

Call for Grants Notification: Advancing the Science behind Childhood Adversity

Genentech's signature philanthropic program, [The Resilience Effect](#), is dedicated to taking on childhood adversity to build health across a lifetime. Our goal is to significantly improve the health and well-being of low income children and families affected by childhood adversity, through the pediatric healthcare system and community settings that support it.

Background and Rationale

In the late 1990s, the CDC and Kaiser Permanente conducted a landmark study on data from over 17,000 adults, examining the effects of adverse childhood experiences (ACEs) on current health status. They found a powerful connection between the amount of adversity faced and the incidence of over 40+ health outcomes. Since then, similar surveys have been conducted across several states, with consistent findings.[1]

Childhood Adversity and Toxic Stress

While there are few universal definitions of adverse childhood experiences, we recognize that in early childhood, research on the biology of stress shows how major adversity, such as extreme poverty, abuse, or neglect can weaken developing brain architecture and permanently set the body's stress response system on high alert. Science also shows that providing stable, responsive, nurturing relationships in the earliest years of life can prevent or even reverse the damaging effects of early life stress, with lifelong benefits for learning, behavior, and health.

Source: Harvard Center on the Developing Child (2017)

We are beginning to understand the science behind these effects. While our stress response system can be life-saving—pumping adrenaline to our hearts, lungs, and muscles, and producing cortisol to keep blood pressure high—repeated stress activation can be toxic, affecting brain structure, development, and function, immune systems, hormonal systems, and the expression of our DNA.[2,3]

Exposure to adversity can put a child on a poor health and developmental trajectory, contributing to health disparities and increasing the achievement gap. However, emerging evidence shows that we can alter that trajectory. Early detection, intervention, parental engagement, promotion of protective factors, and community-based support can begin to reverse the effects of toxic stress and adversity for many children.[4] There is much to learn about the science behind childhood adversity, its impact on poor health and development, and strategies to prevent and address its impacts - this Call for Grants invites research projects that **drive the science forward to improve outcomes for children and families at risk of or exposed to persistent childhood adversity.**

Purpose

As part of our mission and commitment to supporting groundbreaking science, Genentech invites innovative research proposals to advance understanding of childhood adversity, its impacts, and solutions to address it. Strong proposals will:

- Strengthen understanding of how to define and measure childhood adversity and toxic stress, and its impacts, from a biological, developmental, and public health perspective.
- Validate and build the evidence base for strategies to address childhood adversity, grounded in the pediatric medical home and with the potential to be scaled and reimbursed.
- Identify and address other critical research gaps in improving care quality, health, and developmental outcomes for young children at risk of or exposed to adversity.
- Deepen understanding of how ACEs, trauma, and toxic stress impact health and developmental trajectory, and our ability to deliver high-quality care for all.

Additional Considerations

- Proposals with an early childhood focus (families/caregivers with children under age 5) are strongly encouraged.
- Research projects must be U.S. based. San Francisco Bay Area projects (focused on including Alameda, Contra Costa, Marin, Napa, Santa Clara, San Francisco, San Mateo, Solano, and Sonoma counties) will be strongly considered; projects taking place outside of the Bay Area will also be considered.
- Strong proposals will demonstrate the rigor behind the project, potential to translate findings into actionable change, and will fill gaps in the evidence base, contributing to scientific advancement.
- Proposals reflecting a particularly innovative approach or out-of-the box thinking are strongly encouraged.

Proposal Requirements

- *Problem Definition:* Clear, data-driven articulation of the unmet need, problem, or opportunity at hand. Includes data, insights, or first-hand perspective on the issues that the research aims to explore.
- *Rationale:* Description of why the research project will uniquely contribute to advancing the science and practice of addressing childhood adversity.
- *Research Approach and Study Design:* Describe the research questions or hypotheses that will be explored, and how those questions will be examined, including the use of a control group (if relevant). Specify the health outcome(s) and any other primary or secondary outcomes measured. Include a project implementation timeline.
- *Research Team:* Describe the characteristics and qualifications of the research team and any unique partnerships in place to conduct the research.
 - Note: Additional consideration will be given to research teams that demonstrate multi-sector partnership and collaboration, including research proposals that actively engage families and communities in the design, development, and execution of research efforts.
- *Budget:* Project budget, including costs associated with providing open-access rights to research after published, if relevant.

- *Dissemination Strategy*: High-level plan for dissemination of study findings, including key audience(s) for research findings and approaches to dissemination, including and beyond academic journals.

Grant Period

- Research projects funded typically cover 12-24 months
- Start date must be January 1, 2020 or later
- Grants cannot be self-renewing

Application Deadline

- Applications must be completed and submitted by October 1, 2019.

Funding Restrictions

In order to be eligible for this type of funding, your organization must **not** be:

- A political or sectarian organization
- An individual, group practice, or private physician office
- Owned in whole or in part by a physician or a group of physicians
- A charitable foundation of a small group practice (less than 50 physicians)
- An organization with a written policy to discriminate based on race, religion, gender, gender expression and/or identify, age, national origin, disability, marital status, sexual orientation, military status, or any other protected status is ineligible for funding

In order to be eligible for this type of funding, the funding must **not** be used for:

- The purpose of developing clinical practice guidelines, e.g., statements that include recommendations intended to help practitioners make appropriate healthcare decisions for specific clinical conditions
- Religious purpose
- Promotion of a Genentech or Roche product or to influence formulary decisions
- Research involving or undertaken in relation to Genentech or Roche products (whether investigational and/or approved for other uses)

For additional requirements / restrictions, please visit funding.gene.com.

Terms and Conditions

1. All grant applications received in response to this CGN will be reviewed in accordance with all Genentech policies and policy guidelines.
2. This CGN does not commit Genentech to award a grant or to pay any costs incurred in the preparation of a response to this request.
3. Genentech reserves the right to approve or deny any or all applications received as a result of this request or to cancel, in part or in its entirety, this CGN.
4. All applications for this CGN must be submitted through our funding portal at funding.gene.com.

5. Applicants should not respond to this CGN unless they have read and understood the terms, purpose and requests identified below. Applicants are expected to identify and address issues that are aligned to this CGN.

Instructions to Apply

- Complete an application at funding.gene.com.
- Include "PHI" in the field "External Tracking Code"
- Please note that only proposals that fall under the project type "[Scientific Projects](#)" will be considered

Transparency

Genentech, at its sole discretion, has the right to disclose the details of funded activities, including those that may be required by federal, state, and/or local laws and regulations. This disclosure may include, but shall not be limited to, details of the activity and the grant amount. The information may be disclosed to the public in a manner including, but not limited to, disclosure on the Genentech website.

Notification

Final approvals and denials will be communicated via standard grant-submission means (i.e. email notifications) no later than the week of December 1, 2019. There have been no predetermined approvals.

Support

For additional questions/support, please email resilience-d@gene.com.

Genentech also considers applications outside of this CGN. Please refer to the website for additional information on Genentech's giving priorities.

References

1. Felitti, V.J., Anda, R.F., Nordenberg, D. et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: the Adverse Childhood Experiences (ACE) Study. *Am J Prev Med.* vol. 14, 1998, pp. 14:245–258, [https://doi.org/10.1016/S0749-3797\(98\)00017-8](https://doi.org/10.1016/S0749-3797(98)00017-8)
2. Fox, Sharon E., et al. "How the Timing and Quality of Early Experiences Influence the Development of Brain Architecture." *Child Development*, vol. 81, no. 1, 2010, pp. 28–40., doi:10.1111/j.1467-8624.2009.01380
3. Anisman, Hymie, et al. "Do Early-Life Events Permanently Alter Behavioral and Hormonal Responses to Stressors?" *International Journal of Developmental Neuroscience*, vol. 16, no. 3-4, 1998, pp. 149–164., doi:10.1016/s0736-5748(98)00025-2.
4. Center on the Developing Child at Harvard University, "Resilience", retrieved from <https://developingchild.harvard.edu/science/key-concepts/resilience/>.