

Placing Children at the Heart of Research



2021 ANNUAL REPORT

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THE YEAR IN REVIEW

OUR MISSION

To advance the diagnosis, treatment, and prevention of congenital heart defects (CHDs) by funding the most promising research.



Dear Supporters of The Children's Heart Foundation,

On behalf of The Children's Heart Foundation, thank you for making our 25th anniversary year such a huge success. The pandemic did not slow the need or desire to advance our mission. 2021 was an impactful and productive year, raising record-setting amounts to fund the most promising congenital heart defect research. Today, CHF stands strong, and remains committed to serving as the country's leading organization solely dedicated to funding CHD research.

In 1997, The Children's Heart Foundation funded its very first research projects totaling \$95,000. In 2021, because of your generosity, we funded over \$1 million of research and scientific collaborations. This brings our organizational total to \$15 million of CHD research and scientific collaborations.

Our work would not be possible without the incredible contributions of our dedicated and passionate volunteers and the generous support of our donors.

The Children's Heart Foundation's Board of Directors, volunteers, and staff wish to thank you for your continued support as we build for future growth and success.



Sincerely,

Kevin Slawin
Chairman of the Board



2021 RESEARCH FUNDING

The Children's Heart Foundation funded **over \$1 million** of congenital heart defect research and scientific collaborations in 2021, thanks to the generous support of our volunteers, donors, and sponsors.

As in years past, our research funding spanned four initiatives:

1. Independent research funded by The Children's Heart Foundation
2. Collaborative research with the American Heart Association through joint Congenital Heart Defect Research Awards
3. Funding the American Academy of Pediatrics' Pediatric Cardiology Research Fellowship Award
4. Funding of Cardiac Networks United research initiatives



Since 1996, The Children's Heart Foundation has funded \$15 million of CHD research and scientific collaborations.

In many cases, we've provided start-up funding for research that's gone on to earn support from larger entities such as the National Institutes of Health or the U.S. Department of Defense, along with pharmaceutical and/or medical device industries. The research we fund is truly moving the needle.



Independent Research Funding



Shabnam Peyvandi, MD, MAS, (University of California San Francisco) received funding from The Children's Heart Foundation for her research, **"Early brain networks that predict school-age neurodevelopmental outcomes in critical congenital heart disease"**.

The findings of this study will set the stage for future validation studies to confirm these predictive models, which will be crucial for neuroprotective clinical trials in this patient population.



Dr. Shabnam Peyvandi



Eduardo Divo, PhD, MS, BS, (Embry-Riddle Aeronautical University, Daytona Beach, FL) received funding for his research, **"Investigation of an Injection-Jet Self-Powered Fontan Circulation: A Novel Bridge and Destination Therapy for the Failing Fontan"**.

This research focuses on the problem of elevated venous pressure in Fontan Failure. Successful lowering of venous pressure in some Fontan patients may minimize or even prevent the serious, even fatal complications associated with excess elevation of pressure.

Funding for this research was generously donated to The Children's Heart Foundation through the Cortney Barnett Research Fund.



Dr. Eduardo Divo

American Academy of Pediatrics: Funding the research of tomorrow



Dr. Mohammad Al-Mousily

The winner of the American Academy of Pediatrics' 2021 **Pediatric Cardiology Research Fellowship Award** was **Mohammad Al-Mousily, MD**, Pediatric Cardiology Fellow at Medical University of South Carolina.

Al-Mousily's research, titled, **"The use of a 12 lead ECG and artificial intelligence with a machine learning model to identify structural heart disease"**, aims to use artificial intelligence with ECGs to quickly identify children with structural heart disease. If successful, this will identify patients with structural heart disease sooner.

This award is made possible by a \$35,000 educational grant from The Children's Heart Foundation.





Cardiac Networks United: Using data to make an impact

The Children's Heart Foundation is proud to support Cardiac Networks United (CNU), a pediatric and congenital cardiovascular research network that encompasses two-thirds of all congenital heart centers in the U.S.

Through 2023, The Children's Heart Foundation will provide a total of \$1.5 million to CNU.

CNU is comprised of **eight collaborating networks** who together, touch on all aspects of CHD care - Cardiac ICU, single ventricle disease, neurodevelopment, fontan care and outcomes, and more. Multiple CNU efforts and that of partner organizations were highlighted at the American Heart Association's 2021 Scientific Sessions.

Some of their current research efforts include:

- Optimizing Fontan care across the lifespan
- Cardiac arrest prevention
- Standardizing post-operative recovery



American Heart Association and The Children's Heart Foundation: Working together to fight CHDs

Our collaborative funding with American Heart Association supports the Congenital Heart Defect Research Awards.

In February of 2021, The Children's Heart Foundation and American Heart Association announced a joint commitment of \$900,000 to fund the following:

- **Barbara Gonzalez Teran, The J. David Gladstone Institutes**
 - Exploring dysregulation of two protein coding gene interactions by a CHD-associated variant and its impact on heart development.
- **Benjamin Streeter, Emory University**
 - Electrospun polycaprolactone-based patches, tissue-compatible biomaterial, for enhancing cardiac progenitor cell reparative potential.
- **Dulguun Amgalan, Stanford University School of Medicine**
 - Regulatory maps of endothelial cell differentiation to connect CHD risk variants to target genes.
- **Mingkun Wang, Cornell University**
 - Mechanical regulation of YAP/TAZ protein activity in the growth and maturation of atrioventricular valve.
- **Devin Laurence, University of Oklahoma**
 - In-silico guided assessment and management of tricuspid regurgitation in patients with hypoplastic left heart syndrome.
- **Sathiyarayanan Manivannan, The Research Institute at Nationwide Children's Hospital**
 - Developmental origins of hypoplastic left heart syndrome examined using genetically-linked RFX2 variants.
- **Alexis Leigh Krup, University of California, San Francisco**
 - Dissecting specification of cardiac precursor cells at single cell resolution.
- **Jennifer Klein, Children's National Medical Center and Children's Research Institute**
 - Mapping the geographic distribution of congenital heart disease and associated neurologic outcomes.





CONGENITAL HEART WALKS

31 Congenital Heart Walk events took place in 2021. We began the year with virtual events and transitioned to in-person walk events in the summer, where so many of our heart families and teams joined together again in our walk for CHD research!

We thank all of our participants, volunteers, donors, and sponsors for their generous support, which helped the 2021 walk series raise more than \$1.65 million! Together, we walk to raise funds for research that will help improve outcomes for Heart Warriors everywhere, and honor all Heart Angels.

We look forward to seeing everyone again in 2022 as we walk in a city near you!

More than
6,750
participants

Nearly
800
teams

200+
Committee
Members

14,000+
donations
made



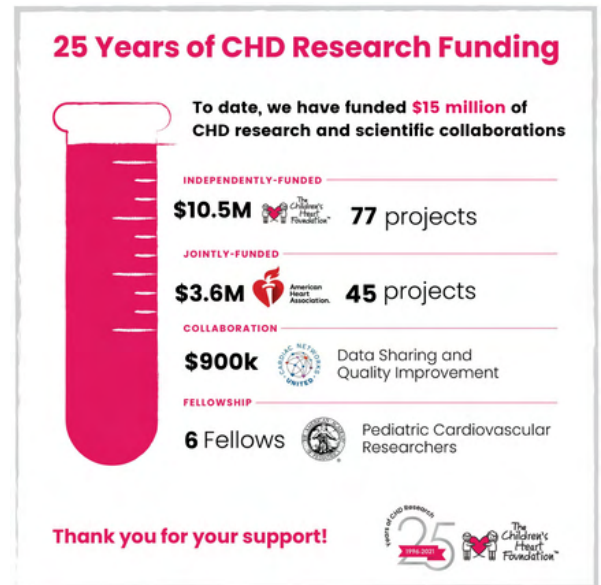


ANNIVERSARY CELEBRATION

In 2021, we were proud to celebrate our **25th anniversary!** The Children's Heart Foundation was founded in 1996 by Betsy and Steve Peterson after losing their son, Sam, to a congenital heart defect.

The Petersons honored Sam's life in an enormous way by founding The Children's Heart Foundation. Their vision has led to the Foundation funding \$15 million of CHD research and scientific collaborations.

The image on the right depicts the scope of our research funding and scientific collaborations from 1996 - 2020.



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When my husband and I started The Children's Heart Foundation 25 years ago, we hoped that it would allow patients and their families to have a direct impact on the field of CHD research. We couldn't have dreamed it would become the beacon of hope it has become for so many.

I can't wait to see where you'll take us over the next 25 years.

- Betsy Peterson, Founder



LOOKING AHEAD

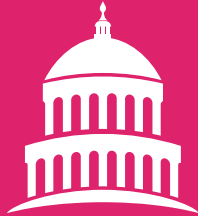
The Children's Heart Foundation has begun implementing its **2022 – 2024 Strategic Plan**, which focuses on strengthening volunteerism and developing **five initiative areas**:

RESEARCH



Increase the amount of research The Children's Heart Foundation funds each year, improve processes, and maintain our space as leader in the field.

ADVOCACY



Develop an advocacy initiative and Legislative agenda for The Children's Heart Foundation.

COMMUNITY EXPANSION & VOLUNTEERISM



Focus on strengthening volunteer recruitment and retention, as well as Diversity, Equity, and Inclusion efforts to grow and enhance our volunteer base.

INCREASING AWARENESS & CONCERN FOR CHF & CHDs



Development of key marketing and communications toolkits and campaigns to increase awareness, fundraising, and volunteerism.

GROW REVENUE



Increase revenue through enhancement and growth of Congenital Heart Walk series and major gift strategies.

FINANCIALS

2020 Audited* Financials

REVENUE

Donations	\$1,160,000
Congenital Heart Walk	\$1,033,000
Special Events	\$364,000
Third Party Events	\$65,000
Paycheck Protection Program Grant	\$110,000
Other	\$1,000

Total Revenue **\$2,733,000**

EXPENSES

Research and related programs	\$1,776,000
Operations	\$458,000
Fundraising	\$583,000

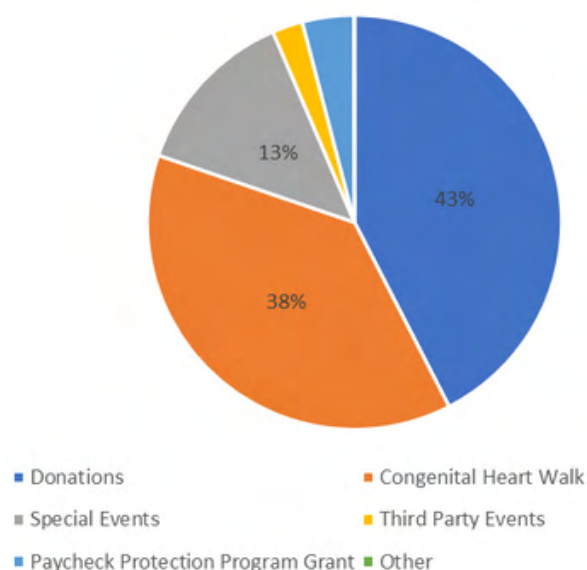
Total Expenses **\$2,817,000**

DECREASE IN NET ASSETS **\$(84,000) ***

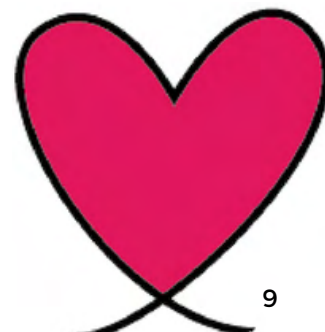
NET ASSETS AT DECEMBER 31, 2020

Unrestricted	\$844,000
Restricted to Research	\$334,000
	\$1,178,000

REVENUE SOURCES



*The COVID-19 pandemic forced the Foundation to move to virtual events, leading to a decrease in income. Given COVID-19, the slight loss is commendable and the Foundation maintained healthy reserves.



JOIN US

DONATE. VOLUNTEER. FUNDRAISE. ATTEND AN EVENT.

Together, we can continue to fund research that makes life-saving medical advancements possible for babies born with, and the millions of children and adults living with, congenital heart defects.

To get involved, learn about volunteer opportunities, or make a donation, please visit ChildrensHeartFoundation.org

We thank you for being a part of our heart family and **Placing Children at the Heart of Research.**



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