

Case Study

Technical and Analytical Services: Mass Spectrometry

Key Facts

- Hypha Discovery™ Ltd is an SME which discovers pharmaceuticals and agrochemicals.
- Hypha stimulate fungi to facilitate the discovery of previously unknown organic bio-active molecules which might be used as drug templates.
- Accurate mass information on the isolated molecules is required.
- Mass Spectrometry provides the capability to answer a wide range of questions relating to biological and non-biological molecules.
- Highly competitive field.
- Speed is an issue; the better and faster characterised these molecules then the faster Hypha can file patent applications.
- The BioCentre at the University of Reading provides high quality analytical services with a flexible and intelligent approach.

The Client

Hypha Discovery™ Ltd, based in London, is an SME which discovers new pharmaceutical and agrochemical molecules from natural products. Hypha conducts its own screening and bioactive compound purification activities from their unique MycoDiverse™ library, as well as providing services such as fermentation and specialist purification to third party customers.

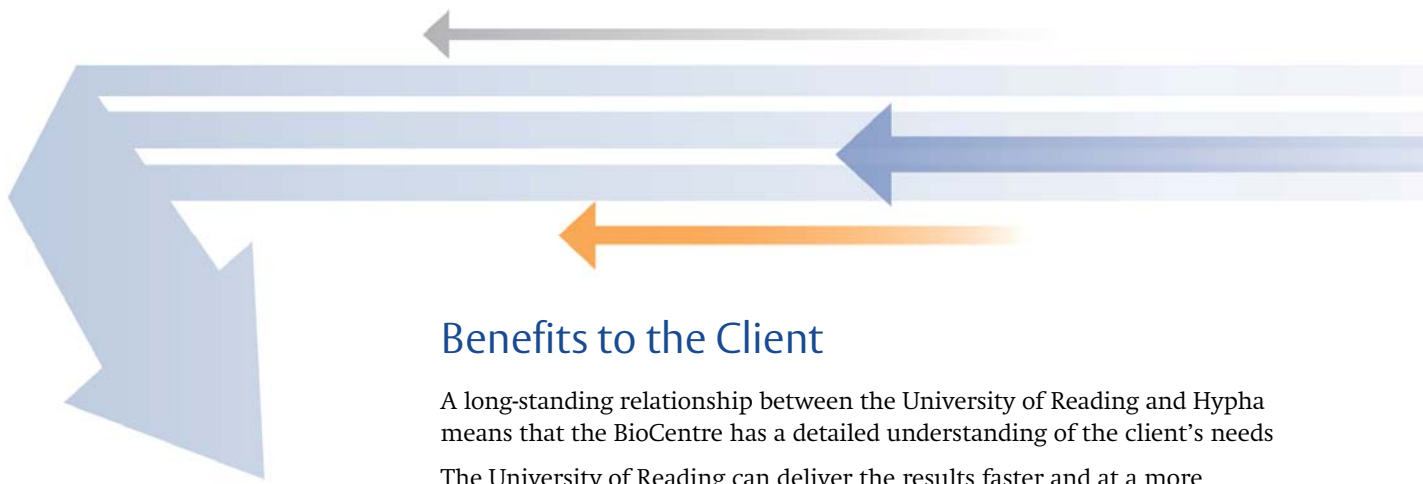
The Challenge

Hypha currently outsources the acquisition of spectroscopic data for compound identification. They require a fast and cost effective turnaround on analysis and so out-source the work to the BioCentre at the University of Reading which is able to provide the necessary equipment and expertise. A return on investment would not be viable if Hypha were to carry these procedures out in-house.

Solution

A rolling contract was set up between Hypha Discovery and the BioCentre allowing Hypha to submit samples as required. The BioCentre is a technical and analytical service offered by the University providing a range of 'genomic' and 'post-genomic' services. With modern facilities, the BioCentre's tools and expertise are particularly applicable to 'proteomic' investigations, namely protein identification and advanced protein characterisation.

The BioCentre determines the accurate molecular weight of samples by mass spectrometry, and hence the molecular formula. This supports Hypha in the determination of the structure and novelty of the molecule of interest, providing an opportunity to patent, and ultimately, license as drug templates for further development.



Benefits to the Client

A long-standing relationship between the University of Reading and Hypha means that the BioCentre has a detailed understanding of the client's needs

The University of Reading can deliver the results faster and at a more competitive price than many other service providers.

Hypha is able to access specialist knowledge and expertise.

Benefits to the University

Involvement with up to the minute industry developments allows academics to update their teaching practices with leading edge techniques and knowledge.

The contract also provides the University and BioCentre with regular income.



'The Biocentre has provided us with expert and interactive technical support for our own oncology and anti-infective discovery programmes, as well as for our contract services.

Reliability and turnaround time of results are important to us, and in the four years we've worked with the Biocentre, the quality of service has always been of a very high standard.'

Dr Jonathan Steele

Research Director Hypha Discovery Ltd

University of Reading

The University of Reading is a world-class research-intensive university covering a broad spectrum of disciplines across the Life and Physical Sciences, Arts and Humanities, Social Sciences and Henley Business School. Areas of particular strength include: Climate Systems Science, Preventative and Therapeutic Health Sciences, Sustainable Construction and Environments and Computational Science and Informatics.

The University works with businesses providing support for research and development, as well as access to expertise and equipment to solve business challenges. To find out how you can access the leading minds at the University of Reading please contact our Knowledge Transfer Centre.