

Invitrogen enters licensing agreement with IMBcom

Jan 21, 2008: Invitrogen Corporation, a provider of essential life science technologies for research, production and diagnostics, has entered into an exclusive license agreement with IMBcom Proprietary Limited Company to commercialize new non-coding ribonucleic acid (RNA) content predicted by a proprietary algorithm and experimentally validated by the University of Queensland, Australia. This expanded content will enable Invitrogen to provide the most comprehensive non-coding RNA product portfolio in the market and be the first company to provide this new content to the research community.

Mr Peter Welch, director of research and development for Gene Expression Profiling at Invitrogen said, "MicroRNAs, which are the focus of current non-coding RNA research, are just one small subset of the non-coding RNA world. MicroRNAs have a discrete function in gene regulation, but the larger non-coding RNAs are involved in multiple roles such as cellular aging and protein assembly, in addition to simple gene regulation."

By combining the coding and non-coding sequences on the same microarray, researchers can obtain more information from a single sample to better reveal the relationship between non-coding RNA expression and mRNA expression. This is particularly important for scientists studying cancer and stem cells, for such RNAs have been implicated in both of these areas.

Researchers at the University of Queensland developed an algorithm that has predicted tens of thousands of unique human and mouse probe sequences relating to coding and non-coding RNA.

Prof John Mattick, professor of Molecular Biology at the University of Queensland said, "It appears that we have misunderstood the nature of genetic programming in humans and other complex organisms. Most of the genome is transcribed, mainly into non-coding RNAs, which appear to comprise a hidden layer of gene regulation whose full dimensions are just beginning to be explored."

Invitrogen will commercialize these sequences over the next few years, allowing the company to expand its NCode microRNA microarray product line into the field of non-coding RNA profiling. Thus, for the first time, a commercial tool will be available to help scientists to identify the large complement of non-coding RNAs and study their function.