

## Introducing the New Weil Institute!

In January of 2022, the family of Dr. Max Harry Weil gifted a **\$10M** donation to Michigan Medicine, establishing the **University of Michigan Max Harry Weil Institute for Critical Care Research and Innovation**.

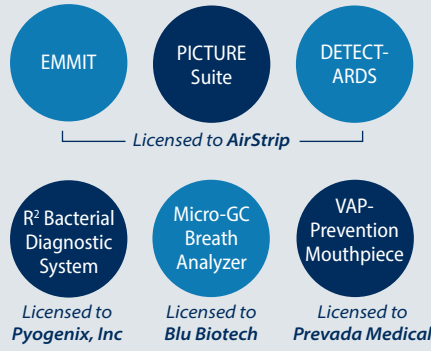
Since then, the center formerly known as "MCIRCC" has grown exponentially, forming **new partnerships**, launching **new events**, and supporting **bold new research**. But for everything new, the mission driving us remains the same:

**Transforming critical care through innovation, integration & entrepreneurship.**



## PRODUCTS & COMMERCIALIZATION

**6** new products licensed this year



**10** patent applications submitted this year



**2** new spin-off companies formed

Prevada Medical  
Pyogenix, Inc.

## RESEARCH SUPPORT SUCCESS STORIES

This year, Weil Institute Core Teams and special events like our Grand Challenges helped bring in a combined total of **\$16,316,567** in research funding to our membership.

Including...

**\$5.7 MILLION** in NIH funding for development of wearable sensor that detects over 20 diseases and conditions using a patient's body odor. Led by Dr. Xudong (Sherman) Fan and team from the University of Michigan College of Engineering and Medical School.

**\$4+ MILLION** in DoD follow-on funding to three projects initially supported by the **Massey TBI Grand Challenge**. Two of the projects are led by Dr. Frederick Korley, who is working in partnership with Dr. Mark Burns. The third is led by Drs. Joseph Wider and Tom Sanderson.

**\$3.3 MILLION** in NICHD funding to research **new methods of managing pediatric sepsis** led by Dr. Prashant Mahajan alongside a team of investigators from Nationwide Children's Hospital.

**\$1.15 MILLION** NINDS grant for Dr. Cindy Hsu and Dr. Frederick Korley's pre-clinical **model of brain injury following cardiac arrest**.



## PARTNERSHIPS & COLLABORATIONS



**AirStrip, Inc.** partnered with **Weil Institute Data Science** team to license **DETECT-ARDS** and the **PICTURE** suite of predictive analytics and integrate them into the existing **AirStrip ONE** platform.

**Weil Institute** and **Blu Biotech** collaborating to develop **sepsis/ARDS biomarkers** for use with the Micro-GC breath analyzer to enable much earlier detection and treatment of these life-threatening critical illnesses.



**Weil Institute** and **ABIOMED** teamed up to study use of Abiomed's **Impella CP®** device with aortic occlusion as enhanced strategy for **cardiac arrest resuscitation**.



## MARKETING & OUTREACH

**1,384** followers on social media

The Marketing Team also overhauled the Weil Institute's **website**, including our entire product portfolio, to refine how we position ourselves online.

## PROPOSAL DEVELOPMENT TEAM

**44%** total funding success rate\* **\$15M** in grants funded

\*Compare to the average NIH/DoD funding success rate of ~20% or less

## CLINICAL RESEARCH TEAM

**18** studies completed and ongoing **1,487** patients recruited and/or surveyed

## LARGE ANIMAL LABORATORY

**4** new models developed



- Cardiac Arrest, Resuscitation, and 24-Hour ICU Care
- Blunt Impact Traumatic Brain Injury
- Impella CP CPR with Balloon Aortic Occlusion
- Sepsis Driven Acute Kidney Injury

The Weil Institute is investing **\$2M** over the next 5 years to support development of multiple long-term outcome models of **sepsis, acute respiratory distress syndrome, cardiac arrest, traumatic brain injury, and polytrauma**.

## DATA SCIENCE & DATA OPERATIONS TEAM

**\$4.3M** in sponsorship dollars received in 2022

The Data Science team was also awarded an **MTRAC for Life Sciences** grant to support further development of the **EMMIT** software platform.



## MASSEY TBI SUMMIT

1. How best to use biomarkers to link preclinical and clinical studies
2. Translation failure & using preclinical consortia to address it
3. Knowing what we are treating

**Guests Vote:**  
Top 3 TBI Knowledge Gaps

## MASSEY TBI GRAND CHALLENGE

**\$1,062,792** in total research funding awarded

Through the generous support of the Joyce and Don Massey Family Foundation, this year marked our very first **Million-Dollar Grand Challenge!**

## KAHN PEDIATRIC CRITICAL CARE PROGRAM



Just launched in December through a gift from philanthropist Mark Kahn to help transform care and outcomes for critically ill children.



## SEMINARS & UNIVERSITY EVENTS

### Weil Innovation Showcased to U-M Community

The Digital External Ventricular Drain (DEV D), developed by Rodney Daniels, MD, was featured at "Celebrate Invention" hosted by Innovation Partnerships in downtown Ann Arbor.



### Weil Institute Welcomes Global Scholars

Our 2022 "Visiting Scholar" seminar series gave a warm Michigan welcome to Dr. Lars Larsson, an expert in critical care myopathy from Sweden, and Dr. Renaud Tissier, a physician and professor from France who is leading research into hypothermia in post-cardiac arrest syndrome.