Curriculum Vitae for Yniv Palti

Address
USDA-ARS-NCCCWA, 11861 Leetown Road, Kearneysville, WV 25430.
Fax: 304-725-0351
Tel.: 304-724-8340 ext. 2134
e-mail: yniv.palti@ ars.usda.gov
Current Position: Research Geneticist (since Sep. 2001); Lead Scientist of the Genomics Unit (since April 2008)

University Education and Additional Training

2000 - 2001 Research Associate, Cardeza Foundation for Hematologic Research, Thomas Jefferson University, Philadelphia, PA, USA.

1999 – 2000 Visiting Lecturer and Head of the DNA Analysis and Sequencing Unit, Dept. of Food Engineering and Biotechnology, Technion – Israel Institute of Technology, Haifa, Israel.

1998 – 1999 Postdoctoral fellow, Animal Science Institute, Agricultural Research Organization, Beit-Dagan, Israel.

1994 - 1997 Ph.D., Genetics & Cell Biology, Washington State University, Pullman, WA, USA.

1992 - 1994 M.S., Genetics & Cell Biology, Washington State University, Pullman, WA, USA.

1988 - 1991 B.Sc., Economics, Faculty of Agriculture of the Hebrew University of Jerusalem, Rehovot, Israel.

Research grants

2011 PD. NIFA-AFRI-Animal Breeding, Genetics and Genomics. Production of a High Density SNP Chip for Genomic Analyses in Rainbow Trout. ($678,000)

2007 Co-PI. BARD. Genetic basis of cyprinid herpes virus-3 resistance in common carp. ($320,000)

2006 PD. CSREES-NRI-Animal Genome:Tool and Reagent Development. Production of an Integrated Physical and Genetic Map for Rainbow Trout. ($696,416)

2005 Sub-contractor. USDA-CSREES-SBIR (Phase II). Project number WNK-2005-03237: Genetics of growth and reproduction in rainbow trout (*Oncorhynchus myk*iss) fed a plant-based diet. ($255,695)

2003 Sub-contractor. USDA-CSREES-SBIR (Phase I). Project number WNK-2003-00519: Genetic basis of growth improvement in rainbow trout (*Oncorhynchus myk*iss) using plant-based diets. ($65,000)

2002 Sub-contractor. USDA-CSREES-NRI: Animal Genome Reagent and Tool Development. Project number MDR-2002-03472: Genomic resources for examining disease resistance in rainbow trout. ($622,000)

2000 NIH training grant at the Cardeza Foundation for Hematologic Research, Thomas Jefferson University, Philadelphia, PA.

1998 BARD postdoctoral fellowship. Title: Identification of candidate DNA markers linked to sex determination in tilapia (*Oreochromis aureus*). Postdoctoral fellow for two years.

Professional Societies

- American Fisheries Society (2003 - present)
- World Aquaculture Society (2006 – present)
- Associate Member Trout Farmers Association (2008 – present)
- National Research Support Project 8 of the USDA-CSREES National Animal Genome Research Program: (a) Chair Elect 2007, Chair 2008 and co-Chair 2009 of the 2-day Aquaculture Genome Workshop at the International Plant & Animal Genome Conference; and (b) Salmonid Species Coordinator for the Aquaculture Genome Group (2007 – present).

Adjunct Faculty positions

- Division of Forestry, Davis college of Agriculture, Forestry and Consumer Science, West Virginia University (2002 – present).
- Dept. of Fisheries and Wildlife Sciences, Virginia Polytechnic Institute and State University (2005- present).

Editorial Boards

Marine Biotechnology (2005 – present)
BMC Molecular Biology (2009 – present)

List of Publications

Palti, Y., Genet, C., Luo, M.-C., Charlet, A., Gao, G., Hu, Y., Castaño-Sánchez, C., Tabet-Canale, K., Krieg, F., Yao, J., Vallejo, R.L., Rexroad III, C.E. (2011). A first generation integrated map of the rainbow trout genome. BMC Genomics, Accepted.

Kongchum, P., Sandel, E., Lutzky, S., Hallerman, E.M., Hulata, G., David, L., **Palti, Y.** (2011). Association between IL-10a single nucleotide polymorphisms (SNPs) and resistance to cyprinid herpesvirus-3 infection in common carp (Cyprinus carpio). Aquaculture, Accepted.

Palti, Y. (2011). Toll-like receptors in bony fish: from genomics to function. *Developmental & Comparative Immunology*, In press.

Castano-Sanchez, C., **Palti, Y.**, Rexroad III, C.E. (2011). SNP analysis with duplicated fish genomes: Differentiation of SNPs, paralogous sequence variants and multi-site variants. In: Liu, Z.J. (Ed.), Next Generation Sequencing and Whole Genome Selection in Aquaculture. Wiley-Blackwell Publishing, Ames, IA, U.S.A., pp. 133-150.

Kongchum, P., Hallerman, E.M., Hulata, G., David, L., **Palti, Y.** (2011). Candidate gene markers for selective breeding of CyHV-3-resistant common carp. The Global Aquaculture Advocate, 14(2):78-79.

Kongchum, P., Hallerman, E.M., Hulata, G., David, L., **Palti, Y.** (2011). Molecular cloning, characterization and expression analysis of TLR9, MyD88 and TRAF6 genes in common carp (Cyprinus carpio). Fish & Shellfish Immunology 30, 361-371.

Vallejo, RL, Wiens, GD, Rexroad III, CE, Welch, TJ, Evenhuis, JP, Leeds, TD, Janss, LLG, **Palti, Y** (2010). Evidence of major genes affecting resistance to bacterial cold water disease in rainbow trout using Bayesian methods of segregation analysis. Journal of Animal Science 88, 3814-3832.

Kongchum, P, **Palti, Y**, Hallerman, EM, Hulata, G, David, L (2010). SNP Discovery and Development of Genetic Markers for Mapping Immune Response Genes in Common Carp (*Cyprinus carpio*). Fish & Shelfish Immunology 29, 356-361.

Palti, Y., *Rodriguez, M.F.*, Gahr, S.A., Purcell, M.K., Rexroad Iii, C.E., Wiens, G.D. (2010). Identification, characterization and genetic mapping of TLR1 loci in rainbow trout (Oncorhynchus mykiss). Fish & Shellfish Immunology 28, 918-926.

Leeds, TD, Silverstein, JT, Weber, GM, Vallejo, RL, **Palti, Y**, Rexroad III, CE, Welch, TJ, Evenhuis J, Hadidi S, Wiens, GD (2010). Response to selection for bacterial cold water disease resistance in rainbow trout. Journal of Animal Science 88:1936–1946.

Palti Y, Gahr SA, Purcell, MK, Hadidi S, Rexroad III CE, Wiens, GD (2010). Identification, characterization and genetic mapping of TLR7, TLR8a1 and TLR8a2 genes in rainbow trout (*Oncorhynchus mykiss*). Developmental & Comparative Immunology, 34:219-233.

Palti Y, Luo M-C, Hu Y, Genet C, You, FM, Vallejo RL, Thorgaard, GH, Wheeler, PA, Rexroad III, CE (2009). A First Generation BAC-Based Physical Map of the Rainbow Trout Genome. BMC Genomics 2009, 10:462.

Palti, Y., (2009). Aquaculture Genomics. In: Overturf, K. (Ed.), Molecular Research in Aquaculture. Wiley-Blackwell Publishing, Ames, IA, U.S.A., pp. 103-146.

Kongchum, P, Rexroad III, CE, Hallerman, EM, David, L, **Palti, Y**, (2009). SNP identification, genetic mapping and tissue expression of the rainbow trout *TLR9* gene. Animal Genetics 40:1001.

Silverstein, JT, Vallejo, RL, **Palti, Y**, Leeds, TD, Rexroad III, CE, Welch, TJ, Wiens, GD, Ducrocq, V, (2009). Rainbow trout resistance to bacterial cold-water disease is moderately heritable and is not adversely correlated with growth. Journal of Animal Science 87:860-867.

Rexroad III, CE, **Palti, Y**, Gahr, SA, Vallejo, RL, (2008). A second generation genetic map for rainbow trout (*Oncorhynchus mykiss*). BMC Genetics 9:74.

Pierce LR, **Palti Y**, Silverstein JT, Barrows FT, Hallerman EM, Parsons JE (2008). DNA Marker-Based Parentage Assignment Supports Practical Experiments at Commercial Aquaculture Operations: A Case Study Assessing Experimental Diets for Rainbow Trout (*Oncorhynchus mykiss*). Proceedings of the 7th International Conference on Recirculating Aqauaculture, July 25-27, 2008, Roanoke, VA, USA.

Pierce, LR, **Palti Y**, Silverstein, JT, Barrows, FT, Hallerman, EM, Parsons, JE, (2008). Family growth response to fishmeal and plant-based diets shows genotype x diet interaction in rainbow trout (*Oncorhynchus mykiss*). Aquaculture 278:37-42.

Johnson, NA, Vallejo, RL, Silverstein, JT, Welch, TJ, Wiens, GD, Hallerman, EM, **Palti, Y,** (2008). Suggestive association of major histocompatibility IB genetic markers with resistance to bacterial cold water disease in rainbow trout (*Oncorhynchus mykiss*). Marine Biotechnology 10:429-437.

Johnson, NA, Vallejo, RL, Rexroad III, CE, Hallerman, EM, **Palti, Y,** (2007). Development and evaluation of a new microsatellite multiplex system for parental allocation and management of rainbow trout broodstocks. Aquaculture 266:53-62.

Palti Y, *Rodriguez FR*, Gahr SA, Hansen JD (2007). Evolutionary history of the ABCB2 genomic region in teleosts. Developmental and Comparative Immunology 31(5):483-498.

Palti Y, *Rodriguez FR*, Vallejo RL, Rexroad III CE (2006). Mapping of toll-like receptor (TLR) genes in rainbow trout. Animal Genetics 37(6):597-598.

Coulibaly I, Danzmann R, **Palti Y**, Vallejo RL, Gahr SA, Jianbo Y, Rexroad III CE (2006) Mapping of uncoupling protein 2 genes in rainbow trout. Animal Genetics 37(6):598-599.

Coulibaly I, Gahr SA, **Palti Y**, Yao J, Rexroad III CE (2006). Genomic structure and expression of uncoupling protein 2 genes in rainbow trout (*Oncorhynchus mykiss*). BMC Genomics 7:203.

Rodriguez, MF, Gahr, SA, Rexroad III, CE, **Palti, Y** (2006). A PCR screening method for rapid detection of microsatellites in bacterial artificial chromosomes (BACs). Marine Biotechnology 8(4):346-350.

Palti, Y, Silverstein, JT, *Wieman, H*, Phillips, JG, Barrows, FT, Parsons, JE. (2006). Evaluation of family growth response to fish meal and gluten-based diets in rainbow trout (*Oncorhynchus mykiss*). Aquaculture 255(1-4):548-556.

Landis ED, **Palti Y**, Dekoning J, Drew R, Phillips RB, Hansen JD (2006). Identification and regulation of rainbow trout tapasin and tapasin-related genes. Immunogenetics 58(1):56-69.

Danin-Poleg, Y, Somer, L, Cohen, LA, Diamant, E, **Palti, Y**, Kashi, Y (2006). Towards the definition of pathogenic microbe. International Journal of Food Microbiology 112, 236-243.

Somer L, Danin-Poleg Y, Diamant E, Gur-Arie R, **Palti Y**, Kashi Y (2005). Amplified intergenic locus polymorphism as a basis for bacterial typing of *listeria* spp. and *escherichia coli*. Applied and Environmental Microbiology 71(6):3144–3152.

Rodriguez, MF, Wiens, G, Purcell, M.K, **Palti, Y.** (2005). Characterization of Toll-like receptor 3 gene in rainbow trout (*Oncorhynchus mykiss*). Immunogenetics 57(7):510-519.

Rexroad III CE, *Rodriguez MF*, Coulibaly I, Danzmann RG, DeKoning J, Phillips RB, **Palti, Y.** (2005). Comparative mapping of expressed sequence tags containing microsatellites in rainbow trout (*Oncorhynchus mykiss*). BMC Genomics 6:54.

Wagner JL, **Palti Y**, DiDario D, Faraco J. (2005). Sequence of the canine major histocompatibility complex region containing non-classical class I genes. Tissue Antigens 65(6):549.

Gahr, S.A., **Palti Y.**, Danzmann R.G. and. Rexroad, C.E III. (2004). Genomic Characterization of a novel pair of Id genes in the rainbow trout (Oncorhynchus mykiss). Animal Genetics 35(4):317-320.

Diamant, E., **Palti, Y.**, Gur-Arie, R., Cohen, H., Hallerman, E.M., Kashi, Y. (2004). Phylogeny and Strain Typing of Escherichia coli, Inferred from Variation at Mononucleotide Repeat Loci. Appl. Environ. Microbiol. 70, 2464-2473.

Palti Y, Gahr SA,Hansen JD, Rexroad CE III (2004). Characterization of a New BAC Library for Rainbow Trout: Evidence for Multilocus Duplication. Animal Genetics 35(2):130-3.

Rexroad CE III, Lee Y, Keele JW, Karamycheva S, Brown G, Koop B, Gahr SA**, Palti Y**, Quackenbush J (2003). Sequence Analysis of a Rainbow Trout cDNA Library and Creation of a Gene Index. Cytogenetics and Genome Research 102(1-4):347-54.

Phillips, R, Zimmerman, A, Noakes, M, **Palti, Y**, Morash, M, Eiben, L, Ristow, S.S, Thorgaard, GH and Hansen, JD (2003). Physical and genetic mapping of the rainbow trout major histocompatibility regions: evidence for duplication of the class I region. Immunogentics 55:561-569.

Rodriguez, F., Rexroad, C.E. III, **Palti, Y.**, 2003. Characterization of Twenty Four Microsatellite Markers for Rainbow Trout (*Oncorhynchus mykiss*). Molecular Ecology Notes 3(4):619-622.

Rexroad, C.E. III, **Palti, Y.**, 2003. Development of Ninety-Seven Polymorphic Microsatellite Markers for Rainbow Trout. Transactions of The American Fisheries Society 132:1214–1221.

Palti, Y., Danzmann R.G., Rexroad, C.E. III, 2003. Characterization and mapping of 19 polymorphic microsatellite markers for rainbow trout (*Oncorhynchus mykiss*). Animal Genetics, 34(2):153-156.

Thorgaard GH, Bailey GS, Williams D, Buhler DR, Kaattari SL, Ristow SS, Hansen JD, Winton JR, Bartholomew JL, Nagler JJ, Walsh PJ, Vijayan MM, Devlin RH, Hardy RW, Overturf KE, Young WP, Robison BD, Rexroad III CE, **Palti Y**, 2002. Status and opportunities for genomics research with rainbow trout. *Comparative Biochemistry and Physiology B.*, 133:609-646.

Palti, Y., Fincham, M.R., Rexroad, C.E. III, 2002. Characterization of Thirty Eight Polymorphic Microsatellite Markers for Rainbow Trout (*Oncorhynchus mykiss*). Molecular Ecology Notes 2(4):449-452.

Shirak, A., **Y. Palti**, A. Cnaani, G. Hulata, M. Ron, R.R. Avtalion (2002). Association between genes with deleterious alleles and distorted sex ratios in an inbred line of tilapia (*Oreochromis aureus*). *Journal of Heredity* 93:270-276.

Palti, Y, .A. Shirak, A. Cnaani, G. Hulata, R.R. Avtalion, M. Ron (2002). Identification of microsatellite DNA markers linked to genes with deleterious alleles in an inbred tilapia line (*Oreochromis aureus*). *Aquaculture* 206:151–164.

Palti, Y., A. Shirak, A. Cnaani, E. Feldmesser, R.R. Avtalion, G. Hulata, and M. Ron (2001). A microsatellite marker harbors a limited number of copies in the genome of two tilapia species (*Oreochromis aureus* and *O. niloticus*). *Animal Genetics* 32:40-41.

Palti, Y., K.M. Nichols, K.I. Paulson, J.E. Parsons, and G.H. Thorgaard (2001). Association between DNA polimorphisms tightly linked to MHC class II genes and IHN virus resistance in backcrosses of rainbow and cutthroat trout. *Aquaculture* 194(3-4):283-289.

Palti, Y., S. Tinman, A. Cnaani, Y. Avidar, M. Ron, and G. Hulata (1999). Comparative study of biochemical and nonspecific immunological parameters in two tilapia species (*Oreochromis aureus* and *O. mossambicus*). *The Israeli Journal of Aquaculture – Bamidgeh* 51:148-156.

Palti, Y., J.E. Parsons, and G.H. Thorgaard (1999). Identification of candidate DNA markers associated with IHN virus resistance in backcrosses of rainbow and cutthroat trout. *Aquaculture* 173:81-94.

Palti, Y., J.E. Parsons, and G.H. Thorgaard (1997). Assessment of genetic variability among strains of rainbow and cutthroat trout using multilocus DNA fingerprints. *Aquaculture* 149:47-56.

Palti, Y., J.J. Li, and G.H. Thorgaard (1997). Improved efficiency of heat and pressure shocks for producing gynogenetic rainbow trout. *The Progressive Fish-Culturist* 59:1-13.