



## BioPharmica Limited

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### MDSYSTEMS IMAGE ANALYSIS USED TO HELP PUBLISH TECHNIQUE ARTICLE

BioPharmica (ASX: BPH) announces today that a manuscript has been accepted and published this month by The Cell Motility and the Cytoskeleton journal which is published by Wiley Interscience (R). The authors of the manuscript entitled "**Dissociated flexor digitorum brevis myofibre culture system - a more mature muscle culture system**" include: *RAVENSCROFT, GIANINA*; University of Western Australia, Physiology (School of Biomedical, Biomolecular and Chemical Sciences); *Nowak, Kristen*; Centre for Medical Research (University of WA), WAIMR Jackaman, *Connie*; Centre for Medical Research (University of WA), WAIMR Clement, *Sophie*; University of Geneva-CMU, Dept. of Clinical Pathology **Lyons, Malcolm**; **Molecular Discovery Systems Gallagher, Samantha**; **Molecular Discovery Systems Bakker, Anthony**; University of WA, Physiology (School of Biomedical, Biomolecular and Chemical Sciences) *Laing, Nigel*; Centre for Medical Research (University of WA), WAIMR.

The journal's webpage is at: <http://www3.interscience.wiley.com>

This manuscript outlines a method of culturing skeletal muscle in the laboratory. The advantage of this method over others is that it is more representative of mature skeletal muscle. The described technique utilises a specific skeletal muscle, the flexor digitorum brevis (FDB), which is dissected out of a mouse. The individual muscle fibres in the FDB are dissociated and treated so that they can maintain a mature form in culture for up to ten days. The proteins expressed by the dissociated muscle fibres are representative of mature muscle, whilst other methods used for culturing muscle result in some immature forms of proteins being expressed. The FDB muscle fibres can be cultured in 96-well plates which is a format commonly used for drug screening.

One approach investigated as a possible therapy for various human skeletal muscle diseases is to harness an alternative protein to compensate for the defective or absent one. In many cases, it is the reactivation of the foetal form of the disease-causing protein that is explored. The ability to have a mature skeletal muscle culture system to use in screens to find drugs, which might reactivate foetal forms of proteins, is crucial for these therapeutic approaches. MDSystems was able to show that the IN Cell Analyzer could image the mature muscle fibres in a 96-well plate with accuracy and sensitivity. The technology exists to quantify any given protein expressed by the muscle fibres once it has been specifically labelled with a fluorescent tag, which is invaluable in determining the efficacy of activation of drugs that are applied.

**FOR MORE INFORMATION CONTACT: Dr Sam Gallagher, MDSystems Tel +61 8 9328 8644.**



#### About: Molecular Discovery Systems

Molecular Discovery Systems (MDSystems) is a wholly owned subsidiary of BioPharmica Limited [ASX:BPH] which was established in 2006. MDSystems has core expertise in verification and validation of both assays and analysis. The main business of the company is drug discovery with the validation of Biomarkers for disease, therapy and diagnostics.

<http://www.biopharmica.com.au/mds.html>

#### About: BioPharmica Limited

BioPharmica [ASX: BPH] is an Australian Stock Exchange listed company developing biomedical research with academic and hospital institutes. The Company provides early stage funding for a direct collaboration, a spin out company or to secure a license. BioPharmica provides assistance with product development, funding and commercial strategies, whilst the institutional partner provides a majority of the infrastructure and research expertise.

Yours faithfully

David Breeze  
Chairman