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With the use of genomic microarrays covering the 18q21-18q23 region, we have performed array comparative genomic hybridization (array CGH) experiments using prostate cancer specimens and have identified a copy number gain at 18q22.1. This region includes the gene for cadherin 7. The cadherins are a superfamily of transmembrane glycoproteins that mediate cellular adhesion. We are developing a transgenic mouse that overexpresses cadherin-7 to determine the role that increased copies of this gene plays in prostate cancer progression.

We are also investigating the homozygous loss of sequences at 18q detected by array CGH in 58% of prostate tumors and 70% of breast tumors. We have identified a novel transcript that is encoded in this region of loss and are in the process of characterizing this transcript.

Padalecki SS, Weldon KS, Reveles X, Buller C, Grubbs B, Cui Y, Yin JJ, Hummer BT, Weissman BE, Dallas M, Guise TA, Leach RJ, **Johnson-Pais TL** (2003) Chromosome 18 suppresses prostate cancer metastases. Urol Oncol 21:366-373.

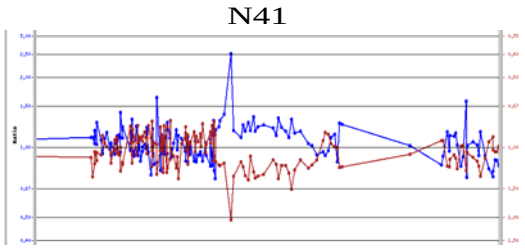
Leach RJ, Singer FR, Ench Y, Wisdom JH, Pina DS, **Johnson-Pais, TL** (2006) Clinical and cellular phenotypes associated with Sequestosome 1 (SQSTM1) mutations. J Bone Miner Res 21(Supp2):P45-50.

Shook SJ, Beuten J, Torkko KC, **Johnson-Pais TL**, Troyer DA, Thompson IM, Leach RJ (2007) Association of RNASEL variants with prostate cancer risk in Hispanic Caucasians and African Americans. Clin Cancer Res 13:5959-5964.

Hall DC, **Johnson-Pais TL,** Grubbs B, Bernal R, Leach RJ, Padalecki S (2008) Maspin reduces prostate cancer metastasis to bone. Urol Oncol 26:652-658.

Beuten J, Byrne JJ, Balic I, Gelfond JAL, **Johnson-Pais TL**, Thompson IM, Price DK, Leach RJ (2008) CYP1B1 variants are associated with prostate cancer in non-Hispanic and Hispanic Caucasians. Carcinogenesis 29:1751-1757.

Rhodes EC, **Johnson-Pais TL**, Singer FR, Ankerst DP, Bruder JM, Wisdom J, Hoon DS, Lin E, Bone HG, Simcic KJ, Leach RJ (2008) Sequestosome 1 (SQSTM1) mutations in Paget's Disease of Bone from the United States. Calcif Tissue Int 82:271-277.



Array comparative hybridization ratio plot from a prostate cancer specimen showing regions of altered copy number at 18q.