

Prof. Rami I. Aqeilan, Ph.D.

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Born in Jerusalem, Dr. Rami Aqeilan is a Full Professor of Immunology and Cancer Research at the Hebrew University-Hadassah Medical School in Jerusalem. He also holds a Research Professorship in Ohio State University in the Human Cancer Genetics Program and an adjunct Professorship in University of Vermont – Cancer Center.

He began his academic career at the University of Jordan where he received a B.Sc. in biology, followed by a M.Sc. and Ph.D. from the Hebrew University-Hadassah Medical School. Following his graduation, he started a post-doctoral fellowship in the Kimmel Cancer Center at Thomas Jefferson University, Philadelphia-Pennsylvania working on a newly discovered gene named the WW domain-containing oxidoreductase (WWOX). During his post-doctoral tenure, Dr. Aqeilan identified WWOX as a tumor suppressor gene and characterized its biochemical interacting ability with several partners that mediate WWOX tumor suppressor function. In 2005 assumed his first faculty position as a Research Assistant Professor in the Department of Molecular Virology, Immunology and Medical Genetics at the Comprehensive Cancer Center in Ohio State University (Columbus, Ohio). In 2008 he joined the faculty of Medicine at The Hebrew University of Jerusalem.

Dr. Aqeilan has had a long-term interest in the genetic and molecular basis of cancer development. As a cancer biologist, he believed that the best approach against disease is to obtain a better understanding of its molecular basis. Therefore, the ultimate goal of his research is to discover the genes and to elucidate the pathways that represent targets for the development of rational, specific and effective therapeutic approaches to cancer. His research has taken advantage of mouse models, tissue culture and human clinical samples. Most recently, Dr. Aqeilan has been studying the early events contributing to triple negative breast cancer initiation and the contribution of the WWOX gene and its partners toward this malignant disease. Another topic that is of Dr. Aqeilan's research interest is the role of fragile genes in cancer development and how defects in DNA damage response checkpoints is associated with fragile genes. His research is being supported by grants from the Israeli Science Foundation (ISF), Israeli Cancer Research Fund (ICRF), Israeli-American Bi-national Science Foundation (BSF) and European Commission (EC).

Dr. Aqeilan is an editorial board member of the *Journal of Cellular Biochemistry* (JCB), *Cell Death & Disease* (CDDis) and *Carcinogenesis* and has served as an external reviewer for many peer-reviewed journals including *Proceedings of the National Academy of Sciences* of the United States of America, *Cancer Research* and many more. He has authored or co-authored more than 100 original articles. He is the winner of several awards among which is the Kimmel Award for Cancer Research, Ma'of Fellowship, the Bergman Memorial Research Award, the prestigious ERC-consolidator grant and more recently the Youdim Prize for Cancer Research. He is an active member of the American Association for Cancer Research (AACR),

European Association for Cancer Research (EACR) and has spoken nationally and internationally about his own research, focusing on fragile sites and genomic instability in cancer.

Dr. Aqeilan and his wife, Haifa, live in Jerusalem. They have three daughters and two sons.

Selected Publications:

Khawaled S., Suh S-S, Abdeen SK, Monin J, Distefano R, Nigita G, Croce CM and Aqeilan R. I. (2019) WWOX inhibits metastasis of triple-negative breast cancer cells via modulation of microRNAs. *Cancer Res*, 79(8):1784-1798.

Abu-Remaileh M., Abu-Remaileh M., Akkawi R., Pacold M, Tam, Y. Aqeilan R. I. (2019) Somatic ablation of WWOX in skeletal muscles alters glucose metabolism. *Molecular Metabolism*, 22:132-140.

Maximov VV, Akkawi R, Khawaled S, Salah Z, Jaber L, Barhoum A, Or O, Galasso M, Kurek KC, Yavin E, Aqeilan RI. MiR-16-1-3p and miR-16-2-3p possess strong tumor suppressive and antimetastatic properties in osteosarcoma. *Int J Cancer*. 2019 Apr 24.

Abdeen SK, Ben-David U, Shweiki A, Maly B, Aqeilan RI. Somatic loss of WWOX is associated with TP53 perturbation in basal-like breast cancer. *Cell Death Dis*. 2018 Aug 6;9(8):832.

Del Mare, S., Husanie, H., Iancu, O., Abu-Odeh, M., Evangelou, K., Lovat, F., Volinia, S., Gordon, J., Amir, G., Stein, J., Stein, G. S., Croce, C. M., Gorgoulis, V., Lian, J. B., and Aqeilan, R. I. (2016) WWOX and p53 Dysregulation Synergize to Drive the Development of Osteosarcoma. *Cancer Res* 76, 6107-6117

Hazan, I., Hofmann, T. G., and Aqeilan, R. I. (2016) Tumor Suppressor Genes within Common Fragile Sites Are Active Players in the DNA Damage Response. *PLoS Genet* 12, e1006436

Abu-Odeh, M., Salah, Z., Herbel, C., Hofmann, T. G., and Aqeilan, R. I. (2014) WWOX, the common fragile site FRA16D gene product, regulates ATM activation and the DNA damage response. *Proc Natl Acad Sci U S A* 111, E4716-4725

Abu-Odeh, M., Bar-Mag, T., Huang, H., Kim, T., Salah, Z., Abdeen, S. K., Sudol, M., Reichmann, D., Sidhu, S., Kim, P. M., and Aqeilan, R. I. (2014) Characterizing WW domain interactions of tumor suppressor WWOX reveals its association with multiprotein networks. *J Biol Chem* 289, 8865-8880