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## **CYP Design Ltd awarded funding by the Centre for Defence Enterprise to support research into novel antibiotics**

CYP Design Ltd (**CYPDESIGN™**) has been awarded funding by the Defence Science and Technology Laboratory's (Dstl) Centre for Defence Enterprise (CDE) to help validate an automated platform for discovery of safe, effective, broad-spectrum anti-bacterial compounds.

Dstl, as part of the UK Ministry of Defence (MOD) has an interest in the development of antimicrobials to meet the UK's current and future defence and security needs. Specifically, the MOD is interested in ensuring that there are broad-spectrum anti-bacterials available for the treatment of both Gram-positive and Gram-negative pathogens, including intracellular pathogens. CDE is therefore supporting innovation in drug development processes.

The CDE funding will support a collaboration between **CYPDESIGN™**, Inspiralis Ltd and Cyclofluidic Ltd to create and validate a platform for rapid synthesis and testing of novel compounds for anti-bacterial activity and for the absence of any safety concerns. Data from the assays will be fed back to a novel chemical optimisation algorithm which will automatically design the next compound to be made. Promising compounds will then be tested against a range of bacteria.

**CYPDESIGN™** has developed processes for the production of active, stable and cost effective human cytochrome P450s (CYPs). CYPs are found in the human liver and are mostly responsible for the metabolism of drugs, including anti-bacterial compounds, in people. These proteins are commercially available and widely used by companies involved in the discovery of new drugs.

The CDE funded project will combine innovative chemistry and lead optimisation algorithms from Cyclofluidic and a novel assay for an anti-bacterial target from Inspiralis to discover compounds with promising anti-bacterial activity, which will then be tested for potential safety concerns using CYPs supplied by **CYPDESIGN™**.

Dr Bill Primrose (CEO) said: "We are delighted that the Centre for Defence Enterprise is supporting this collaboration between three highly innovative UK-based SMEs. A successful project will validate the drug discovery platform by generating some promising new anti-bacterial compounds ready for further safety and efficacy testing."

ENDS

### **About CYP Design Ltd**

CYP Design Ltd (**CYPDESIGN™**) is a spin out from De Montfort University. The company is dedicated to supporting its customers' drug research and development needs by offering stabilised, highly active human cytochrome P450 (CYP) enzyme products. These products are presented in unique Sacchrosomes™ and are stable at room temperature. This provides significant cost advantages as the products do not need to be shipped with dry-ice, or kept in cold storage before use, and they will provide greater convenience for customers carrying out

metabolism and toxicity testing. **CYPDESIGN**'s products are also being developed for use in biocatalysis and the production of drug metabolites. [www.cypdesign.co.uk](http://www.cypdesign.co.uk)

### **About Centre for Defence Enterprise**

The Centre for Defence Enterprise (CDE) funds research into novel, high-risk, high-potential-benefit innovations. It offers two routes to funding – the open competition and a series of themed competitions for proposals that address particular defence and security challenges. Working with the broadest possible range of science and technology providers, and often providing an entry point into MOD for those new to defence, CDE aims to remove barriers for SMEs to enter the defence supply chain providing a vital mechanism for defence to access their fresh thinking and capabilities.

Notes to editor

For more information please call Dr Primrose on 01223 247468.