

Could fungal collection hold the key to new life-saving drugs?

June 13 2007

Scientists may be one step closer to finding new drugs to fight MRSA, cancers and other diseases, after CABI, a leading bioservices organisation announced that its fungal collection will be screened by the University of Strathclyde.

CABI houses one of the world's largest genetic resource collections of fungi, numbered at over 28,000 strains, including Fleming's original penicillin producing isolate. They will be supplying the University of Strathclyde's Institute for Drug Research (SIDR) with extracts from filamentous fungi which will be screened to identify pharmaceutically active compounds, which could potentially be developed into drugs.

Joan Kelley, Executive Director Bioservices, CABI said:

“This is a really exciting collaboration and we are looking forward to working with the expertise of the scientists at SIDR. We are hopeful that our partnership will prove the winning formula for discovering new pharmaceutical drugs to fight cancers, diseases and resistant strains of infections such as MRSA.”

SIDR brings together scientists from different disciplines to focus on drug discovery. They have developed test systems to detect biological activity in samples of natural products that could lead to new medicinal products. Previous work at SIDR found activities from plant extracts against diabetes, obesity and psoriasis.

Professor Alan Harvey, Director of SIDR said:

“We are delighted to be working with CABI and to have access to their fantastic source of fungal samples. We hope that this novel source of chemical diversity will contain new compounds that can be used to point the way to new drugs for serious diseases.”

CABI currently uses its fungal collection, along with the expertise of its scientists to offer a range of services to businesses, including fungal identification, sales, preservations, patenting, training and consultancy. The partnership with SIDR will see CABI’s collection taken one step further, with the fungi being exploited for natural products.

Although using biotechnology to develop new drugs is by no means simple, the industry has seen steady success over the past few years. Between 2000 and 2005, over 20 new drugs were released onto the market originating from natural sources. And although this is the first time SIDR has worked with fungal cultures, there are a number of prescription drugs deriving from metabolites produced by fungi that have been on the market for many years. These include immunosuppressive agents, antibiotics such as penicillin, lipid lowering agents and anti-fungal drugs.

Source: CABI

Citation: Could fungal collection hold the key to new life-saving drugs? (2007, June 13) retrieved 20 March 2024 from <https://medicalxpress.com/news/2007-06-fungal-key-life-saving-drugs.html>

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