

Susanne Wilson Warrenfeltz

Education: Ph.D. Medicinal Chemistry, 1992 University of Georgia, Athens GA
B.S. Biochemistry, 1987, Virginia Polytechnic Institute and State University, Blacksburg VA

Current Position: Research Scientist, January 2002-present
Ovarian Cancer Institute
University of Georgia, Athens, Georgia
Ovarian tumor classification and differential gene expression via gene expression monitoring using Affymetrix microarray system.

- ◆ Perform Affymetrix microarray analysis on ovarian tissue from RNA isolation to chip scanning
- ◆ Analyze microarray data using statistical (Excel, R statistical environment) and cluster analysis techniques (GeneCluster, R statistical environment)
- ◆ Perform quantitative RT-PCR for validation of microarray and tracking linearity of RNA amplifications on laser capture microdissected tissue samples

Experience: 1997- 2001 Research Scientist
McNeil Nutritionals, Athens Georgia
As a member of an interdisciplinary team of engineers and scientists, I was the biochemist involved in developing an enzymatic synthesis of carbohydrate polymers to be used as bulking agents for the non-nutritive sweetener, Splenda.

- ◆ Designed and implemented experiments evaluating reactor configuration for scientific and economic feasibility
- ◆ Contributed to technology transfer prior to scale-up from 0.5L to 1400L reactions
- ◆ Designed and implemented experiments contributing to process patents and trade secrets used currently by McNeil.

1994 – 1996 Post Doctoral Research Associate
Department of Genetics, University of Georgia
Studied DNA-protein interactions of endogenous retroelements with the host genome of drosophila

- ◆ gel-shift assay
- ◆ PCR analysis

1993 IRTA Fellow
Division of Etiology, NCI, NIH, Bethesda Maryland
Studied the signal transduction pathway of transforming growth factor- β , a growth factor implicated in carcinogenesis.

- ◆ Western Blot analysis and cell culture techniques

1989-1992 Graduate Teaching Assistant
Department of Medicinal Chemistry, University of Georgia
Thesis Title: Biological and Structural Studies of Acidic Tamoxifen Metabolites
Minor Project: Molecular Modeling of the Sweet Taste Receptor

- ◆ Determined the biological effects (cell culture) and structural configuration (2D NMR analysis) of metabolites of tamoxifen, a chemotherapeutic agent used in the treatment of breast cancer
- ◆ Structure activity relationships of cyclopropyl analogs of aspartame (computer molecular modeling)
- ◆ Supervised and operated NMR and mass spectrometer for department as well as taught Medicinal Chemistry laboratory to Pharmacy students

1987-1988 NMR Operator, Research Technician III
Department of Biochemistry, University of Georgia
Operated NMR instruments and assisted in computer and data management as a service for members of the department.

Publications:

1. Warrenfeltz SW, Pavlik S, Kraemer E, Benigno B, McDonald JF: Ovarian tumor classification and differential gene expression correlated with malignant potential. In preparation.
2. Calhoun JD, Rao R, Warrenfeltz SW, McDonald JF, Stice SL: Transcriptional profiling of early differentiation events in human embryonic stem cells. In review Genome Research.
3. Mouat MF, McDonald JF, Warrenfeltz SW, Kolli K, Orlando R, Grider A: Proteomic analysis to reveal potential serum biomarkers for ovarian cancer. Submitted Proteome Science.
4. Wilson S, Matyunina L, McDonald JF: An Enhancer region within the copia untranslated leader contains binding sites for Drosophila regulatory proteins. Gene 1998, 209:239-246.
5. McDonald JF, Matyunina L, Wilson S, Jordan IK, Bowen NJ, Miller WJ: LTR retrotransposons and the evolution of eukaryotic enhancers. Genetica 1997, 100(1-3):3-13.
6. Wilson S, and Ruenitz PC: Structural and Biological characteristics of non-isomerizable derivatives of tamoxifen. J. Pharm. Sci. 1993, 82(6):571-574.
7. Wilson S, Ruenitz PC, and Ruzicka JA: Effects and estrogen receptor affinity of acidic tamoxifen metabolites. J. Steroid Biochem. Mol. Biol. 1992, 42:613-616.
8. Taylor EW, Wilson S, and Stammer CK: An accurate force field model for cyclopropane amino acids. In: Walters, D.E., Orthofer, F.T., and DuBois, G.E. (Eds): Sweeteners: Discovery, Molecular Design, and Chemoreception. 1991 ACS Symposium Series 450, American Chemical Society, Washington, D.C.
9. Spellman MW, Basa LJ, Leonard CK, Chakel JA, O'Connor JV, Wilson S, and Van Halbeek H.: Carbohydrate structures of human tissue plasminogen activator expressed in Chinese hamster ovary cells. J. Biol. Chem. 1989, 264:14100-14111.
10. Green ED, Adelt G, Baenzinger JU, Wilson S, Van Halbeek H: The asparagine linked oligosaccharides on Bovine fetuin. Structural analysis of N-linked glycans released oligosaccharides by 500MHz NMR. J.Biol.Chem. 1988, 263:18253-18268

Meetings and Poster Presentations:

1. Poster Presentation
In Silico Biology, Atlanta Georgia, November 13-16 2003
Ovarian Tumor Classification and Differential Gene Expression Correlated with Malignant Potential
Susanne Warrenfeltz, Stephen Pavlik, Eileen Kraemer, Benedict Benigno, John F. McDonald
2. Poster Presentation
Georgia Life Sciences Summit Sept 24, 2003
Ovarian Tumor Classification and Differential Gene Expression Correlated with Malignant Potential
Susanne Warrenfeltz, Stephen Pavlik, Eileen Kraemer, Benedict Benigno, John F. McDonald
2. Poster Presentation
Cancer Research in Georgia, Atlanta Georgia, March 27-29 2003
Honorable Mention
Ovarian Tumor Classification by Gene Expression Profiling
Susanne Warrenfeltz, Eileen Kraemer, Benedict Benigno, John F. McDonald
4. Poster Presentation.
Genomic and Proteomic Technological Advances in Cancer Research, Bethesda MD Feb 10-12 2003.
Scientific Poster Award Winner: Top 3
Ovarian Tumor Classification by Gene Expression Monitoring
Susanne Warrenfeltz, Eileen Kraemer, Benedict Benigno and John McDonald