

## **The importance of peer review – MMR vaccines and autism**

The 1998 evidence produced by Dr Anthony Wakefield and his co-workers on the link between the MMR vaccine and autism in young children is extremely weak.

The first problem is that the study involved only 12 children. A sample size of 12 is simply too small to be reliable enough for a study which, depending on the results, could cause widespread fear surrounding the safety of vaccines, as well as possible changes to accepted medical practice. As well as this, the original aim of the study was to investigate a link between gastrointestinal symptoms and autism in young children; the researchers only noticed the correlation with the MMR vaccine after the initial study. It is also alleged that there was a financial motive for Dr Wakefield to “find” the results he did. Attempts to reproduce the results have also failed, questioning whether Dr Wakefield’s study was thorough and reliable.

Since the original results of Dr Wakefield’s study were published, there have been countless studies on the same topic which have produced results in conflict with the results of Dr Wakefield’s study. Many are also much more reliable, with a 1999 study using a sample size roughly 25x the sample size of Dr Wakefield’s study, which produced results indicating that there is no correlation between the MMR vaccine and autism in young children.

However, despite the overwhelming contradicting evidence, there is still a noticeable proportion of the public who believe that the MMR vaccine could cause autism. It could therefore be reasonably argued that the media has not done enough to inform the public on the current scientific consensus on the safety of vaccines.

In conclusion, as the media has a great deal of influence on public attitude, they should ensure any new scientific research that they promote is both reliable and valid. Not doing so could cause false, and possibly dangerous, theories to become incorrectly accepted... as we have seen with Dr Wakefield’s study.