
2018 ANNUAL REPORT



“Repurposing drugs gave me hope and gave me time.”

*Martie, Lenexa, Kansas
Myelofibrosis patient*

“The Kahlert Foundation has been supporting Cures Within Reach for the past four years. Repurposing products that are already approved, safe and effective just makes good sense to us.”

*Greg Kahlert
The Kahlert Foundation*

CURES WITHIN REACH – EXECUTIVE SUMMARY

Cures Within Reach is excited to share our activities pursued and results made in 2018. Thanks to all of you who have played a role in our success. Below are some of the CY2018 highlights.

2018: Looking Back, Looking Ahead

- § **10** new clinical repurposing trials started and **12** in process
- § **7** CWR-funded projects finished
- § **22** ongoing projects at **17** institutions in **18** diseases
- § Even more projects approved or in the review process

New and Expanding Programs

Focusing on growth and scale, during 2018 we:

- § Held our first **CureAccelerator Live!** philanthropic pitch event outside of Chicago, focused on Mid-Atlantic institutions, held near Washington, DC in October
- § Received initial financial commitment for the **ReGroW Pilot**, to build clinical trial capacity by providing grants to researchers in low and low-middle income countries to find treatments for the developing world from within the developing world
- § Launched a new funding mechanism, **Impact Awards**, focused on supporting repurposing startups with seed-stage funding
- § Continued expansion of **CureAccelerator Live!** with 2 events in 2019: one impacting **patients in the developing world** and the other **in rare diseases**

Our Newest Success Story

Initial CWR funding supported early clinical studies of repurposing a generic tuberculosis vaccine to treat **TYPE 1 DIABETES** patients. Dr. Faustman of Massachusetts General Hospital / Harvard recently published long-term Phase I results showing excellent outcomes. **CWR'S FUNDING OF \$110,000 HELPED TO LEVERAGE AN ADDITIONAL \$23 MILLION IN FOLLOW-ON FUNDING** for the Phase II trial currently in process.

Examples of Our Successes Include:

- § Repurposing a drug to treat patients with a pediatric ultra-rare blood disorder **ALPS (Autoimmune Lymphoproliferative Syndrome)** and in 5 other **rare pediatric autoimmune diseases**
- § Repurposing a drug to treat **Type 1 Diabetes** patients
- § Repurposing a device to treat early **prostate cancer** patients
- § Repurposing a device to treat **multiple sclerosis** and **traumatic brain injury** patients



Nicole, during and years after the successful ALPS trial

Dear Stakeholders, Partners and Friends:

Cures Within Reach has been focused on repurposing research for over a decade. We were on the leading edge when we first realized the power of unleashing the potential of drugs, devices and nutraceuticals already available for human use. Initially, we had a hard time finding philanthropic, patient advocacy, academic, clinical, industry and government partners. Fast forward 10 years and every one of those stakeholder groups is focusing attention on repurposing. Our hunch was correct - we can drive more treatments to more patients more quickly through repurposing. Repurposing research is vital because so many patients have diseases that cannot or will not be solved through new discovery research.

We are now pioneering economic incentives to support greater repurposing of drugs, nutraceuticals and devices. These incentives will spur therapy development to bring treatments to market that are both effective and affordable. Ten years from now we expect to look back and see other stakeholders developing repurposing incentives.

And we are very excited to begin expanding our repurposing research portfolio to the developing world. The more clinicians, scientists, patients, NGOs and government sectors embracing repurposing, the more patients will go to sleep with a therapy that improves their lives.

Thank you for joining us on our mission. Disease impacts each of us, and repurposing research can benefit all of us. Together, we can make the world a healthier place.

Moving forward together,

Dr. Bruce Bloom, Chief Executive Officer

Margaret Christie, Chair, Board of Directors

OUR IMPACT ON PATIENTS



OUR MISSION AND VALUE

Cures Within Reach **improves patient quality and length of life** by leveraging the **unrealized clinical potential** and **missed therapeutic opportunities in existing medicine and science**. We leverage the speed, safety and cost-effectiveness of medical repurposing research, **driving more treatments to more patients more quickly**, by **clinically testing approved drugs, devices and nutraceuticals** for unsolved disease indications that can serve **both commercial and philanthropic needs**.

Our Value Proposition

1. Cures Within Reach serves as a **Value-Driving Catalyst** of repurposing opportunities and a **Value-Creating Facilitator** funding research between our many stakeholders, with CureAccelerator as the hub and platform.
2. Cures Within Reach operates as a thought-leading, **Value-Creating Facilitator** of conversation and action in repurposing's value to drive both market impact and health savings.

We will drive market impact and health savings:

To patients and patient groups

With payers and the healthcare industry

From academia/researchers

With support from the government, philanthropy and others

Our Goals

1. Solidify Cures Within Reach's leadership role as **value-creating catalyst and facilitator** in repurposing
2. Expand Cures Within Reach's **self-sustaining funding sources** to support future repurposing opportunities
3. Strengthen Cures Within Reach's role facilitating **value-creating conversation and action among stakeholders** interested in repurposing to address unrealized clinical potential

CURES WITHIN REACH AS A VALUE-DRIVING CATALYST

Creating Patient Impact – Remembering Our “Why”

Cures Within Reach and our stakeholder partners are passionate about creating positive patient impact by developing “new” treatments through repurposing. Repurposing is particularly important in diseases where industry has a cost-benefit challenge, which includes rare diseases, acute diseases and infectious diseases.

Research Fast Facts:

- As of December 31, 2018, we had 22 total ongoing projects at 17 different institutions in 18 diseases, representing over \$1 million in project funding
- 10 new projects were approved and signed in CY2018
- All 22 of our on-going projects are clinical trials (none pre-clinical or a combination)
- 7 projects were completed in CY2018, with data either pending publication or being prepared for publication

Our repurposing research portfolio covers a range of disease areas, from Type 1 diabetes and Alzheimer’s disease to central nervous system disorders, rare eye diseases, depression and limb trauma surgery.

45% of ongoing projects are in rare diseases

32% of ongoing projects are in oncology

36% of ongoing projects are in pediatrics

We are grateful for the support of our sponsors, donors and partners in making these exciting research studies a possibility. Exciting recent highlights from our ongoing research include:

- § Dr. Krista Lanctôt presented her preliminary results repurposing the synthetic cannabinoid nabilone in Alzheimer’s disease at the Alzheimer’s Association International Conference in July 2018, garnering attention from NBC News and *The Washington Post*.
- § Dr. Stacy Kahn published her data on fecal microbiota transplantation (FMT) to treat *C. Diff* infections in children, providing the first ever FMT treatment guidelines in pediatrics.
- § Dr. Benjamin Kim has been invited to present his repurposing research in a type of macular degeneration at the 2019 Association for Research in Vision and Ophthalmology meeting, the largest international ophthalmology research meeting. His talk will be part of the mini-symposium “Repurposing Drugs for the Treatment of Retinal Diseases.”
- § Dr. Marc-Eric Halatsch presented positive preliminary results of his clinical trial repurposing a combination of nine chemotherapy drugs plus standard therapy in brain cancer at the Annual Meeting of the Society for Neuro-Oncology.

Finding Treatments in a Specific Disease Area: Ménière's Disease

Ménière's disease is a chronic inner ear condition, with symptoms including vertigo, loss of balance, tinnitus and ear pressure. In addition, most patients will experience some degree of permanent hearing loss. While there are a limited number of disease-modifying treatments, they do not provide relief to all patients, and there is no cure for Ménière's disease. In 2018, Cures Within Reach issued two funding opportunity Requests for Proposals in Ménière's disease (the first time we focused on this specific disease) seeking both preclinical and clinical projects in order to build a repurposing research pipeline that can lead to new treatment breakthroughs for patients. We engaged a variety of stakeholders, including academia, industry, nonprofits and patients, to help us identify the most innovating and promising repurposing research to address this unmet medical need. Funding for at least one project will be approved in early 2019, the first step in leveraging the power of repurposing to alleviate the suffering caused by Ménière's disease.

"We are proud to partner with Cures Within Reach to create a pipeline of projects that could lead to clinical breakthroughs in Ménière's disease. We hope this work can make a real difference for patients with Ménière's everywhere."

-- Becky and Lester Knight

NEW PROJECTS STARTED IN 2018

In 2018, Cures Within Reach signed 10 new projects at 8 institutions in 10 diseases:

Disease Area	Institution	Lead Researcher	Name	Type	Other
Diabetes / Ophthalmology	Northwestern University	Dr. Basti	Treating Cataracts in Diabetic Patients Using a Surgical Device	Device	Adult
Neuro	Medical College of Wisconsin	Dr. Alvarez	Repurposing an Antipsychotic Drug as Treatment for Pediatric Delirium	Drug	Pediatric
Neuro / Rare	Georgetown University	Dr. Anderson	Using a Cancer Drug in Huntington's Disease	Drug	Adult
Oncology	The Hospital for Sick Children	Dr. Suwwan	Low-level Laser Therapy to Address Treatment Side Effects in Pediatric Cancer Patients	Device	Pediatric
Oncology / Rare	Massachusetts General Hospital / Harvard Medical School, VUmc Cancer Center Amsterdam	Drs. Tannous, Arrillaga-Romany and Kouwenhoven	A Novel Combination of Generic Chemotherapy Drugs to Treat Brain Cancer	Drug	Adult
Oncology / Rare	University of Michigan	Dr. Pettit	Using a Skin Cancer Drug to Improve Current Treatment in a Rare Blood Cancer	Drug	Adult
Oncology / Rare	University of Michigan	Dr. Swiecicki	Repurposing Old Drugs as New Therapies for Metastatic Thyroid Cancer	Drug	Adult*
Ophthalmology / Rare	University of Michigan	Dr. Zacks	Testing a Generic Malaria Drug in a Rare Ophthalmic Condition	Drug	Adult
Rare	Children's National Health System, University of Illinois at Chicago	Dr. Nadler, Dr. Holterman	Using a Cancer Drug to Treat a Rare Pediatric Liver Disease	Drug	Pediatric
Traumatic Limb Injury	The Pennsylvania State University, Milton S. Hershey Medical Center	Dr. Elfar	Repurposing a Multiple Sclerosis Drug in Severe Limb Trauma	Drug into Diagnostic	Adult*

* CureAccelerator Live! winner

ONGOING PROJECTS IN 2018

In addition to the 10 new projects signed in 2018, Cures Within Reach had 12 ongoing projects at 11 institutions in 11 diseases:



Disease Area	Institution	Lead Researcher	Name	Type	Other
Diabetes	Massachusetts General Hospital	Dr. Faustman	Repurposing a Vaccine for Type I Diabetes	Drug	Adult
GI	Boston Children's Hospital	Dr. Kahn	Fecal Microbiota Transplantation Patient Registry for Pediatric C-diff	Other	Pediatric
Neuro	Cincinnati Children's Hospital Medical Center	Dr. Wink	Repurposing a Generic Drug in Autism Spectrum Disorder	Drug	Pediatric
Neuro	University of Pennsylvania Medicine	Dr. Oathes	Using Imaging Techniques to Guide Targeted Brain Stimulation in the Treatment of Depression and Posttraumatic Stress Disorder	Device	Adult
Neuro	University of Toronto	Dr. Lanctôt	A New Opportunity to Treat Behavioral Problems in Alzheimer's Patients	Drug	Adult
Oncology	University of Chicago	Dr. Patel	Innovations in Combination Therapies for Non-Small Cell Lung Cancer	Drug	Adult
Oncology / Rare	Johns Hopkins Medicine	Dr. Riggins	A Phase I Trial for Recurrent Pediatric Brain Cancers Using a Repurposed Generic Drug	Drug	Pediatric
Oncology / Rare	Ulm University	Dr. Halatsch	Combining Nine Repurposed Drugs with a Current Chemotherapy Treatment in Adult Brain Cancer	Drug	Adult
Ophthalmology	University of Pennsylvania Medicine	Dr. Kim	Repurposing a Nutraceutical to Treat a Type of Age-Related Macular Degeneration	Nutraceutical	Adult
Rare	Children's Hospital of Philadelphia, Hospital for Sick Children	Drs. Levine and Sochett	Repurposing an Antibiotic to Treat a Defect in Vitamin D Metabolism	Drug	Pediatric
Rare	Hospital for Sick Children, National Institutes of Health	Drs. Dowling and Bönnemann	TAM4MTM: Tamoxifen Therapy for Myotubular Myopathy	Drug	Pediatric
Vascular	University of Illinois at Chicago	Drs. Havelka and Eton	Saving Limbs from Chronic Ischemia: Helping Nature Do Its Magic	Drug/Device Combo	Adult*

* CureAccelerator Live! winner

OUR PROJECTS IN THE NEWS – BUILDING SUCCESS STORIES

In 2007, Cures Within Reach funded Dr. Denise Faustman's innovative Phase 1 repurposing clinical trial, repurposing a generic tuberculosis vaccine, Bacillus Calmette-Guérin (BCG) to treat Type 1 diabetes. Dr. Faustman recently published exciting long-term results of this trial in *Nature Vaccines*. These results were also highlighted in a variety of media outlets, including *Newsweek*, *The Washington Post* and *Time*. Dr. Faustman is continuing her work with a Phase 2 trial, again with support from Cures Within Reach.

Repurposing a Generic Tuberculosis Vaccine to Treat Type 1 Diabetes

 MASSACHUSETTS GENERAL HOSPITAL  HARVARD MEDICAL SCHOOL

In 2008, Cures Within Reach funded Dr. Denise Faustman at Massachusetts General Hospital / Harvard to support repurposing of the generic vaccine BCG to help patients with **Type 1 Diabetes**. CWR first funded a screening trial, then a Phase I clinical trial. In 2018, Faustman published long-term results from this Phase I clinical trial, showing that multi-dosing BCG in long-term Type 1 patients can result in stable and long-term correction of blood sugars with just two doses of BCG, without further intervention. Patients who had longstanding Type 1 Diabetes before the Phase I trial had lowered blood sugar levels nearing the normal range for 5 consecutive years, without changing their care routine (no new pumps or diabetes monitoring devices). CWR funds are also supporting the Phase II clinical trial with 150 longstanding type 1 diabetes, which is fully enrolled and ongoing. Faustman is planning additional human clinical trials, including pediatric trials and trials in a broader selection of adults with longstanding type 1 diabetes.

CWR Success Metrics



- Research Aims Met
- Benefit Seen in Patients
- Publication of Results
- Follow On Funding
- Follow On Trials (impacting limited patients)
- Impacting Patients Broadly

KEY FACTS



- CWR provided \$110,000 to fund the **animal trial and phase I / II human clinical trials** repurposing the BCG vaccine for Type 1 Diabetes patients.

IMPACT

- Phase I study resulted in long-term restoration of blood sugars in Type 1 diabetic patients.
- Early CWR funding helped to leverage \$23M in follow-on funding needed for this FDA registration trial.
- Faustman is now expanding this BCG research to other diseases, including MS, fibromyalgia, Sjogren's syndrome and scleroderma.

Denise Faustman, MD, PhD

CURES WITHIN REACH AS A VALUE-CREATING FACILITATOR

Launch of Our Newest Program: Impact Awards for Repurposing Startups

In June 2018, Cures Within Reach launched its newest program of providing funding to address the unique challenges faced by repurposing startups. Unlike our other funding mechanisms for researchers at academic institutions, the Impact Awards are intended for startups that have identified repurposing-specific commercial opportunities. The Impact Awards were developed to better serve as a value-creating catalyst and facilitator of repurposing startups, which are often just one or two milestones away from attracting a significant infusion of capital or achieving commercial success. CWR is eager to help de-risk repurposing startups.

Funds must be earmarked for clearly defined projects that could result in high-impact, value-enhancing R&D and/or business milestones. Another distinguishing criterion is the startup provides a minimum of a 100% cash match of the amount awarded through the Impact Award program. Application is by invitation only from Cures Within Reach.

First Impact Award

The first Impact Award, a \$50,000 award for the company to conduct a two-part safety study, went to ResQ Pharma, Inc., a Chicago-based biopharmaceutical company focused on ensuring reliable global access to its life-saving LipidRescue™ Therapy (LRT). LRT is a life-saving treatment used to reverse various non-opioid drug overdoses, including local anesthetic systemic toxicity (LAST) through the administration of an intravenous lipid emulsion. By repurposing a lipid emulsion nutritional supplement as an antidote for drug overdoses, LRT has the potential to impact more than 400,000 lives annually in the US alone.

"We are thrilled that Cures Within Reach recognizes the work that we are doing can quickly impact patients, and are excited about its support for companies like ours. It is sometimes difficult to get investors to pay attention to repurposing in general, and supporting incremental improvements in science is even more challenging. We believe that our two-phase safety study will generate data that will lead to the commercialization of our life-saving LRT product."

-- Paul Burton, ResQ Pharma

"Supporting biomedical startups in Chicago advances the strategic goals of our biomedical initiative as we seek to strengthen and enhance our region's biomedical sector. And we are enthusiastic about the Cures Within Reach new Impact Awards program that assists startups to repurpose therapies for new uses. CWR's ability to leverage existing research and partnerships in order to impact patients faster and create economic opportunities for these repurposing startups is a model with great promise."

-- Renee Michaels, Kinship Foundation

(which manages the institutional philanthropy of the Searle family, including Chicago-based grant making through the Searle Funds at The Chicago Community Trust)

Initial Geographic Focus: both Chicagoland and the Mid-Atlantic

In September 2018, Cures Within Reach announced its first two philanthropic partners that are supporting the launch of its Impact Awards and, with those partners, the two regions of focus: Chicagoland and the Mid-Atlantic Region. Thanks to the generosity of Maryland-based Kahlert Foundation, entrepreneurs located in Mid-Atlantic states will now benefit from the Impact Awards program.

Expansion of CureAccelerator Live! Beyond Chicago

Cures Within Reach has been holding its unique philanthropic pitch event in Chicago for several years. Similar to a business plan competition, this pitch event selects three to five Principal Investigators (PIs) as finalists instead of entrepreneurs, who present their clinical repurposing trial projects instead of their startups. Attendees help to select the winning project, which receives a \$50,000 grant that is announced that evening. CureAccelerator Live! brings repurposing to a new or expanded audience, representing industry, patients, government agencies and academia / research in a public-facing way, while showcasing the impact of clinical repurposing research beyond a scientific or poster presentation.



We are bringing this exciting clinical repurposing event to a broader public audience through events focused on therapeutic or disease themes (i.e. rare diseases) or geographic areas (i.e. Mid-Atlantic). **In October 2018, Cures Within Reach held its first CureAccelerator Live! event outside of Chicago.**



Winner John Elfar, MD with CWR staff

In partnership with ExL Events' Collaboration in Addressing Vulnerable Populations Forum held in the Washington, DC area, four PI-finalists representing three institutions across the Mid-Atlantic presented their clinical repurposing trial projects. Expert panelists and attendees selected the winning project: "Repurposing a Drug to Answer the Golden Question in Severe Limb Trauma" led by John Elfar, MD of the Penn State College of Medicine.

In December 2018, we launched two funding opportunity Requests for Proposals to select finalists for two CureAccelerator Live! events to be held in the Spring 2019. The first is focused on **Impacting Patients in the Developing World**, to be held on May 23, 2019 in Cambridge, MA; the second is focused on **Impacting Patients with Rare Diseases** to be held on June 6, 2019 in Philadelphia, PA.





Honoring Leaders at the Global Health Repurposing Awards

On June 26, 2018, Cures Within Reach hosted our 6th Annual Global Health Repurposing Awards (GHRA) event, with Judy Hsu from Chicago's ABC 7 Eyewitness News returning as guest emcee. The 2018 GHRA event brought together 200+ supporters, stakeholders, friends and guests to honor leaders in industry, academia / medicine and philanthropy who are improving the lives of patients through repurposing. This group of awardees has and will impact millions of lives by bringing numerous repurposing therapies to patients in need. Cures Within Reach is grateful for critical funding raised around GHRA to support our mission and create positive patient impact. It was truly an inspiring evening.



Emcee Judy Hsu, Scott Weir and Jenny Rowley

Janet Davison Rowley Patient Impact Research Award

The **Janet Davison Rowley Patient Impact Research Award** is given to one or more researchers/clinicians who have created positive patient impact through repurposing research. We honor the impact Dr. Rowley (1925-2013) had on patients through her clinical care and medical research. Her genetics discoveries related to human leukemia and lymphoma paved the way for Gleevec[®], a drug that induces remissions in the vast majority of patients with several types of cancer, and which is now being repurposed in non-cancer diseases.

“Finding new uses for FDA-approved and abandoned drugs is an integral part of our strategy to discover and develop new cancer treatments. We systematically test FDA-approved drugs and abandoned drugs for activity against newly discovered cancer pathways to create opportunities to rapidly advance new cancer treatments to our patients, to identify opportunities to enhance tumor response and overcome resistance to standard-of-care agents, and to assist in validating cancer drug targets in support of our efforts to discover new anticancer agents.”

-- *Scott J. Weir, PharmD, PhD of the University of Kansas Cancer Center*

2018 Janet Davison Rowley Patient Impact Research Award



Scott J. Weir, PharmD, PhD of
THE UNIVERSITY OF KANSAS
CANCER CENTER

Golan Christie Taglia Patient Impact Philanthropy Award

The **Golan Christie Taglia Patient Impact Philanthropy Award** is given to an individual, group or organization that has created positive patient impact by advocating for patients or contributing to the growth of repurposing research through financial, operational or professional philanthropic support.



“Drug repurposing as a strategy to rapidly advance new therapeutic options has been a hallmark approach in blood cancer drug development since the repositioning of thalidomide as a therapeutic agent for the treatment of multiple myeloma and myelodysplasia in 2006. Many blood cancer patients have benefited from drugs developed in this way and The Leukemia & Lymphoma Society has seen great

value in supporting repurposing research in our pursuit of new treatments for the patients we serve.”

-- Louis J. DeGennaro, PhD, The Leukemia & Lymphoma Society President and CEO

Cures Within Reach Patient Impact Industry Award

The **Cures Within Reach Patient Impact Industry Award** is given to an industry leader who has made positive patient impact by contributing to the growth and profile of repurposing research within the healthcare industry, through financial, operational and/or collaborative support.

Novartis has shown strong support of researching and developing imatinib, leading to FDA-approved therapies for several types of rare cancers, and of collaborating with researchers by providing nilotinib and placebo for researchers to perform clinical studies that may help address unmet medical needs for patients living with other conditions.



2019 Global Health Repurposing Awards

Honoring leaders who create patient impact in repurposing

The 2019 GHRA Recipients are:

Denise Faustman, MD, PhD of Massachusetts General Hospital and Harvard Medical School

The Alzheimer’s Drug Discovery Foundation

Jazz Pharmaceuticals

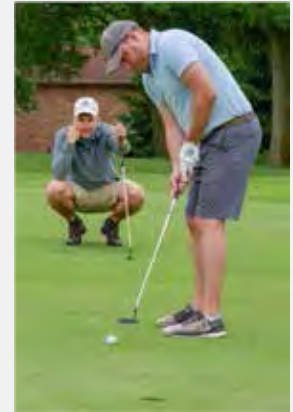
who will be honored at events to be scheduled at various times and cities across the US throughout 2019

Golfing Dawn to Dusk to Support Patient Impact

Funding for our repurposing research portfolio comes in part from our annual fundraiser, the Longest Day of Golf (LDOG) event. Our LDOG players raise money in the months leading up to the event, and then play as many holes as possible from dawn until dusk on the day of the event. For over a decade the LDOG has raised funding to support one or more repurposing clinical trials with the potential to change clinical care.

Funds raised at the 2018 LDOG helped to support two cancer-related clinical repurposing research trials:

- § ***Repurposing Old Drugs as New Therapies for Metastatic Thyroid Cancer***: by Dr. Swiecicki of the University of Michigan
- § ***A Novel Combination of Generic Chemotherapy Drugs to Treat Brain Cancer***: by Dr. Tannous and Dr. Arrillaga-Romany of Massachusetts General Hospital/Harvard Medical School and Dr. Kouwenhoven of VUmc Cancer Center Amsterdam



"The LDOG is a great opportunity to help patients while spending time with others who want to make a difference."

– Steve Goodfriend,
Longest Day of Golf Chair

Our Growing Fiscal Sponsors

Mission: Cure is harnessing innovative, outcome-based financing and impact investing to demonstrate a new model for curing disease. Co-directed by Megan Golden, JD, and Linda Martin, Mission: Cure is focusing on pediatric and adult pancreatitis, a devastating and costly disease with no effective treatment. Mission: Cure collaborates with patients, researchers, government and industry to problem-solve, seeking the most efficient and promising ways to improve patient outcomes as quickly as possible. This approach, along with drug repurposing research as a central strategy, can be applied to other disease areas.

In 2018, Mission: Cure:

- § Organized and led a patient panel at an NIH meeting on expediting therapies for pancreatitis, with FDA participation
- § Launched a patient education program, including webinars where clinician/scientists share the latest information with patients and families
- § Conducted the first chronic pancreatitis patient-needs survey; analyzed and presented responses to the pancreatic medical community, NIH and FDA
- § Funded and launched a Pancreatitis PerIQuest, a foundational drug screening and discovery research project (philanthropic investment)
- § Defined strategy to cure chronic pancreatitis within 10 years and continued to identify potential partners and projects that could be part of an investment strategy

- § Curated a list of 58 drug repurposing candidates that have promise to treat pancreatitis
- § Was selected as a subject of Elsevier/Pistoia Alliance Datathon, where data scientists competed to use artificial intelligence and big data to identify therapies for chronic pancreatitis

Cures Within Reach for Cancer is a Boston-based initiative led by Laura Kleiman, PhD, that aims to identify the most promising repurposed therapies for cancer and get them incorporated into standard medical practice. To tackle this, Cures Within Reach for Cancer is establishing a data-driven decision framework for drug repurposing in oncology through knowledge integration, clinical validation, and implementation science.

Highlights from the past year:

- § Established a phenomenal team of experts in cancer drug development, medical oncology, machine learning, business and nonprofit management, policy, and patient advocacy.
- § Launched the development of the Oncology Repurposing Engine, which harnesses recent advances in AI and machine learning to mine “big data” from scientific literature and electronic medical records in order to synthesize and prioritize drug repurposing evidence.
- § Gained substantial recognition and visibility, including being honored with the Dana-Farber Cancer Institute Community Service Award; selected for the Charity Warriors Challenge accelerator; winning the 2018 MassBio Petri Dish Nonprofit Pitch Challenge; and presenting at the Broad Institute of MIT and Harvard.

CURES WITHIN REACH AS A GLOBAL REPURPOSING HUB

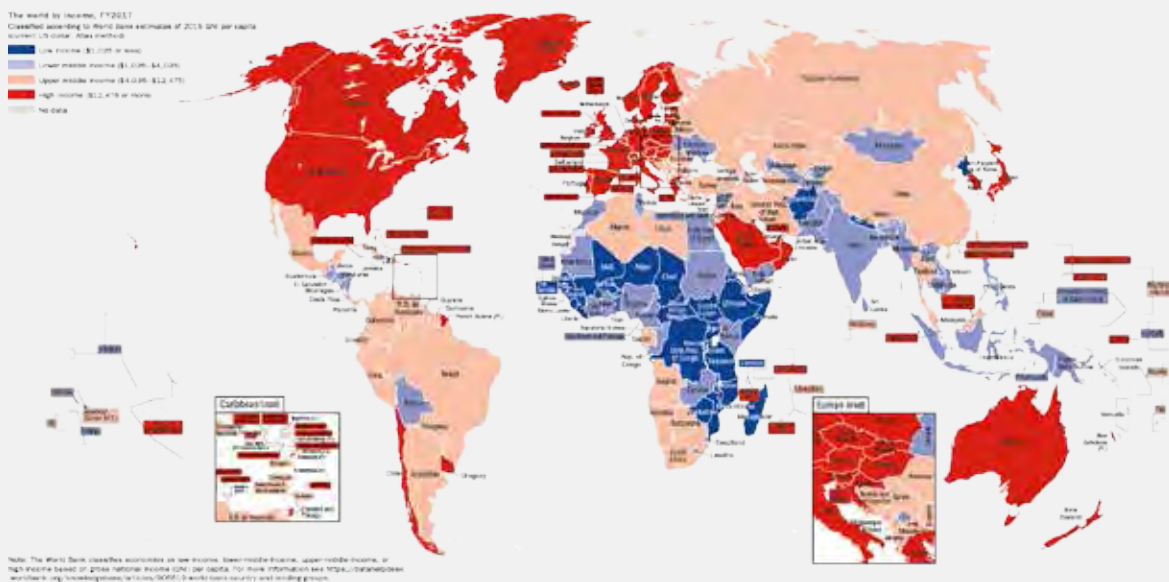
ReGRoW Pilot

During 2018, we prepared for the 2019 launch of our **ReGRoW Pilot**, **Repurposing Grants** for the **Rest of the World**. ReGRoW will provide repurposing research grants to clinicians and researchers in low and low-middle income countries to build capacity for research FROM WITHIN the developing world and find treatments FOR the developing world.

Throughout 2018, stakeholders representing pharma industry, global health policy, pharma services, NGOs, philanthropy and other organizations participated in planning-to-date:

- § Pharma Industry: Led by Takeda, plus Horizon Pharma, Pfizer, AbbVie, Abbott, Paragon Biosciences
- § Global Health Policy: Northwestern University, University of Chicago, University of Illinois at Chicago
- § Pharma Services: Vetter Pharma, ZS Associates
- § Others: CHAI, Advocate Health, Kinship Foundation (Searle Funds at The Chicago Community Trust)

We are now preparing to launch ReGRoW in early 2019 with a network of Supportive Organizations and a ReGRoW Advisory Committee. It is expected that the ReGRoW funding opportunity RFP will launch later in 2019 as well.



Collaboration with Notable Labs

In December 2018, Cures Within Reach and Notable Labs signed a Memorandum of Understanding to be further negotiated into a collaboration in 2019. Upon execution, it is expected that Notable Labs will donate commercial rights to price, manufacture and distribute a

pediatric leukemia drug to our organization, in order for us to provide the drug to pediatric leukemia patients at a very low cost. The partnership is intended to further our mission to develop and implement effective economic incentives for the repurposing of inexpensive generic drugs, devices, and other products, which is especially critical in rare diseases. We expect this collaborative venture to be supported by philanthropy from individuals, foundations and disease non-profits, as well as investment from for-profit stakeholders.

Building a Global Community on CureAccelerator

CureAccelerator continues to be our growing online platform for repurposing research, where funders, researchers, clinicians, industry representatives, patient groups and government agencies can come together to collaborate and drive repurposing forward.



CureAccelerator Metrics

Overall

- Over 1,500** Users
- Over 300** Published Repurposing Projects
- Over 500** Organizations Represented

During CY2018

- 8** Funding Opportunity Requests for Proposals Launched
- 58** Proposals Received Responding to 6 Closed RFPs
- 29** External Grant Reviewers (Representing Academia, Industry and Patients) Scored and Ranked Proposals

Thought Leadership, Networking and Events During 2018

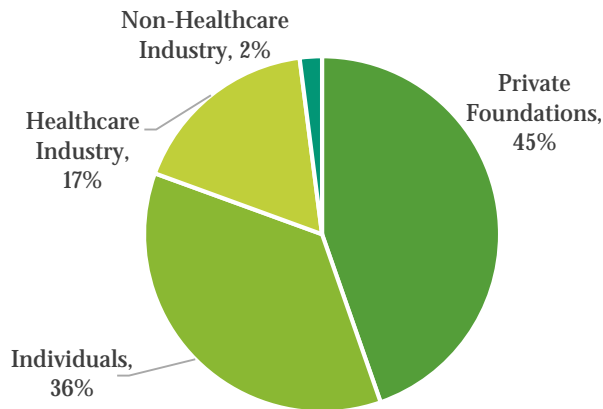
Cures Within Reach continues to expand its global position as a thought-leader in the repurposing community through chairing, presenting at and participating in many conferences and meetings around the world. This includes:

- § Visiting with global philanthropic, academic, clinical, patient support, government and industry organizations
- § Publishing peer reviewed and layperson press information about repurposing research or quoted in published articles
- § Serving as a speaker or panelist at over 10 conferences and as a judge at 5 events

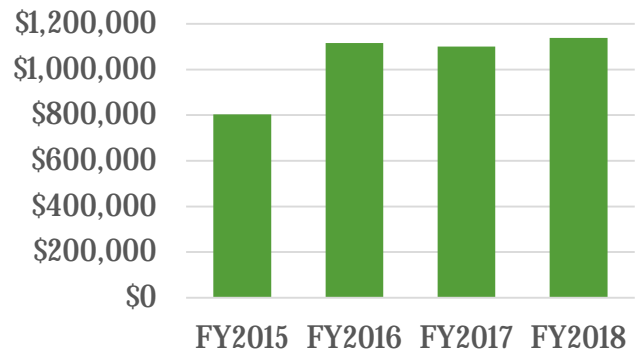
FINANCIALS

Cures Within Reach is financially healthy, with growing or stable income over the past several years. Private foundations and individuals remain the core supporters of Cures Within Reach (representing more than 80% of total income in 2018), while opportunities exist to grow industry support.

CY2018 Income By Source



Revenue



STAFF



Dr. Bruce Bloom
Chief Executive Officer



Barbara Goodman
President & Chief Operations Officer



Clare Thibodeaux, PhD
Director of Scientific Affairs



Sammy Krejnik
CureAccelerator Manager



Susan Braze
Administrator

In addition, we are supported by several part-time or contracted team members for fundraising/development, accounting, etc. and many, many volunteers.

BOARD AND COMMITTEE LEADERS

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