

## **Detection of Nucleic Acid Target Sequences by PCR/EPR in Human Pathogenic Microsporidial Species**

Albert M Bobst, Dept. Chemistry, University of Cincinnati, Cincinnati OH

We have shown the feasibility of using electron paramagnetic resonance (EPR) to detect one or more spores from the human pathogenic microsporidial species *E. hellem* with the aid of polymerase chain reaction (PCR) amplification. The genome detection was originally measured with a Bruker ESP 300 high-end instrument in a TM110 cavity with a pricey flat quartz cell. We are presently developing genome detection kits for a fully automated easy to use bench-top EPR instrument with cheap disposable glass capillaries. The various aspects of designing PCR/EPR based gene detection technology will be discussed.