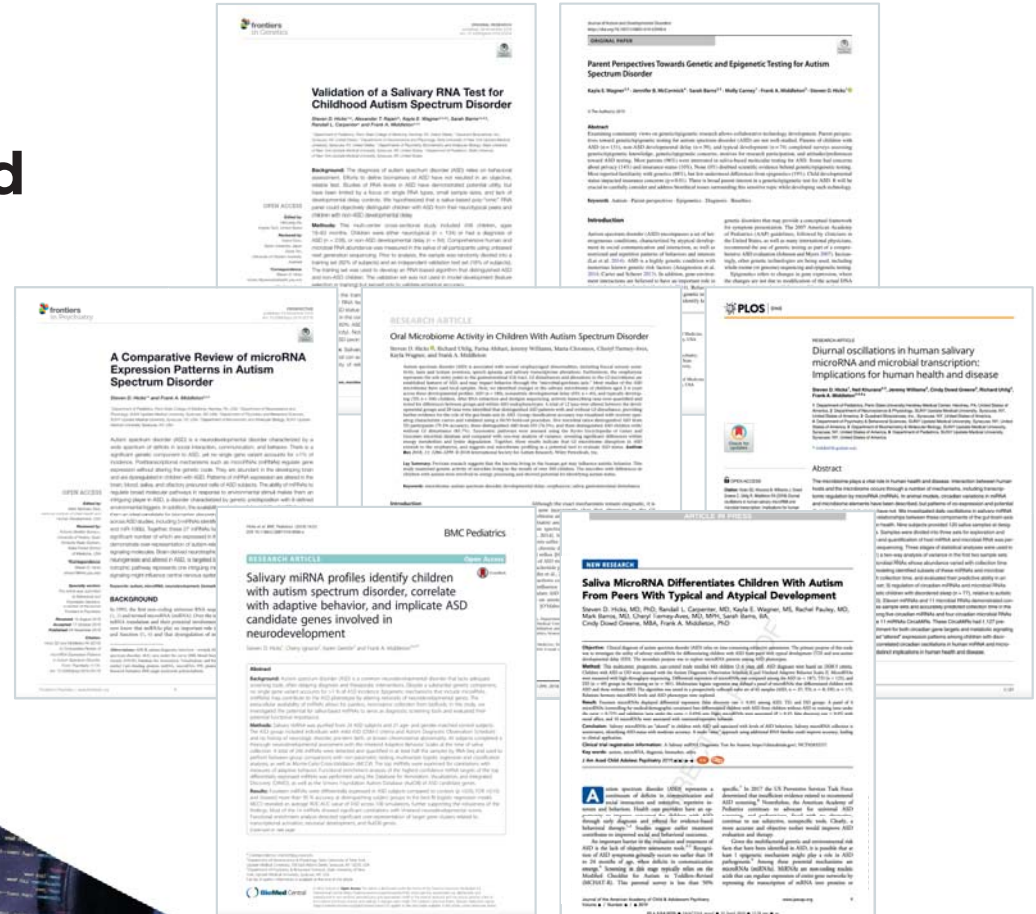
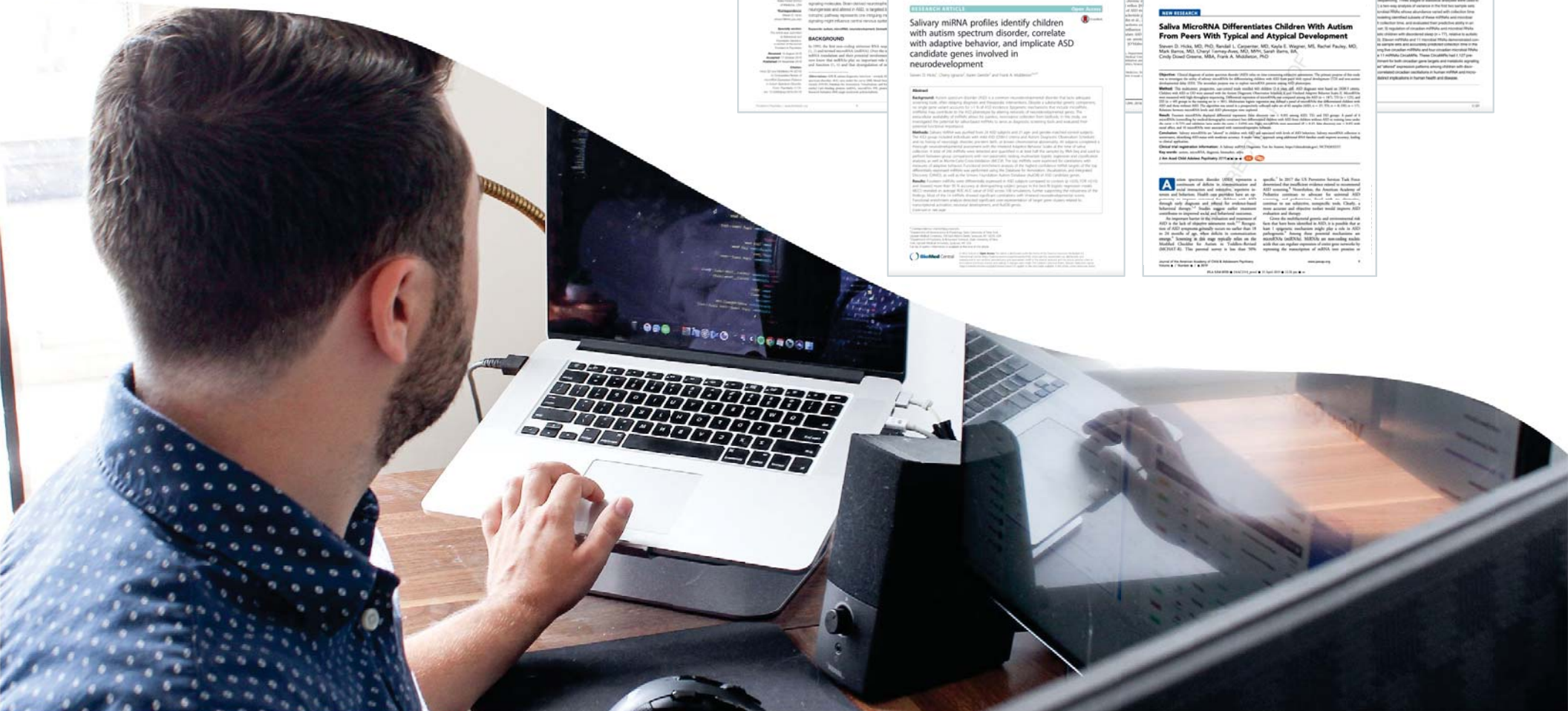
Clarifi ASD is intended to be utilized by pediatricians and family physicians with patients (18 months through 6 years of age) with a positive screening test or a clinical suspicion of ASD.

Why is it better?

Clarifi ASD helps accelerate the autism diagnostic process with results available in 3 to 6 weeks, ultimately facilitating earlier access to important services.



Peer-reviewed research validates the science behind Clarifi ASD





Quadrant's product pipeline of epigenetic diagnostic tools extends beyond Clarifi ASD

Clarifi™

parkinson's saliva test

Parkinson's disease

Designed to detect Parkinson's disease from other common look-alike conditions (e.g., essential tremor, multiple system atrophy) with high specificity

Clarifi™

tbi saliva test

TBI (brain injury)

Designed to be a diagnostic test that will rapidly detect brain changes and assist with developing personalized treatment plans

Clarifi™

anorexia saliva test

Anorexia nervosa

Designed to be a molecular indicator of treatment progress during hospitalization for the diagnosis with highest mortality rate of any psychiatric disorder

Clarifi™

schizophrenia saliva test

Schizophrenia

Designed to be a diagnostic test that will differentiate schizophrenia from other diagnoses with similar or overlapping symptom presentation

Then COVID-19 happened...

- Not long after we introduced Clarifi ASD to pediatric health care providers, the world was besieged by the COVID-19 pandemic.
- Our access to healthcare providers to share the scientific and practical utility of Clarifi ASD was greatly restricted by social distancing mandates and fear of the virus.
- This limited our sales team's ability to sell and increase commercial demand for Clarifi ASD.
- University closures halted ongoing clinical trials of our epigenetic diagnostic tool for Parkinson's Disease.

So, we adapted!

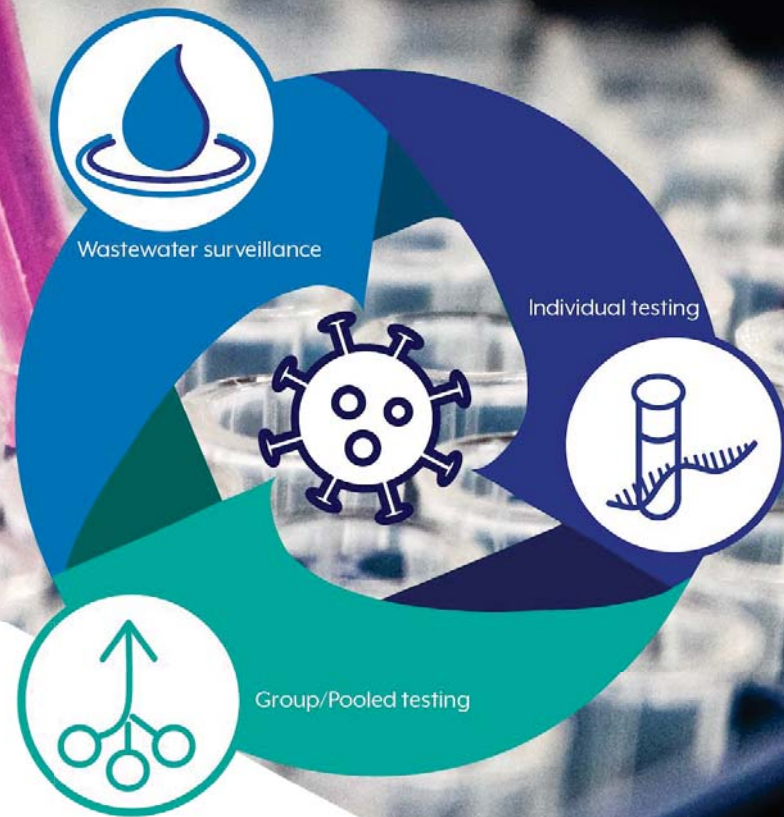


Our company changed focus in response to COVID-19

Beginning in March 2020, Quadrant Biosciences leveraged our expertise in RNA analysis to respond to the global COVID-19 pandemic.

In collaboration with SUNY Upstate and other universities, we are now actively involved in three important COVID-19 testing platforms:

- For Individuals: Clarifi COVID-19 Test Kit (FDA EUA issued 9/22/20)
- Organizations/Schools: Pooled Surveillance of large groups, colleges
- Communities: Municipal wastewater testing



The Clarifi COVID-19 Test Kit

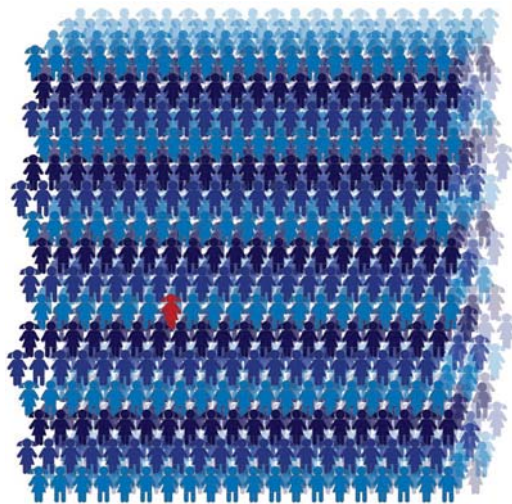
- An Emergency Use Authorization (EUA) submission for the Clarifi COVID-19 Test Kit was issued by the FDA on 9/22/2020.
- Developed in partnership with SUNY Upstate Medical University, the Clarifi COVID-19 Test Kit is a non-invasive test for the presence or absence of SARS-CoV-2 viral RNA in a person's saliva.
- The test is designed for use by high-complexity clinical laboratories serving patients through physicians' offices, urgent care clinics and hospitals.





Informing policies and clinical decisions

Wastewater Testing



Estimated ability to
detect 1 COVID case
per 10,000 population

Pooled Saliva Surveillance



Ability to detect
1 COVID case
among 25 samples

Individual Saliva Testing

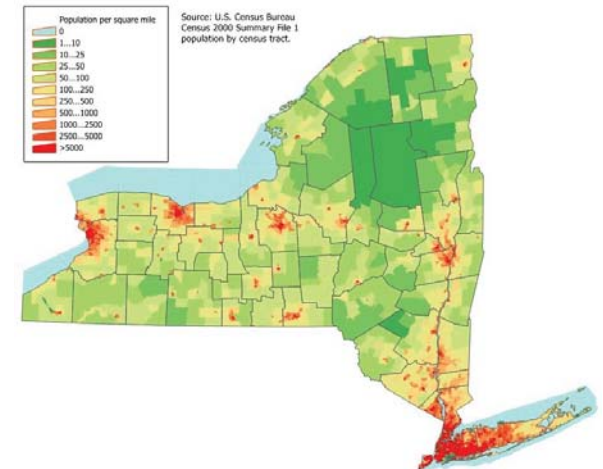


FDA EUA qPCR-based
virus test

Cost per Person Tested

Implementing at scale

Since August 2020, Quadrant Biosciences and SUNY Upstate have been delivering integrated solutions throughout New York State



- **Wastewater Testing**

- Quadrant is already testing for SARS-CoV-2 virus in wastewater on many college campuses and in communities across New York State with sponsorship by the New York State Department of Health.
- Currently processing nearly 500 wastewater samples per week.

- **Pooled Saliva Surveillance Testing**

- Testing for over 450,000 students at more than 60 colleges and universities since mid-August

- **Individual Saliva Testing**

- Immediately reflex tested nearly 5,000 samples to identify infected individuals





**Quadrant has been
awarded grant funding
in excess of \$5 million***

2016

Private research
foundation

\$201,000

2016



NIH Phase I STTR Grant
Autism Spectrum Disorder

\$225,000

2018



NIH Phase II STTR Grant
Autism Spectrum Disorder

\$2.0 M

2019



NIH supplemental funding
Autism Spectrum Disorder

\$330,000

2020



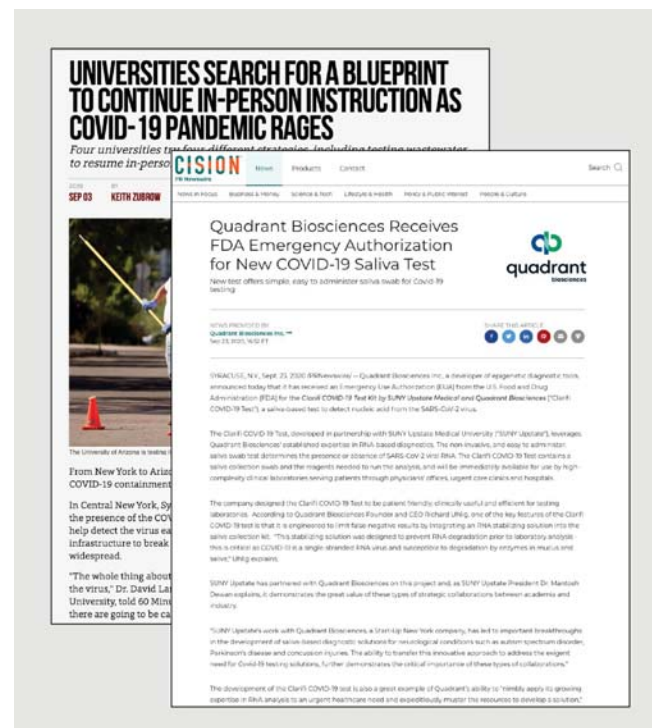
NIH Phase I and II STTR
Concussions (mTBI)

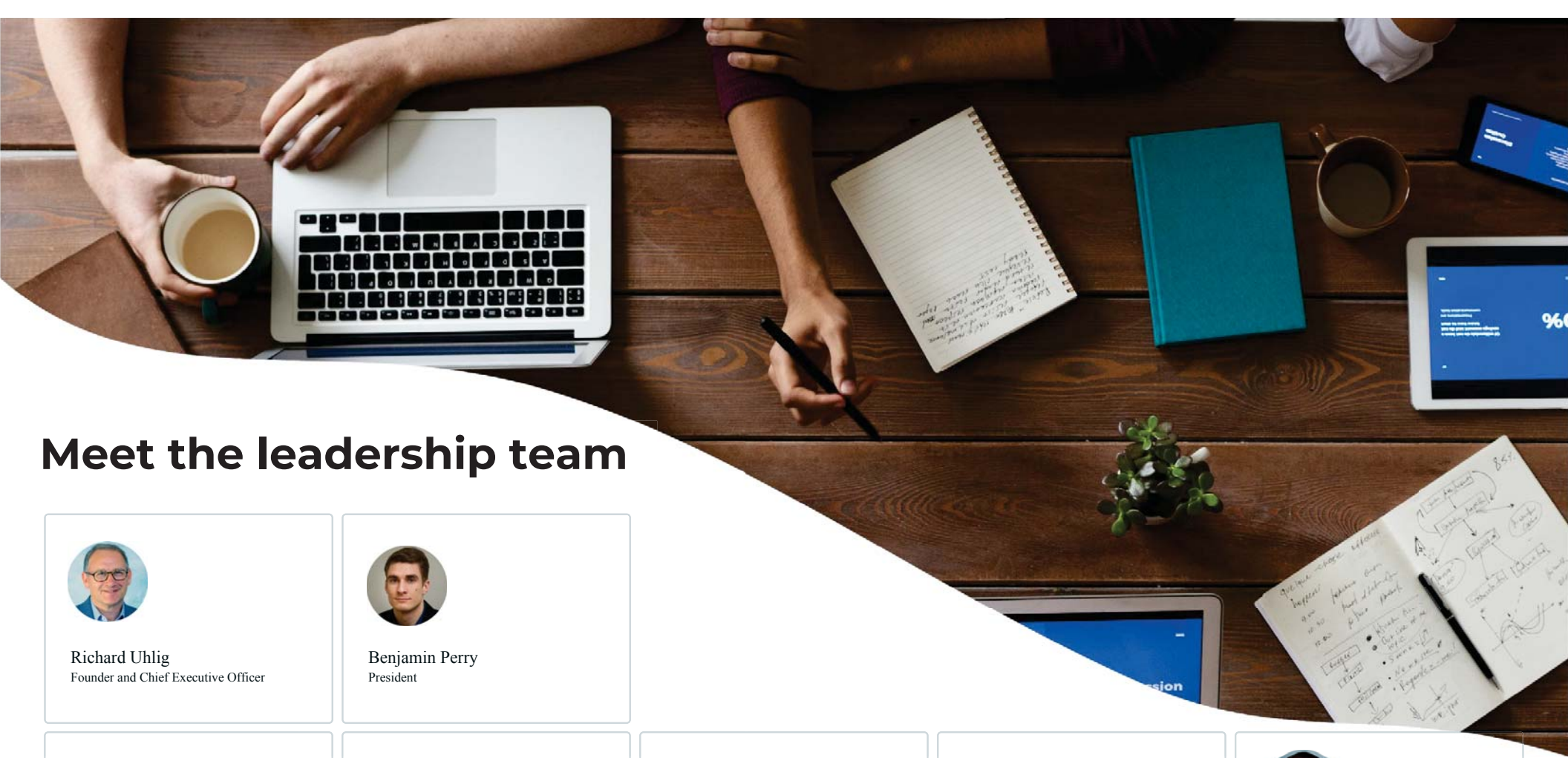
\$2.3 M

*(*The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.)*



Quadrant research has been featured numerous times in the media





Meet the leadership team



Richard Uhlig
Founder and Chief Executive Officer



Benjamin Perry
President



James Croke
General Counsel



Richard Bongo
Chief Financial Officer



David MacLean
Chief Marketing Officer



Bryan Greene
Chief Operating Officer



Jeremy Williams
Chief Technology Officer



Naved Ameen
Executive Vice President - Corporate Strategy



Kayla Wagner
Vice President - Product Management



Wade West
Executive Vice President - Sales



Chris Horacek
Deputy General Counsel



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For more information contact
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*On September 22, 2020, The Clarifi COVID-19 Test Kit obtained Emergency User Authorization (EUA) by the Food and Drug Administration (FDA) to be used for the diagnosis of SARS-CoV-2. The Clarifi COVID-19 test [Letter of Authorization](#), along with the authorization [Fact Sheet for Healthcare Providers](#), the authorized [Fact Sheet for Patients](#) and authorized labeling are available on the FDA website.

The Clarifi COVID-19 Test Kit has not been FDA cleared or approved. It has been authorized by the FDA under an emergency use authorization for use by authorized laboratories. Clarifi COVID-19 has been authorized only for the detection of nucleic acid from SARS-CoV-2, not for any other viruses or pathogens, and is only authorized for the duration of the declaration that circumstances exist justifying the authorization of emergency use of in vitro diagnostic tests for detection and/or diagnosis of COVID-19 under Section 564(b)(1) of the Act, 21 U.S.C. § 360bbb-3(b)(1), unless the authorization is terminated or revoked sooner.