American Diabetes Association
Research Programs

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American Diabetes Association
Diabetes: A Growing Health Crisis with Costs that are Out of Control

5 Years Ago

1 in 13 Americans Had Diabetes = 23.6M People

Cost $174 Billion/Year

Today

1 in 11 Americans Has Diabetes = 29.1M People

Cost $245 Billion/Year

2050

1 in 3 Americans Will Have Diabetes = 100M+ People

Catastrophic
Minorities are disproportionately affected by diabetes, obesity and complications of diabetes.

- Diabetes: 1.7x higher
- Obesity: 1.5x higher
- Heart Disease: Risk increased by diabetes and obesity

2050

1 in 2 Americans in High-Risk Minority Groups Will Have Diabetes
Blood Glucose Control is **Vital** for Good Health

**Good Health Requires Normal Range**

<table>
<thead>
<tr>
<th>Short Term</th>
<th>Too Low</th>
<th>Normal</th>
<th>Too High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unconsciousness,</td>
<td>Blood Becomes Acidic;</td>
<td></td>
<td>Entire Body Bathed in Excess Sugar;</td>
</tr>
<tr>
<td>Death</td>
<td>Organ Damage / Death</td>
<td></td>
<td>Blood Vessel / Organ Damage</td>
</tr>
<tr>
<td>Oxygen Deprivation</td>
<td></td>
<td></td>
<td>LT Complication of Diabetes:</td>
</tr>
<tr>
<td>Impairs</td>
<td></td>
<td></td>
<td>Heart Attack, Stroke,</td>
</tr>
<tr>
<td>Brain Function</td>
<td></td>
<td></td>
<td>Kidney Failure, Blindness,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Nerve Damage, Amputation</td>
</tr>
</tbody>
</table>

**LT Complication of Diabetes:** Heart Attack, Stroke, Kidney Failure, Blindness, Nerve Damage, Amputation

American Diabetes Association
But, Maintaining Normal Blood Glucose is Hard

- Complex
- Constant
- Costly
- Overwhelming
OUR VISION:
Life free of diabetes and all its burdens
American Diabetes Association Mission

To prevent and cure diabetes and to improve the lives of all people affected by diabetes

Professional Resources
- Scientific Sessions
- Professional education
- Peer-reviewed journals
- DiabetesPro

Medical Information
- Clinical Practice Recommendations (treatment guidelines)
- Medical publications

Advocacy
- Research support
- Diabetes prevention and care
- Legal advocacy and support
- Legislative action

Communities
- Community health education programs
- Center for Information & Community Support
- Forecast magazine
- Diabetes.org
American Diabetes Association Research

The Association has been supporting research in the academic community for more than 60 years, significantly contributing to the landscape of diabetes research

Since we funded our first research grant in 1952:
- Supported more than 4,500 research projects
- Invested more than $735 million in diabetes research

In 2015 alone, the American Diabetes Association:
- Made more than $31 million available for research
- Supported 354 active research projects
- Supported investigators at 145 institutions across the United States
American Diabetes Association Research Programs

Association Research Activities fall into three distinct programs:

- **Core Research Program**
  - Majority of Annual Research Budget (~90%)
  - Investigator-initiated research, development and training grants
  - Standing annual grant cycles

- **Pathway to Stop Diabetes®**
  - New initiative started in 2013
  - Applications by institutional nomination only (one per institution)
  - Standing annual grant cycle

- **Targeted Research Program**
  - Call for applications in specific topic area where there is a need
  - Periodic Call for Applications
2015 Research Funding (millions of dollars)

- Core Research ($18.4 M)
- Core Development ($6.0 M)
- Core Training ($3.7 M)
- Co-Support ($0.2 M)
- Collaborative Targeted ($1.5 M)
- Pathway ($1.5 M)
2015 Research Funding (% of dollars)

- Type 1 Diabetes (16%)
- Both Type 1 and Type 2 (19%)
- Type 2 Diabetes (29%)
- Gestational DM (3%)
- Pre-Diabetes (17%)
- Obesity (16%)
2015 Research Funding (% of dollars)

Research Type

Basic (64%)
Clinical/Translational (36%)
2015 Research Funding
(\% of dollars)

- Adipocyte Biology/Obesity (23\%)
- Clinical, Behavior & Epidemiology (19\%)
- Complications (15\%)
- Genetics (2\%)
- Immunology (6\%)
- Integrated Physiology (13\%)
- Islet Biology and Transplant (10\%)
- Signal Transduction (12\%)
Core Research Program

Objectives

— Support innovative research with a high potential to have a significant impact for people with diabetes
— Encourage new investigators to dedicate their careers to diabetes research
— Support high-quality science across the spectrum of diabetes

Grant Opportunities

— Support for basic, clinical and translational research projects in topics relevant to all types of diabetes and diabetes-related disease states
— Span the entire career spectrum, including personnel grants for training and development, as well as project grants for independent investigators
— Unique opportunities for groups that are under-represented in biomedical research
Opportunities Across Career Stages

Research Career Progression

- Pre-Doctoral Training
- Fellowship/Post-Doctoral Training
- Assistant Professor
- Associate Professor
- Professor

- Minority Undergraduate Internships
- Postdoctoral Fellowships
- Minority Postdoctoral Fellowships
- Junior Faculty Development
- Innovative Basic Science
- Innovative Clinical and Translational Science
# CORE RESEARCH PROGRAM FUNDING OPPORTUNITIES

<table>
<thead>
<tr>
<th>AWARD TYPE</th>
<th>APPLICANT</th>
<th>ELIGIBILITY</th>
<th>MAXIMUM FUNDING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RESEARCH</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Innovative Basic Science Awards</td>
<td>Any level faculty</td>
<td>New and established PIs with &lt;$500,000 current research support</td>
<td>$115,000/year, 3 years</td>
</tr>
<tr>
<td>Innovative Clinical/Translational Science Awards</td>
<td>Any level faculty</td>
<td>New and established PIs with &lt;$500,000 current research support</td>
<td>$200,000/year, 3 years</td>
</tr>
<tr>
<td><strong>DEVELOPMENT</strong></td>
<td></td>
<td></td>
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<tr>
<td>Junior Faculty Development Awards</td>
<td>Faculty up to and including Assistant Professor or equivalent</td>
<td>Junior faculty in independent position, &lt;10 years research training, pre-R01, no concurrent career development support</td>
<td>$138,000/year, 2-4 years</td>
</tr>
<tr>
<td><strong>TRAINING</strong></td>
<td></td>
<td></td>
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<tr>
<td>Postdoctoral Fellowship Awards</td>
<td>Postdoctoral Fellow</td>
<td>MD, MD/PhD, PhD, DVM with confirmed postdoctoral position by award start date</td>
<td>$42,000–$55,272/year, 3 years</td>
</tr>
<tr>
<td>Minority Postdoctoral Fellowship Awards</td>
<td>Postdoctoral Fellow</td>
<td>MD, MD/PhD, PhD, DVM with confirmed postdoctoral position by award start date</td>
<td>$42,000–$55,272/year, 3 years</td>
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<td>Minority Undergraduate Internship Awards</td>
<td>Current ADA-funded investigators</td>
<td>Stipend to support an undergraduate from an underrepresented minority group to perform research in their laboratories</td>
<td>$3,000 one-time stipend</td>
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</table>
PATHWAY TO STOP DIABETES: A RADICAL ROAD FOR RESEARCH
PATHWAY TO STOP DIABETES

1. **Attract** Brilliant Minds at the Peak of Their Creativity

2. **Invest** in People, Not Projects

3. **Provide** Freedom, Autonomy and Resources
Pathway to Stop Diabetes

What Differentiates Pathway from Other Programs?

Nomination ... Rigorous institutional competition
Funding ... Awards of Up to $1.625 Million
Security ... 5 to 7 Years of Support
Autonomy ... The Freedom to Innovate, to Explore, to Blaze New Trails
Mentoring ... Guidance from Distinguished Scientists, Business Leaders and Other Major Donors
Collaboration ... Opportunities to Advance Research and Careers Through Symposia, Speaking Opportunities and Technology
<table>
<thead>
<tr>
<th>Award</th>
<th>Support</th>
<th>Term</th>
<th>Indirect Costs</th>
</tr>
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<tbody>
<tr>
<td><strong>Initiator Award</strong></td>
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<td></td>
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<tr>
<td>Researchers in Postdoctoral Training</td>
<td>Up to $1.625M in two phases</td>
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<td></td>
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<tr>
<td></td>
<td>Phase 1 (mentored)</td>
<td>$100,000/year maximum</td>
<td>2 years</td>
</tr>
<tr>
<td></td>
<td>Phase 2 (independent)</td>
<td>$325,000/year maximum</td>
<td>5 years</td>
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<tr>
<td><strong>Accelerator Award</strong></td>
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<tr>
<td>Early-Career Diabetes Investigators</td>
<td>Up to $1.625M</td>
<td>$325,000/year maximum</td>
<td>5 years</td>
</tr>
<tr>
<td><strong>Visionary Award</strong></td>
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<tr>
<td>Established Investigators, New to Diabetes Research</td>
<td>Up to $1.625M in two phases</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Phase 1</td>
<td>$325,000/year maximum</td>
<td>3 years</td>
</tr>
<tr>
<td></td>
<td>Phase 2 (renewal)</td>
<td>$325,000/year maximum</td>
<td>2 years</td>
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Pathway to Stop Diabetes Progress

- Three completed annual cycles with >100 nominations per year
- To date, 17 awardees selected
- Call for Nominations Now Open (July 1 application deadline)
- Productivity of current awardees
  - 16 papers published by Pathway scientists, most in high-impact journals
  - More than 100 presentations delivered
  - Two Pathway scientists who received Initiator awards successfully transitioned from training into their first faculty positions; one is currently negotiating a faculty offer
  - Three patent applications submitted
  - Results garnering media attention (Washington Post, CBS News)
Our Research Programs Promote Success

- >5 publications and 13 scientific presentations
- 75% earn faculty promotions
- 92% receive subsequent research funding
- 99% remain in diabetes research careers
American Diabetes Association Funding Provides Critical Research & Career Support

“I can outline a progressive exponential growth in my career from the seed that was planted by the ADA funding.”
--Charles F. Burant, MD, PhD
University of Michigan

“The ADA gave me my first grant to do diabetes research in 1999. Without that funding, I would not have entered the diabetes field.”
--Laura McCabe, PhD
Michigan State University
Key Dates and Deadlines

Core Research Program

» April 15: Submission Deadline
» October: Grant Review Meeting
» November/December: Funding Notifications

Pathway to Stop Diabetes

» July 1: Submission Deadline
» November: Mentor Advisory Group Meeting
» December: Funding Notifications

Targeted Research Initiatives

» As available, advertised on diabetes.org/grants
Please Become Involved!

Apply for Grants

Share your Data
» Scientific Sessions (June 10-14 in New Orleans)
» Publish in *Diabetes* and *Diabetes Care*
» Local presentations

Volunteer
» Grant Review
» Scientific Sessions
» National Committees
» Local Committees

Participate in Special Events
» Walk and Ride
Resources

Submission deadlines, detailed application instructions, and open Requests for Applications (RFAs)

• diabetes.org/grants

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Thank You!

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