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World database for nervous system repair

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Singapore: Researchers at the Miller School, US, received a $2.5 million grant to develop a novel database that would enable neuroscientists to search the voluminous and growing number of studies related to nervous system repair, and link relevant data from those studies to other resources. The ultimate goal of the database would be to accelerate the discovery of drugs, which could regenerate or protect nerves after spinal cord injury.

Dr Vance Lemmon, who is the NIH grant's principal investigator, said that, "Right now there is no simple way, short of spending years reading papers, to find genes that have been linked to nerve regeneration, which is the goal of spinal cord and nervous system research. Dr Vance Lemmon, who is also the professor of neurological surgery, the Walter G Ross Distinguished Chair in Developmental Neuroscience and a member of The Miami Project to Cure Paralysis research faculty, pointed out that, "There are just too many studies for investigators to keep up with, so we need ways to allow them to search the literature much more efficiently and find information relevant to spinal cord injury. That's what we propose to do."

Awarded by the National Institute of Neurological Disorders and Stroke, the four-year grant solidifies UM's growing reputation as the go-to institution for the development of chemoinformatics tools and ontologies that allow massive and diverse data sets to be integrated, queried, interpreted and analyzed across multiple disciplines.

In addition to Dr Lemmon, the grant's co-principal investigators are Dr John L Bixby, professor of molecular, cellular pharmacology and neurological surgery, and fellow Miami Project member; Dr Stephan SchÃ?Æ?Ã?Â¼rer, research

assistant professor of molecular and cellular pharmacology; and Dr Ubbo Visser, associate professor of computer science.

Tentatively called RegenBase (for regeneration database), the proposed knowledge-based system will incorporate and build on the BioAssay Ontology that Dr SchÃ?Æ?Ã?Â¼rer, Dr Lemmon and their team of UM programmers and computer scientists developed with a federal stimulus grant to enable chemists and biologists on the hunt for new therapeutic agents to quickly search repositories of thousands of experiments on hundreds-of-thousands of small-molecule compounds.