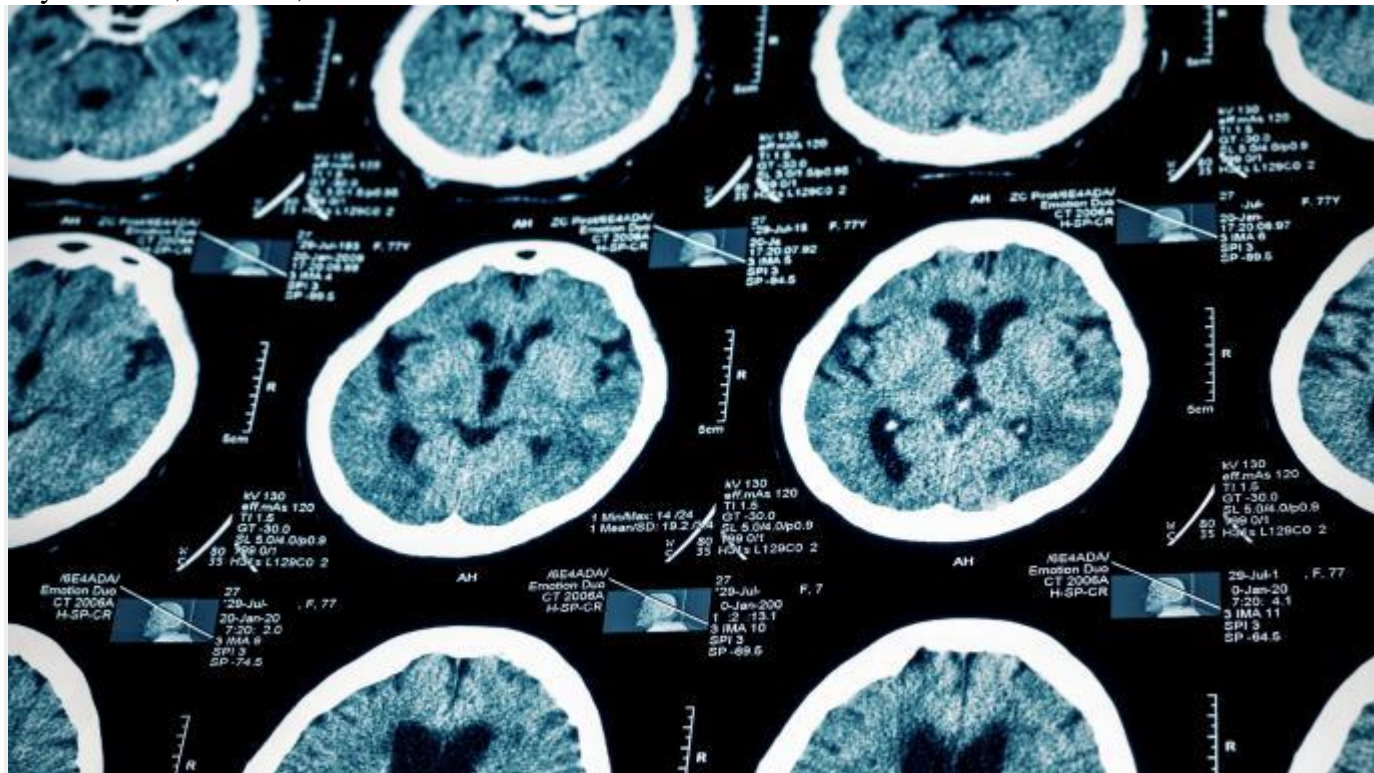


Scientists create the first drug to halt Alzheimer's

Chris Smyth, Health Editor

July 28 2016, 12:01am, The Times



Mental decline was halted for 18 months in some patients. The results were hailed as the strongest sign yet that an effective treatment for the disease is near Photo GETTY IMAGES

A drug has stopped brain deterioration in Alzheimer's patients for the first time, scientists announced yesterday.

Mental decline was halted for 18 months in some patients, in results hailed as the strongest sign yet that an effective treatment for the disease is near. Researchers said that the drug — taken as a tablet twice a day — could soon become the first medicine given to Alzheimer's patients to keep the disease at bay for as long as possible.

The final-stage trial had at first appeared to be a failure as the drug did not work in patients who were taking other dementia

medicines. However, among the 15 per cent of 891 patients not taking other medicines, the drug appeared to have remarkable effects.

These patients saw no drop-off in their reasoning and memory skills over 18 months, nor in their ability to carry out everyday tasks.

In addition, key areas of their brain shrank a third less than other patients in the trial, researchers told the Alzheimer's Association International Conference in Toronto.

“There is a pattern of disease modification here,” Serge Gauthier, of McGill University, who presented the results, said. “This is the first time it has happened in our field that a drug reduces the rate of brain atrophy.”

At present patients are prescribed drugs such as donepezil, also known as Aricept, which help to control symptoms for a time but do not stop worsening damage to the brain.

Mental exercises have also shown promise in delaying memory loss, but the main aim of dementia research is a drug to halt the disease by preventing damage to neural tissue.

Dr Gauthier said it was a surprise that other dementia drugs appeared to cancel out the effects of the new drug, called LMTX or LMTM, but added that just as cancer patients were given some medicines initially and then switched only if those stopped working, so Alzheimer's patients could be given LMTX as a first-choice drug.

“In a field that has been plagued by consistent failures of novel drug candidates in late-stage clinical trials and where

there has been no practical therapeutic advance for over a decade, I am excited about the promise of LMTX,” he said.

The drug, based on a blue dye, aims at dissolving a protein called tau, preventing it from forming tangles that kill off nerve cells. Many other drugs have targeted another protein, beta-amyloid, which also forms clumps in the brain of Alzheimer’s patients.

Claude Wischik, of the University of Aberdeen, who invented the drug and is developing it through a spin-off company, said that he hoped to apply for a licence after he had published the results of a second trial later this year.

World leaders promised in 2013 to find a drug to stop dementia in its tracks within a decade and Professor Wischik insisted that LMTX was such a drug and would be available within a few years. “This is wonderful,” he said. “I would like the drug to have just worked unequivocally in the whole population. But that’s science.”

Doug Brown, director of research at the Alzheimer’s Society, said: “After years of failure we are now starting to see glimmers of hope. There are still lots of questions to answer before we know how promising this new treatment could be — why it doesn’t appear to work in those who are already taking other medications?”

Maria Carrillo, chief science officer at the Alzheimer’s Association, said that the trial was “a significant event”, adding: “The most likely scenario for successful future treatment is addressing the disease from multiple angles. Having a drug that targets tau complete a phase 3 trial is a very hopeful sign.”

Other scientists urged caution. David Knopman of the Mayo Clinic, warned that looking only at a smaller group within a trial was “fraught with difficulties” because it increased the risk that impressive results could appear by chance. Alzheimer’s Research UK said that although the trial marked an important step, its findings needed to be confirmed in future trials.

68 comments

Post comment

christian Holscher Aug 1, 2016

The Times needs to print a retraction of this propagandistic article!

Here is the reason why:

<http://www.alzforum.org/news/conference-coverage/first-phase-3-trial-tau-drug-lmtm-did-not-work-period>

Elijah Lazarus Jul 29, 2016

Some good news at last!

Marcel Sprout Jul 29, 2016

I imagine that beneficiaries up and down the land will be jumping up and down with this fantastic news. It means they can eschew their made-to-measure mourning suits and frocks and veils in favour of shorts t-shirts and barbecues.

And maybe wonder in the years ahead if their intended funereal garments have gotten too tight in the long years of planning.

I notice dudes don't wear black-suits or ties these days. they wear t-shirts, baseball hats, shorts. I guess they're just here for the feast.

appleppleeeplesteeple Jul 29, 2016

Some astonishing comments below. I am ecstatic that so many Times readers are brilliant neuroscientists and journalists combined. I look forward to reading of their interesting scientific discoveries shortly.

christian Holscher Aug 1, 2016

@appleppleeeplesteeple

<http://www.alzforum.org/news/conference-coverage/first-phase-3-trial-tau-drug-lmtm-did-not-work-period>

AdamD Jul 28, 2016

B vitamins have about the same effect as that reported here. Google "vitacog study". They cost pennies, which may be why the research went no further. No profit in it - no "IP" as the research people say (intellectual property to market).

inkychips Jul 28, 2016

You're right, but there are massive savings for countries with nationalised healthcare so the drive to do it is there and it will be done. It was a tiny study (less than 150 patients in vitamin and placebo groups). In the mean time,

anyone can buy the vitamins themselves for little expense.
The vitacog trial doses were Folic acid 0.8 mg daily, oral
B12 0.5mg daily and B6 20mg daily if anyone's interested.

moira Jul 28, 2016

I have b12 deficiency and have recently been reading about
the vitamin.

There are claims that several 'mis'diagnosed illnesses
(including Alzheimer's) can be rectified with proper testing
for the deficiency and then regular doses of the b12.

I have also wondered if it's about money...

JFM Jul 28, 2016

It's a small step but that's science. It will stimulate more
work in an area with few advances.

Duncan McGregor Jul 28, 2016

[http://www.fiercebiotech.com/biotech/taurx-misses-
primary-endpoints-alzheimer-s-combo-phiii-trial](http://www.fiercebiotech.com/biotech/taurx-misses-primary-endpoints-alzheimer-s-combo-phiii-trial)

This link says it all really. How this made the front page of
the Times is beyond me-the journalist responsible needs to
take a long hard look at how they ended up swallowing
company spin...

Doc Torrance Jul 28, 2016

Another example of the results of questionable evidence
magnified and promoted by the media. When I was trained
in critical appraisal (looking at the quality of study data
when it has been published) one of the first things I was
taught was to beware of "sub group analysis". This is the

term used to describe a smaller group of patients within a study being looked when the initial pre-defined results and outcomes appear to be lacking. It is generally a proxy measure for desperation when the primary outcome has not been achieved. It is certainly interesting and worth exploring but nothing more. We would need a proper large randomised trial controlled trial ideally comparing this new drug to both placebo and other dementia meds before we can begin to get excited.

Alan Thorpe Jul 28, 2016

I'm putting my faith the the study of nuns reported by David Eagleman. The nuns agreed to donate their brains for study and many were found to have all the signs of dementia but they did not exhibit any signs when alive. It is said this was because they lead very active lives. Do we really need more drugs?

Ross Jul 28, 2016

One interpretation that springs to mind is that if - as seems quite likely - a lot of the apparently effective treatments are in fact simply exploiting the powerful placebo effect, then adding a new pill to the mix would have very little effect, whereas replacing all existing treatment by a new pill would increase it, at least in the short term. Ask Ben Goldacre what he thinks about it.

Angela Brown Jul 28, 2016

@Ross Maybe we should all just take placebos?

christian Holscher Jul 28, 2016

As a professor and neuroscientist who works in this field I can only say the results have been wildly overstated by this journalist. The main outcome is that the drug did absolutely nothing, it was a failure. There is a small subgroup that received the drug as a monotherapy which shows promising results, but this is very far from certain and needs to be analysed in more detail. Poor journalism I have to say!

Irine Furneaux Jul 28, 2016

@christian Holscher Oh ye of little faith!

How many more years of analysing and analysing do you professors in your ivory towers need? 'This is far from certain', you say but come down from your tower and realise that if this drug helps even one person to have an extra 18 months of recognising their children and grandchildren surely that is good news and should be reported as such.

Having seen my elderly mother being helped ever so little by the first experiments of these type of drugs was worth every extra moment. You have to live through this nightmare illness to appreciate this so any drug that improves their memories, even for a few months, should be trumpeted from the rooftops.

Ralph Naderbolsinmattu Jul 28, 2016

Correct and they found this in a small 15% sub group which was not pre specified.

Bernadette Bowles Jul 28, 2016

@christian Holscher The media always overstates any advance; but it shows a definite line of enquiry. If further tests confirm this, it will be a great advance for those newly diagnosed, their families and society at large. If not, back to the drawing board.

Mr Julian Smith Jul 28, 2016

@christian Holscher My wife works in clinical trials in neuroscience and attended this conference where the results were disclosed. Apparently the room (and many others) had a very different take on the 'success' of these results. Patient cohorts that are not on other treatments tend to be at an earlier stage in the disease which could contribute to their improved outcomes. LMTX also refused to comment on the placebo effects for this same sub-group of patients (although surely had the data), therefore undermining their trial methodology. Whilst we want to see progress in tackling this disease, I fear Chris Smyth may have been given some rose-tinted spectacles by the company's PR. Here's what the NYT had to say "A new type of drug for Alzheimer's disease failed to slow the rate of decline in mental ability and daily functioning in its first large clinical trial. There was a hint, though, that it might be effective for certain patients."

OBJoyful Jul 28, 2016

@Mr Julian Smith @christian Holscher Thank you, Julian. Your comment sounds the most reasonable of all of those that have been posted. I found it very useful in making an assessment of where the research is at the moment.

C J Delmege Jul 29, 2016

@Mr Julian Smith @christian Holscher Thank you for your informed input.

Thought of a 2nd career in journalism?

JFM Jul 28, 2016

@christian Holscher I wonder if I detect the taste of sour grapes, or not-invented-here? Its the subgroup that counts; and the journalist mentioned it as have others. Drug interference is very familiar in medicine, and a perfectly reasonable hypothesis here. Much further work needed of course, though obviously not in Munich.

Hem Laljee Jul 28, 2016

These Scientist take the shadow of the brain and tell us that they have halted the deterioration.in course of short period. What about the clinical presentation of the patients? They are also saying that their drug does not work if the patient is taking another anti-dementing drug. What is the message they are trying to convey? Brain and nervous system is the ultimate tissue and takes time to learn and develop in all dimensions of our lives. So what is 18 months? The last

sentence spoken by the Alzheimer research UK sums it up well.

Swiss Tony Jul 28, 2016
@Hem Laljee

Put yourself forward for the next trial. It couldn't be worse

Hem Laljee Jul 28, 2016
@Swiss Tony @Hem Laljee If I could be in possession of such degree of logical capabilities then I must be able to judge the capabilities of these so called Expert Scientists too.

Swiss Tony Jul 29, 2016
@ hem.
I'm not so sure you are in possession of logical capabilities Hem.

Hem Laljee Jul 29, 2016
@Swiss Tony Some people are born with with super ego and I see you are one of them. I would not like to live in your world any way.

Swiss Tony Jul 29, 2016
@Hem Laljee @Swiss Tony

Some people are born dumb Hem. And i see that...

william Jul 28, 2016

Good news!

Gillian Trim Jul 28, 2016

Our diseases make Pharmaceutical Companies very rich.

Mr Graham Boden Jul 28, 2016

Want to go back to using henbane, do you?

Carla Jul 28, 2016

@Gillian Trim So would you prefer there were no treatments and cures?

Brian Jones Jul 28, 2016

I agree whole heartedly with Gillian Trim.

Anthony Tamburro Jul 28, 2016

@Gillian Trim it does...

and for patients and families living with dementia, cancer etc. is very difficult.

Pharmaceutical companies should not make money from drugs, although to be fair they don't, shareholders do and anyone promising money to drug firms for free and not requiring dividend payments or capital growth will be greeted I suspect with open arms.

Perhaps, this will happen..I hope so.

Karla Kenyon Jul 28, 2016

The Times is forever brandishing some wild headline proclaiming an amazing medical breakthrough that, in the article, turns out to be a small result within a small study. To me it is irresponsible to appear to proclaim a cure for some major devastating affliction just as bait to lure in readers. This is supposed to be a solid, respectable source of news, not some sensationalizing tabloid.

Driftwood Jul 28, 2016

@Karla Kenyon It was mentioned on Radio 4 this morning and doubtless in other papers, really don't think it will be mentioned in the tabloids though.

Ralph Naderbolsinmattu Jul 28, 2016

Yes the tabloids have a higher standard of science reporting, limited to facts, such as the price of handbags and size of Kim Kardashians nether regions.

Pandrops Jul 28, 2016

As the wife of a sufferer, I am delighted to hear that research is continuing and actually showing positive results. The article makes very clear that this is not an all-round cure but that they are working on it. I personally can only say, I was boosted by the article and am always glad to know that this awful condition is not being forgotten by scientists. As persons directly affected, any shimmer of hope is welcome. The negative comments by some readers

just pull us down again. Life is good, try to be positive and optimistic about any achievements at all!

C J Delmege Jul 28, 2016

@Pandrops I recently read that statins have a positive effect (by reducing inflammation). Just do it; nothing to lose, and either way you will be contributing to research on this disease.

Ralph Naderbolsinmattu Jul 28, 2016

Except the 20% who are intolerant with muscle cramps and weakness.

C J Delmege Jul 29, 2016

@Ralph Naderbolsinmattu Which means 80% who are not. I think statins are about the most well tolerated drugs you can buy. Better than Aricept.

Ralph Naderbolsinmattu Jul 29, 2016

Statins are a toxic and expensive placebo with NO proven benefits.

C J Delmege Jul 29, 2016

@Ralph Naderbolsinmattu Science means looking at the evidence. Which is hugely against you. Aspirin has side effects and can kill.

Ralph Naderbolsinmattu Jul 29, 2016

Ok it is all about risk benefit ratio. If there is no proven benefit from RCTs there is no risk benefit ratio.

For aspirin growing evidence suggests it can prevent colorectal cancer. There are some toxicities but the risk benefit ratio remains positive.

Statins are pretty much a con trick except when you had a heart attack.

C J Delmege Jul 29, 2016

@Ralph Naderbolsinmattu OK. We (mostly) agree at last ! Julian Smith puts it very well about 10 above.

I do take aspirin. I believe it does protect against more than one type of cancer.

J Eric Ellard Jul 28, 2016

Fine sentiments but scientists are not just kindly remembering the disease. One day, a cure will be found.. But the price will be pitched so high that only stockbrokers will be able to afford it.

Ralph Naderbolsinmattu Jul 28, 2016

A cure will never be found for this degenerative neurological condition.

bernard betts Jul 28, 2016

@Ralph Naderbolsinmattu That is why it is called an acute condition !

Bernadette Bowles Jul 28, 2016

@Ralph Naderbolsinmattu Why be so negative? We have found cures for so many things once seen as an automatic

death sentence over the years; as we find out more about diseases we will find ways to prevent or cure those that are currently intractable.

Ralph Naderbolsinmattu Jul 28, 2016

The world has invested billions and millions of hours of effort and the science just isn't there. Once a person is diagnosed the brain is already destroyed and cannot be repaired. A test to accurately predict, without false positives is nowhere in sight. It's not at all like the development of cancer treatment where the science is there and there has been 50 years of steady incremental progress.

We need to invest in care until science generates something fundamentally different and that is not on the event horizon.

John Burgess Jul 28, 2016

Totally agree. Great caution needed with such articles. Suggest The Times should engage the services of an experienced medical epidemiologist to assess these types of issue before publication. There will now be countless sufferers and families of those with the disease thinking a new treatment is available which must be efficacious as it was reported in the most reliable of newspapers.

Ralph Naderbolsinmattu Jul 28, 2016

Suggest the times employs journalists with a science background.

Michael Meade Jul 28, 2016

@Ralph Naderbolsinmattu Agreed. And we could do with some politicians too. I think Margaret Thatcher has been one of the few to be properly science trained.

James Godfrey Jul 28, 2016

@John Burgess I would also agree with the cautious note about this report. This is the second time in a week that an article has appeared in ToL giving unrealistically optimistic reports about medical trials. These articles should be written by journalists who have training in science and statistics.