CYTO VANCOUVER

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Irving Weissman, MD
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Dr. Weissman is the Founder and Director of the Stanford institute for stem cell biology and regenerative medicine (SCBRM) since 2002, the Director of the Stanford Ludwig Center for Cancer Stem Cell Research, and the former director of the Stanford cancer center. To develop new therapies based on scientific discoveries from his group including, Weissman co-founded SyStemix 1988-1996, StemCells in 1996-2017, and Cellerant in 2001-9. In 2015He founded Forty Seven Inc. for clinical development of immunotherapies and is the Director of the Company. Additionally, Dr. Weissman was a member of the founding Scientific Advisory Boards of Amgen (1981-1989), DNAX (1981-1992), and T-Cell Sciences (1988-1992).

His research on hematopoiesis, hematologic malignancies and solid tumors has led to several discoveries and the development of new therapies. These include the isolation and transplantation of pure hematopoietic stem cells (HSCs) and the demonstration that, upon transplantation, pure HSCs can regenerate the entire blood and immune system in a host without causing graft vs. host disease. At SyStemix he co-discovered the human hematopoetic stem cell and at StemCells, he co-discovered a human central nervous system stem cell. With SyStemix, he led clinical trials in the 90s that demonstrated the therapeutic potential and beneficial outcomes of transplanted purified, cancer-free HSC for women with metastatic breast cancer who received high dose chemotherapy.

Those earlier studies on HSCs and hematopoiesis served as a foundation for the biological definition and prospective isolation of human leukemia stem cells [LSC]. Next, by comparing LSC to HSC, Weissman discovered CD47 as a ‘don’t eat me’ signal used by leukemias and all

other human cancers to evade innate immunity. Binding of CD47 to SIRPα, its receptor on macrophages, inhibits phagocytosis, and blocking this interaction with anti CD47 antibodies unleashes phagocytosis of cancer cells by macrophages. Weissman then led the clinical development of CD47 blockade as a new cancer immunotherapy and to the establishment of forty seven inc. In phase-I clinical trials significant therapeutic anti-cancer effects were achieved, remarkably complete remissions were observed with a combination therapy of anti CD47 and Rituximab in lymphoma patients who failed all other therapies. The results were published in the New England Journal of Medicine (NEJM) in 2018.

Professor Weissman is a member of the National Academy of Sciences, the Institute of Medicine at the National Academy, and the American Association of Arts and Sciences. He has received many awards, including the Kaiser Award for Excellence in Preclinical Teaching, the Pasarow Award in Cancer Research, the California Scientist of the Year, the De Villiers International Achievement Award of the Leukemia Society of America, the Robert Koch Award, the Rosenstiel Award, The max Delbruck Medal, and the Jessie Stevenson Kovalenko Award of the National Academy of Sciences. He is also the 2004 New York Academy of Medicine Award for distinguished contributions to biomedical research, and has several honorary doctorates.