A GLOBAL ALLIANCE FOR EARLY CHILDHOOD DEVELOPMENT

The New York Academy of Sciences
THE VISION

The New York Academy of Sciences is creating an unprecedented **Global Alliance for Early Childhood Development** (ECD) dedicated to ensuring that children worldwide reach their full developmental potential.

The Alliance will take a holistic approach, integrating research on nutrition, cognition, and neuroscience to develop both policy recommendations and practical interventions to improve development for all children in their first 1,000 days. The Academy will organize robust partnerships with many of the world’s leading cities where committed Mayors can catalyze proof-of-concept projects that can improve the lives of millions of children and their families and ensure that learnings are shared across all sectors.

At this earliest stage in the Alliance, the Mayor’s Offices of New York, London, and Barcelona have indicated their willingness to be Founding Partners. And there is strong interest from the Prime Minister of Malaysia and government representatives in Australia and Qatar. In addition, the organizers of several alliances of cities are eager to present this initiative to their members. As UNICEF Director General Tony Lake said about this initiative, “We especially want to partner with the New York Academy of Sciences for two reasons: 1) all good policy is dependent on good science; and 2) enlightened leaders of cities can catalyze proof-of-concept efforts in real time that everyone can learn from.”

The following document describes the need, the goals, and the initial approach in forming this global partnership. We invite your participation in an initiative that will improve the health, education, and economic prospects of millions of children the world over.
STATEMENT OF NEED

The first 1,000 days of a child’s life—from conception to age two—are critical in determining future physical, emotional, and cognitive well-being. As a child grows — from inside the womb through the first few years of life — massive changes take place in the developing brain. Environmental influences including social interaction with parents/caregivers, socioeconomic status/poverty, emotional stress, and the adequacy of infant nutrition have all been shown to have profound effects on neural development, cognitive functioning, and future success.

Deepening our understanding of the impact of both positive and negative experiences on the developing brain is an important first step towards promoting healthy early childhood development. Translating that information into an advocacy strategy and implementing interventions to reduce economic and health disparities observed before children ever step foot into a classroom will be crucial to ensuring the social, emotional, and economic success of millions of children worldwide.

Recently, there has been increased attention devoted to improving childhood education by governments, scientists, and policy makers. However, the key stakeholders in this area work in “silos” that limit cross-disciplinary collaboration. There is an urgent need to bring together scientists, policy makers, and educators from across sectors to bridge the gap between research and practice.

The Academy has taken action to convene multi-sector early childhood development stakeholders through recent landmark conferences and has disseminated the proceedings via our print and online publications. For example, Shaping the Developing Brain: Prenatal through Early Childhood, a conference held on November 11 - 13, 2014, convened scientists and researchers examining cognitive and neural development with educators involved in the day-to-day learning of infants and young children. Every Child’s Potential: Integrating Nutrition and Early Childhood Development Interventions, published in Annals of The New York Academy of Sciences, reviews existing efforts to address the scientific and practical challenges of developing early child development interventions integrating health, cognition, and nutrition.

But by itself, convening and dissemination of knowledge cannot transform lives. What is needed are proof-of-concept projects carried out in both the developed and developing world, assessment of the cost and efficacy of these efforts, and a continual sharing of best practices. This is why the partnership between the New York Academy of Sciences and its extraordinary network of the world’s leading experts in nutrition and neuroscience — as well as its partner institutions in academia, industry, and government — holds the promise of transformation.
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The goal of the Global Alliance for Early Childhood Development is to mobilize the international communities in science, technology, public health, and social policy to advance ECD research, promote scalable and tangible advances in the field, and develop public policy for global scaling. We are developing the Alliance with cities because 70% of the world’s population will soon be living in urban areas. In addition, Mayors and city governments are uniquely capable of implementing recommendations into swift actions that impact millions of people.

To launch the Alliance, the Academy will first convene founding partners, including academic and NGO experts, the health and social welfare commissioners of Founder Cities, and select experts on ECD from a nutritional, neuroscience, and social science perspective. Following the development of a consensus strategy, the Academy expects to engage in a feasibility study to identify the areas where existing scientists and stakeholders are already working and where our global partners can add value and fill existing gaps in the ECD landscape.

Next, we will convene scientists and other stakeholders, from across disciplines and geographies, as well as the representatives from Alliance partner cities, to develop a prioritized agenda for research – and, in parallel – proof-of-concept community test projects that can be implemented in cities.

In terms of research, the Alliance will focus on advancing the development of new knowledge in nutrition and cognition. Additionally, the Academy will work with city representatives to translate known and accepted concepts into practical solutions for the field, while at the same time developing impactful public policy.
Over time, the Academy will generate an unprecedented and coordinated network of experts and leaders across sectors, disciplines, and geographies. And the Academy will use its 198 years of experience in convening stakeholder workshops, international conferences, and public events – and its recent experience in offering monetary research awards and developing incentive-driven research competitions – to ensure rapid progress. The Academy will provide expert project management and oversight, comprehensive marketing and community building efforts, constant engagement with multiple stakeholders, and active follow-up capabilities.

More specifically the Alliance will:

- **Foster communication and new collaborations** between researchers from the fields of developmental and cognitive neuroscience, neurology, psychology, pediatrics, nutrition, education, and early childhood development, as well as organizations involved in education, intervention, and policy.

- **Facilitate the creation of a basic research agenda** that identifies priorities related to understanding the link between early developmental milestones and environmental influences, and improve treatments for developmental and learning disorders.

- **Bring new perspectives to the scientific agenda** by including researchers on the cutting-edge of personalized genomics, metabolomics, and the microbiome to contribute to recommendations on improving developmental outcomes during the first 1,000 days.

- **Develop and raise awareness of potential interventions** that can be adopted by parents and promoted by clinicians and other health care professionals, city agencies, and teachers.

- **Inform policy, training, and interventions** through the dissemination of cutting-edge information to city governments, a global audience of early childhood development professionals, and the general public.

- **Promote the translation of future research** into focused therapies, behavior modifications, educational practices, and interventions that may improve outcomes for children with or at risk for developmental delays and disorders, as well as assure wide dissemination of implementation strategies.

- **Explore the application of new technologies** (such as wearables) and the analysis of Big Data to develop concrete recommendations on their usage with the goal of improving outcomes for children in their first 1,000 days.
NEW YORK ACADEMY OF SCIENCES LEADERSHIP AND HISTORY

Founded in 1817, the New York Academy of Sciences is one of the oldest scientific institutions in the United States. The Academy is an independent 501(c)(3) nonprofit, scientific, and educational organization with a history of fostering new collaborations among key stakeholders and emerging experts in academia, industry, and government in order to drive advances in science, medicine, technology, innovation, and sustainability. Through the Academy’s diverse portfolio of interdisciplinary scientific conferences and seminars, career development and public outreach programs, and global dissemination of the latest scientific breakthroughs via innovative print and electronic media, the Academy engages a diverse membership community of more than 20,000 individuals in 100 countries.

With a 200-year history as a neutral convener and an expert network of neuroscientists, nutritionists, policy makers, and educators, the Academy is ideally positioned to spearhead a new initiative to create an ECD Research Agenda, advocate for best practices, and create practical and scalable interventions for children. The Academy has numerous assets and strengths that will allow us to successfully develop and implement this groundbreaking initiative and provide leadership to the Global Alliance for Early Childhood Development, including:

• Particular expertise in nutrition science through the Sackler Institute for Nutrition Science and its partnership with the World Health Organization; in education through the Global STEM Alliance and its partnership with UNESCO and the ITU as well as many cities and nations; and in neuroscience and cognitive development in partnership with such international
organizations as the European Commission’s Innovative Medicines Initiative.
• Success in developing public–private partnerships that recognize the importance of multi-sector expertise and research to advance scientific knowledge, as well as the capacity to convene multiple stakeholders and foster collaborative behavior among key stakeholders that ordinarily do not collaborate, due to our neutral and widely-respected posture.
• Significant global reach through our 20,000-strong worldwide membership base and through our lead partnership in Scientists Without Borders, a web platform that focuses global communities of scientists on solving identified scientific challenges, enables collaborative innovation and implementation around solutions, and fosters capacity-building and resource exchange.
• Dissemination platforms that increase the number of beneficiaries of the events and initiatives we convene, which allow us to drive the findings and outcomes of our proceedings into a wide range of communities.
ABOUT THE NEW YORK ACADEMY OF SCIENCES

The New York Academy of Sciences is an independent, not-for-profit organization that since 1817 has been driving innovative solutions to society’s challenges by advancing scientific research, education, and policy. With more than 20,000 members in 100 countries, the Academy is creating a global community of science for the benefit of humanity. Please visit us online at www.nyas.org and follow us on Twitter at @NYASEvents.