Stanford

Michal Bental Roof

Academic Prog Prof 3, Pediatrics - Cardiology

NIH Biosketch available Online

CONTACT INFORMATION

- **Alternate Contact**

  Michelle Fox - BASE Operations Manager

  Email mfox1@stanford.edu

  Tel 650-723-8239

SUPERVISORS

- Marlene Rabinovitch

Bio

CURRENT ROLE AT STANFORD

I joined the Cardiopulmonary Research Program of Drs. Rabinovitch and Bland at Stanford University in 2002, as the Academic and Research Program Officer, and since 2020 assumed my role at the Basic Science and Engineering (BASE) Initiative at the Betty Irene Moore Children's Heart Center, directed by Dr. Rabinovitch. I organize the educational activities of the lab, and assist the faculty and fellows with the preparation of grant proposals, IRB, APLAC and Biosafety protocols, manuscripts, and presentations. I served as the Site Coordinator for the Stanford Transplant Procurement Center of the Pulmonary Hypertension Breakthrough Initiative (PHBI), headed by Dr. Rabinovitch,that now evolved into the Stanford Transplant Tissue Bank. In this capacity, I oversee patient recruitment, data collection and reporting, and ensure compliance with university and federal guidelines. I coordinated and prepared the application for an Investigational New Drug (IND) and the pre-IND meeting that preceded that, for Elafin as a therapy for pulmonary arterial hypertension (PAH) to the FDA in August 2017, and with the Study PIs coordinated the Phase 1 clinical trial “Safety and Tolerability of Escalating Doses of Subcutaneous Elafin (Tiprelestat) Injection in Healthy Normal Subjects” that followed.

From 2005-2015, I served as the Administrative Coordinator of the Cardiovascular and Pulmonary Science Scholarly Concentration for medical students at Stanford University School of Medicine. This includes facilitating communication of the four co-Directors with the School of Medicine Administration, the medical students, and the faculty mentors. An important component of this role is the coordination of the MED223 course, a medical school course where faculty and fellows present new developments in cardiovascular science in the form of a journal club. From 2013-2018, I was the coordinator for the NIH-NHLBI T32 “Mechanisms and Innovation in Vascular Disease” (PI: RL Dalman), and from 2013 to date for NIH-NHLBI K12 HL120001 “Stanford Career Development Program in ‘Omics’ of Lung Disease”. (PIs: M Rabinovitch, MR Nicolls and MP Snyder). This included recruitment of candidates, oversight of training activities, ensuring compliance with NIH and Stanford policies, and acting as a liaison between the trainees and the Directors to facilitate effective communication.

Prior to joining Stanford, I was Associate Director (Scientific Development Administrator) at the Institute for Medicine and Engineering, directed by Dr. Peter Davies at the University of Pennsylvania. In this role, I was the liaison with federal funding agencies and organized multi-investigator program projects and training grants.

INSTITUTE AFFILIATIONS

- Member (Staff), Cardiovascular Institute

HONORS AND AWARDS

- Chaim Weizmann Fellowship for postdoctoral studies, Chaim Weizmann Fellowship Committee, Israel (1990)
- Feinberg Graduate School Distinction Award for Ph.D. students, Weizmann Institute of Science, Rehovot, Israel (1990)
- Wolf Foundation Scholarship for Ph.D. students, Weizmann Institute of Science, Rehovot, Israel (1987)
- Fellow, Netherlands-Israel Foreign Ministry Student Exchange Program (Univ of Groningen), Netherlands-Israel Foreign Ministry Student Exchange Program (1984-1985)
- Feinberg Graduate School Special Distinction Award for M.Sc. students, Weizmann Institute of Science, Rehovot, Israel (1983)

EDUCATION AND CERTIFICATIONS

- Certificate, Wharton School of Business, University of Pennsylvania, Philadelphia, PA , Business Administration (2000)
- Post Doctoral training, University of Pennsylvania School of Medicine, Philadelphia, PA , Physiology (1996)
- PhD, The Weizmann Institute of Science, Rehovot, Israel , Life Sciences (Thesis research carried out at the Department of Physical Chemistry and the Department of Biochemistry) (1990)
- MSc, The Weizmann Institute of Science, Rehovot, Israel , Life Sciences (1983)
- BSc, The Hebrew University of Jerusalem, Jerusalem, Israel , Chemistry (1980)

SERVICE, VOLUNTEER, AND COMMUNITY WORK

- Volunteer with FIRST Robotics (2011)
- Sequoia High School Education Foundation Board Member (7/1/2011 - 6/30/2019)
- Sequoia High School Alumni Association Purple Patriot Award Winner, 2019-2020
- Cipriani After School Care, Board Member (9/1/2006 - 7/1/2009)
- Peninsula Temple Beth El, RS Board/Education Committee Member (6/1/2006 - 6/1/2008)

Professional

WORK EXPERIENCE

- Associate Director - Scientific Development Administrator - Institute for Medicine and Engineering (IME), University of Pennsylvania (7/1/1996 - 6/15/2002)
- Teaching Assistant - Teaching Assistant, The Faculty of Agriculture, Hebrew Univ. of Jerusalem, Rehovot, Israel (10/1/1988 - 5/1/1990)

Publications

PUBLICATIONS

- **On-line studies of activation events in primary human T lymphocytes.** *ImmunoMethods*
  BENTAL, M., DEUTSCH, C.
  1994; 4 (2): 148-162
- **F-19-NMR STUDY OF PRIMARY HUMAN T-LYMPHOCYTE ACTIVATION - EFFECTS OF MITOGEN ON INTRACELLULAR PH** *AMERICAN JOURNAL OF PHYSIOLOGY*
  BENTAL, M., DEUTSCH, C.
  1994; 266 (2): C541-C551
- **METABOLIC CHANGES IN ACTIVATED T-CELLS - AN NMR-STUDY OF HUMAN PERIPHERAL-BLOOD LYMPHOCYTES** *MAGNETIC RESONANCE IN MEDICINE*
  BENTAL, M., DEUTSCH, C.
  1993; 29 (3): 317-326

- **HYDROLYSIS OF POLYPHOSPHATES AND PERMEABILITY CHANGES IN RESPONSE TO OSMOTIC SHOCKS IN CELLS OF THE HALOTOLERANT ALGA DUNALIELLA** *PLANT PHYSIOLOGY*
  Weiss, M., BENTAL, M., Pick, U.
  1991; 97 (3): 1241-1248

- **INVIVO PH REGULATION BY A NA+/H+ ANTIPORTER IN THE HALOTOLERANT ALGA DUNALIELLA-SALINA** *PLANT PHYSIOLOGY*
  Katz, A., BENTAL, M., Degani, H., AVRON, M.
  1991; 96 (1): 110-115

- **POLYPHOSPHATE METABOLISM IN THE ALGA DUNALIELLA-SALINA STUDIED BY P-31-NMR** *BIOCHIMICA ET BIOPHYSICA ACTA*
  BENTAL, M., Pick, U., AVRON, M., Degani, H.
  1991; 1092 (1): 21-28

- **POLYPHOSPHATE-HYDROLYSIS - A PROTECTIVE MECHANISM AGAINST ALKALINE STRESS** *FEBS LETTERS*
  Pick, U., BENTAL, M., CHITLARU, E., Weiss, M.
  1990; 274 (1-2): 15-18

- **METABOLIC STUDIES WITH NMR-SPECTROSCOPY OF THE ALGA DUNALIELLA-SALINA TRAPPED WITHIN AGAROSE BEADS** *EUROPEAN JOURNAL OF BIOCHEMISTRY*
  BENTAL, M., Pick, U., AVRON, M., Degani, H.
  1990; 188 (1): 111-116

- **THE ROLE OF INTRACELLULAR ORTHOPHOSPHATE IN TRIGGERING OSMOREGULATION IN THE ALGA DUNALIELLA-SALINA** *EUROPEAN JOURNAL OF BIOCHEMISTRY*
  BENTAL, M., Pick, U., AVRON, M., Degani, H.
  1990; 188 (1): 117-122

- **NA-23-NMR STUDIES OF THE INTRACELLULAR SODIUM-ION CONCENTRATION IN THE HALOTOLERANT ALGA DUNALIELLA-SALINA** *PLANT PHYSIOLOGY*
  BENTAL, M., Degani, H., AVRON, M.
  1988; 87 (4): 813-817

- **P-31 AND C-13-NMR STUDIES OF THE PHOSPHORUS AND CARBON METABOLITES IN THE HALOTOLERANT ALGA, DUNALIELLA-SALINA** *PLANT PHYSIOLOGY*
  BENTAL, M., ORENSHAMIR, M., AVRON, M., Degani, H.
  1988; 87 (2): 320-324

- **CA-2+-INDUCED FUSION OF LARGE UNILAMELLAR PHOSPHATIDYLSERINE CHOLESTEROL VESICLES** *BIOCHIMICA ET BIOPHYSICA ACTA*
  BENTAL, M., Wilschut, J., Scholma, J., Nir, S.
  1987; 898 (2): 239-247

- **PROMOTION AND INHIBITION OF VESICLE FUSION BY POLYLYSINE** *BIOCHEMISTRY*
  Gad, A. E., BENTAL, M., ELYASHIV, G., Weinberg, H., Nir, S.
  1985; 24 (22): 6277-6282

- **CA-2+-INDUCED FUSION OF PHOSPHATIDYLSERINE VESICLES - MASS-ACTION KINETIC-ANALYSIS OF MEMBRANE LIPID MIXING AND AQUEOUS CONTENTS MIXING** *BIOCHIMICA ET BIOPHYSICA ACTA*
  Wilschut, J., Scholma, J., BENTAL, M., Hoekstra, D., Nir, S.
  1985; 821 (1): 45-55

- **CA-2+-INDEPENDENT, PROTEIN-MEDIATED FUSION OF CHROMAFFIN GRANULE GHOSTS WITH LIPOSOMES** *BIOCHIMICA ET BIOPHYSICA ACTA*
  BENTAL, M., Lelkes, P. I., Scholma, J., Hoekstra, D., Wilschut, J.
  1984; 774 (2): 296-300