



Media Release

Attention: Science/Higher education reporters

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Protein research leads to Life Scientist of the Year award

The discovery of how a protein called MENT helps condense DNA so that it fits inside the cell nucleus has contributed to Monash researcher Associate Professor James Whisstock being awarded the 2006 Science Minister's Prize for Life Scientist of the Year.

Dr Whisstock was presented with his award in Canberra last night by the Minister for Education, Science and Training, the Honourable Julie Bishop. The prize is one of the nation's most highly-regarded awards and is presented to a scientist in the early stage of his or her career for world-class scientific research.

Dr Whisstock, from the Department of Biochemistry and Molecular Biology, has spent the past 10 years studying the structure and function of a specialised family of proteins called serpins.

In humans, mutations in serpins can disrupt the normal folding of these proteins or cause them to aggregate. This leads to the development of diseases such as emphysema, liver cirrhosis, certain dementias and thrombosis. One focus of Dr Whisstock's research is understanding how serpins aggregate and how to prevent this process.

Recently, Dr Whisstock's group was the first to find serpins in bacteria and he hopes that the study of these proteins and how they avoid aggregation will provide important insight into how to combat human disease

Further, Dr Whisstock has now found that although some serpin aggregations contribute to disease, aggregations of the serpin MENT play an important role in DNA packaging. The research has been recently published in the *European Molecular Biology Organisation Journal*

"There is two metres of DNA in human cells and if it's going to fit into the nucleus you need sophisticated machinery to package it properly," Dr Whisstock said.

"There are a number of different levels of packaging; there's the need to get the genetic material organised and, once that's done, the material has to be built into more compact packages so it can fit into a cell's nucleus."

"We have demonstrated how MENT is fundamentally involved in condensing DNA."

Dr Whisstock said he was delighted his research had been acknowledged by the Science Minister.

This is the second time in three years that a Monash University scientist has received the Science Minister's Prize for Life Scientist of the Year. Professor Jamie Rossjohn, also from the Department of Biochemistry and Molecular Biology, was awarded the prize in 2004.

Further information: contact Ms Penny Fannin, Media Communications, +61 3 9905 5828, 0417 125 700. Dr James Whisstock is available for interview and photographs are also available.