

Prof. Shimon Slavin

Cell Therapy and Cancer

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Professor of Medicine

Scientific & Medical Director

The International Center for Cell Therapy & Cancer (ICTC)

Prominent World Expert for the treatment of cancer and life threatening non-malignant disorders

Shimon Slavin graduated at the Hadassah Hebrew University School of Medicine in Jerusalem and got his degree in 1967. He served as the doctor of the Frogman Unit in the Israeli Navy until 1970. He specialized in internal medicine (1970-1975) and subsequently specialized in clinical immunology at Stanford University, Palo Alto, California USA and Seattle's Bone Marrow Transplant Center at the Fred Hutchinson's Cancer Research Center, Seattle, Washington USA for three years. Upon returning to Israel in 1978, he opened the first bone marrow transplantation (BMT) unit, which since then was officially recognized as Israel's National Bone Marrow Transplantation Center. Dr Slavin established and served until recently as Professor and Chairman of the Department of Bone Marrow Transplantation and the Research Center he established at the Hadassah University Hospital in Jerusalem in 1980 as the first center for stem cell transplantation in Israel. The BMT center attracts patients and training medical teams from all over the world. Dr. Slavin trained medical teams from all continents and helped establish new transplant centers in Singapore, Thailand, India, Turkey, Cyprus, Russia, Bulgaria, Chile and Argentina.

Dr. Slavin introduced successfully the use of donor lymphocyte infusion (DLI) in early 1987 and pioneered the use of adoptive allogeneic cell-mediated immunotherapy and cytokine activated lymphocytes, for both treatment and prevention of relapse following allogeneic and autologous stem cell transplantation for hematologic malignancies and solid tumors, using more recently tumor cell vaccines and specifically immune donor lymphocytes. In the past few years the research and clinical activity of the unit has grown exponentially and now he is now involved in developing new approaches for induction of transplantation tolerance of host-vs-graft and graft-vs-host towards developing improved methods for allogeneic blood or marrow transplantation as well as transplantation of cellular and perfused organ allografts and xenografts. In parallel, new therapies based on up-regulation of the immune responses are being developed for improved cancer therapy and AIDS, while newer approaches for down-regulation of the immune system are being introduced for immunotherapy of autoimmunity and induction of transplantation tolerance to organ allografts.

Dr. Slavin at Hadassah was the first to recognize the tremendous therapeutic potential involved in adoptive allogeneic cell therapy, introducing the use of donor blood lymphocytes and lymphocytes activated in vivo and/or in vitro with recombinant cytokines (e.g. rIL-2 and α Interferon) to eliminate tumor cells resistant to conventional anti-cancer modalities. His initial successful studies in curing bone marrow transplant recipients that failed all alternative conventional modalities utilizing allogeneic Cell Therapy (alloCT) resulted in the opening of an entirely new field in medicine based on the use of allogeneic blood lymphocytes with many potential clinical implications for cancer, autoimmune diseases, organ transplantation and infectious diseases caused by hepatitis viruses and AIDS. These observations lead to development of new concepts for the treatment of hematologic malignancies, focusing on utilizing non-myeloablative stem cell transplantation for induction of host-vs-graft tolerance as a platform for outpatient alloCT, as replacement for conventional bone marrow transplantation protocols based on aggressive lethal conditioning associated with immediate and long-term procedure related risks as a mean to cure cancer.

Baxter Healthcare Corporation recognized the potential of Cell Therapy and signed an agreement which resulted in major investment with Dr. Slavin at Hadassah for further development of new approaches based on cell therapy for the treatment of cancer, autoimmunity and AIDS, subsequently organ transplantation as well, based on new approaches for regulation of the immune system. Slavin and his team are committed to clinically related basic science and pre-clinical studies in animal models of human disease as well as clinical research focusing on immunotherapy and other biologic therapies, aiming to develop innovative cost-effective modalities for a larger number of patients in need, by bringing the best of basic science and biotechnology to the patient's bedside.

More recently, stem cells are being developed at Slavin's laboratory for tissue repair including new production and repair of bone and

cartilage as well as for the treatment of neurological and cardiovascular disorders.

More recently, Slavin established a new center of excellence in Tel Aviv, the International Center for Cell Therapy & Cancer immunotherapy [ICTC]. This center is devoted to develop and apply innovative approaches for the treatment of cancer and life threatening non-malignant disorders, including the use of stem cells for regenerative medicine. Patients from all over the world are welcome and an operation of the new center in Satellites abroad is currently in the pipelines.

Dr Slavin authors 4 books and more than 600 scientific publication. As a scientist and clinician, he is committed to bring the best of basic science at the patient's bedside trying to introduce new modalities for unmet needs for the treatment of malignant and a long list of non-malignant diseases including autoimmune disorders. He serves on many editorial boards and national and international advisory boards. He received many international awards for excellence in recognition of his excellence in basic science and clinical medicine, introducing the concepts of cell-mediated immunotherapy from the bench to the patient's bedside, focusing on DLI and more recently NST. These methods paved the road for cure for the majority of patients with hematological malignancies in need and similar modalities are now being successfully pioneered for the treatment of patients with metastatic solid tumors. Slavin's contributions represent a major step forwards towards large scale clinical application of targeted, personalized anti-cancer treatment for hematological malignancies and metastatic solid tumors, and more recently, using bone marrow derived stem cells for multi-disciplinary regenerative medicine.