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Science

Scientists create new way to make drugs

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BUFFALO, N.Y., Jan. 29 (UPI) -- U.S. scientists have developed a new method for manufacturing pharmaceutical compounds using a catalyst based on the element rhodium.

The University of Buffalo researchers said the process is expected to result in more efficient and economical production of drugs for a broad range of diseases.

Professor Huw Davies and graduate student James Manning describe the method as an entirely new chemical strategy that relies on the use of proprietary rhodium-based catalysts from the new biotech startup company Dirhodium Technologies LLC.

"As rhodium metal costs 10 times the price of gold, the catalyst is a high-value material," Davies said. However, he noted one gram of the rhodium-based catalyst can be used to produce 10 kilograms of a pharmaceutical product.

Davies said the new chemical strategy has already generated compounds with potential activity against a broad range of diseases, including cancer, inflammatory and microbial diseases, major depression, and cocaine addiction.

"This method is like an enabling technology, making available new targets and materials that previously were out of range," he said.

The research appears in the journal Nature.

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