BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors. Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

NAME: Elisa Robles Escajeda

eRA COMMONS USER NAME (credential, e.g., agency login): erobles3

POSITION TITLE: Post-Doctoral Researcher

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
Universidad Autónoma de Cd. Juárez Chih. México	M.D	12/2002	Medical Doctor
University of Texas at El Paso. El Paso Texas	B.S.	05/2011	Microbiology
University of Texas at El Paso. El Paso Texas	Ph.D.	05/2017	Pathobiology

A. Personal Statement

The goal of the proposed RCMI U54 grant is to decrease Hispanic cancer health disparities and to generate new knowledge that will inform future research and improve the clinical outcomes and standards of care in cancer patients in Hispanic populations primarily of Mexican origin. For this grant, my efforts will be focused on the analysis of cancer tissue and the assessment of the drug sensitivity models. I will also aid in the collection of tissue for the UTEP biorepository. I have significant clinical and research experience, expertise and training to successfully complete the proposed research grant. The current project builds logically on my previous experience with drug-screening, protein expression and cell signaling in cancer cells. I will take the necessary steps to collect information from different resources, plan the experiments and integrate the information to publish in peer-reviewed journals. Moreover, as a young investigator this grant would enhance my experience and skills focusing in health disparities.

B. Positions and Honors

Positions and Employment

2001-2002 Medical internship at the Instituto Mexicano del Seguro Social (IMSS) in México.

2002-2003 Medical Doctor in charge of the Municipal Clinic at the town of Praxedis G. Guerrero in the state

of Chihuahua México.

2004-2009 Private practice in General and Family Medicine in México.

2009-2011 Research Assistant at BBRC at The University of Texas at El Paso.

2017-Present Post-Doctoral Researcher at BBRC, Biological Sciences at The University of Texas at El Paso.

Other Experience and Professional Memberships

2008 - 2011	ASM "American Society for Microbiology"
2010- 2011	SACNAS "Advancing Hispanics/Chicanos & Native Americans in Science"
2010- 2012	ASBMB "The American Society for Biochemistry and Molecular Biology"
2011- 2013	ASCB "The American Society for Cell Biology"
2016- 2017	AAI "The American Association of Immunologists"
2019-Present	ISBER "International Society for Biological and Environmental Biorepositories"

Honors

1999	Annual Award to the "Complete Student". UACJ.
2001	Honor roll in medical internship at the Instituto Mexicano del Seguro Social.
1997-2000	Scholarship from the UACJ for the "Academic Excellence" toward M.D. students.
2011-2012	The Minorities Affairs Committee (MAC) Travel Award for The ASCB Annual meeting.
2012-2016	The Compact for Faculty Diversity Travel Award (2012, 2013, 2014, 2015 and 2016)
2009-2011	RISE Scholar Undergraduate (Research Initiative for Scientific Enhancement Program)
2011-2015	RISE Scholar Graduate 2011-2015 (Research Initiative for Scientific Enhancement Program at
	UTEP)

C. Contributions to Science

- 1) My main publications are focused in the study of proteins that could serve as a biomarkers and therapeutic targets for leukemia and lymphoma. I demonstrate that prohibitin proteins are markedly upregulated in leukemia/lymphoma cell lines and patient samples, and promote cell survival. In addition, we studied the mechanism of action of novel compounds in hematopoietic malignancies and their effects on cell signaling pathways. These publications show how the upregulation of specific proteins will cause an antiapoptotic effect in the cells and how we can target them for therapeutic intervention.
 - a) Blanca E. Ruiz-Medina, Dennise Lerma, Michael Hwang, Jeremy A. Ross, Rachid Skouta, Renato J. Aguilera, Robert A. Kirken, Armando Varela-Ramirez, Elisa Robles-Escajeda. 'Green barley mitigates cytotoxicity in human lymphocytes undergoing aggressive oxidative stress, via activation of both the Lyn/PI3K/Akt and MAPK/ERK pathways'. Scientific Reports, April 2019, 9(1):6005.
 - b) Elisa Robles-Escajeda, Dennise Lerma, Alice M. Nyakeriga, Jeremy A. Ross, Robert A. Kirken, Renato J. Aguilera, Armando Varela-Ramírez. 'Searching in Mother Nature for anti-cancer activity: anti-proliferative and pro-apoptotic effect elicited by Green Barley on leukemia/lymphoma cells'. PLOS ONE, September 2013, Volume 8, Issue 9, e73508.
 - c) Elisa Robles-Escajeda*, Jeremy A. Ross*, Derrick M. Oaxaca, Diana L. Padilla and Robert A. Kirken. 'The Prohibitin Protein Complex Promotes Mitochondrial Stabilization and Cell Survival in Hematologic Malignancies' Oncotarget, July 2017, Volume 8, No.39, pp 65445-65456.
 - d) Yahaira Santiago-Vazquez, Swagatika Das, Umashankar Das, Elisa Robles-Escajeda, Nora M. Ortega, Carolina Lema, Armando Varela-Ramírez, Renato J. Aguilera, Jan Balzarini, Erik De Clercq, Stephen G. Dimmock, Dennis K.J. Gorecki, Jonathan R. Dimmock. 'Novel 3, 5-bis (arylidene)-4-oxo-1-piperidinyl dimers: Structure-activity relationships and potent Antileukemic and Antilymphoma cytotoxicity' European Journal of Medicinal Chemistry, March 2014, Volume 77, pp 315-322.
- 2) We directly documented the results of the screening for novel anticancer drugs in cancer cells like breast, cervical, prostate, leukemia and brain cancer. In addition, we provide evidence of the effect in the gender origin of cell lines (female or male) when screening for antineoplasic drugs. The results demostrated that there is greater sensitivity for the male-derived when compared with female-derived cells highliting the necessity to account for the gender of cell lines in prospective sreenings.
 - a) Elisa Robles-Escajeda, Umashankar Das, Nora M. Ortega, Karla Parra, Giulio Francia, Jonathan R. Dimmock, Armando Varela-Ramirez, Renato J. Aguilera. 'A novel Curcumin-like Dienone induces

- apoptosis in triple-negative Breast Cancer cells' Cellular Oncology, June 2016, Volume 39, Issue 3, pp 265–277.
- b) Lisa L.R. Hartman, Derrick M. Oaxaca, Benjamin Carcamo, Harry L. Wilson, Jeremy A. Ross, Elisa Robles-Escajeda and Robert A. Kirken. 'Integration of a Personalized Molecular Targeted Therapy into the Multimodal Treatment of Refractory Early Childhood ETMR (Embryonal tumor with multilayered rosettes)'. Case Reports in Oncology, February 2019, Volume 12, pp 211-217.
- c) Jose F. González-Pantoja, Michael Stern, Andrzej A. Jarzecki, Eva Royo, Elisa Robles-Escajeda, Armando Varela-Ramírez, Renato J. Aguilera, Maria Contel. 'Titanocene-Phosphine Derivatives as Precursors to Cytotoxic Heterometallic TiAu2 and TiM (M=Pd, Pt) Compounds. Studies of their Interactions with DNA' Inorganic Chemistry. September 2011, Volume 50, Issue 21, pp 11099-11110.
- d) Larissa M. Nunes, Elisa Robles-Escajeda, Yahaira Santiago-Vazquez, Nora M. Ortega, Carolina Lema, Almendra Muro, Gladys Almodovar, Umashankar Das, Swagatika Das, Jonathan R. Dimmock, Renato J. Aguilera, Armando Varela-Ramirez. *'The Gender of Cell Lines Matters When Screening for Novel Anti-Cancer Drugs'* The AAPS Journal, May 2014, Volume 16, Issue 4, pp 872-874.
- e) Elisa Robles-Escajeda, Alberto Martínez, Armando Varela-Ramírez, Roberto A. Sánchez-Delgado, Renato J. Aguilera. 'Analysis of the cytotoxic effects of Ruthenium-Ketoconazole and Ruthenium-Clotrimazole complexes on cancer cells' Cell Biology and Toxicology. December 2013, Volume 29, Issue 6, pp 431-443.
- 3) In addition to the contributions described above, with a team of collaborators we studied the mechanism of neurotransmitter transporter ubiquitination for endocytosis and sorting of cargo into lysosomes in the glycine transporter 1 (GlyT1) showing for the first time that PKC-dependent GlyT1 phosphorylation was not affected by removal of ubiquitination sites.
 - a) Susana P. Barrera, Vicente Castrejon-Tellez, Margarita Trinidad, Elisa Robles-Escajeda, Javier Vargas-Medrano, Armando Varela-Ramirez, Manuel Miranda-Arango. 'PKC-dependent GlyT1 Ubiquitination Occurs Independent of Phosphorylation: Inespecificity in Lysine Selection for Ubiquitination' PLOS ONE, September 2015, Volume 10, Issue 9, e0138897.

D. Additional Information: Research Support and/or Scholastic Performance

Ongoing Research Support

The Lizanell and Colbert Coldwell Foundation Robles (PI) 06/01/18-06/31/20 "Identification of novel antiapoptotic protein signaling complexes as new therapeutic targets for the treatment of hematological malignancies".

Role: PI

5U54MD007592 Kirken (PI) 08/02/19-02/29/24

Border Biomedical Research Center

UTEP-Border Biomedical Research Center (BBRC)-U54 Clinical Research Project. "Developing Diagnostic and Therapeutic Strategies to Reduce Hispanic Cancer Disparities Using Genetic, Molecular and Physiological Signatures from Mexican origin Cancer Patients".

Role: Co-PI