Medical Xpress

Hope for powerful new C diff. treatment

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MGB Biopharma, a biopharmaceutical company which has licensed technology from the University of Strathclyde in Glasgow, Scotland, is developing a powerful new antibiotic treatment for resistant infections including the deadly MRSA and *Clostridium difficile* (*C. diff.*) bugs.

The Glasgow-based company is working on a new compound which has proved to be more effective in killing and preventing *C diff.* than vancomycin, currently one of the most widely used treatments against this bacterium.

The company has selected the compound, MGB BP-3, as a drug candidate for formal pre-clinical development, with clinical trials now scheduled for 2012.

The compound acts in minor grooves, found within DNA structures, and has potential to act as an agent against bacteria including *C. diff.* and MRSA.

C. diff. was involved in more than 3,000 deaths in the UK in 2010.

The findings of the research are being presented on Monday, 19 September, at the 51st Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC), held in Chicago.

Dr Miroslav Ravic, Chief Executive Officer of MGB Biopharma, said: "It seems we are hearing too much about *Clostridium difficile* infections these days in the press, especially those acquired in hospital by elderly

patients in whom the infection can be fatal.

"This is clearly an area of high unmet need as a result of the rise of resistant bacteria which are threatening to outpace the availability of new drugs able to successfully treat these life- threatening infections. We are very excited that MGB BP-3 shows such a promising response against this troublesome and difficult to treat infection.

"We are committed to developing a specific oral drug for the treatment of *Clostridium difficile* infections in addition to the progress we are making with an IV drug against MRSA."

Professor Colin Suckling, of the University of Strathclyde's Department of Pure and Applied Chemistry, is Principal Investigator in the DNA minor groove binder technology. He said: "*C. diff*. infections can kill and patients can face prolonged courses of treatment to deal with them.

"We have come up with strong compounds which are capable not only of clearing the infections but also of stopping them. We believe this could be a significant step forward in tackling these dangerous infections."

Professor Curtis Gemmell, Consultant Microbiologist, Research Professor at the Strathclyde Institute of Pharmacy and Biomedical Sciences and Emeritus Professor at the University of Glasgow, is a senior member of the research team. He said: "The fact that our drug candidate shows greater efficacy than vancomycin is extremely promising for its future. The fact we are making this presentation at ICAAC underscores the importance that our scientific peers attach to our findings."

Provided by University of Strathclyde