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PRESS RELEASE

Cancer Research Pioneer Who Paved the Tumor Microenvironment Field to Receive 2023 Szent-Györgyi Prize for Progress in Cancer Research

ROCKVILLE, MD. — The National Foundation for Cancer Research (NFCR) announced today that Isaac P. Witz, Ph.D., has been selected to receive the 2023 Szent-Györgyi Prize for Progress in Cancer Research.

Renowned cancer research leaders, composed of NFCR's blue-ribbon Prize selection committee, elected Professor Isaac P. Witz, Ph.D. for his seminal scientific contributions demonstrating the flow of information and signaling between tumor cells and the tumor microenvironment (TME) as critical factors for understanding tumor growth and spreading. Prof. Witz will be honored at the Szent-Györgyi Prize award ceremony on October 21, 2023, at The National Press Club in Washington, D.C.

Isaac P. Witz, Ph.D. is Professor Emeritus at Tel Aviv University and is Head of the Laboratory of Tumor Microenvironment & Metastasis Research at The Shmunis School of Biomedicine and Cancer Research, The George S. Wise Faculty of Life Sciences. His illustrious career spans over fifty years of breakthrough observations, discoveries, publications, and networking collaboration on the critical importance of the TME on the biology of the cancer cell, its growth, and advancement to metastasis.

The experimental demonstration that constituents of the immune system find their way to the TME and affect tumor behavior was first pioneered by Prof. Witz in the 1960s, during the beginning of his scientific career which focused on the immune system. He elegantly demonstrated that humoral immune components localized in the TME can impact tumor biological functions, such as growth, and are also required for efficient cellular anti-tumor immune responses. These achievements paved the foundation for certain aspects of contemporary immunotherapy ultimately, benefiting cancer patients and advancing scientific steps further toward finding cures to cancer.

Prof. Witz's most significant scientific accomplishments were made in the 1970s through the 1990s when cancer research was dominated by the cancer cell-centric view of cancer. This reductionist approach viewed that oncogenes (cancer promoting) and tumor suppressor genes in the cancer cell were sufficient to determine carcinogenesis and cancer advancement. Against this prevailing dogma, his seminal work demonstrated, for the first time, that microenvironment factors, in addition to cancer's intrinsic properties, were key collaborators in conferring aggressive malignant tumor behavior.

In the face of skepticism, Prof. Witz made conceptual changes in the way of approaching cancer research, away from reductionism to a more holistic approach. This body of work and his numerous other explorations of the crosstalk between the tumor and TME, and the many global conferences he convened, triggered a shift in thinking that began to place focus on the TME and tumor-host interactions as determinants of tumor biology.

Chair of the 2023 Selection Committee and 2022 Prize winner, Rakesh K. Jain, Ph.D., remarked, "I am delighted that Prof. Witz has won this year's Szent-Györgyi Prize. The vast field of TME, which my own body of work

encompasses, has been influenced by Prof. Witz's work which impacted the development of cancer therapeutics targeting the interacting molecules in the TME. Future opportunities for additional life-saving therapies from the TME field lay ahead."

"Prof. Isaac Witz is the father of the tumor microenvironment. Decades of his relentless work created a paradigm shift in thinking which continues to impact cancer research and benefit patients," stated Sujuan Ba, Ph.D., co-Chair of the Selection Committee, and President and CEO of NFCR. "His work and legacy are the essence of the Szent-Györgyi Prize and are a perfect fit for NFCR's 50th anniversary celebration on October 21st this year."

"I am beyond fulfilled that my work has led to today's understanding of the TME field and has contributed to the basis of life-saving immunotherapies for patients," exclaimed Prof. Isaac Witz. "I am honored, thrilled and thankful to the 2023 Szent-Györgyi Prize Selection Committee, for bestowing upon me the honor to join the ranks of the previous and illustrious Szent-Györgyi prize winners."

About the National Foundation for Cancer Research

The National Foundation for Cancer Research (NFCR) is a 501(c)(3) non-profit organization co-founded by Dr. Albert Szent-Györgyi, Franklin Salisbury, Sr., and Tamara Salisbury in 1973. NFCR provides scientists in the lab the funding they need to make and apply game-changing discoveries in cancer treatments, detection, prevention, and, ultimately, cures to cancer. NFCR has distinguished itself by emphasizing long-term, transformative research often overlooked by other major funding sources and/or deemed too risky. Since its establishment NFCR has provided \$410 million for cancer research and public education. For more information, visit <http://www.nfcr.org>.

About the Szent-Györgyi Prize for Progress in Cancer Research

The Szent-Györgyi Prize for Progress in Cancer Research was established by the National Foundation for Cancer Research in honor of its co-founder, Albert Szent-Györgyi, M.D., Ph.D., recipient of the 1937 Nobel Prize for Physiology and Medicine. The award recognizes outstanding scientists whose seminal discovery or pioneering body of work has contributed to cancer prevention, diagnosis, or treatment and has had a lasting impact on understanding cancer, holding the promise of improving or saving the lives of cancer patients. Its past recipients (and their associated institutions at the time of the award) are:

- Rakesh Jain, Ph.D., Massachusetts General Hospital and Harvard Medical School, 2022
- Mark M. Davis, Ph.D., Stanford University School of Medicine, and Tak W. Mak, Ph.D., University of Toronto and Princess Margaret Cancer Centre, 2021
- Susan Band Horwitz, Ph.D., Albert Einstein College of Medicine, 2020
- Steven A. Rosenberg, M.D., Ph.D., U.S. National Cancer Institute, 2019
- Douglas R. Lowy, M.D., and John T. Schiller, Ph.D., U.S. National Cancer Institute, 2018
- Michael N. Hall, Ph.D., Biozentrum of the University of Basel, 2017
- Mary-Claire King, Ph.D., University of Washington School of Medicine, 2016
- Frederick W. Alt, Ph.D., Boston Children's Hospital and Harvard Medical School, 2015
- James Allison, Ph.D., University of Texas MD Anderson Cancer Center, 2014 and Nobel Laureate 2018
- Alex Matter, M.D., Experimental Therapeutics Centre and A*STAR, 2013
- Zhu Chen, M.D., Ph.D. and Zhen-Yi Wang, M.D., Shanghai Jiao Tong University School of Medicine, 2012
- Beatrice Mintz, Ph.D., Fox Chase Cancer Center, 2011
- Peter K. Vogt, Ph.D., Scripps Research Institute, 2010
- Ronald A. DePinho, M.D., Dana-Farber Cancer Institute and Harvard Medical School, 2009
- Carlo M. Croce, M.D., The Ohio State University, 2008
- Webster K. Cavenee, Ph.D., Ludwig Institute for Cancer Research, University of California San Diego, 2007
- Harold F. Dvorak, M.D., Harvard Medical School and Beth Israel Deaconess Medical Center, 2006

The 2023 Szent-Györgyi Prize's selection committee was comprised of the following persons, each an authority in the field of cancer research:

- Chair Rakesh Jain, Ph.D., Massachusetts General Hospital and Harvard Medical School (2022 winner)
- Co-Chair Sujuan Ba, Ph.D., National Foundation for Cancer Research
- Lon Cardon, Ph.D., The Jackson Laboratory
- Webster Cavenee, Ph.D., Ludwig Institute for Cancer Research, University of California San Diego (2007 winner)
- Carlo M. Croce, M.D., The Ohio State University (2008 winner)
- Michael N. Hall, Ph.D., Biozentrum of the University of Basel (2017 winner)
- Mary-Claire King, Ph.D., University of Washington School of Medicine (2016 winner)
- Raju Kucherlapati, Ph.D., Harvard Medical School
- Doug Lowy, Ph.D., National Cancer Institute (2018 winner)
- Tak Mak, Ph.D., Princess Margaret Cancer Centre; University of Toronto (2021 winner)
- Elaine Mardis, Ph.D., The Ohio State University
- Dan Theodorescu, M.D., Ph.D., Samuel Oschin Comprehensive Cancer Institute at Cedars-Sinai
- Peter K. Vogt, Ph.D., Scripps Research (2010 winner)

The Szent-Györgyi Prize Dinner and Award Ceremony is part of the daylong Global Summit and Award Ceremonies for Cancer Research & Entrepreneurship. Media and the public are invited and encouraged to attend. [Learn more about this event.](#)

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