PEDIATRIC SCIENTIST DEVELOPMENT PROGRAM

Fact Sheet - 2025

Overview

Since 1987, the **Pediatric Scientist Development Program** (PSDP) has trained early-career pediatricians as physician-scientists, providing research time, mentorship, and funding to drive breakthroughs in child health. Supported by the National Institute of Child Health and Human Development (NICHD), the Association of Medical School Pediatric Department Chairs (AMSPDC), and leading organizations like the American Academy of Pediatrics and the Cystic Fibrosis Foundation, PSDP is a ***proven investment in pediatric innovation***. With **over 270 alumni** advancing research, continued support ensures the brightest minds can focus on lifesaving discoveries for children.

Why PSDP Matters

- The U.S. faces a **declining pipeline of pediatric physician-scientists**.
- Investments in PSDP yield **long-term advancements in health**, from vaccine development to treatments for rare pediatric diseases and chronic diseases like asthma and diabetes.
- PSDP fellows drive **multidisciplinary collaborations**, bridging clinical care and cutting-edge research.

Mission & Objectives

- Increase the number of pediatric physician-scientists conducting innovative, high-impact research to decrease and mitigate chronic disease
- Provide structured mentorship and funding to support early-career pediatric researchers
- Strengthen the pipeline of physician-scientists who contribute to advancements in child health

Return on Investment (ROI)

- Overall, NIH grants supported **407,782 jobs and $94.58 billion** in new economic activity nationwide.
- PSDP alumni have collectively secured over **$1.18 billion** in NIH funding.
- Return on investment is **$2.56 for every $1 in awards.**
- **92% of PSDP** of graduates attain **professorships and leadership roles** in academic pediatrics.
- More than **75% of participants remain in research-intensive careers**, demonstrating long-term sustainability.

Sampling of PSDP Alumni Breakthrough Discoveries

- How being born prematurely affects kidney development and finding ways to protect these babies from developing kidney disease
- New treatments for childhood cancers by using the body's own immune system, developing special immune cells that can better fight solid tumors such as neuroblastoma and sarcomas
- How rhabdomyosarcoma, a childhood cancer of the soft tissues, starts and grows to identify treatments

Sampling of Research of Diseases and Chronic Conditions

- ***Muscular Dystrophy*** – Using two different methods to study nerve coating in a type of muscular dystrophy
- ***Lupus*** – How the P2RY8 Pathway Affects B Cell Behavior and Its Link to Lupus
- ***Asthma*** – How Social and Environmental Factors Affect Children's Asthma

Potential Research Disruptions or Stoppages

1) ***Can viruses trigger IBD in kids?*** – Scientists are investigating whether common viruses in our bodies contribute to inflammatory bowel disease (IBD) in young children
2) ***Good fats, better health*** – Healthy fats may help keep fat tissue flexible, which could improve how our bodies handle obesity
3) ***Vitamin D and kidney infections*** – A lack of Vitamin D may weaken the body's defense against kidney and urinary tract infections
4) ***How pregnancy affects baby brains*** – Immune responses in pregnant mothers may contribute to brain injuries in unborn babies
5) ***How newborn lungs fight disease*** – Understanding how babies' lungs develop defenses against infections and viruses
6) ***Tracking RSV to stop its spread*** – Studying how RSV evolves could lead to better ways to prevent and treat the virus
7) ***How chemicals harm baby lungs*** – Some environmental chemicals may increase breathing problems in premature infants
8) ***Celiac disease and blood sugar swings*** – Continuous glucose monitoring is revealing how celiac disease and IV nutrition affect blood sugar
9) ***The genetics of obesity –*** A specific gene and tiny RNAs may play a role in passing down obesity and metabolic diseases
10) ***New insight into cystic fibrosis*** – Missing CFTR protein may trigger early immune system changes that lead to inflammation

Program Structure

- **2 to 3 years** of mentored research training
- Funding covers **salary support and research expenses**
- Emphasis on **basic, translational, and clinical research** relevant to pediatrics
- Access to a **network of PSDP alumni and mentors** who are leaders in pediatric research and academic medicine

Impact of Funding Cuts

- **Jeopardize children's health** by stalling research on pediatric diseases, from cancer to obesity to rare genetic disorders.
- **Undermine national security** by weakening our ability to respond to emerging health threats
- **Diminish intellectual capital** by driving young scientists away from academic medicine and research, leading to a brain drain in a field already struggling with recruitment. (Canada is recruiting doctors heavily.)
- **Disrupt economic growth** by slowing medical advancements that fuel the biotech and pharmaceutical industries, especially the disparately limited pipeline of therapeutics for childhood diseases.

For more information, visit https://amspdc-psdp.org/