

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed for Form Page 2.
Follow the sample format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME		POSITION TITLE	
Benjamin Bonavida		Professor	
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
University of California, Los Angeles	B.A.	1964	Microbiology
University of California, Los Angeles	Ph.D.	1968	Immunochemistry
The Weizman Institute of Science	Postdoctoral Fellow	1969-1971	Immunochemistry

A. Positions and Honors.

Employment

1969-1971	The Weizman Institute of Science, Postdoctoral Fellow (Immunochemistry of nucleic acids)
1971-1978	Assistant Professor, Department of Microbiology and Immunology, UCLA School of Medicine
1978-1983	Associate Professor, Department of Microbiology and Immunology, UCLA School of Medicine
1996-1997	Interim Chair, Department of Microbiology and Immunology, UCLA School of Medicine
1983-Present	Professor, Department of Microbiology and Immunology, UCLA School of Medicine

Other Experience

- Immunochemistry, Molecular Biology, Purification of Cytotoxic Factors, Cellular Immunology, Cancer Immunology, Immunochemistry, Molecular Immunology.
- Editorial Board: International Journal of Oncology, Cellular Pharmacology, Natural Immunity, Journal of National Cancer Institute, Biotherapy, Journal of Clinical Immunology, International Journal of Oral Biology.

Honors

1979-1980	Member of the Ad Hoc Committee of Experimental Immunology Study Section
1980-1983	Member of the Advisory Committee "Clinical Investigation in Immunology & Immunotherapy - ACS
1984-1988	Member of the Study Section "Allergy and Immunology," NIH
1984-1992	Ad Hoc Member of NIH
1992-1995	Member of the Study Section NIAAA - NIH
1995-Present	Ad Hoc Member of NIH and the DOD

B. Selected peer-reviewed publications.

- Mizutani Y, Yoshida O, and **Bonavida B.** Sensitization of human bladder cancer cells to Fas-mediated cytotoxicity by cis-diamminedichloroplatinum (II). *J. Urol.* 160:561-570, (1998).
- Mori S, Murakami-Mori K, and **Bonavida B.** Dexamethasone enhances expression of membrane and soluble interleukin-6 receptors by prostate carcinoma cell lines. *Anticancer Res.* 18:4403-4408, (1998).
- Garban H. and **Bonavida B.** Nitric oxide sensitizes ovarian tumor cells to Fas induced Apoptosis. *Gynecol. Oncol.* 73:257-264, (1999).
- Murakami-Mori K, Mori S, **Bonavida B.**, and Nakamura S. Implication of TNFR-1 mediated ERK1/2 activation in growth of AIDS-associated Kaposi's sarcoma cells: a possible role of a novel death domain protein MADD in TNF- α -induced ERK1/2 activation in Kaposi's sarcoma cells. *J. Immunol.* 162: 3672-3679, (1999).
- Mori M, Murakami-Mori K, Nakamura S, Ashkenazi A, and **Bonavida B.** Sensitization of AIDS-Kaposi's sarcoma cells to Apo-2 ligand (Apo-2L)-induced apoptosis by actinomycin D. *J. Immunol.* 162:5616-5623, (1999).
- Mori S, Murakami-Mori K, and **Bonavida B.** Interleukin-6 induces G1 arrest through induction of p27 Kip1, a cyclin dependent kinase inhibitor, and neuron-like morphology in LNCaP prostate tumor cells. *BBRC* 257:609-614, (1999).
- Bonavida B.**, Ng C-P, Jazirehi A, Schiller G, and Mizutani Y. Selectivity of Trail-mediated apoptosis of cancer cells and synergy with drugs: The trail to non-toxic cancer therapeutics (Review). *Int. J. Onc.* 15:793-802, (1999).
- Murakami-Mori K, Mori S, and **Bonavida B.** Molecular Pathogenesis of AID associated Kaposi's Sarcoma : Growth and Apoptosis. *Advances in Cancer Research.* 78: 159-197, (2000).
- Itakura M, Mori S, Park N-H, **Bonavida B.** Both HPV and carcinogen contribute to the development of resistance to apoptosis during oral carcinogenesis. *Int. J. Onc.* 16:591-597, (2000).

- Frost,P, and **Bonavida B.** Circumvention of Tumor Escape Following Specific Immunotherapy. Cancer Biother. Radiopharm. 15:141-152, (2000).
- Bonavida B** and Mizutani Y. Cancer cells develop immune resistance rather than causing immune paralysis: Novel approaches in immunotherapy. Biotherapy Today. 7:16-23, (2000).
- Alas S, **Bonavida B,** and Emmanouilides C. Potentiation of fludarabine cytotoxicity on non-Hodgkin's Lymphoma by Pentoxifylline and Rituximab. Anticancer Res 20:2961-2966, (2000).
- Mizutani Y, Nakao M, Ogawa O, Yoshida O, **Bonavida B,** and Miki T. Enhanced Sensitivity of Bladder Cancer Cells to Tumor Necrosis Factor Related Apoptosis Inducing Ligand (TRAIL) Mediated Apoptosis by Cisplatin and Carboplatin. J. Urol. 165:263-270, (2001).
- Alas S, Emmanouilides C, and **Bonavida B.** Inhibition of Interleukin 10 by Rituximab results in Down-regulation of Bcl-2 and sensitization of B-cell non-Hodgkin's lymphoma to apoptosis. Clin. Cancer Res. 7:709-723, (2001).
- Frost P, Butterfield L, Dissette V, Economou J, and **Bonavida B.** Immunosenitization of Melanoma Tumor Cells to Non-MHC Fas-Mediated Killing by MART-1 specific CTL cultures. J. Immunol. 166:3564-3573, (2001).
- Garban H and **Bonavida B.** Nitric Oxide disrupts H2O2-dependent activation of NF-κB: Role in Sensitization of human tumor cells to TNF-α-induced cytotoxicity. J. Biol. Chem. 276(12):8918-8923, (2001).
- Bechtel MK and **Bonavida B.** Inhibitory Effects of 17β-Estradiol and Progesterone on Ovarian Carcinoma Cell Proliferation: A Potential Role for Inducible Nitric Oxide Synthase. Gynecol. Oncol. 82:127-138, (2001).
- Garban H and **Bonavida B.** Nitric Oxide Inhibits the Transcription Receptor Yin-Yang 1 Binding Activity at the Silencer Region of the Fas Promoter: A Pivotal Role for Nitric Oxide in the Upregulation of Fas Gene expression in Human Tumor Cells. J. Immunol. 167:75-81, (2001).
- Alas S and **Bonavida B.** Rituximab Inactivates Signal Transducer and Activation of Transcription 3 (STAT3) Activity in B-Non-Hodgkin's Lymphoma through Inhibition of the Interleukin 10 Autocrine/Paracrine Loop and Results in Down-Regulation of Bcl-2 and Sensitization to Cytotoxic Drugs. Cancer Res. 61:5137-5144, (2001).
- Mizutani Y, Ogawu O, Yoshida O, Fukushima M, **Bonavida B,** and Miki T. Immunosenitization of Established and Primary Resistant Renal Cell Carcinoma Cells to TRAIL-mediated Apoptosis by 5-Fluoruracil. Eur. J. Cancer. (in press).
- Ng C-P, Zisman A, and **Bonavida B.** Synergy is achieved by complementation with Apo2L/TRAIL and Actinomycin D in Apo2L/TRAIL-mediated apoptosis of prostate cancer cells: Role of XIAP in resistance. Prostate. (submitted).

C. Research Support.

1. Immunological and Molecular Research with Ultra High Dilutions: Molecular Signaling & Synergistic Immun-Stimulating Activities

Principal Investigator: Bonavida

Agency: Boiron Research Foundation

Type: H870219

Period: 9/1/99-8/31/02

2. UCLA Center for Dietary Supplement Research Project: Immunological Effects of Fractions of Echinacea

Principal Investigator: Bonavida

Agency: NIH/NCCAM

Type: P50 AT00151-03

Period: 9/30/99-7/31/04

3. Mechanism by which Rituximab sensitizes non-Hodgkin's lymphoma to chemo-therapeutic drugs

Principal Investigator: Bonavida

Agency: Genentech, Inc.

Type: NI-01020293 (Project 2)

Period: 4/1/01-4/1/02

4. Mechanism by which Rituximab regulates IL-10 gene transcription and sensitization of tumor cells to TNF, Fas, and TRAIL-mediated apoptosis

Principal Investigator: Bonavida

Agency: Genentech, Inc.

Type: NI-01041297 (Project 1)

Period: 2/1/01-4/1/02

5. Regulation of TRAIL-Mediated Apoptosis in Prostate Cancer by Overexpression of XIAP

Principal Investigator: Bonavida

Agency: DOD/US Army PCRP

Type: DAMD 17-02-10023

Period: 12/15/01-12/14/04