

Embargoed until 8am EST. February 18, 2016

CANCER MOONSHOT 2020 ANNOUNCES THE FORMATION OF A NATIONAL PEDIATRICS CONSORTIUM, A MAJOR MILESTONE IN THE WAR ON CANCER IN CHILDREN

Leading national children's hospitals, pediatric cancer organizations and academic centers unite with Cancer MoonShot 2020 to accelerate bringing the next-generation standard of cancer care and immunotherapy to children with cancer

The Cancer MoonShot 2020 Pediatrics Consortium include 10 founding members spanning major cities across the nation who will participate in a national data sharing infrastructure to accelerate clinical development of next-generation immunotherapy

Phoenix, Arizona: February 18, 2016 — In a press conference today, Cancer MoonShot 2020 announced another milestone in its quest to alter the course of cancer care with the formation of the Pediatrics Consortium focused on bringing the promise of combined immunotherapy as the next-generation standard of cancer care to children diagnosed with the disease. With leadership at Phoenix Children's Hospital helping to initiate this consortium, all founding partners will seek to apply the most comprehensive cancer molecular diagnostic testing available—integrating whole genomic and proteomic analysis—and leverage proven and promising combination immunotherapies and clinical trials through the QUILT (QUantitative Integrative Lifelong Trial) Program within the Cancer MoonShot 2020 mission. Real time data sharing, enabled by the infrastructure provided by Cancer Moonshot 2020, will accelerate clinical learning and insight to all members participating in the consortium.

Founding Members in the Cancer MoonShot 2020 Pediatrics Consortium are:

1. Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago IL
2. Children's Healthcare of Atlanta, GA, Aflac Cancer & Blood Disorders Center
3. Children's Hospital of Orange County, CA
4. Children's Hospital of Philadelphia, PA
5. Children's Hospital of Pittsburgh of UPMC, PA
6. Duke Department of Pediatrics – Duke University School of Medicine, NC
7. Floating Hospital for Children at Tufts Medical Center, MA
8. Huntsman Cancer Institute at the University of Utah and Intermountain Primary Children's Hospital, UT
9. Phoenix Children's Hospital, AZ
10. Sanford Health, SD

Three major underlying drivers behind the formation of the Cancer Moonshot 2020 Pediatrics Consortiums are:

1. There is increasing recognition that cancer is an extremely heterogeneous disease, caused by any one of a multiple number of genetic mutations, with hundreds and even thousands of molecular alterations presenting within each pediatric cancer patient and

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therefore demands of a more personalized, precision approach. This pediatrics consortium will lead and use next-generation precision clinical genomic-proteomics enabling doctors and patients to get the most comprehensive molecular diagnosis in the market today.

2. While significant progress in cancer treatment has been made, there remains significant fragmentation across the healthcare ecosystem, with pharmaceutical drug development occurring in silos with limited ability to share clinical information efficiently, especially cutting-edge immunotherapy treatment options and patient outcomes to guide in treatment decisions. Consortium participants have recognized that the collaboration among pharma, oncology and others in the medical and scientific community, combined with leading whole genomic and proteomic sequencing analysis and the huge breadth of immunotherapy clinical trials provided via the Cancer MoonShot 2020 program, is a much needed means to reduce the barriers to accelerated progress in the war on pediatric cancer.
3. Cancer MoonShot 2020 provides access to a national, robust and scaled cloud infrastructure enabling the ability to share data in real time and to provide rapid access to breakthrough knowledge to all. Academic institutions now have the capability to share complex pan-omic data tied to phenotypic medical records and clinical outcomes. Such a comprehensive system, combined with multiple pharma participation has not been available to any of the individual children cancer centers before on such a national basis and this infrastructure will accelerate clinical trial and drug development, establishing the National Pediatrics Cancer Learning System to accelerate the next-generation of care for all.

According to the American Cancer Society, cancer is the second leading cause of death in children (after accidents) and an estimated 10,380 children in the United States under the age of 15 will be diagnosed with cancer in 2016.

"Cancer MoonShot 2020 is a pioneering initiative bringing state-of-the-art molecular diagnostic technologies and innovative treatment options to move us one step closer to a cancer-free world," said U.S. Senator John McCain. "Through the participation of doctors and hospitals across our state, including the Phoenix Children's Hospital and a collaborative network of leading pediatric hospitals and community-based pediatric oncologists, Arizona is setting an important example for other states to follow."

"Members joining the Pediatric Cancer Consortium recognize that progress is clearly not moving fast enough and there is an urgent need to address the unique needs of pediatric cancer patients by bringing the resources of the Cancer MoonShot 2020 to the pediatric cancer community," said Robert Meyer, President and CEO, Phoenix Children's Hospital. "These include access to state-of-the-art, next-generation molecular profiling capabilities, access to over 60 novel and approved therapies, along with other invaluable expertise, focused on improving pediatric cancer care specifically."

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“When Cancer MoonShot 2020 was launched in January 2016, one of the major challenges identified was that while amazing progress is occurring in cancer research today at pharmaceutical and biotech companies, that work is conducted in silos, as each organization focuses on its’ own drug development efforts,” said Dr. Soon-Shiong. “In addition, drug choices and other treatment decisions get locked away in electronic health records, which means too little information is shared on patient outcomes. This fragmented approach, while still advancing cancer care, is not the most optimal coordination efforts and the leaders joining Cancer MoonShot 2020 believe, we as a nation, could do much better.”

“I’m proud to stand with Arizona on the front lines in the fight against cancer,” said Governor Doug Ducey. “Our state is already home to some of the finest universities, health care facilities and cancer research and treatment centers in the country. Moonshot 2020 will elevate our efforts to stay on the leading edge -- developing next-generation technology and innovative treatment options that will save lives and keep us a step ahead in the war on cancer. I thank Dr. Soon-Shiong, and all of the great Arizona individuals and institutions who are leading the charge.”

"Phoenix is proud to take a leading role in this effort because it is critical that, as a nation, we do more and invest more to find cures for cancers in children” said Mayor Greg Stanton. “Patients all over the world will benefit from the work of ASU, NantWorks and top researchers right here in downtown Phoenix."

Michael M. Crow, President, Arizona State University: "The Cancer MoonShot 2020 Program will link scientists and technological advances across dozens of areas around a single goal: clinical treatments individualized to the disease in a particular person," ASU President Michael M. Crow. "ASU and NantWorks share the belief that important medical advances must be integrated quickly into society. That is why ASU is proud to be partners with NantWorks and the Chan Soon-Shiong Institute of Molecular Medicine in the development of a campus in Phoenix where the next generation of scientists, clinical decision specialists, integrated precision medicine engineers and medical data analysts can be trained for both research and healthcare delivery."

Cancer MoonShot 2020 Pediatrics Consortium Members:

H. Stacy Nicholson, MD, Phoenix Children’s Hospital: *“The Cancer MoonShot 2020 Pediatric Consortium has an enormous potential to change how we diagnose and treat children suffering from cancer. I’m personally excited about Phoenix Children’s leadership of this effort through the Chan Soon-Shiong Children’s Precision Medicine Institute at Phoenix Children’s and are honored to have led the initiative with Dr. Soon-Shiong to establish this consortium.”*

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Leonard S. Sender, MD, Children's Hospital of Orange County: *"The Pediatric Cancer MoonShot 2020 is so visionary and, at the same time, has the capacity to disrupt the cancer healthcare industrial complex. The cancer moonshot will attempt to cure all the numerous types of pediatric cancers with the least toxicity by harnessing the patients' own immune systems and using the tumors' unique genomic mutations to create individualized cancer vaccines. Our Center has studied the value of whole genome sequencing for several years and have recognized the enormous value in such a test to assist in clinical decision-making. Now with the availability of the next evolution of molecular diagnostics from the genome to the proteome we are excited by the acceleration of knowledge that this system will provide and are honored to be a founding member of such an important initiative."*

Douglas K. Graham, MD, PhD, Children's Healthcare of Atlanta: *"The Pediatric Cancer Moonshot will give us genomic and proteomic tools to provide deeper insight into the biology of pediatric cancers. We are also particularly excited about the potential to engage the immune system in offering new hopes for curative therapy for patients with the highest risk cancers."*

Stewart Goldman, MD, Ann & Robert H. Lurie Children's Hospital of Chicago and a member of the Executive Committee of the Robert H. Lurie Comprehensive Cancer Center: *"We are honored and excited to participate in the Moon Shot project," said Stewart Goldman, MD, Head of the Division of Hematology/Oncology/Neuro-Oncology & Stem Cell Transplantation at Lurie Children's. "This unprecedented collaboration is truly an opportunity to make transformational change quickly by developing effective immunotherapy treatments for the care and cure of children with cancer."*

Giannoula Klement, MD, Floating Hospital for Children at Tufts Medical Center - Tufts University School of Medicine: *"This is the most exciting time in oncology. For the first time in many decades, we have the tools and understanding to abandon the old paradigm of killing cancer and develop more individualized, rational, and much less toxic approaches."*

Linda M. McAllister-Lucas, MD, PhD, Children's Hospital of Pittsburgh of UPMC: *"Less than one percent of cancers in the USA occur in pediatric patients. And yet, the loss of years and quality of life to pediatric cancer is huge. The Pediatric Cancer Moonshot 2020 will pour resources into research investigating the cause, the diagnosis and the treatment of pediatric cancers. This Moonshot will start a new era of hope for our patients and their families, and will lead the way toward more effective less toxic treatments, and higher quality longer lives for children with cancer."*

Sam Milanovich, MD, Sanford Health: *"The National Cancer Moonshot presents a unique opportunity to begin to fundamentally change the way we treat childhood cancer. Sanford Health looks forward to working together with our pediatric oncology colleagues across the country to develop exciting, novel approaches to improve childhood cancer treatment."*

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Joshua D. Schiffman, MD, Professor of Pediatrics and Investigator, Huntsman Cancer Institute, University of Utah and Intermountain Primary Children's Hospital: *"This effort offers a unique and timely opportunity to harness the power of genomic translation to eventually help the nearly 16,000 children diagnosed with cancer each year in the United States. We are very pleased that Utah and its children can contribute to this initiative."*

Phillip B. Storm, MD, Children's Hospital of Philadelphia: *"We are delighted to participate in this cancer moonshot coalition. We have been invited to lead glioblastoma and the brain tumor working group in this coalition. We already have underway a network of pediatric cancer centers involved in genomic and proteomics research and being part of the Cancer MoonShot 2020 will help accelerate this goal to find treatments."*

Daniel S. Wechsler, MD, PhD, Duke Department of Pediatrics – Duke University School of Medicine: *"I am excited to learn more about this extraordinary initiative to enhance cure rates among pediatric cancer patients. Recent advances in immunotherapy have set the stage for the National Immunotherapy Coalition to make tremendous inroads."*

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About the Cancer MoonShot 2020 Pediatrics Consortium:

The Cancer MoonShot 2020 Pediatrics Consortium, founded by ten initiating members, will bring the promise of immunotherapy as the next-generation standard of cancer care to children diagnosed with the disease. The consortium will seek to apply the most comprehensive diagnostic testing available—whole genomic and proteomic analysis—and leverage proven and promising combination immunotherapies and clinical trials under the QUILT Program within the Cancer MoonShot 2020 mission. Real-time outcomes data will be shared to establish a National Pediatrics Cancer Learning System to accelerate the next generation of care for all.

About Cancer MoonShot 2020

Cancer MoonShot 2020 is the nation's most comprehensive cancer collaborative initiative seeking to accelerate the potential of combination immunotherapy as the next-generation standard of care in cancer patients. This initiative aims to explore a new paradigm in cancer care by initiating randomized Phase II trials in patients at all stages of disease in 20 tumor types in 20,000 patients within the next 36 months. These findings will inform Phase III trials and the aspirational moonshot to develop an effective vaccine-based immunotherapy to combat cancer by 2020. For more information, please visit <http://www.CancerMoonShot2020.org>

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