

**October 1988:**

The three in one measles, mumps, and rubella vaccine is introduced to the UK after successful use in the US since 1971. Previously, single measles and rubella vaccines were used, and there was no licensed mumps vaccine



Virginia Bottomley, the then Conservative health secretary, in 1994 launching the multi-million pound MMR vaccination campaign with Professor Sir Kenneth Calman, chief medical officer for England at the time

**September 1992:**

The UK Departments of Health withdraw two brands of MMR vaccine after research shows them to be associated with a raised incidence of transient mumps meningitis, although much lower than with natural disease

**January 1994:**

A campaign group, JABS, is launched in Wigan, Lancashire, alleging that MMR causes brain damage and other problems in children. Autism and inflammatory bowel disease are not initially claimed



**March 1995:**

Andrew Wakefield, a researcher at the Royal Free medical school, files for a patent claiming that Crohn's disease and ulcerative colitis may be diagnosed by detecting measles virus in bowel tissue and body fluids

**September 1995:**

Paediatric gastroenterologist John Walker-Smith moves with most of his team from Barts hospital, London, to set up a service at the Royal Free

**February 1996:**

JABS solicitor, Richard Barr, retains Wakefield, at £150 an hour, plus expenses, to support a speculative legal attack on MMR manufacturers. This contract is not publicly disclosed

**July 1996:**

The first child is admitted to the Royal Free for research to try to show a link with MMR. The research is commissioned by, and supported with £50 000 from, the UK Legal Aid Board, but this is not publicly disclosed

**September 1996:**

Wakefield and his mentor Roy Pounder meet medical school managers to discuss market projections for a new business based on purportedly diagnosing Crohn's disease from the presence of measles virus



Roy Pounder, who was professor of gastroenterology at the Royal Free



Single vaccine patent filed by Wakefield

**June 1997:**

Claiming that the measles virus in MMR causes problems, Wakefield files for a patent on a "safer" single measles vaccine and for products to treat both autism and inflammatory bowel disease. This, too, is not publicly disclosed

**January 2003:**

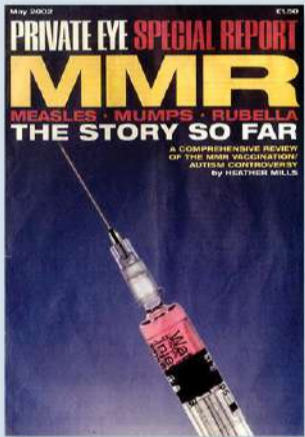
Vaccination among 2 year olds falls to 78.9%: below the 92% the Department of Health says is needed to maintain herd immunity. Figures in parts of inner London are half the national rates

**September 2003:**

The Legal Services Commission stops funding for Barr's lawsuit after barristers for the claimants report to the commission that, on the evidence, they cannot make a case that MMR causes autism

**May 2002:**

Amid continuing media campaigns over MMR, particularly by the Mail and Telegraph groups, the magazine *Private Eye* issues a special edition, written in collaboration with families that are suing vaccine manufacturers



**January 2001:**

The *Daily Mail* and other newspapers launch campaigns backing Wakefield, working with JABS, after he publishes a purported review of his evidence and repeats his calls for single vaccines

**October 2001:**

Wakefield is asked to leave the Royal Free after failing to mount a large scale controlled study to confirm or refute his claims about MMR

**December 2001:**

Prime Minister Tony Blair is ambushed by Wakefield supporters, who claim that his youngest son, Leo, did not have MMR. The Blairs initially decline to comment but much later deny the claim



Wakefield and his wife Carmel, after whom the doctor named one of his health businesses

**February 1999:**

Unigenetics is incorporated, with Wakefield and a Dublin pathologist, John O'Leary, as directors. The company is awarded £800 000 by the Legal Aid Board to perform tests on samples from children seen at Walker-Smith's Royal Free unit

**December 1999:**

Mark Pepys, new head of medicine at the medical school, challenges Wakefield about his business scheme and puts him on notice that he must replicate his research

**February 1998:**

The *Lancet* publishes a 12 patient case series by Wakefield and 12 others, proposing a link between MMR and a "new syndrome" of autism and bowel disease. At a press conference, he urges the use of single vaccines instead of MMR

**February 1998:**

Just days after the press conference, Wakefield and business partners meet Royal Free medical school managers to discuss a joint company to develop products based on his MMR claims, including "a replacement for attenuated viral vaccines"



Wakefield (centre) at the press conference to launch the *Lancet* research

**February 2004:**

The *Sunday Times* reveals that the Legal Aid Board funded the *Lancet* research and that many of the children were litigants. Richard Horton, the journal's editor, rejects more serious charges against the authors, later proved by the GMC



Richard Horton, *Lancet* editor

**March 2004:**

Ten of the 1998 paper's 13 authors, excluding Wakefield, retract its "interpretation" section, which claimed an association in time between MMR, enterocolitis, and regressive developmental disorders

**November 2004:**

Channel 4's *Dispatches* reveals Wakefield's single vaccine patent and that, despite Wakefield's claims that the culprit for the disorders is measles in MMR, molecular tests in his laboratory found no trace of the virus



Brian Deer questions Wakefield as part of the Channel 4 *Dispatches* programme

**January 2005:**

Wakefield initiates libel lawsuits, funded by the Medical Protection Society, against the *Sunday Times*, Channel 4, and Brian Deer over Deer's website, claiming that all allegations are false and defamatory

**March 2005:**

Among much research rejecting any link with developmental disorders and bowel disease, research is published showing that, after MMR was discontinued in Japan, the incidence of autism diagnoses continued to rise

**October 2005:**

In the London High Court, Mr Justice Eady refuses an application from Wakefield to freeze his libel actions and orders him to proceed to trial of Deer's allegations against his "honesty and professional integrity"

## Schoolboy, 13, dies as measles makes a comeback

A 13-YEAR-OLD boy has become the first person in Britain for 14 years to die of measles in a sign that the disease once a common killer is resurging. The boy's death is the first since the scare over the combined, with 71 of the 1998, rates fell to 60% nationwide. In some areas, particularly in London, take-up has exceeded 90%.

"He slipped through the net when he was younger and never caught up," said a source. The Health Protection Agency, the government body which monitors infectious diseases, said the following day that the boy's death was "not unusual".

**Brian Deer**

Deer, consultant in community child health at St George's hospital, south London, said the boy's death was "not unusual".

Following the introduction of MMR in 1988, immunisation against measles among children aged two rose from about 75% to 92%, bringing down the incidence of measles from 80 suspected cases in the United Kingdom in 1988 to just one in 1998.

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**April 2006:**

As measles outbreaks are reported across Britain, the first death in the UK from the disease in 14 years is reported—a 13 year old boy from the traveller community

**December 2006:**

The *Sunday Times* reveals Wakefield's personal funding from Barr to support the lawsuit over MMR: £435 643 plus expenses, from the legal aid fund. Some other Royal Free doctors were also paid

**January 2007:**

Two days after the payments from Barr are revealed, the Medical Protection Society stops funding for Wakefield's

libel actions and agrees to pay the defendants' costs of about £800 000 on top of its own legal bills

**July 2007:**

At a fitness to practise hearing in London, the General Medical Council opens its case alleging serious professional misconduct by the *Lancet* paper's three senior authors, Wakefield, Walker-Smith, and endoscopist Simon Murch

**February 2009:**

The *Sunday Times* alleges that Wakefield "fixed" the appearance of a link between MMR and autism. He denies fraud and files a complaint with the UK Press Complaints Commission, which he later abandons

**February 2009:**

In the United States, three test case judgments for 5000 claims based on Wakefield's theories are handed down in federal court, rejecting the allegation that MMR can cause autism. They are upheld on appeal in August 2010



**January 2010:**

A panel comprising three doctors and two lay members gives findings of fact on the GMC's case, upholding dozens of charges against Wakefield, Walker-Smith, and Murch and sending all three forward for sentencing

**February 2010:**

Six years after the matters were raised with the *Lancet*, the journal fully retracts the 1998 paper. Horton describes aspects of it as "utterly false" and says he "felt deceived"

**May 2010:**

After a 217 day inquiry, the GMC panel orders Wakefield and Walker-Smith to be erased from the medical register, but notes that Murch had shown "insight" and finds him not guilty of serious professional misconduct

