UMBER - University of Manchester Bioinformatics Education & Research
EMBnet specialist node: progress report

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Introduction
As a Specialist Node, UMBER receives neither finance nor a mandate from government to serve a national community. Instead, working in an academic institution, our role is to perform research and teaching, the fruits of which we offer freely on the Web. Page restrictions forbid a full account of our work in the last 3 years, but here we give a flavour of some of our activities.

European Projects
We have participated in a number of European projects: e.g., we’ve contributed to several workpackages within EMBRACE (European Model for Bioinformatics Research and Community Education), where our principal outputs have been further development of Utopia (utopia.cs.man.ac.uk) and creation of the Web Service Registry (www.embraceregistry.net); within IMPACT (which maintains and enhances InterPro), we continue to support the development of the PRINTS protein fingerprint database, and are currently providing guidance on protein family classification; in the context of EuroKUP (European Network for Kidney and Urine Proteomics), we coordinate Working Group 4 (with Erik Bongcam-Rudloff) and liaise with eLICO (the e-Laboratory for Interdisciplinary Collaborative Research in Data Mining and Data-Intensive Science).

Tools & Resources
We’ve added a range of new software tools to the Ddbrowser Web server (www.bioinf.manchester.ac.uk/ddbrowser), primarily for protein sequence analysis and database annotation: the most prominent of these are MINOTAUR (www.bioinf.manchester.ac.uk/ddbrowser/minotaur/about.html) and Utopia (as mentioned above). We also continue to maintain, and contribute towards the development of, key bioinformatics databases, such as InterPro, PRINTS (www.bioinf.manchester.ac.uk/ddbrowser/PRINTS) and the Central Aspergillus Data Repository, CADRE (www.cadre-genomes.org.uk).

Affiliations with Societies and Journals
Much of our work concerns database maintenance and annotation, so I was pleased to see the formation of the new International Society for
Biocuration (ISB, [www.biocurator.org](http://www.biocurator.org)). I was recently elected to the ISB’s Executive Board, and I hope that EMBnet may have a productive relationship with this highly relevant Society. We have also formed a fruitful relationship with Portland Press, publishers of the Biochemical Journal. In a joint project, we have created Utopia Documents ([getutopia.com/products/documents](http://getutopia.com/products/documents)), which is underpinning a new venture in ‘semantic’ scholarly publishing. Again, I hope to extend this relationship to other publishers and journals, and especially to EMBnet.news.

**Selected publications**

**Peer-reviewed journals**


**Newsletters & Magazines**


**Books & book chapters**