

**BIOGRAPHICAL SKETCH**

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NAME <b>JAIME L. MATTA</b>		POSITION TITLE <b>PROFESSOR</b>	
eRA COMMONS USER NAME			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
University of Puerto Rico, Mayaguez	B.S.	1978	Biology
University of Puerto Rico, Mayaguez	M.S.	1982	Marine Sciences
University of California, Los Angeles	D.Sc.	1987	Biology
University of California, Los Angeles	Ph.D.	1988	Biology
University of California, Santa Barbara	Postdoct. Fellow	1988-91	Biology

**A. Positions and Honors****PROFESSIONAL EXPERIENCE**

- 1983 University of California, San Diego  
Staff Research Associate I, Marine Biology Research Division  
Scripps Institution of Oceanography  
University of California, San Diego
- 1988-92 University of California President's Postdoctoral Fellow  
University of California, Santa Barbara, Dept. of Biological Sciences  
Santa Barbara, California
- 1992-94 Assistant Research Professor in Environmental Toxicology  
Department of Pharmacology and Toxicology  
Ponce School of Medicine, Ponce, Puerto Rico
- 1994-96 Assistant Professor  
Department of Pharmacology and Toxicology  
Ponce School of Medicine, Ponce, Puerto Rico
- 1995-00 Director, RCMI Environmental Toxicology Program  
Ponce School of Medicine, Ponce, Puerto Rico
- 1996- Associate Professor  
Department of Pharmacology and Toxicology  
Ponce School of Medicine, Ponce, Puerto Rico
- 2000-04 Chairman  
Department of Pharmacology and Toxicology  
Ponce School of Medicine, Ponce, Puerto Rico
- 2002- Professor  
Department of Pharmacology and Toxicology  
Ponce School of Medicine, Ponce, Puerto Rico

## HONORS AND AWARDS

Marquis Who's Who in Science and Engineering (2005-2006)  
American Cancer Society Institutional Research Grant Review Committee (ACS-IRG) for the H. Lee Moffitt Cancer Center & Research Institute (2004)  
Ad Hoc Reviewer for MBRS-SCORE Program grant applications, University of Puerto Rico, Medical Sciences Campus (2004)  
Adjunct Professor, Department of Dermatology, University of Puerto Rico, School of Medicine, Medical Sciences Campus (2005)  
Marquis Who's Who in Science and Engineering (2004-2005)  
Affiliate Member, H. Lee Moffitt Cancer Center & Research Institute, Tampa, Florida (2004)  
American Association for Cancer Research (AACR)-Minority-Serving Institution (MSI) Faculty Scholar Award in Cancer Research (2004)  
Cancer Session Moderator, 8<sup>th</sup> RCMI International Symposium on Health Disparities, Honolulu, Hawaii, December 8-11, (2002)  
Promoted to Professor, Department of Pharmacology and Toxicology, Ponce School of Medicine (2002)  
Member of Editorial Board, *Biological Trace Element Research* (peer-reviewed international journal) (2001-currently)  
Recipient of Bockus International Society Research Grant Award (2000-2001)  
Chairman, Dept. of Pharmacology and Toxicology, Ponce School of Medicine, (2000-2004)  
Member, Puerto Rico Cancer Center, (2000-currently)  
Ad Hoc Reviewer for *Biological Trace Element Research* (1998, 1999, 2000)  
Recipient FAR Research Grant for Faculty Development, NASA, Washington, D.C. (1998)

## MEMBERSHIP IN PROFESSIONAL SOCIETIES

American Association for Cancer Research (AACR) , American College of Toxicology (ACT), American Society of Photobiology (ASP), Association for Medical School Pharmacology Chairs (AMSPC)  
H. Lee Moffitt Cancer Center Affiliate Member, International Society for Free Radical Research (ISFRR)  
Society of Toxicology (SOT), Society for Free Radical Biology and Medicine (SFRBM)

## EDITORIAL BOARDS

Biological Trace Element Research

### **B. Selected peer-reviewed publications (1994-2004 only)**

1. **Matta, J.L.** and T.R. Tosteson. 1994. Oxygen-derived free radicals as regulators of toxicity in the benthic dinoflagellate *Ostreopsis lenticularis*. Proceedings of the Sixth International Conference on Toxic Marine Phytoplankton, Nantes, France, October, 1993.
2. **Matta, J.L.** and T.R. Tosteson. 1995. Preliminary studies on the role of oxygen-derived free radicals and lipid peroxidation in ciguatera poisoning. International Symposium on Ciguatera and Marine Natural Products held in South Kohala, Hawaii, August 8-10, 1994, pp. 109-120.
3. **Matta, J.L.** and D.J. Chapman. 1995. Effects of light, temperature and desiccation on the net emersed productivity of the intertidal macroalga *Colpomenia peregrina* Sauv. (Hamel) *Journal Experimental Marine Biology & Ecology*, 189-13-27.
4. **Matta, J.L.**, Nazario, C.M., Armstrong, R.A. and J. Navas. 1998. Epidemiological trends in skin cancer melanoma in Puerto Rico from 1975-1991. *Bulletin Medical Association of Puerto Rico* 90:221-224.
5. **Matta, J.L.**, Milad, M., Manger, R. and T. Tosteson. 1999. Heavy metals, lipid peroxidation and ciguatera toxicity in the liver of the Caribbean barracuda (*Sphyraena barracuda*). *Biological Trace Element Research* 70:69-79.
6. Rojas, C. Matos, B. Reymunde, A. Santiago, N. and **J. L. Matta**. 2001. Hepatitis C patients in Puerto Rico have an altered iron balance. *Biological Trace Element Research* 84:239-245.

7. **Matta, J. L.**, Navas, J., Milad, M., Manger, R., Hupka, A. and T. Frazer. 2002. A pilot study for the detection of acute ciguatera intoxication in human blood. *Journal of Toxicology-Clinical Toxicology*, 40:1-9.
8. Gonzalez, M.J., Mora, E.M., Miranda-Massari, J.R., **Matta, J.** Riordan, H.D. and N.H. Riordan. 2002. Inhibition of human breast carcinoma cell proliferation by ascorbate and copper. *Puerto Rico Health Science Journal* 21:21-23.
9. **Matta, J.L.**, Villa, J.L., Ramos, Juan M., Sanchez, J., Chompré, G., Ruiz, A. and L. Grossman. 2003. DNA repair and non-melanoma skin cancer in Puerto Rican populations. *Journal of the American Academy of Dermatology* 49(3):433-439.
10. Ramos, J.M., Ruiz, A., Colen, R., Lopez, I.D., Grossman, L., and **J.L. Matta**. 2004. DNA repair and breast cancer susceptibility in women. *Cancer*. 100(7):1352-1357.
11. Ramos, J., Villa, J., Ruiz, A., Armstrong, R., and **J. L. Matta**. UV dose determines key characteristics of non-melanoma skin cancer. *Cancer Epidemiology, Biomarkers & Prevention*. *Cancer Epidemiology, Biomarkers & Prevention* 13(12):2006-2010.
12. **Matta, J.L.**, Ramos, J.M., Armstrong, R. A. and H. D'Antoni. 2005. Environmental UVA and UVB Threshold Doses for Apoptosis and Necrosis in Human Fibroblasts. *Photochem Photobiology*. 81(3):563-568.
13. Phelan, M.A. **Matta, J.L.**, Reyes, Y.M., Fernando, R., Norcross, M.A. and R.S. Blanquet. 2005. The blue mesogleal protein of the mangrove jellyfish, *Cassiopea xamachana*, has a golden variant. *Marine Biology*, published online, December 16, 2005.
- C. **Matta, J.L.**, Ramos, J., Armstrong, R. and H. D'Antoni. Response of human fibroblasts to very low doses of environmental UV radiation. *Caribbean Journal of Dermatology and Therapeutics* (accepted, in press).

### **C. Completed Research Support**

1. 5 G12 RR03050-20 Matta (PI) 9/1/2001-8/31/03  
NIH/NCRR/RCMI  
DNA repair and susceptibility to UV-induced basal and squamous cell carcinoma in Puerto Rican populations.  
The goals of this research were:  
**a)** Determine the DNA repair capacity of adults (controls) without skin cancer in Puerto Rican populations. **b)** Determine the DNA repair capacity of skin cancer (BCC and SCC) patients and compare them with non-skin cancer adults.
2. 1U50-OH0755101 10/01/03 – 09/30/04  
North Carolina Agromedicine Institute  
Preventing skin diseases in Fishermen and Farm workers.

The goal of this research is to: Develop educational material addressing different skin disorders common among fishermen and farmers. ***This will create awareness in these populations of methods that they can utilize to decrease their risk of skin diseases.***

3. U50-OHO7551-04 09/30/04 – 09/29/05  
North Carolina Agromedicine Institute  
Factors associated with injuries and illness in Puerto Rican agricultural farmers  
The goals of this research were to:  
**a)** Develop a questionnaire directed to our population of farmers and agricultural worker that elicits exposure to biological, chemical, environmental agents and health and injuries related to their work. The questionnaire will be developed in Spanish (culturally relevant) because this is the native language in Puerto Rico, and an English version for the grant. **b)** Administration of this questionnaire to a small sample (n=15) will allow us to collect the first data on risk factors for injuries and diseases related to Puerto Rican farmers and agricultural workers. This small sample population will be used to validate the questionnaire.

A collaborator epidemiologist will evaluate the final version of the questionnaire. **c)** Statistical analysis will be used to identify the most common injuries and disease that affect our population of agricultural workers with the sample of the population of 15. **d)** These will focus the attention on the agricultural health and safety and will provide basis for the future development of educational material to reduce occupational health and injuries risk.

4. 5 G12 RR03050-20 9/1/2003-8/31/06  
NIH/NCRR/RCMI

DNA repair and susceptibility to skin cancer in Puerto Rican populations

The goals of this study were:

- a) Specific aim 1:** Determine the DNA repair capacity of adults without skin cancer (controls) in Puerto Rican populations. **b) Specific aim 2:** Determine the DNA repair capacity of non-melanoma (BCC and SCC) skin-cancer patients and compare them with controls. **c) Specific aim 3:** Determine the DNA repair capacity of melanoma skin-cancer patients and compare them with controls.

5. National Genomics Center, H. Lee Moffitt Cancer Center 06/01/03 -12/30/04  
Discovery of gene targets for melanoma skin cancer in Puerto Rican populations.

The goals of this research were to:

- Determine the patterns of gene expression in the four types of melanoma skin cancer (superficial spreading, nodular, acral, and lentigo maligna melanoma). **These studies will provide the first data available on changes in gene expression associated with melanoma in a Hispanic population exposed to high UV radiation throughout the year.**
- Determine if there are different patterns of gene expression between the radial growth and vertical growth within each type of melanoma. **These studies will provide information about how changes in gene expression are associated with growth characteristics of malignant melanocytes.**

### Ongoing Research Support

1. MBRS/SCORE: S06 GM 08239-20 6/01/06 - 5/30/09

DNA repair and gene expression associated with susceptibility to breast carcinoma

The goals of this research are to:

- Compare the DNA repair capacity (DRC) in women with and without breast carcinoma in Puerto Rico using a host cell reactivation assay that provides a direct measurement.
- Obtain epidemiological data from participants in order to determine risk factors for breast carcinoma.
- Compare whether the levels of expression of DNA repair genes is correlated with the DNA repair capacity of women with breast carcinoma.
- Examine whether tumor grade and size and presence of axillary lymph node metastasis are associated with the level of DNA repair capacity and levels of expression of DNA repair genes.

2. PSM-Moffitt Cancer Center Partnership 6/01/06-5/30/09

1U56CA126379-01

Cutaneous human papillomavirus infection and non-melanoma skin cancer in the U.S. and Puerto Rico

The goals of this research are to

- Obtain blood specimens and questionnaire data from 100 NMSC cases from the University of South Florida dermatology clinic in Tampa, FL and 100 cases from Puerto Rico in one year, which will include prospectively recruiting 100 NMSC cases in Tampa and recontacting 56 NMSC cases who have already being recruited for a skin cancer study in Puerto Rico.
- Using both prospectively obtained and archived samples, measure levels of antibodies to the L1 proteins of 14 Genus Beta HPV types (5, 8, 9, 15, 17, 20, 23, 36, 38, 49, 75, 76, 92, 93) and determine the seroprevalence of these antibodies in a total of 200 NMSC cases and 200 controls.
- Estimate the association between HPV antibodies and NMSC.