

# Maribel Tirado-Gomez, MD

## Contact Information

E-mail (Work UPR) maribel.tirado1@upr.edu

E-mail (Work CCC) mtirado@cccupr.org

## Education and Medical Training

Fellowship 2002-2005  
Hematology and Medical Oncology  
University of Texas MD Anderson Cancer Center  
Houston, Texas

Residency 1998-2000  
Internal Medicine  
Adult University Hospital  
San Juan, Puerto Rico

Internship, 1997-1998  
Adult University Hospital  
Puerto Rico Medical Center  
San Juan, Puerto Rico

Doctor in Medicine 1993-1997  
University of Puerto Rico School of Medicine  
San Juan, Puerto Rico

Undergraduate 1988-1992  
B.S. Biology  
University of Puerto Rico, Rio Piedras Campus  
San Juan, Puerto Rico

## **Clinical Appointments**

Active Medical Staff  
Oncology and Hematology  
UPR Comprehensive Cancer Center  
May 2018 - Present

Active Medical Staff  
Oncology and Hematology Staff  
University District Hospital  
2005-Present

## **Academic Appointments**

Associate Professor  
Department of Medicine  
University of Puerto Rico  
Medical Sciences Campus  
2018 - Present

Adjunct Assistant Professor  
Department of Surgical Oncology  
MD Anderson Cancer Center  
2005-Present

## **Administrative Appointments**

Training Program Director  
Hematology and Medical Oncology Fellowship  
University of Puerto Rico  
Medical Sciences Campus  
August 2009-Present

Vice-Chairman  
Institutional Review Board  
University of Puerto Rico Comprehensive Cancer Center  
July 2016 -Present

President  
Pharmacy Committee  
University of Puerto Rico Comprehensive Cancer Center  
October 2018 - Present

President Medical Faculty  
University of Puerto Rico Comprehensive Cancer Center

September 2018-March 2021

Chief Resident of Internal Medicine  
Department of Medicine  
University of Puerto Rico

June 2000 - June 2001

### **Other Work Experience**

Research Assistant  
Neurobiology Laboratory  
Dr. Jose E. Garcia-Arrarás  
Department of Biology  
Rio Piedras Campus  
University of Puerto Rico

August 1992-June 1993

### **Professional Societies**

American Academy of Cancer Research  
American Society of Hematology  
American Society of Clinical Oncology  
AHOMPR (Asociación de Hematología y  
Oncología Medica de Puerto Rico)

### **Certifications**

Medical Oncology (2008), Recertified 2018  
Hematology (2009), recertified 2018

### **Citizenship**

US Citizen

### **Languages**

Spanish (Spoken, written)  
English (Spoken, written)

## Abstracts

1. Ortega J, Tirado-Gomez M, Cabanillas F, Rivera-Rodriguez N, Torres C, Ortiz, K. Epidemiologic findings of non-Hodgkin lymphoma (NHL) in Puerto Rico (PR). ASCO Anual Meeting 2013 Abstract #e19505
2. Tirado-Gomez M, Munoz C, Cordero P, Fonseca S, Bernabe R, Lacourt M, Rivera N, Cotto M, Ortiz E, Acosta M. DNA methylation status of MLH1, p16, SOCS1, ER and CDH1 in Puerto Rican patients with acute myeloid leukemia. AACR Annual Meeting 2012 Abstract #5569.
3. M. Cotto, F. Cabanillas, G. Garcia-Manero, H. Yang, M. Bruno, O. A. Pavia, E. Rivera, I. Liboy, M. Tirado-Gomez. Epigenetic therapy with valproic acid, an HDAC inhibitor, in refractory/relapsed non-Hodgkin lymphoma (NHL) and Hodgkin disease. 2011 ASCO Annual Meeting June 3-7, 2011 Abstract # 8056
4. Hughes DC, Tirado-Gomez M, Vallejo L, Gonzalez V, Trevino R, Villanueva G, Basen-Engquist, K. Comparing Determinants of Current Physical Activity in Puerto Rican, Mexican-American, and non-Hispanic White Breast Cancer Survivors. 2011 AACR Conference on The Science of Cancer Health Disparities in Racial/Ethnic Minorities and the Medically Underserved September 18-21, 2011. Abstract #B57.
5. Tirado-Gomez M, Munoz C, Cordero P, Bernabe R, Lacourt M, Rivera N, Cotto M. DNA methylation status of MLH1, p16 and SOCS1 in Puerto Rican patients with acute myeloid leukemia. AACR 2011 Apr 2-6, 2011. Abstract #2766.
6. Hughes DC, Tirado-Gomez M, Vallejo L, Gonzalez V, Trevino R, Villanueva G, Basen-Engquist K. Comparing Determinants of Current Physical Activity in Puerto Rican, Mexican-American, and non-Hispanic White Breast Cancer Survivors. CPRIT Annual Conference November 15-17, 2011.
7. Tirado-Gomez M, Munoz C, Cordero P, Fonseca S, Bernabe R, Lacourt M, Rivera N, Cotto M. DNA Methylation status of MLH1, p16, ER, CDH1 and SOCS1 in Puerto Rican patients with acute myeloid leukemia NCI Translational Science Meeting: From Molecular Information to Cancer Medicine July 28th 2011. Abstract #65.
8. Tirado-Gomez M, Munoz C, Cordero P, Fonseca S, Bernabe R, Lacourt M, Rivera N, Cotto M. A pilot study of the DNA methylation status of MLH1, P16, SOCS1, ER and CDH1 in Puerto Rican patients with acute myeloid leukemia. Presented at the Miami

2011 Winter Symposium. Epigenetics in Development and Disease, February 6-9, 2011. Abstract #64.

9. Noridza Rivera, Maribel Cotto, Alberto Lopez, Adry Fernandez , Jean Fradera, Maribel Tirado Eileen Pachecho. T-cell Prolymphocytic Leukemia: A Case Report of a Rare Leukemia. Foro Anual de Investigación del Recinto de Ciencias Médicas 2011.
10. Pardo W, Fernandez A, Fradera J, Tirado M, Pachecho E. Hairy Cell leukemia: A case report of an atypical presentation. Foro Anual de Investigación del Recinto de Ciencias Médicas 2011.
11. Tirado-Gomez M, Bernabe-Dones RD, Lacourt M, Castro-Munoz C, Cotto-Santiago M. Preliminary report on the methylation status of CDKN2A and MLH1 genes in Puerto Rican patients with acute myeloid leukemia. Third AACR Conference on the Science of Cancer Health Disparities in Racial/ Ethnic Minorities and the Medically Underserved September 30-October 3, 2010. Abstract #A92.
12. Trevino RA, Vallejo L, Hughes DC, Gonzalez V, Tirado-Gomez M, Basen-Engquist K. Mexican-American and Puerto Rican breast cancer survivors' perspectives on exercise. Third AACR Conference on the Science of Cancer Health Disparities in Racial/ Ethnic Minorities and the Medically Underserved September 30-October 3, 2010. Abstract #B56.
13. V. Gonzalez, M. Tirado-Gomez, D. Hughes, K. Basen-Engquist. (2010, June) Predictors of exercise adherence and exercise behaviors among a sample of Puerto Rican breast cancer survivors. Oncology Nursing Society 35th Annual Congress, May 13–16, 2010. Abstract #4550
14. Gonzalez V, Velez M, Pedro E, Cruz C, Cotto M, Colon M, Romaguera J, Chevere-Mourino C, Delgado-Mateu LA, Tirado-Gomez, M. Identification of supportive care needs in a sample of Puerto Rican cancer patients with the Supportive Care Needs Survey-34 (SCNS-34) ASCO 2009, electronic abstract e20697, published at the Journal of Clinical Oncology Vol 27 (supplement 1)
15. M. Hidalgo, M. Tirado Gomez, N. Lewis, J. L. Vuky, G. Taylor, J. L. Hayburn, K. Hsu, M. Kosh, V. Picozzi Phase I study of MK-0646, a humanized monoclonal antibody against the Insulin-like growth factor receptor type 1 (IGF1R) in advanced solid tumor patients in a q2 wk schedule ASCO Annual Meeting, May 30-June 3, 2008. Abstract #3520.

16. Ugur Akar, Bulent Ozpolat, Maribel Tirado-Gomez, Nancy Colburn, and Gabriel Lopez-Berestein. PI3K/Akt/mTOR pathway constitutively suppresses expression of programmed cell death 4 (PDCD4) tumor suppressor protein in acute myeloid leukemia and breast cancer cells. AACR Annual Meeting April 14-18, 2007. Abstract # 1229.
17. Ozpolat B, Ugur A, Steiner M, Colburn Nancy, Isabel R. Zorrilla-Calancha, Michael Danilenko, Maribel Tirado-Gomez, and Gabriel Lopez-Berestein. Programmed cell death 4 (PDCD4) tumor suppressor protein is involved in terminal differentiation of myeloid leukemia cells: A novel mechanism of granulocytic cell differentiation. AACR Annual Meeting, April 1-5, 2006. Abstract #2634.
18. Ozpolat, B, Tirado-Gomez M, Collburn NH, Lopez-Berestein G. All-trans-Retinoic acid (ATRA) and Arsenic Trioxide-Induced Expression and Regulation of Programmed Cell Death 4 (PDCD4) in Acute Promyelocytic Leukemia ASH Annual Meeting December 4-7, 2004. Abstract #886.
19. Tsimberidou AM, Tirado-Gomez M, Andreeff M, O'Brien S, Kantarjian HM, Keating MJ, Lopez-Berestein, G, Estey E. Single agent liposomal-encapsulated (Lipo) all-trans retinoic acid (ATRA) can cure patients with untreated acute promyelocytic leukemia (APL): an update and comparison with an ATRA+idarubicin induction regimen ASCO Annual Meeting June 5-8, 2004. Abstract # 6513.

## **Publications**

1. Keller K, Ramos-Cartagena JM, Guiot HM, Muñoz C, Rodríguez Y, Colón-López V, Deshmukh AA, Tirado-Gómez M, Ortiz AP. Association of smoking with anal high-risk HPV infection and histologically confirmed anal high-grade squamous intraepithelial lesions among a clinic-based population in Puerto Rico. *Cancer Treat Res Commun.* 2021 Dec 31;30:(Online ahead of print).
2. Ortiz A, Hughes DC, Mama SK, Tirado-Gomez M, Liao Y, Song J, Gonzalez V, Basen-Engquist K. Effectiveness of a Home-Based Exercise Intervention in the Fitness Profile of Hispanic Survivors of Breast Cancer. *Rehabil Oncol.* 2021 Oct;39(4):175-183
3. Palefsky JM, Lensing SY, Belzer M, Lee J, Gaur AH, Mayer K, Futterman D, Stier EA, Paul ME, Chiao EY, Reirden D, Goldstone SE, Tirado M, Cachay ER, Barroso LF, Da Costa M, Darragh TM, Rudy BJ, Wilson CM, Kahn JA; AIDS Malignancy Consortium and

Adolescent Medicine Trials Network for HIV/AIDS Interventions. High prevalence of anal high-grade squamous intraepithelial lesions, and prevention through human papillomavirus vaccination, in young men who have sex with men living with HIV. *Clin Infect Dis*. 2021 Oct 20;73(8):1388-1396.

4. González-Mercado VJ, Lim J, Yu G, Penedo F, Pedro E, Bernabe R, Tirado-Gómez M, Aouizerat B. Co-Occurrence of Symptoms and Gut Microbiota Composition Before Neoadjuvant Chemotherapy and Radiation Therapy for Rectal Cancer: A Proof of Concept. *Biol Res Nurs*. 2021 Jul;23(3):513-523.
5. Gonzalez-Mercado VJ, Marrero S, Pérez-Santiago J, Tirado-Gómez M, Marrero-Falcón MA, Pedro E, Saligan LN. Association of Radiotherapy-Related Intestinal Injury and Cancer-related Fatigue: A Brief Review and Commentary. *P R Health Sci J*. 2021 Mar;40(1):6-11
6. Mahale P, Weisenburger DD, Kahn AR, Gonsalves L, Pawlish K, Koch L, Tirado-Gomez M, Clarke CA, Alverson G, Shiels MS, Engels EA. Anaplastic large cell lymphoma in human immunodeficiency virus-infected people and solid organ transplant recipients. *Br J Haematol*. 2021 Feb;192(3):514-521.
7. Ramos-Cartagena JM, Pérez CM, Guiot HM, Amaya-Ardilla CP, Tirado-Gómez M, Ortiz AP. Assessment of Anal Cancer Screening Tools in Detecting High-Grade Anal Squamous Intraepithelial Lesions in Women. *J Low Genit Tract Dis*. 2020 Jan;24(1):75-81
8. Medina-Laabes DT, Suarez-Perez EL, Guiot HM, Muñoz C, Colón-López V, Tirado-Gómez M, Ortiz AP. Human Papillomavirus Correlates with Histologic Anal High-Grade Squamous Intraepithelial Lesions in Hispanics with HIV. *J Low Genit Tract Dis*. 2018 Jul 2.
9. Gonzalez VJ, McMillan S, Pedro E, Tirado-Gomez M, Saligan LN. The Health related Quality of Life of Puerto Ricans during Cancer Treatments; A Pilot Study. *PR Health Sci J*. 2018 Mar;37(1):46-51
10. Ortiz A, Tirado M, Hughes DC, Gonzalez V, Song J, Mama SK, Basen-Engquist K. Relationship between physical activity, disability, and physical fitness profile in sedentary Latina breast cancer survivors. *Physiother Theory Pract*. 2018 Jan 10:1-12.
11. Ortega JL, Cabanillas F, Rivera N, Tirado-Gomez M, Hallman D, Pardo WI, Bruno M.

Results of Upfront Therapy for Marginal Zone Lymphoma. *Clin Lymphoma Myeloma Leuk.* 2017 Dec;17(12):879-883

12. De León-Borrás R, Del Pilar-Morales E, Rivera-Pérez N, Pallens-Feliciano M, Tirado-Gómez M, González-Sepúlveda L, Bertran Pasarell J. Factors Associated to Invasive Fungal Infection in Hispanic Patients with Hematological Malignancies. *Boletín de la Asociación Médica de Puerto Rico* 2017 Vol. 109 (1) 43-48.
13. Mama SK, Song J, Ortiz A, Tirado-Gomez M, Palacios C, Hughes DC, Basen-Engquist K. Longitudinal social cognitive influences on physical activity and sedentary time in Hispanic breast cancer survivors. *Psychooncology.* 2017 Feb;26(2):214-221.
14. Palacios C, Daniel CR, Tirado-Gómez M, Gonzalez-Mercado V, Vallejo L, Lozada J, Ortiz A, Hughes DC, Basen-Engquist K. Dietary Patterns in Puerto Rican and Mexican-American Breast Cancer Survivors: A Pilot Study. *J Immigr Minor Health.* 2017 Apr;19(2):341-348
15. Tirado-Gomez M, Hughes DC, Gonzalez-Mercado VJ, Trevino-Whitaker RA, Basen-Engquist K. Physical activity in Puerto Rico breast cancer survivors. *Puerto Rico Health Sciences Journal* 2016 Jun 35(2): 62-8
16. Hughes DC, Tirado-Gomez M, Vallejo L, Gonzalez V, Treviño-Whitaker RA, Villanueva G, Basen-Engquist K. Comparing determinants of physical activity in Puerto Rican, Mexican-American, and non-Hispanic white breast cancer survivors. *Springerplus.* 2015 Aug 13;4:416.
17. Vega-Vázquez MA, Gonzalez-Rodriguez L, Santiago-Rodríguez EJ, Garcés-Domínguez A, Shum LM, Tirado-Gómez M, Ramírez-Vick M. Quality of life-in patients with differentiated thyroid cancer at the general endocrinology clinics of the University Hospital of Puerto Rico. *Bol Asoc Med P R.* 2015 Jan-Mar;107(1):25-31.
18. González VJ, Tirado M, Hughes DC, Pedro E, Velez M. Identification of supportive care needs in a sample of Puerto Rican cancer patients with the supportive care needs survey. *Journal of Nursing Education and Practice* 2015. Vol 5 (9): 32-38.
19. Ortiz-Ortiz KJ, Ortiz-Martínez de Andino JJ, Torres-Cintrón CR, Tirado-Gómez M, González-Falero A, Caballero-Varona D, Ortiz AP, Pérez-Río N. Effect of Type of Health Insurance Coverage on Leukemia Survival in Adults in Puerto Rico. *Puerto Rico Health Sciences Journal* (2014). 33 (3)132-135.



20. Cotto M, Rosado-Orozco K, Rizek R, Fraguada LA, Brunet V, Cerra JJ, Sánchez A, Cabanillas F, Muñoz-Masso C, Tirado-Gómez M, Maldonado N. Clinical and Pathological Features of Colorectal Cancer in Patients at a Community Hospital in Puerto Rico. *Puerto Rico Health Sciences Journal* (2014). 33(2) 65-70.
21. Treviño RA, Vallejo L, Hughes DC, Gonzalez V, Tirado-Gomez M, Basen-Engquist KM. Mexican-American and Puerto Rican breast cancer survivors' perspectives on exercise: similarities and differences. *Journal of Immigrant and Minority Health*. 2012; 2012 Dec;14(6):1082-9.
22. Cotto M, Cabanillas F, Tirado M, Garcia MV, Pacheco E. A review of Epigenetic Therapy of Lymphoma Using Histone Deacetylase Inhibitors. *Clinical and Translational Oncology*, 2010 Jun;12(6):401-9.
23. Ozpolat B, Akar U, Steiner M, Zorrilla-Calanca I, Tirado-Gomez M, Colburn N, Danilenko M, Kornblau S, Lopez Berestein G. Programmed Cell Death-4 Tumor Suppressor Protein Contributes to Retinoic Acid-Induced Terminal Granulocytic Differentiation of Human Myeloid Leukemia Cells. *Molecular Cancer Research* 2007;5(1). January 2007
24. Tsimberidou AM, Tirado-Gomez M, Andreeff M, O'brien S, Kantarjian H, Keating M, Lopez-Berestein G, Estey E. Single-agent liposomal all-trans retinoic acid can cure some patients with untreated acute promyelocytic leukemia: an update of The University of Texas M. D. Anderson Cancer Center Series. *Leukemia Lymphoma*. 2006 Jun;47(6):1062-8
25. Ozpolat B, Tirado-Gomez, M and Lopez-Berestein G. Liposomal all-trans-retinoic acid in the treatment of acute promyelocytic leukemia. *Current Cancer Therapy Reviews* Vol 1(3): 239-250 November 2005
26. Estey E, Koller C, Tsimberidou AM, O'Brien S, Beran M, Cortes J, Tirado-Gomez M, Lopez-Berestein G, Kantarjian H. Potential curability of newly diagnosed acute promyelocytic leukemia without use of chemotherapy: the example of liposomal all-trans retinoic acid. *Blood*. 2005 Feb 1;105(3):1366-1367
27. Harris MN, Ozpolat B, Abdi F, Gu S, Legler A, Muwuenyega KE, Tirado-Gomez M, Lopez-Berestein G, Chen X. Comparative Proteomic Analysis of All-trans-Retinoic Acid Treatment Reveals Systematic Post-Transcriptional Control Mechanisms in Acute

Promyelocytic Leukemia. Blood. 2004 Sep 1;104(5):1314-23.

## **Collaborator Publication**

1. Kahn JA, Lee J, Belzer M, Palefsky JM. AIDS Malignancy Consortium and Adolescent Medicine Trials Network for HIV/AIDS Interventions. HIV-Infected Young Men Demonstrate Appropriate Risk Perceptions and Beliefs about Safer Sexual Behaviors after Human Papillomavirus Vaccination. AIDS Behav. 2018 Jun;22(6):1826-1834.
  - a. AIDS Malignancy Consortium and Adolescent Medicine Trials Network for HIV/AIDS Interventions: E Stier, L Ratner, G Bucher, W Wachsman, E Cachay, A Sitapati, S Goldstone, D Worrall, L Kaplan, M Berry, N Jay, J Palefsky, M Rubin, E Chiao, L Barroso, L Bachmann, M Tirado-Gomez, H Guiot, B Kapogiannis, L Serchuck, N Borek, P Brouwers, S Allison, C Wilson, C Partlow, J Korelitz, B Driver

## **Research Funding**

1. AIDS Malignancy Consortium  
5U01CA121947                      Role: PI  
Period: January 31, 2014 - August 31, 2022  
The purpose of this grant is to run clinical trials in areas of screening, prevention, behavioral and treatment of HIV-related malignancies
2. ANCHOR Study (Anal Cancer HSIL Outcomes Research)  
5U01CA121947                      Role: PI  
Period: September 1, 2016-August 31, 2022  
The purpose of this study is to identify if High Resolution Anoscopy is an appropriate screening tool for anal cancer among HIV patients older than 35 years old.
3. Exercise in Breast Cancer Survivors U54 Pilot Project  
U54 CA 96300                      Role: Co-PI  
Period: April/2009 through August/2013  
The purpose of this study is to design and evaluate an exercise intervention among Hispanic breast cancer survivors. In the first part of the study, questionnaires and focus group were administered in order to obtain an understanding of the barriers to exercise among breast cancer survivors. Using that data, an intervention was developed and tested through a randomized pilot study which includes anthropometric assessments, measurements of strength and flexibility and analysis of biomarkers.

4. Pilot study on DNA Methylation in Puerto Rican acute myeloid leukemia  
ARRA Grant 3 U54 CA096297-07S1  
Funding Period: 1/ October/2009 through 30/September/2011  
The purpose of this study was to develop a serum bank of Puerto Ricans acute myeloid leukemia patients. Also the methylation status of 10 hematopoiesis-related genes was evaluated and their correlation with prognosis and clinical outcomes assessed.
5. CpG Island Methylation to study promoter methylation in Puerto Rican AML  
ARRA Grant U54 CA096297-08S2  
Funding Period: October 09/30/2010 through 09/29/2011

### **Clinical Research**

1. An open-label, dose escalation phase I trial of MK-0646 given as an every other week infusion in patients with relapsed/refractory locally advanced metastatic cancers  
Role: Principal Investigator
2. A Phase 2 Study of Temozolomide (SCH52365) in Subjects with Advanced Aerodigestive Tract Cancers Selected for Methylation of O6 Methyl Guanine-DNA Methyltransferase (MGMT) Promoter  
Role: Co-Principal Investigator
3. A Randomized Double-Blind Phase-2 Study of Anastrozole Plus Lonafarnib (SCH 66336) or Anastrozole Plus Placebo for the Treatment of Subjects with Advanced Breast Cancer  
Role: Co-Principal Investigator
4. Vitamin D/Calcium Polyp Prevention Study  
Role: Co-Principal Investigator
5. A Phase I study of LY573636 in relapsed/refractory acute myeloid leukemia  
Role: Principal Investigator
6. AMC 088: A Randomized, Phase III Study of Intra-anal Imiquimod 2.5% vs. Topical 5-fluorouracil 5% vs. Observation for the Treatment of High-grade Anal Squamous Intraepithelial Lesions in HIV-infected Men and Women  
Role: Principal Investigator

7. ANCHOR Study (Anal Cancer HSIL Outcomes Research)  
Role: Principal Investigator

### **Awards and Honors**

- |           |   |
|-----------|---|
| 2014      | Alpha Omega Alpha Faculty Recognition   |
| 2010      | Minority Serving Institution Faculty Scholar Award at the Third AACR Conference in the Science of Cancer Health Disparities |
| 2004      | Travel Fellowship for Workshop: Molecular Biology in Clinical Oncology<br>Americans Association for Cancer Research         |
| 2000      | Recognition for Work as Internal Medicine Chief Resident  |
| 1997      | Honorable Mention due to Academic Achievement<br>University of Puerto Rico, School of Medicine                              |
| 1992      | Cum Laude Graduate<br>University of Puerto Rico, Rio Piedras Campus   |
| 1988-1989 | Dean's List<br>University of Puerto Rico, Rio Piedras Campus  |

Reviewed: May 2, 2022

*Maribel Sirado Long*