

# State of the Cure

A Look at 2012's Progress Toward a Cure for Type 1 Diabetes

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## I. Introduction and Key Findings

This report assesses the current state of cure development for type 1 diabetes. We examine progress toward a cure over the past year by analyzing financial data, scientific research, and governance reporting.

The first half of the *State of the Cure* (sections 2-5) describes the research and funding structures that shape cure development efforts. We begin with a historical overview of type 1 research milestones (section 2), then point out the two missing pieces whose absence has continually stalled type 1 cure progress (section 3). The next sections (4 and 5) illustrate the complex infrastructure that channels money to scientists and the process through which research projects enter human clinical trials.

The second half of the report (sections 6-9) focuses on the four non-profit organizations which are funded by generous donor contributions and control roughly three-fourths of the direct philanthropy to type 1 research.<sup>1</sup> These four diabetes non-profits are: the American Diabetes Association (ADA), the Diabetes Research Institute Foundation (DRIF), JDRF, and Joslin Diabetes Center (Joslin). We analyze the non-profits' funding of cure research (section 6), the promises implied by their fundraising messages (section 7), and the policies practiced by their leadership (section 8). Section 9 describes how donors can ensure that their contributions are used for a cure.

The primary finding of this report is that no meaningful progress toward a cure was made in the past twelve months, but tangible cure progress can be achieved in the next twelve months if donors take action. Other major findings from the *State of the Cure* report include the following:

**1.** Cure development research strategies are not nearly as focused as they could be. None of the major diabetes non-profits or research centers has clearly defined a cure, prioritized Practical Cure research, or set a timeline for a cure.

**2. Funding for cure research decreased in the past year.** This decline continues a year-over-year downtrend that has been in place since 2008.

**3.** Nearly all type **1** projects in human clinical trials target outcomes unrelated to a **Practical Cure.** There are only five projects in human clinical trials that could deliver a Practical Cure in the near future, a number that was unchanged in the past year.

**4. Donors can have a powerful impact on cure progress.** By specifying how they want their money to be used, donors can ensure that the non-profits and research centers elevate Practical Cure research to a top priority.



## **II. Historical Perspective**

Over ninety years have passed since Dr. Frederick Banting and his colleague Charles Best discovered insulin in 1921. Their urgent objective was to stop people with type 1 diabetes—usually kids—from dying shortly after diagnosis. Using insulin extracted from cattle, Banting and Best achieved a practical solution to the immediate problem of children dying from type 1 diabetes.

Since the discovery of insulin, diabetes research has pioneered numerous advancements in the management of the disease and its complications. Thirty-five percent of people diagnosed with type 1 in the 1950's died within 25 years of diagnosis.<sup>2</sup> Patients monitored blood glucose with urine tests and used injections of animal-derived insulin. Doctors could not detect early kidney disease and had no ability to slow its progression. Breakthroughs in the treatment of complications and innovations in the areas of diabetes management, such as improved insulin, syringes, test strips, meters, and insulin pumps have increased life expectancy to 68.8 years for those diagnosed with type 1 diabetes between 1965 and 1980.<sup>3</sup>

Despite these advancements, a cure for type 1 remains elusive. Decades of cure development efforts have resulted in minimal progress due in large part to the lack of an outcome-based approach. The non-profits, which fund a significant percentage of type 1 cure research, have no strategy to support practical, outcome-based initiatives.

If we are to see a cure in our lifetime, a paradigm shift must take place whereby research and funding are focused on a practical solution. In the past, when type 1 researchers were given the necessary resources and concentrated their efforts on a defined outcome, they succeeded. The quality of medical research has advanced exponentially over the past 90 years ago. We believe that today's researchers can deliver a Practical Cure if, like Banting and Best, they focus their efforts on achieving the targeted outcome as expeditiously and practically as possible. Banting and Best achieved a practical solution to the immediate problem of children dying from type 1 diabetes.

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## **III. Definitions & Goals**

For simplicity's sake, a cure can be thought of in two broad categories: "idealized" and "practical." An idealized cure eradicates the disease so that a person is returned to the state they were in prior to type 1 diabetes. A Practical Cure does not seek this complete reversal, but does seek an outcome that gives the patient a lifestyle that is not marked-ly different from an individual without type 1.

Researchers have pursued an idealized cure for many decades. Developing an idealized cure in time to benefit individuals now living with type 1 is extremely unlikely, in our view, and also appears to exceed the timeframe that is relevant to most current donors. In contrast, a Practical Cure can be achieved in our lifetime if supported by the appropriate resources.

Banting and Best's discovery of insulin was a practical solution for their time; it kept patients alive. Similarly, a Practical Cure would be today's pragmatic solution. A Practical Cure would significantly improve the lives of individuals with type 1 and relieve them of many of the daily routines and psychological burdens associated with managing the disease. A Practical Cure would eliminate the daily monitoring required by type 1 and allow patients to eat, sleep, and live worry-free. It may take the form of a pharmacological or surgical solution that keeps blood sugars near normal levels and poses no significant side effects.

The Practical Cure is defined by outcomes. Focusing on a set of outcomes rather than a specific research methodology allows maximum flexibility for different scientific solutions. We believe Practical Cure research should be a key strategic priority in terms of research and funding. A Practical Cure definition is shown in the following diagram:

Practical Cure



#### Minimal Monitoring

Free Diet

 ✓ Does not require blood glucose monitoring beyond once a week
✓ A1C levels 5-7%

Does not restrict a patient's diet

✓ Does not require carb counting

Reasonable Meds

If pharmacological, an

easily managed regime

How Many Carbs?



Recovery

#### Minimal Side Effects

Sleep Worry Free

✓ Best case: Zero side effects
✓ Acceptable case: Insignificant side effects

Allows patients to sleep care free



 ✓ If surgical, less than 72 hours recovery For simplicity's sake, a cure can be thought of in two broad categories: "idealized" and "practical."

Developing an idealized cure in time to benefit individuals now living with type 1 is extremely unlikely. A Practical Cure can be achieved in our lifetime if supported by the appropriate resources.



#### 4

#### **Setting a Timeline for Achievement**

A timeline ensures focus and urgency. Without a time goal there is much less incentive to accomplish objectives quickly and efficiently. As a result, objectives take longer to complete and resources may be diverted away from goal-focused tasks. Throughout history, tremendous accomplishments have been achieved when a time goal was introduced, including putting a man on the moon, building the Golden Gate Bridge, and completing the Hoover Dam.

It is unreasonable to expect that a Practical Cure for diabetes will be developed unless a timeline for its achievement is established. Setting a timeframe to deliver a Practical Cure is both pragmatic and productive. A time-bound objective clarifies research priorities, focuses resources on practical solutions, and creates urgency to achieve a defined outcome.

The type 1 charity and research communities currently fund several hundred research projects with a wide range of outcomes and no target cure date. A focused cure development strategy with a time goal would assure that the most promising cure projects are fully funded.

In the past year the type 1 charity and research communities continued to avoid setting time-bound objectives. Their objections to a performance timeline are fueled by a fear of spreading false hope and a deep concern about over-promising. These concerns are legitimate if the objective is a perfect, idealized cure. However, a Practical Cure can be developed far sooner.

The risk of dragging our collective feet in establishing a cure-by date far outweighs the reasons for resisting a time goal, in our view. The JDCA has proposed a 2025 target date for delivery of a Practical Cure for type 1. As a result, we strongly advocate that a significant portion of all charity and research efforts be applied to projects that can potentially achieve this defined cure outcome.

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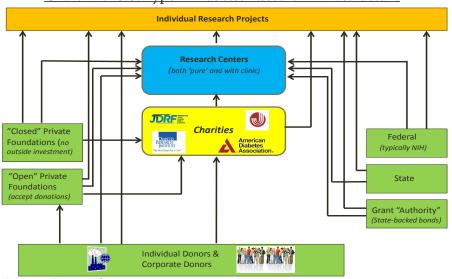


## **IV. Research Funding Infrastructure**

The infrastructure that supports type 1 research in the United States directs money to scientists through a complex and inefficient system. This underlying infrastructure remained unchanged in the past twelve months.

Chart 4A depicts the entities involved in funding type 1 research. They can be divided into three main groups:

- **Sources** that contribute funding (donor philanthropy or government grants in the green boxes)
- **Bundlers** that collect, package, and redirect donor funds (charities and research centers in the yellow and blue boxes)
- **Spenders** that utilize the money in research projects (scientists in the orange bar at the top)



#### Chart 4A: U.S. Type 1 Diabetes Research Infrastructure

Source: JDCA Research

Tracking the flow of money reveals the reason for the current broad approach to research funding. Most philanthropy dollars move through 'bundlers' that drive cure progress by allocating funds to research projects as they see fit. The main bundlers are the four big charities (JDRF, ADA, DRIF, and Joslin), and the major research centers (about 40 across the United States). The research centers acquire funding from a variety of sources, including donations, grants from the major charities, and grants from the government. Because of the large number of constituencies involved in the funding infrastructure, research strategies are split to accommodate a wide range of interests.



## V. Practical Cure Projects in Human **Clinical Trials**

Of the 332 projects related to type 1 diabetes that are currently in human clinical trials, only five focus on a Practical Cure.<sup>4</sup> These five projects are listed in Chart 5A. The number of Practical Cure projects in human clinical trials has not changed during the past year. There is one new project; one was dropped due to unsatisfactory results; and four remain the same.

The other 327 projects, or 98.5% of type 1 human clinical trials, relate to a wide variety of research areas, including complications and glucose control. It is worthwhile to advance better treatment options, but when almost 99% of projects in human clinical trials are doing nothing to deliver a type 1 cure in our lifetime, it is clear that Practical Cure research is not receiving sufficient attention. Furthermore, the large number of projects in human clinical trials indicates that the current type 1 research landscape lacks focus. Research efforts are split among disparate areas and target many different outcomes with no defined strategy. To maximize the chances of developing a cure in the near future, more concentrated focus will need to be applied to developing and advancing Practical Cure research.

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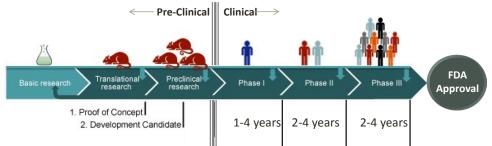
Description	Location		
Transplanted porcine islets that are micro-encapsulated			
A beta cell encapsulation approach that uses human islets	Ciniques universitaires		
Drug combination aimed at stopping both the autoimmune attack and stimulating growth of beta cells	UTI Diabetes Center of Excell-		
Drug combination aimed at stopping both the autoimmune attack and stimulating growth of beta cells	SANF: BRD' RESEARCH		
Drug that kills disease-causing autoimmune cells and restores pancreatic beta-cell function through regeneration	faustmanlab.org 윤 휴 국 순 슈 Researching a cure for type 1 diabates		
	Transplanted porcine islets that are micro-encapsulated A beta cell encapsulation approach that uses human islets Drug combination aimed at stopping both the autoimmune attack and stimulating growth of beta cells Drug combination aimed at stopping both the autoimmune attack and stimulating growth of beta cells Drug that kills disease-causing autoimmune cells and restores		

#### Chart 5A: Practical Cure Research Projects in Human Clinical Trials

Source: JDCA Research

Just because a project is in human clinical trials does not mean that it has a high likelihood of resulting in a cure. What it means is that the project has successfully passed through pre-clinical trials, which usually involves testing on successively larger animals (see Chart 5B). Success through the pre-clinical phase means that the project is strong enough to transition into human trials. Delivering greater funding to projects that target a Practical Cure in the pre-clinical stage will accelerate this crucial move from animal to human testing.





#### Chart 5B: Research Process from Project Initiation to FDA Approval

Source: California Institute for Regenerative Medicine; JDCA estimates, with contributions from Joshua Levy

If a project does demonstrate success in human clinical trials, it takes 5-12 years to move from Phase I to Phase III, as illustrated in Chart 5B. But it can take even longer if promising projects get held up by a lack of funding. Focusing sufficient funding on Practical Cure projects that have entered human clinical trials would minimize the number of years that it takes them to move through the pipeline, and ultimately speed the delivery of a Practical Cure.

If there is to be a realistic chance of delivering a Practical Cure by 2025, it is imperative that projects that seek to deliver a Practical Cure are fully funded as they approach human clinical trials, and that the projects already in human clinical trials have sufficient monetary support to maximize their speed to completion.



## VI. Cure Research Funding by the Major Non-Profits

This section examines the amount of type 1 cure research that is funded annually by the major non-profits and the changes in that level of funding over the past year. We focus on the major non-profits because these organizations are the principal fundraisers and allocators of donor philanthropy. Collectively they control approximately three-fourths of the direct philanthropy to type 1 diabetes research.<sup>5</sup>

#### How much money is directed to Practical Cure research?

**Practical Cure research receives only three cents of every type 1 cure research dollar.**<sup>6</sup> This level of funding is extremely small by any measure. The vast majority of the funds—the other 97 cents—are directed toward idealized cure research and prevention. Practical Cure research is not yet a priority for any of the major non-profits.

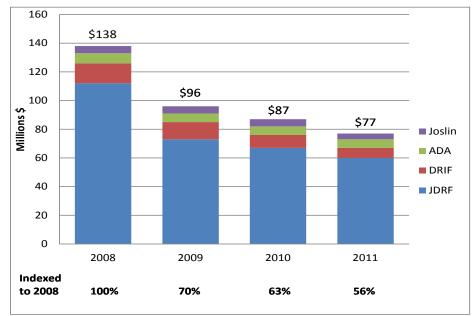
#### Shrinking funding for type 1 cure research

While Practical Cure research remains a small percentage of total cure research, the overall funding for any kind of cure work is steadily declining. The non-profits classify their cure research very broadly to include prevention, exploratory, and idealized cure research. This broad classification includes a range of projects that many donors would not consider to be cure research. For example, prevention research targets individuals who have recently been diagnosed with type 1 or who have not yet developed diabetes. As we discuss in our report "Prevention Does Not Lead To A Cure" (February 23, 2012), successful prevention research will not cure individuals now living with type 1.

**Even by the non-profits' self-defined measures, cure research funding decreased meaningfully in 2011, continuing a downtrend that began in 2008**. (2011 is the most recent data available.) Chart 6A illustrates this downtrend. The cure research grants depicted include prevention, exploratory, idealized cure, and Practical Cure research, but it should be noted that Practical Cure projects represent just a tiny fraction of the total. As the blue columns in the chart illustrate, JDRF, the largest type 1 non-profit, is the primary driver of the downtrend trend due to its strategic deprioritization of cure research in favor of treatment and complications research.<sup>7</sup>

Practical Cure research receives only three cents out of every type 1 cure research dollar. It is not yet a priority for any of the major non-profits.





#### Chart 6A: 2008-11 Type 1 Cure Research Grants by the Four Major Non-Profits

Source: Charity and Foundation data and JDCA estimates. Please see endnote 8 for a more complete description.

Diminished funding hinders cure progress. There are fewer resources available to support promising early-stage research, and projects that advance to human clinical trials advance more slowly. The downtrend in cure research funding must be reversed in order to accelerate cure development.

Donor contributions declined following the financial crisis that began in 2008, but reduced giving only partially explains the decline in cure research funding. Contributions to the four non-profits from 2008 to 2011 decreased 13%, while type 1 cure research funding over the same period decreased 44%. In fact, donor giving rebounded in 2011 (from \$361 million in 2010 to \$378 million in 2011), yet cure research funding continued its year-over-year downtrend.<sup>9</sup>

#### How are type 1 cure research grants prioritized?

We next examine how type 1 cure research grants are prioritized at each of the non-profits. Table 6A depicts the level of donor contributions to each of the charities as well as their allocations to type 1 research grants in 2011. The percentage of donor contributions directed to type 1 cure research grants varies considerably by charity with the highest percentage at the DRIF and lowest at the ADA.

Table 6A: 2011 Donor Contributions and Type 1 Cure Research Grants (millions)

	<u>ADA</u>	DRIF	<u>JDRF</u>	<u>Joslin</u>	<u>Total</u>		
Donor Contributions (DCs)	\$160	\$ 10	\$199	\$9	\$378		
Type 1 Cure Research Grants	\$6	\$7	\$ 60	\$4	\$77		
Type 1 Cure Research Grants as % DCs	4%	70%	30%	44%	20%		
Source: Charity and Foundation data. JDRF and Joslin Type 1 Cure Research Grants are JDCA estimates							

*Type 1 Cure Research funding decreased 44% from 2008 to 2011.* 



Given the overall cure research funding trends, it is not surprising that the percentage of donor contributions applied to cure research is also declining. Between 2008 and 2011 this percentage has declined from 32% to 20% for the four non-profits combined (see Chart 6B). In 2011 only one in five donation dollars was applied to type 1 cure research grants. All of the remaining dollars were applied to other areas of research (e.g. treatment, complications, and type 2) and to non-research activities (e.g. education, advocacy, and overhead).

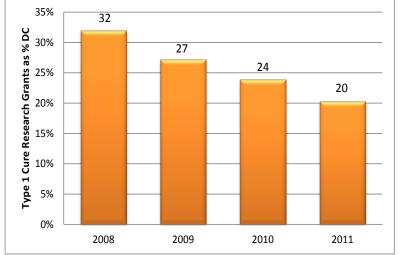
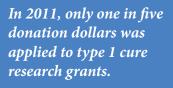


Chart 6B: 2008-11 Type 1 Cure Research Grants as a % of Donor Contributions



Source: Charity and Foundation data. JDCA estimates for JDRF for 2011 and for Joslin for all years

#### **Prioritizing Practical Cure research acclerates the cure date**

The small amount of Practical Cure research funding (3 cents of every type 1 cure research dollar) today is there by happenstance, not by design. None of the major non-profits has a strategic initiative to develop a Practical Cure or devote meaningful resources to this area of research. Yet this is the type of cure research that could be the most valuable to people now living with type 1. If the non-profits were to prioritize this research, the chances of achieving a cure by 2025 increase materially, in our opinion.



## VII. Fundraising Methods & Messaging

The JDCA recently reviewed publically available marketing materials for over 400 charity-organized fundraising events that will take place in 2012. Our analysis concluded that 92% of donations will be solicited with the message of a cure, making the cure promise the major solicitation message in the overwhelming majority of fundraiser events in 2012, similar to 2011.<sup>10</sup>

Fundraising events (walks, galas, cycling, and golfing) represent an important source of revenue for each of the four major type 1 charities, generating proceeds necessary to pursue their missions. These fundraisers are expertly organized and perennially generate significant donations. The headlines for the major campaigns are familiar: "Walk to Cure Diabetes," "Tour de Cure," and "Ride to Cure Diabetes," among others. As these names imply, the strong solicitation theme is a cure.

Since the majority of donations are solicited with the cure message, one would expect that the majority of these funds be used for cure research. However, this is not the case. Only a minority of these funds are actually applied to type 1 cure research with the exception of the DRIF. The DRIF directs the vast majority of contributions to research that it classifies as type 1 cure research. The other charities spend the majority of donations on other types of initiatives, including type 2 diabetes research, education, advocacy, and overhead expenses.<sup>11</sup> As a result, a significant disconnect often exists between the messaging used to promote fundraisers and the charities' subsequent allocation of event proceeds. This is the second consecutive year that we have documented this disparity.

JDRF fundraisers result in more than twice the level of donations than the other three non-profits combined. The JDCA's analysis of JDRF's fundraisers indicates that 95% of their 2012 fundraising event donations will be solicited with a cure theme.

JDRF's reliance on a cure message does not correspond with its strategic shift away from cure research toward glucose control and complications research. One strategy behind JDRF's recent rebranding is to de-emphasize cure funding. Its decreased funding for cure research has negative consequences for overall cure progress because JDRF is the largest funder of type 1 cure research among the four non-profits. Despite JDRF's deprioritization of cure funding, its primary fundraising event message remains the cure.

Due to the disparity between the primary fundraising messaging and the use of the donations at most charities, many contributors are not getting what they expect. If the charities were to increase cure research funding, it would better align their use of funds with fundraising event messages.

Many contributors are not getting what they expect.



## **VIII. Corporate Governance**

The overall quality of corporate governance at the non-profits is relatively poor when evaluated against SEC standards, and very little has changed in the past year.

Corporate governance addresses the managerial processes used to lead an organization. For the type 1 non-profits, the quality of governance directly impacts cure progress because it determines how well an organization is managed and how effectively it raises and uses funds. The JDCA uses the Securities and Exchange Commission's (SEC) reporting standards for public companies as the baseline for our evaluation.

Between March and August of 2012, the JDCA published a series of reports that rated the non-profits' corporate governance practices. The organizations generally receive solid marks for communicating their mission statement and presenting financial data. They earned weaker ratings for the timeliness of communications and the quality of disclosures to donors. The area of enterprise governance lacks transparency into executive compensation and performance measurements. **Notably, non-profit executives are not financially incentivized to deliver a cure.** 

The good news, however, is that these weaknesses can be easily and quickly rectified. Improvement requires management's recognition of deficiencies and a willingness to increase transparency into their operations and to increase their level of accountability to donors and other stakeholders. Management has a fiduciary duty to share with donors information that details how money is used in a transparent, timely, and comprehensive manner.

The benefits of enhanced corporate governance are manifold, not the least of which is a positive impact on cure development. Improved governance practices would lead to a more informed donor, a better alignment of donor and organizational agendas, and a likely increase in philanthropic support. Ultimately, these changes would result in a shorter time to a cure. Improved governance practices would lead to a more informed donor, a better alignment of donor and organizational agendas, and a likely increase in philanthropic support.



## **IX. What Can Donors Do?**

The most powerful thing we can do is to specify how we want our donations to be used.

Every year thousands of families generously support the diabetes charities through walks, galas, bicycle rides, golf events, and direct donations. The money raised from these activities supports a wide range of purposes, including education, advocacy, prevention, and cure research. Most donors give without knowing which of these activities their contributions will support. The decision on where to apply funds lies in the hands of the charities and research centers.

Section VI on cure research funding illustrates that the majority of funds raised are not directed to cure research, and only three cents of every type 1 cure research dollar go to Practical Cure work. As a result, donors who wish to see their money used for a cure are generally not getting what they want.

While the major charities and research centers prefer unrestricted donations, the best way to ensure that a donation funds Practical Cure work is to specify that the donation be used only for this purpose. Specifying how we want our donation dollars to be used legally binds the recipient to use the funds accordingly. If we stipulate that a donation be used for Practical Cure research, it must be used this way— it cannot be used for something else.

Stipulating how we want our money to be used is as easy as sending a written letter along with a donation.

#### **Ensure It's For a Cure**

- Specify how you want your money to be used when you write your next donation. Consider using our prepared stipulation letter, which can be downloaded from the JDCA website at www.thejdca.org/donor-action.
- If you are making a large, multi-year contribution, use a Giving Agreement to specify how your money should be used and ensure you are kept informed of research results. The JDCA provides a range of services for donors to help with structuring this type of agreement. Call for a consultation: 212-308-7433 and/or visit our website.
- Join the Juvenile Diabetes Cure Alliance. Together we can make a difference. Joining is as simple as visiting our website. There are no obligations and your privacy will be respected.

The most powerful thing we can do is to specify how we want our donations to be used.



## X. Summary

This *State of the Cure* report makes the case that there has not, unfortunately, been meaningful progress toward a cure for type 1 in the past year. The JDCA's independent analysis includes an examination of a variety of factors that are critical to cure development. One key finding is that there is no cure for established type 1 diabetics on the horizon.

This outlook can change, however, and cure development prospects are far from dire. It is the goal of the JDCA to facilitate the development of a Practical Cure by 2025 by advocating a fundamental change in the way that the non-profits pursue their cure development initiatives.

The JDCA is aligned with individuals who seek a cure. We work together to focus more resources on the specific activities that can achieve our shared goal. <u>Now is the time</u> for donors to step up and let their combined voices be heard.

#### **JDCA Beliefs and Key Findings**

- 1. There will be no cure for type 1 within the next 10 years unless there is an immediate paradigm shift.
- 2. Major fundraising organizations have objective-based fundraising but not objective-based systems to measure progress toward a cure.
- 3. The predominant source of funding is from people seeking a cure, yet the major non-profits' efforts are often not aligned with that desire.
- 4. Adopting a definition of a cure will focus efforts and greatly increase the likelihood of achieving a cure.
- 5. Unless we demand a cure that is date certain, we will not get a focused response.
- 6. People's innate gratitude that there is a charity fighting for a cure has forestalled a healthy demand for accountability.
- 7. Type 1 and type 2 are different diseases. Funding should not be co-mingled.
- 8. A cure will most likely result from overwhelming support for a focused group of initiatives rather than modest support for many.
- 9. Prevention efforts will not lead to a Practical Cure.
- 10. Non-profits rely on the message of a type 1 cure to raise funds but allocate a significant portion of donor contributions to activities other than type 1 cure research.



## **End Notes**

- 1. JDCA research.
- Pambianco, G., Costacu, T., Ellis, D., Becker, D., Klein, R., & Orchard, T.J. (2006). The 30-year natural history of type 1 diabetes complications: the Pittsburgh Epidemiology of Diabetes Complications Study experience. *Diabetes*, 55 (5), 1463-1469.
- 3. Miller, R.G., Secrest, A.M., Sharma, R.K., Songer, T.J., & Orchard, T.J. (2012). Improvements in the life expectancy of type 1 diabetes: the Pittsburgh Epidemiology of Diabetes Complications Study cohort. *Diabetes*, *60* (11), 2987-2992.
- 4. JDCA report "Type 1 Clinical Trials That Target a Practical Cure," January 11, 2012.
- 5. JDCA Research.
- 6. JDCA Research.
- Brown, A., Shivers, J., & Close, K. (2011, January 31). Jeffrey Brewer Highlights JDRF's New Direction, Thoughts on the Cure, and Progress on the Artificial Pancreas Project. *Diatribe*, 29, 3-10.
- 8. Information sources for the graph include the following:

a. JDRF: Foundation data for 2008-11 supplemented by JDCA estimate for 2011. b. DRIF: Foundation data for 2008-11.

c. ADA: Charity data for 2010 and JDCA estimates for the other three years. JDCA estimates assume an identical split between type 1 and 2 research, and an equal split among cure/ treatments/complications in type 1 research for 2010. d. Joslin: JDCA estimates apply the 40/60 split between type 1 and type 2, as supplied by Joslin in 2010, to all years 2008-11, and assume an even split among cure/treatments/complications in type 1 research for all years.

- 9. Donor giving data for the years 2008-11 derived from Charity and Foundation data.
- 10. JDCA report "Are Fundraising Event Proceeds Used for the Purpose for Which the Money Was Solicited?," October 25, 2012.
- 11. JDCA reports "The Disconnect Between the Cure Message Used to Solicit Donations and the Allocation of Those Donations," March 22, 2012, and "Review of Expense Categories of the Major Type 1 Non-Profits," March 8, 2012.

#### Analyst Certification

The JDCA analyst responsible for the content of this report certifies that with respect to each organization covered in this report: 1) the views expressed accurately reflect his own personal views about the organizations; and 2) no part of his compensation was, is, or will be, directly or indirectly, related to the specific views expressed in this research report.



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#### About Us

The Juvenile Diabetes Cure Alliance is a non-profit organization that unites individuals who seek a Practical Cure for type 1 diabetes by 2025. We work with donors to ensure that their charitable contributions fund research with the best chance of delivering a Practical Cure. We conduct independent research that analyzes topics related to type 1 cure development with a focus on the four major diabetes non-profits and report our findings to Alliance members and the donor community at large.