CURRICULUM VITAE - ISAAC P. WITZ, Ph.D.

Date and Place of Birth: November 7, 1934, Vienna, Austria

Academic Education:

| 1959 - M.Sc. | Hebrew University, Jerusalem. Microbiology, Biochemistry, Parasitology |
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| 1965 - Ph.D. | Hebrew University, Jerusalem |
| | Post-doctoral Training: |
| 1965 - 1968 | Cancer Research Scientist, Roswell Park Memorial Institute |
| | (with Dr. David Pressman), Buffalo, New York, Tumor Immunology |

Ranks in Academic or Research Institutions:

| Kanks in Acade | mic of Research institutions. |
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| 1968 - 1969 | Lecturer of Immunology, Tel Aviv University |
| 1969 - 1972 | Senior Lecturer of Immunology, Tel Aviv University |
| 1972 - 1975 | Associate Professor of Immunology, Tel Aviv University |
| Aug 73-Feb 74 | Visiting Professor, Dept. of Medicine, School of Medicine, University of California, |
| | San Francisco |
| Feb 74-Jan 75 | Visiting Professor (Eleanor Roosevelt Fellow), Dept. of Tumor Biology, Karolinska |
| | Institute, Stockholm, Sweden |
| 1975 - | Professor of Immunology, Tel Aviv University |
| 1978 - 1979 | Consultant and Visiting Scientist, Division of Cancer Treatment, National Cancer |
| | Institute, National Institutes of Health, Bethesda, MD, USA |
| 1989 - 1990 | Visiting Professor, Center for Molecular Medicine and Immunology, Newark, NJ, |
| | USA. |
| Feb-Oct 1991 | Visiting Scientist, Lab. of Tumor Cancer Biology, Div. of Cancer Treatment, NCI, |
| | NIH, Bethesda, Maryland, USA |
| Mar 98-Dec 99 | Visiting Professor of Immunology, John Wayne Cancer Institute, Santa Monica, CA, |
| | USA. |
| Mar 00-Aug 00 | Visiting Professor, Institute for Cancer Research, University of Vienna, Austria. |
| June 01-Sept 01 | Visiting Professor, Institute for Cancer Research, University of Vienna, Austria. |
| June 02-Sept 02 | Visiting Professor, Institute for Cancer Research, University of Vienna, Austria. |
| June 04-Sept 04 | Visiting Professor, MD Anderson Cancer Center, Houston, TX, USA |
| Nov 04-Feb 05 | Visiting Professor, MD Anderson Cancer Center, Houston, TX, USA |
| July 05-Sept 05 | Visiting Professor, Institute for Cancer Research, University of Vienna, Austria. |
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Professional Occupations:

| 1969 - 1972 | Chairman, Department of Microbiology, Tel Aviv University |
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| 1979 - 1984 | Head, Tel Aviv University Cancer Biology Research Center |
| 1979 - 1984 | Dean, George S. Wise Faculty of Life Sciences, Tel Aviv University |
| 1979 - 1987 | Member of the Managing Council, Board of Directors, Tel Aviv Univ. |
| 1979 - 1989 | Member of Board of Governors, Tel Aviv University |
| 1981 - 1986 | Council Member of the European Association of Cancer Research |
| 1982 - 1989 | Director, The Moise and Frida Eskenasy Institute for Cancer Research, Tel Aviv |
| | University |
| 1982 - 1989 | Member of Editorial Board - Leukemia Reviews |

| 1984 - 1987 | Vice President for Research and Development, Tel Aviv University |
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| 1984 - 1987 | Chairman - Board of Directors, Ramot, Tel Aviv University Authority for Applied |
| | Research and Industrial Development |
| 1984 - 1987 | Member of the Board of Directors, The Belfer Center for Energy |
| | Research Tel Aviv. |
| 1984 - 1992 | Member of Executive Council of Ramot, Tel Aviv University Authority for Applied |
| | Research and Industrial Development |
| 1986 - 1988 | Chairman, The Scientific Reviews Committee, The Landau Prize, Mifal Hapais, |
| | Israel |
| 1986 - 1989 | President, Israel Immunological Society |
| 1986 - 1989 | Council Member of the International Union of Immunological Societies (IUIS) |
| 1991 - 1993 | Founding Chairman, Department of Cell Research and Immunology, Tel Aviv Univ. |
| 1994 - 1997 | Committee Chairman, French-Israeli Scientific Cooperation in Immunology |
| 1994 - 1997 | Member, Honorary Degrees Committee, Tel Aviv University |
| 1995 - 1999 | Member, Research Council, Tel Aviv University |
| 1996 - 1999 | Member, Committee for Nominations and Promotions, Tel Aviv University |
| 1997 - 2000 | Member, Board of Governors, Tel Aviv University |
| 1998 -2001 | Head, The Cancer Biology Research Center, Tel Aviv University |
| 1992 -2003 | Head, The Ela Kodesz Institute for Research on Cancer Development and |
| | Prevention, Tel Aviv University |
| 1981 - | Member of Executive Council and Board of Governors of the Israel Cancer |
| | Association |
| 1982 - | Academic Organizer - The Annual Otto Herz Memorial Lectureship in Cancer |
| | Research - TAU. |
| 1995 - | Founding Member, Middle Eastern Cancer Society |
| 1995 - | Member, Advisory Committee - Association of Biological Societies of Israel |
| 1996 - | Founding Member and Chairman of Steering Committee, International Cancer |
| | Microenvironment Forum |
| 1998 - | Member, Scientific Committee of the German-Israeli Cooperation (Deutsches |
| | Krebsforschungszentrum - Ministry of Science) in Cancer Research |
| 2002 - | Consultant, German-Israeli Foundation for Scientific Research & Development |
| 2002- | Member, National Human Experimentation Ethics Committee |
| 2003- | Special Consultant for "Human Immunology" – Dana Foundation, New York, NY, |
| | USA |
| 2003- | Scientific Adviser - Dan David Prize, Tel Aviv University |
| 2003- | President, International Cancer Microenvironment Society |
| 2005- | Editorial Board - Clinical & Experimental Metastasis |
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Membership in Scientific Societies: Israel Immunological Society, American Association for Cancer Research, The Transplantation Society, The American Association of Immunologists, European Association for Cancer Research, The International Cytokine Society, The International Society for Interferon and Cytokine Research, The International Metastasis Research Society, The International Cancer microenvironment Society (Founding president).

Awards and Fellowships:

1960 Gurevitch Award, Hebrew University, Jerusalem, Israel

Anne Frank Fellowship to enable research in Villejuif, France
Eleanor Roosevelt International Cancer Fellowship
Incumbent: The David Furman Chair of Cancer Immunobiology Tel Aviv University
Fogarty Scholar in Residence, NIH, Bethesda, Md., USA
Elected Member of the World Academy of Art and Science
The Jacqueline Seroussi Award for Cancer Research

Isaac P. Witz, Ph.D.

Publications from 2001

- 152. Geminder H, Sagi-Assif O, Goldberg L, Meshel T, Rechavi G, Witz IP, and Ben-Baruch A. A possible role for CXCR4 and its ligand, the CXC chemokine stromal cell-derived factor-1, in the development of bone marrow metastases in neuroblastoma. J Immunol. 167: 4747-4757, 2001.
- Witz, I.P. Presence and functions of immune components in the tumor microenvironment. Progress in Basic and Clinical Immunology. Adv Exp Med Biol. 495: 317-324, 2001.
- 154. Eshel, R., Besser, M., Zanin, A., Sagi-Assif, O., and Witz, I.P. The FX enzyme is a functional component of lymphocyte activation. Cell. Immunol. 213: 141-148, 2001.
- 155. Eshel, R., Zanin, A., Kapon, D., Sagi-Assif, O., Brakenhoff, R., van Dongen, G. and Witz, I.P. The human Ly-6 antigen E48 (Ly-6D) regulates important interaction parameters between endothelial cells and head and neck squamous carcinoma cells. Int. J Cancer 98: 803-810, 2002.
- 156. Neumark, E., Cohn, M.A., Lukanidin, E., Witz, I.P. and Ben-Baruch, A. Possible coregulation of genes associated with enhanced progression of mammary adenocarcinomas. Immunol. Letters 82: 111-121, 2002.
- 157. Witz, I.P. The tumour microenvironment Introduction. Semin Cancer Biol. 12: 87-88, 2002.
- 158. Eshel, R., Neumark, E., Sagi-Assif, O., and Witz, I.P. Receptors involved in microenvironment-driven molecular evolution of cancer cells. Semin. Cancer Biol. 12: 139-47, 2002.
- 159. Kahana, O., Micksche, M., Witz, I.P. and Yron, I. The focal adhesion kinase (P125^{FAK}) is constitutively active in human malignant melanoma. Oncogene 21: 3969-3977, 2002.
- 160. Izraeli, S., Witz, I. and Micksche, M. Cancer research--from bench to bedside. Isr. Med. Assoc. J. 4: 746-748, 2002.
- 161. Levy-Nissenbaum, O., Sagi-Assif, O., Hantisteanu, S., Raanani, P., Avigdor, A., Ben-Bassat, I. and Witz, I.P. PYST2, a MAPK dual specificity phosphatase is regulated by microenvironmental factors. Proc. 2nd Int. Conf. on Tumor Microenvironment, Progression, Therapy and Prevention, Baden, Austria. Isaac P. Witz, Ed., Monduzzi Editore, S.p.A., Bologna, Italy, pp. 11-17, 2002.
- 162. Kahana, O., Micksche, M., Witz, I.P. and Yron, I. The possible role of focal adhesion kinase (P125^{FAK}) in the malignancy of human melanoma. Proc. 2nd Int. Conf. on Tumor Microenvironment, Progression, Therapy and Prevention, Baden, Austria. Isaac P. Witz, Ed., Monduzzi Editore, S.p.A., Bologna, Italy, pp. 89-94, 2002.
- 163. Hantisteanu, S., Levy-Nissenbaum, O., Sagi-Assif, O., Raanani, P., Avigdor, A., Ben-Bassat, I. and Witz, I.P. Adherence up regulates expression of PYST2-L in myeloid leukemia cells. Proc. 2nd Int. Conf. on Tumor Microenvironment, Progression, Therapy and Prevention, Baden, Austria. Isaac P. Witz, Ed., Monduzzi Editore, S.p.A., Bologna, Italy, pp. 95-100, 2002.

- 164. Neumark, E., Witz, I.P. and Ben-Baruch, A. Mammary adenocarcinoma progression: potential role of inter-relationships between MCP-1, GM-CSF and TNF alpha. Proc. 2nd Int. Conf. on Tumor Microenvironment, Progression, Therapy and Prevention, Baden, Austria. Isaac P. Witz, Ed., Monduzzi Editore, S.p.A., Bologna, Italy, pp. 109-114, 2002.
- 165. Neumark, E., Sagi-Assif, O., Shalmon, B., Ben-Baruch, A. and Witz, I.P. The progression of mouse mammary tumors: a MCP-1 TNF α cross-regulatory pathway and a clonal expression of pro-malignancy and anti-malignancy factors. Int. J. Cancer, 106: 879-86, 2003.
- 166. Levy-Nissenbaum, O., Sagi-Assif, O., Raanani, P., Avigdor, A., Ben-Bassat, I. and Witz, I.P. Over expression of the dual-specificity MAPK phosphatase PYST2 in acute leukemia. Cancer Letters, 199: 185-92, 2003.
- 167. Levy-Nissenbaum, O., Sagi-Assif, O., Kapon, D., Hantisteanu, S., Burg, T., Raanani, P., Avigdor, A., Ben-Bassat, I. and Witz, I.P. The dual-specificity phosphatase PYST2 is constitutively highly expressed in myeloid leukemia and other malignant cells. Oncogene, 22: 7649-7660, 2003.
- 168. Levy-Nissenbaum, O., Sagi-Assif, O., Raanani, P., Avigdor, A., Ben-Bassat, I. and Witz, I.P. cDNA microarray analysis reveals an over expression of the dual-specificity MAPK phosphatase PYST2 in acute leukemia. Meth. Enzymology, 366: 103-113, 2003.
- 169. Levy-Nissenbaum, O., Sagi-Assif, O. and Witz, I.P. Characterization of the dual-specificity phosphatase PYST2 and its transcripts. Genes, Chromosomes and Cancer, 39: 37-47, 2004.
- 170. Nevo, I., Sagi-Assif, O., Geminder, H., Goldberg-Bittman, L., Ben-Menachem, S., Shalmon, B., Goldberg, I., Ben-Baruch A. and Witz, I.P. The tumor microenvironment: CXCR4 is associated with distinct protein expression patterns in neuroblastoma cells. Immunol. Letters, 92:163-169, 2004.
- 171. Levy-Nissenbaum, O., Barak, E., Burg, T., Sagi-Assif, O., Kloog Y. and Witz I. P. Does the dual-specificity MAPK Phosphatase Pyst2-L lead a monogamous relationship with the Erk2 protein? Immunol. Letters, 92:149-156, 2004.
- 172. Goldberg-Bittman, L., Neumark, E., Sagi-Assif, O., Azenshtein, A., Meshel, T., Witz, I.P. and Ben-Baruch, A. The expression of the chemokine receptor CXCR3 and its ligand, CXCL10, in human breast adenocarcinoma cell lines. Immunol. Letters, 92:171-178, 2004.
- 173. Zipin, A., Israeli-Amit, M., Meshel, T., Sagi-Assif, O., Yron, I., Lifshitz, V., Bacharach, E., Smorodinsky, N.I., Many, A., Czernilofsky, P.A., MortonD.L. and Witz, I.P. Tumor-microenvironment interactions. The fucose-generating FX enzyme controls adhesive properties of colorectal cancer cells. Cancer Res. 64: 6571-6578, 2004.
- 174. Goldberg-Bittman L, Sagi-Assif O, Meshel T, Nevo I, Levy-Nissenbaum O, Yron I, Witz IP, Ben-Baruch A. Cellular characteristics of neuroblastoma cells: regulation by the ELR(-)-CXC chemokine CXCL10 and expression of a CXCR3-like receptor. Cytokine, 29: 105-117, 2005.
- 175. Witz IP. The involvement of selectins and their ligands in tumor-progression. Immunol Lett. 104: 89-93, 2006.
- 176. Levy-Nissenbaum O, Ben-Menachem S, Sagi-Assif O, Witz IP. The Pyst2-L phosphatase is involved in cell-crowding. Immunol Lett. 104: 138-45, 2006.
- 177. Witz IP. Tumor-microenvironment interactions: the selectin-selectin ligand axis in tumor-endothelium cross talk. Cancer Treat Res. 130: 125-40, 2006.
- 178. Witz IP, Levy-Nissenbaum O. The tumor microenvironment in the post-PAGET era. Cancer Lett. 242: 1-10, 2006.
- 179. Zipin A, Meshel T, Sagi-Assif O, Shalmon B, Witz IP, Ben-Baruch A. CXCL10 promotes invasion-related properties in colorectal carcinoma cells. Cancer Res. 67: 3396-405, 2007.
- 180. Witz IP. Yin-yang activities and vicious cycles in the tumor microenvironment. Invited Review. Cancer Res. 2007. In preparation.