# Drug discovery is evolving

Historically, natural products have been the most successful source of new drugs [1]. Indeed, by 1990, approximately 80% of drugs were either natural products or analogs inspired by them [1]. But the popularity of this proven resource began to fade in the early 1990s as large pharmaceutical companies refocused their efforts away from natural products towards very large libraries of synthetic compounds.

This shift in focus was directed by the belief that screening libraries of millions of compounds of known structure and means of synthesis would accelerate the process of drug discovery and development. However, it is now widely accepted that the early promise of synthetic compound library screens has failed to meet expectations [2].

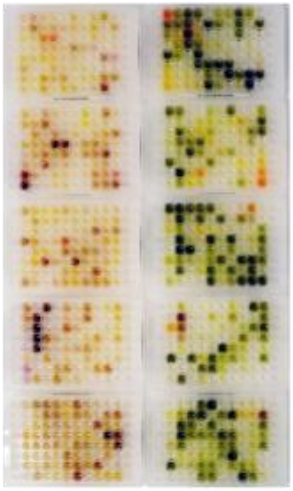
In particular, the 'hit rate' of synthetic library screens was discovered to be typically much lower than previously enjoyed by natural product library screens [1,3], and those leads which progressed beyond screening failed more frequently in later, more expensive stages of the discovery process due to ADME or toxicity issues. Largely as a result of these problems, the rate of new drug approvals has fallen significantly in recent years [1].

Natural product libraries are therefore returning to the forefront of drug discovery once again [4].

But at the same time, early-stage drug discovery is undergoing yet another major transformation, as smaller research groups in academia and startups are now expected to take the lead in developing the next generation of therapeutic targets and compounds [5].

The challenges faced by these groups are different from those faced by large pharmaceutical companies, and in particular there is a pressing need for more accessible, focused libraries from which to identify the therapeutic leads of the future.

*Phytotitre*, a uniquely focused and optimised high quality plant extract library, has been developed to meet the specific challenges of this new landscape of drug discovery.



**References**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Caithness Biotechnologies Ltd., 72 Boston Road, Leicester, UK, LE4 1HB.
Tel: +44 (116) 326 3802| Company: 9395037 | VAT : 202 4512 64
contact@caithnessbiotechnologies.com | www.caithnessbiotechnologies.com