

## Sourcing Bioactive Microbial Compounds

### Contract Fermentation and Purification

There is renewed interest in natural products as a source of chemical entities, either through discovery of new scaffolds or re-evaluating previously discovered bioactive chemicals, e.g. for antibody drug conjugation (ADC).

Hypha has expertise spanning microbial strain handling, fermentation and improvement, through to the purification and structure elucidation of the target compounds, as well as bioactivity testing. We are able to work flexibly with clients to provide any aspect required.

Examples of projects we can undertake include production of natural product scaffolds for semi-synthetic modification, production and purification of ADC-payloads and purification of bioactive molecules from mixtures. We are able to supply mg to g amounts of compounds and for larger quantities, have a partner with 3000L fermentation capability.

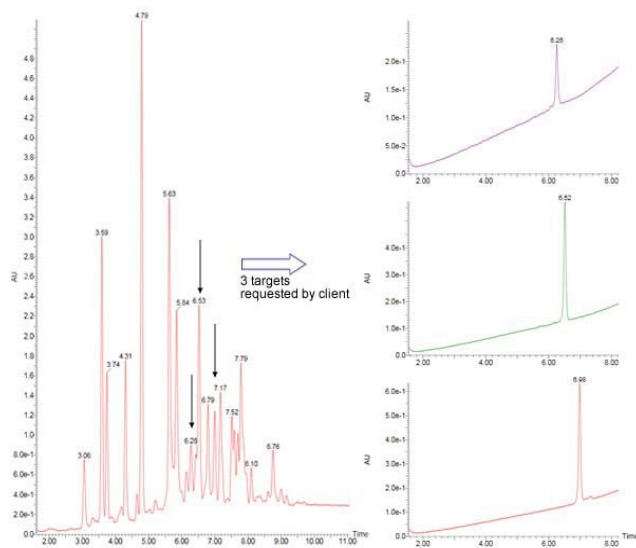
We are proud of our success in delivering solutions for our clients.

*"We have used Hypha to provide samples of several pesticidal natural products by fermentation. They provide a flexible and reliable service, meeting agreed deadlines and so far have always provided us with the target compounds. We are pleased to recommend Hypha and we certainly plan to continue to work with them."* **Dianne Irwin. Senior Chemist, Syngenta,**

*"Selcia requested Hypha to produce a molecule by microbial fermentation in sufficient quantity for a chemistry programme. Not only did they deliver to our full satisfaction, as an added benefit we obtained a strain with improved productivity and reproducible protocols for fermentation, extraction and purification. In future, I would certainly turn to Hypha first."* **Hans Fliri. CEO, Selcia**

#### What we can do

- Sourcing & fermentation of microbes
- Scale-up, purification, structure confirmation and bulk compound supply
- Diversify lead compounds through microbial biotransformation to generate new IP
- Introduce functionality into molecules for chemical modification and conjugation to antibodies
- Probe improvements in druggability through the generation of polar derivatives
- Mimic mammalian phase I & II metabolism to produce metabolites for ID, standards or larger amounts for DMPK/ADME/TOX
- Provision of natural product screening libraries for the discovery of novel bioactive molecules



Hypha specialises in the purification from complex mixtures

### Why work with us?

**Our track record in natural products.** Our client base of pharmaceutical and agrochemical multinationals and SMEs, is testament to our expertise in fermentation, purification, identification and biotransformation of small molecules.

**Cost effective, flexible service.** Clients may outsource entire programs or choose to

work with us on a modular basis. We can also troubleshoot and rework existing processes and provide a full handover to clients.

**Our processes are scalable.** Target molecules can be produced for further work from mg amounts to assess bioactivity, up to g/kg scale for semi-synthetic modification.

**For more information about our services, contact us at [mail@hyphadiscovery.co.uk](mailto:mail@hyphadiscovery.co.uk)**

#### ABOUT HYPHA DISCOVERY

Hypha Discovery Ltd is a UK-based microbial biotechnology company providing solutions to pharmaceutical and agrochemical R&D partners worldwide through the production of mammalian and microbial metabolites, as well as specialising in microbially-derived chemicals.

We work with 7 out of 10 of the top pharma companies and 4 out of 6 of the top agrochemical companies worldwide. Some of our partners and clients include:

