

Biographical Sketch

Chris Smith

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a) Professional Preparation

University of Warwick, U.K.	Mathematics	B.A. (1982)
University of Warwick, U.K.	Mathematics	M.Sc. (1983)

b) Appointments

2004 - present	Research Bioinformatician, Bioinformatics Research Center, North Carolina State University
2003 - 2004	Research Associate Statistician, Department of Forestry, North Carolina State University
1994 - 2003	Application Development Manager, Systech Retail Systems Inc., NC.
1986 - 1994	Technical Consultant, Data Connection Ltd., Enfield U.K.
1985 - 1986	Programmer, Oasis Software, Weston-super-Mare U.K.

c) History

Chris has been a computer programmer for nearly 25 years, starting in the retail industry writing supermarket management systems. Supermarket systems include issues of high-throughput transaction processing, large distributed databases, fault tolerance, accountability, and problem determination.

From 1999 Chris managed a complete development team (15-20 people) maintaining and enhancing a full supermarket application. The team included customer support and quality assurance personnel, database experts, as well as the core programming team.

In 2003 Chris started work at NCSU on the development of a relational database and web site combining wood property data, microarray results and metabolic profiling results for Loblolly pine. Since then he has joined the Bioinformatics Research Center and has worked with a number of different researchers on campus and elsewhere. Projects have included:

- Analysis of 454 sequence data for a project studying the Fagaceae.
- Development of a relational database and web site for storing and analyzing Affymetrix microarray data for a project studying *Aspergillus flavus*.
- Coding a C++ application to process data from an IonSpec Mass Spectrometer.
- Development of a DNA sequence processing pipeline for a project investigating rice evolution. The pipeline has a web-based user interface.

- Development of a C++ application for performing genome wide association studies.

Chris also provides general programming consultation, and help with data analysis (SAS, JMP, Perl scripting, microarray analysis), and maintains the Bioinformatics Research Center's e-mail and web server.

d) Publications

Sisco, P.H., Sederoff, R.R., Tomkins, J.P., Carlson, J.E., Kubisiak, T.L., Staton, M.E., Hebard, F.V., Anagnostakis, S.L., Powell, W.A. and Smith, C.P. The United States National Science Foundation project on developing tools for the study of the Fagaceae: *Castanea*, *Quercus*, and *Fagus*. **Acta Hort.** 2009 (ISHS) 844:267-274

Abdelali Barakat, Denis S DiLoreto, Yi Zhang, Chris Smith, Kathleen Baier, William A Powell, Nicholas Wheeler, Ron Sederoff and John E Carlson (2009). Comparison of the transcriptomes of American chestnut (*Castanea dentata*) and Chinese chestnut (*Castanea mollissima*) in response to the chestnut blight infection. **BMC Plant Biology** 2009, 9:51

Dahlia M. Nielsen, Sunil Suchindran, Christopher P. Smith. (2008) Does strong linkage disequilibrium guarantee redundant association results? **Genetic Epidemiology, USA**
DOI: 10.1002/gepi.20328

Jennifer E. Schaff, Dahlia M. Nielsen, Chris P. Smith, Elizabeth H. Scholl and David McK. Bird. (2007) Comprehensive Transcriptome Profiling in Tomato Reveals a Role for Glycosyltransferase in Mi-Mediated Nematode Resistance. **Plant Physiology, USA**
144:1079-1092