

Bethan L. Pritchard

Personal Details:

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Date of Birth – 3rd June 1981

Nationality - British

Profile:

Following completion of an undergraduate degree in Biochemistry with Molecular Biology, and a subsequent Masters degree in Bioinformatics, I have gained over two and a half years practical bioinformatics experience. My research has largely focused on computational comparative fungal genomics. I am currently seeking a position in bioinformatics that will allow me to broaden my technical expertise and utilise my knowledge of molecular biology and biochemistry.

Skills:

- Efficient in programming in Java and Perl.
- Proficient with Windows, Mac OS X and Unix.
- Experienced in the use of obtaining and evaluating information contained within biological databases. Experienced in the use of MySQL and the Perl DBI modules.
- Proficient in the use of Microsoft Office Packages (Word, Access, Excel, PowerPoint etc).
- Familiar with HTML and CGI programming
- Extensive experience with core bioinformatics analysis tools such as BLAST, InterPro, ClustalW, Artemis and Apollo

Education:

• **2002 – 2003: Victoria University of Manchester, School of Biological Sciences**
Programme of study: M.Sc Bioinformatics (BBSRC Funded)
Classification: Distinction

• **1999 – 2002: University of Leeds, School of Biochemistry and Molecular Biology**
Programme of study: B.Sc (Hons) Biochemistry with Molecular Biology
Classification: Upper Second Class (Ii)
Dissertation project title – “*In silico* Sequence Analysis of Pleckstrin Homology Domains”

• **1992-1999: Hawarden High School, Hawarden, Flintshire**

A-Level: Biology – A, Chemistry – B, General Studies – A, Physics - C

As-Level: Mathematics – A

GCSE's: 11 at grades A*-B including English and Mathematics

Professional Experience:

• **09/2004 – Present: Research Assistant in Bioinformatics**

I am currently employed at the Centre for Integrated Fungal Research (CIFR) at North Carolina State University. My main responsibilities at CIFR have included:

- Development of genomic resources to allow for the storage, visualisation and analysis of the genome sequence of the filamentous fungus *Aspergillus flavus*.
- Development of the *A. flavus* genome browser http://gaplabg5.cfr.ncsu.edu/cgi-bin/gbrowse/Aflavus_may05/.
- Comparative genomics studies between *A. flavus* and the closely related fungus *A. oryzae* in collaboration with The Institute for Genomic Research (TIGR) and the *A. oryzae* Genome Analysis Consortium.
- Maintenance of the *A. flavus* community website <http://www.aspergillusflavus.org>
- Manual and automated annotation of *A. flavus* genes.

• **12/2003 – 08/2004: Research Assistant in Bioinformatics (Analysis and Annotation)**

Following completion of my M.Sc I worked on the Central *Aspergillus* Data Repository (CADRE) project, <http://www.cadre.man.ac.uk/> at the University of Manchester. My research at this time focused on:

- Manual curation of database entries for individual genes and proteins from the filamentous fungi *A. fumigatus* and *A. nidulans*
- Maintaining existing database entries
- Liaising with external scientists who were contributing their expertise to the database

• **06/2003 - 09/2003: Summer Internship with the EST-Informatics Department at AstraZeneca Pharmaceuticals.**

This project involved:

- Compilation of a functional RNA database for mouse, and production an RNA gene track for the AstraZeneca in-house version of the EnSEMBL mouse genome browser.
- Extensive use of the Perl programming language, including writing object-oriented Perl modules in a UNIX environment and making use of the resources available through the BioPerl project.

Publications:

• **Journal Articles**

Nierman, W.C. *et al.* (2005) Genomic sequence of the pathogenic and allergenic filamentous fungus *Aspergillus fumigatus*. *Nature* 438(7071):1151-1156

Price, M.S., Yu, J., Nierman, W.C., Kim, H.S., Pritchard, B., Jacobus, C.A., Bhatnagar, D., Cleveland, T.E., and Payne, G.A. (2006) The aflatoxin pathway regulator AflR induces gene transcription inside and outside of the aflatoxin biosynthetic cluster. *FEMS Microbiology Letters* 255(2):275-279

Payne, G.A. *et al* (2006) Whole genome comparison of *Aspergillus flavus* and *A. oryzae*. *Medical Mycology* (In Review).

• **Selected Abstracts**

Pritchard, B.L. *et al.* (2006) Genomic Comparisons between *A. flavus* and *A. oryzae* reveal unique genes. 8th European Conference on Fungal Genetics. (Poster Presentation).

Pritchard, B.L. *et al.* (2005) *Aspergillus flavus* Genome Sequence: Status And Release Of Sequence Data. Plant & Animal Genome XIII Conference. (Poster Presentation).

Payne, G.A. *et al* (2005) *Aspergillus flavus* Genome Sequence: Initial Analysis. 23rd Fungal Genetics Conference at Asilomar. (Poster Presentation).

Interests:

- Reading, particularly science fiction and fantasy novels.
- Watching live music performances
- Swimming
- Hiking and camping, a hobby introduced to me when I completed the Duke of Edinburgh's award scheme at the bronze and silver levels.

References:

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