

My prog-MS ezine

For people with progressive MS and other interested people

Issue 56, September/ October 2024

Hello and welcome to the 56th edition of my ezine about progressive Multiple Sclerosis and MS progression in general. My name is Ian Cook. I'm a secondary progressive MSer from Birmingham, UK. I'm 66. (EDSS 6)

In Issue 56, there are eight pages of prog-MS news stories about new trials and research and two features. One on page 5 looks at the neural sleeve, an amazing new walking aid, a sort of "exo-suit" that is being rolled out in the US and helping prog-MSers to walk better and further. Go to page 5 to find out more.

There's another feature on page 10 looking at the subject of "disability pride". Disability Pride was held earlier this year but like most disabled people you probably missed it. I ask whether disability is something we prog-MSers should be proud of. How does a notion of 'disability pride' fit in with my long-term aim of getting rid of my disability? Is there a contradiction here? More on page 10.

IN THIS ISSUE



How the 'Neural Sleeve' is helping MSers like Patty get back on their feet– page 5

Frexalimab reduces nerve cell damage in prog-MS - page 3

Foralumab wins FDA fast track designation for non-active SPMS – p4

News

MS Progression linked to immune response outside the brain

Research from Southampton University and University Hospital Southampton shows that inflammation outside the brain, such as that caused by common infections like colds and urine infections (UTIs), can be linked to MS progression.

The Systemic Inflammation in Multiple Sclerosis (SIMS) study followed 50 people living with progressive MS for two and a half years. Researchers measured inflammation in the body by looking at a weekly urine sample.

Inflammation in MS can be caused by a number of factors, including infections, other medical conditions, trauma and an unhealthy lifestyle. The new research into this inflammation is published in the journal 'Brain Communications'.

MS is caused by the immune system mistakenly attacking the nerves in the brain and spinal cord. Over time, this can lead to the loss of nerves, which causes MS progression. Research in animals has shown that inflammation outside the brain can exacerbate this process, but researchers wanted to understand whether this also happens in people with MS.

The new study builds on previous research which found that infections can sometimes trigger a relapse or temporary worsening of symptoms in MS. This new study suggests that inflammation, which can be caused by infections like colds, flu and UTIs (urinary tract infections), is linked with the loss of nerve cells in the spinal cord—which is a major underlying cause of MS progression.

Professor Ian Galea, neurologist from the University of Southampton and lead researcher on the study says, "Our results build on decades of research showing inflammation causes nerve cell loss in the laboratory. Now we've shown a connection between inflammation and loss of cells in the spinal cord in humans.

"And in the future, lab research could help us understand what's going on at a molecular level when this inflammation happens—which could perhaps help us develop new drug treatments.

"The results of this study suggest it is important for people with MS to minimize inflammation where they can. This includes receiving all recommended vaccinations and seeking prompt attention for bladder infections. Following a healthy lifestyle could also be beneficial, as factors like smoking, alcohol and obesity are linked to inflammation. And as health care professionals, we can help too by talking about these things with our patients so they have the facts they need." **For details of sources for all news stories go to page 14**

Frexalimab reduces blood NfL levels over 1 year in Phase 2 MS study

Nearly one year of treatment with frexalimab, an antibody drug being developed by French pharma Sanofi, significantly reduced the blood levels of neurofilament light chain (NfL), a biomarker of nerve cell damage that typically rises in people with progressive MS.

That's according to new data from a company-sponsored Phase 2 clinical study (NCT04879628), which is testing two frexalimab doses against a placebo for 12 weeks, or about three months, followed by a long-term, open-label extension period. Nearly one year of data indicates that frexalimab resulted in sustained reductions in the number of active and new or enlarging brain lesions in people with active secondary progressive MS as well as relapsing-remitting MS.

These data support frexalimab's mechanism of action and the company's move into Phase 3 clinical testing in patients with non-relapsing secondary progressive MS (NCT06141486). The study has begun enrolling patients at sites globally including one in the UK. The new data were presented in two posters at the 10th Congress of the European Academy of Neurology (EAN), held recently in Helsinki.

Frexalimab is a next-generation anti-CD40L antibody designed to inhibit the CD40/CD40L pathway, which is key for the activation of immune cells in the body. It is expected to control both new and ongoing inflammation in MS without reducing the number of circulating white blood cells or causing blood clots, a serious side effect of earlier CD40L inhibitors. The ongoing Phase 2 study is testing how safe frexalimab is, and how well it works against a placebo in 129 adults withMS.

In the first part of the study, participants were randomly assigned to one of two doses of frexalimab — 1,200 mg or 300 mg — or a placebo for 12 weeks. The high dose was given via monthly infusions into the bloodstream after a loading dose of 1,800 mg, while the low dose was administered through subcutaneous or under-the-skin injections once every two weeks, with a 600 mg loading dose.

After 12 weeks, researchers observed an 89% reduction in new lesions with active inflammation in the high-dose group versus the placebo group, and a 79% reduction with the low dose — meeting the trial's primary goal. Reductions in the total number of new or enlarging lesions also were observed with both doses.

In a presentation titled "Safety and efficacy of frexalimab in relapsing multiple sclerosis: 48-week results from the phase 2 open-label extension," researchers now reported that these benefits in MRI disease activity were sustained for up to 48 weeks. **For details of all news stories go to page 14**

Foralumab wins FDA fast track designation for non-active SPMS

US biopharma - Tiziana Life Sciences - has received fast track designation from the US Food and Drug Administration (FDA) for its nose spray delivered drug foralumab to treat non-active secondary progressive MS, (SPMS).

The FDA can give fast track status to experimental medicines that have the potential to fill unmet needs to treat serious disorders. The designation gives developing companies access to incentives such as more frequent meetings with the FDA, with the goal of speeding up the development and review of potentially important medications.

The designation "is a testament to the innovative approach we are taking with foralumab," William Clementi, Tiziana's chief development officer, said in a company press release. Gabriele Cerrone, chairman, acting CEO, and founder of Tiziana, said the FDA's action "underscores the potential of foralumab to address critical unmet needs".

Foralumab is designed to reduce inflammation in the brain and spinal cord, which drives disease activity in MS. The therapy delivered via a nose spray. It specifically targets a protein called CD3 that is found at the surface immune T-cells. By targeting this molecule, foralumab aims to reduce the activity of inflammatory T-cells while simultaneously boosting the activity of anti-inflammatory T-cells. This is expected to reduce inflammation overall to help control MS disease activity.

Foralumab is presently being tested in 10 nonactive SPMS patients in an expanded access programme, with the treatment given via nose sprays at a 50 microgram (mcg) dose. It's administered in three-week cycles, consisting of sprays into each nostril three times a week for two weeks, followed by one week of rest.

Data has suggested that foralumab treatment reduces brain inflammation, with 80% of patients experiencing a reduction in the activity of brain resident immune cells called microglia. It also eased fatigue in 70% of patients.

A Phase 2a clinical trial (NCT06292923) testing foralumab against a placebo in nonactive SPMS has started as part of the "fast track" process. The trial, which dosed its first participant late last year, is open to adults with nonactive SPMS who have experienced continual disease progression despite treatment with available therapies.

A total of 54 patients are expected to enrol. The main goals are to assess the treatment's safety and impact on microglial activity. Other outcome measures will include disability progression and changes in fatigue, inflammatory brain lesions, and brain volume. The trial is expected to conclude in November this year.

For details of all news stories go to page 14



Are wearable walking aids on their way over here?

Anyone who has watched the development of “exoskeletons” and “exosuits” in the US will be excited by news that they may soon be over here.

The latest and most exciting new walking aid is the “Neural Sleeve”, made by US bio-tech company Cionic. In 2022 the Neural Sleeve was cleared for use in the US by the Food and Drug Administration (FDA), becoming the first high tech wearable bionic clothing aid for mobility impairment to win US federal clearance.

The Neural Sleeve is a flexible, lightweight leg-worn device, available in several sizes and has multiple sensors that allow it to evaluate, predict, and improve a user’s movement. It can be worn on one or both legs, dependent on the extent of walking difficulties.

The device can read signals sent from the brain to muscles and then electrically stimulate muscles to make real-time adjustments with each step to produce a more natural walking movement. A smartphone is used with the device to customize and modify settings, switch between programmes, and meet-face-to-face with Cionic mobility specialists via the built-in telehealth platform. One research study evaluated the Cionic sleeve’s efficacy and found patients’ ability to lift their toes markedly improved. Participants also saw reduced turning in of their feet during walking.

One US Neural Sleeve user Patty Glatfelter (pictured above) who has had MS for 37 years and was a physical therapist for 48 years says the Neural Sleeve has improved her energy levels massively because walking is no longer such an energy sapping struggle. **Continued on page 6**

Continued from page 5 Patty (69) says her walking movement (her gait) is much smoother and thus far more energy efficient. Her story is one of several told with accompanying video showing her walking which are posted on the Cionic website..

Things are moving quickly with the Neural Sleeve. A production plant in California is licensed to supply 47 U.S. states, with more than 400 clinics or healthcare institutions "prescribing" the garment. Cionic recently also announced it had raised an additional $12 million financing, which it would use to increase the sleeve's adoption. The company added that MSers will be a key group to see benefit. As well as supplying the device, Cionic also provides training for US patients.

Finally, UK MSers will doubtless want to know: when will the device become available over here? In order to get UK approval Cionic will first have to satisfy the requirements of the UK's MHRA (Medicines and Healthcare Regulatory Authority). New applications typically take 90 working days to process. The next regulatory body to be satisfied in the UK is NICE (National Institute for Health and Care Excellence) who will need to be satisfied about not only its safety and efficacy but also that the neural sleeve is a "cost effective intervention" in order to make it available for NHS patients. NICE aim to publish final guidance for all new technologies within 90 days of receiving marketing authorisation. In theory and following all necessary approvals the neural sleeve could be available on the NHS within six months of an application being made to the MHRA and NICE. There is not yet a timeline for when the application will be made.

For those who want to go down the private route the key issue is likely to be cost. US pricing structure gives some indication of how much a private patient in the UK might pay. In the US there is currently a $260 (£200) down payment followed by $260 (£200) per month for the first 12 months, which covers the Neural Sleeve, expert care from a Cionic Mobility Specialist, electrodes as needed, access to all new exercises and activities, and warranty repairs. From year two onwards, the current cost is $120, (£100) per month which includes expert care from a Cionic Mobility Specialist, electrode gel pads as needed, access to new exercises and activities, and warranty repairs. VAT is generally not levied on medical appliances.

Just watching Patty and the other MSers it's clear the Neural Sleeve is already making waves on the other side of the Atlantic. It is surely only a matter of time before MSers start to witness a similar sea change in walking aids available over here. That day can't come soon enough for MSers like me.

For further details of sources for feature see page 14.

New investment speeds Abata's T-cell therapy for prog-MS

US biopharma Abata Therapeutics has received backing from industry giant Bristol Myers Squibb to support the development of its experimental regulatory T-cell (Treg) therapy for progressive MS.

The new equity investment follows a green light from the U.S. Food and Drug Administration (FDA) allowing Abata to test ABA-101, its treatment candidate for progressive MS, in clinical trials. Abata plans to launch a Phase 1 trial later this year to evaluate that therapy in people with progressive MS.

ABA-101 also recently received FDA's fast-track designation for progressive MS treatment, which is meant to speed the development of potentially important therapies for serious conditions with unmet medical needs. It gives Abata access to perks including more frequent meetings with the agency and potential priority review status upon filling of a regulatory application.

ABA-101 specifically involves the collection of Tregs (regulatory T cells) from patients and their modification in the lab to carry a cell surface receptor that recognizes fragments of myelin – the protective coating around nerve fibres progressively damaged and lost in MS. The engineered Tregs are then infused back into the patient, where they are expected to suppress inflammatory and immune responses at sites where they recognize myelin fragments, which in MS patients are indicative of myelin damage due to autoimmunity. Activated Tregs also are thought to release molecules that promote myelin repair.

ABA-101 is being specifically developed for MS patients with progressive MS, with imaging evidence of ongoing inflammatory tissue injury, and a particular genetic mutation known as HLA-DRB1*15:01. This genetic variation affects the immune system's ability to identify the body's healthy tissue and is a risk factor for developing MS.

The support of Bristol Myers Squibb adds not only capital, but also expertise. Since the launch of Abata in 2021, the company's development of Treg-based therapies has been supported by a range of investors, such as Lightspeed Venture Partners, Biogen, Elevatebio, Eurofarma, Invus, Samsara Biocapital, and T1D Fund, previously known as JDRF T1D Fund. Bristol Myers Squibb has now joined this group, but the amount invested has not been disclosed.

Abata Therapeutics is expected to launch a Phase 1 clinical trial by the end of the year to test ABA-101, its experimental therapy for progressive multiple sclerosis (MS), after getting a green light from the U.S. Food and Drug Administration (FDA).

For further details of all news and features go to page 14

News

Phase 1 trial to begin of CAR T-cell therapy azer-cel for prog-MS

US biopharma TG Therapeutics plans to launch a Phase 1 clinical trial to investigate a 'CAR T-cell therapy' called azercabtagene zapreleucel, or azer-cel, in people with progressive MS.

CAR T cell therapy is a type of immunotherapy that uses immune cells called T cells that are genetically altered in a lab to enable them to locate and destroy disease causing cells more effectively.

The announcement by TG Therapeutics comes after the U.S. Food and Drug Administration (FDA) cleared TG's investigational new drug (IND) application, allowing it to begin clinical trials.

Azer-cel, formerly PBCAR0191, is designed to target and eliminate B-cells. It belongs to a class of therapies where a donor's immune T-cells are modified with a man-made receptor to target and eliminate other cells. T-cells can recognize specific molecules on the surface of cells. Once they do, one function is to kill the flagged cells in a highly specific manner.

But T-cells can be engineered to become more effective and specific. This is done by loading them with an antigen receptor (called a "CAR") designed to recognize a particular target. Azer-cel contains CAR T-cells that are modified to recognize CD19, a molecule on the surface of B-cells. Once infused into the patient, the modified T-cells should eliminate these cells from circulation.

Most CAR-T cell therapies are made with a patient's own T-cells, which avoids complications from donor-derived cells. But azer-cel uses T-cells from a donor. While this could give rise to complications such as graft-versus-host disease (GVHD), where the donor T-cells attack the patient's healthy cells and tissues, Precision Biosciences' designed azer-cel to mitigate these complications. The company has already tested the therapy in a number of B-cell cancers and the results have been generally positive.

"We look forward to TG Therapeutics initiating a clinical trial for azer-cel in autoimmune disease," a company spokesperson said.

For details of all news stories go to page 14

Alzheimer's risk far lower in prog MS patients, study finds

And now for some good news. People with MS, including older patients and those with progressive MS, are half as likely as those without the disease to have signs of the amyloid-beta plaques in the brain - a hallmark of Alzheimer's disease,

That's according to a US study - "Unexpected Low Rate of Amyloid-[beta] Pathology in Multiple Sclerosis Patients" published as a brief communication in the Annals of Neurology. The study does not identify a definite reason for this newly found reduced Alzheimer's link.

"Our findings imply that some component of the biology of multiple sclerosis, or the genetics of MS patients, is protective against Alzheimer's disease," Matthew Brier, MD, PhD, the study's first author and an assistant professor at Washington University School of Medicine in St. Louis, said in a university news story.

Anne Cross, MD, an MS specialist at the university, found it interesting that her patients rarely developed Alzheimer's, even though they were old enough to be at risk for it and often had secondary progressive MS.

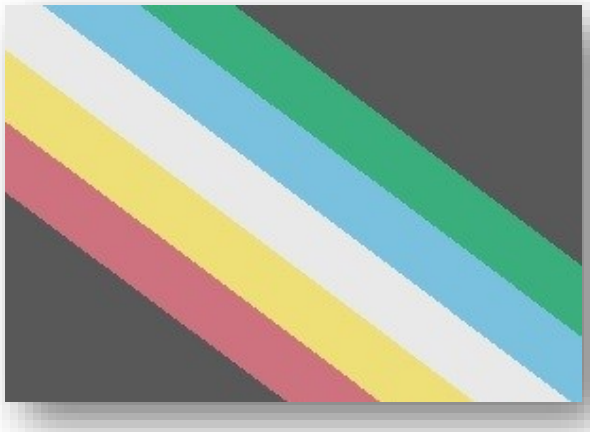
Cross teamed up with other researchers to study whether people with MS have the same risk of developing Alzheimer's as those without the condition. The researchers used PrecivityAD2, a blood test from C2N Diagnostics that's approved in the U.S. to predict the presence of amyloid-beta plaques in the brain. These toxic protein clumps are a hallmark and a driver of Alzheimer's-associated neurodegeneration.

The team recruited 100 people older than 60 with MS and compared their PrecivityAD2 results with those of 300 sex- and age-matched adults without MS. These controls, who could have either normal or impaired cognitive function, had similar rates of an Alzheimer's genetic risk factor, called APOE, to MS patients.

Results showed that people with MS were about half as likely to have signs of Alzheimer's as controls. The findings suggest that MS may protect against Alzheimer's.

"If we could identify what aspect is protective and apply it in a controlled way, that could inform therapeutic strategies for Alzheimer's disease," one of the researchers said.

For further information go to page 14



Is your disability a source of pride?

You may have blinked and missed it, but a couple of months ago "Disability Pride Month" was held.

This annual event which started in the US is now gaining traction in the UK. Like Pride, the event formerly known as 'Gay Pride', Disability Pride is about us disabled people being proud of who we are. Like 'Gay Pride' we even have our own stripey flag. (See above)

Perhaps it's an MS thing but I find being "proud" of my disability a tricky concept, and I am not alone. Ben Hofmeister, a columnist in MS News Today, wrote recently about his ambivalence regarding "Disability Pride".

Ben was diagnosed with Primary Progressive MS in 2014. In his MS News Today column Ben said: "None of us choose to have MS, so how can I be proud of having it? He then ramped things up a bit and said: July may have been Disability Pride Month, but I'm not proud to be disabled.

Like Ben I have mixed feelings about being proud of my disability for the simple reason I too didn't choose disability and frankly I don't like being disabled. In truth I actually want to be non-disabled, or put more simply I want to be cured of MS and I contribute to charities which fund research into finding a cure. So, at best you might say I have mixed feelings about disability 'pride'. I am not saying it is wrong for others to find pride in their disability, it's just my own feelings are more ambivalent.

Ben said that to him being proud of something means you're responsible for it. He said he was proud that he passed the selection process for the U.S. Army Special Forces because it was something he had attempted and succeeded at.

Continued on page 11

Continued from p10 Like Ben I can hardly claim personal responsibility for having MS. I don't think getting MS was that much to do with me, more my environment, genes and childhood EBV infection. For these reasons I can't really take pride in being diagnosed with MS because I wasn't really responsible for those things. I didn't choose them.

On the other hand, I can take pride in not giving up or letting my disabilities get the better of me. So, is there anything else about my disability to be 'proud' of? Well, like Ben I am not ashamed of it, I don't hide it, and I talk about it – quite a lot as you probably have noticed so in that sense there is pride in my MS.

I am also proud of the efforts of disabled activists on both sides of 'the pond' who have campaigned to end discrimination against people like me and Ben. It all started in the US with the passing of the Americans with Disabilities Act (ADA). The Act was signed in July, 1990 which is doubtless why July of every year is disability's 'pride' month.

Looking at Disability Pride from this side of the Atlantic, next year, 2025, we can all take "pride" at the 30th anniversary of the UK's landmark 1995 Disability Discrimination Act (DDA). This piece of UK law made it illegal for the first time to discriminate against people on the grounds of their disability. I am proud of that.

There are also the efforts of a small group of UK disabled activists from DAN, Disability's 'Direct Action Network', who chained themselves to buses to highlight the UK's lack of accessible transport. I am also proud of their efforts.

But, like Ben Hofmeister deep down I remain ambivalent about "Disability Pride". I can't in all honesty say I am proud of my disability. It would be more accurate to say I am reconciled to having a disability (MS), and making the best of the difficulties that MS and disability have brought into my life. Perhaps I'll feel differently in 2025.

For details of all features go to page 14. Picture thanks to Disability Pride

Glial cells implicated in MS disease progression

Glial cells, brain cells which mostly support the function of nerve cells, play key roles in MS disease progression and development, according to a new stem cell-based study which challenges conventional thinking on MS and auto-immunity.

"Most research and therapeutic strategies have so far focused on blocking the overactive immune system, but how cells in the brain itself, especially glia [glial cells], contribute to the initiation and progression of MS has remained a mystery," Valentina Fossati, PhD, the study's co-senior author and senior research investigator at the New York Stem Cell Foundation (NYSCF) Research Institute, said in a foundation press release.

The new study "represents a significant leap forward in our understanding of MS and underscore the vast potential in glia as a target for therapeutic intervention that could transform the treatment landscape for many patients," said Paul Tesar, PhD, the study's co-senior author and director of the Institute for Glial Sciences at Case Western Reserve University School of Medicine. Details of the discovery were published in the study "Patient iPSC models reveal glia-intrinsic phenotypes in multiple sclerosis." published in the journal 'Cell Stem cell'

"While progress has been made in defining the immune system's role in MS … the contribution of intrinsic [brain and spinal cord] cell dysfunction remains unclear," the paper's researchers wrote. To investigate the role of glia in MS, the researchers analysed glial cells derived from MS patients and healthy people Glial cells were taken from six people with relapsing-remitting MS (RRMS), five with primary progressive MS (PPMS), and six with secondary progressive MS (SPMS), as well as five healthy people.

The researchers found that iPSCs derived from people with PPMS, generated fewer oligodendrocytes. "This observation challenges the conventional understanding of MS as being purely driven by immune system dysfunction, suggesting that the disease may also be fuelled by processes originating within the brain itself," said Tesar.

"The fact that glia created from stem cells show similar features to glia in MS patient brains shows us that stem cell models provide a pretty accurate reflection of what happens in the brains of living patients, and that we can use them to gain important insights into this disease," Fossati added. MS models derived from iPSCs "provide a unique platform for dissecting glial contributions to disease [features] independent of the peripheral immune system and identify potential glia-specific targets for therapeutic intervention," the researchers wrote. **For details of all stories go to page 14**

News

Researchers Identify new potential therapeutic target for prog-MS

Suppressing a protein that forms crucial channels for cell-to-cell communication and plays a key role in regulating the immune system significantly improved symptoms of patients with progressive MS. That's according to researchers from Kyushu University in Japan.

The protein is called connexin 43 (Cx43When too much Cx43 is produced, this can lead to enhanced cell signalling that contributes to neuroinflammation and demyelination. The findings of the Japan research, published in the journal Scientific Reports, suggest that use of INI-0602, an investigational virus therapy, not only suppressed overproduction of Cx43 but also lessened demyelination and excessive immune cell infiltration to the nervous system.

The findings showed that mice treated with INI-0602 exhibited significant clinical improvement in the chronic phase of experimental autoimmune encephalitis, the animal model of MS.

In 2013, the researchers from Kyushu found an increase in Cx43 in astroglia cells around chronic MS lesions, suggesting that it may play a more pivotal role in promoting neuroinflammation.

In collaboration with the International University of Health and Welfare, the researchers furthered their investigation of Cx43 as a potential therapeutic target for MS in an experimental mouse model. In the study, the mice received either 40 mg/kg of INI-0602 or a placebo every other day from days post-immunization 17 to 50.4

The findings showed that mice treated with INI-0602 exhibited significant clinical improvement in the chronic phase of experimental autoimmune encephalitis (EAE), the animal model of MS. Additionally, INI-0602 reduced demyelination and levels of CD3+ T cells, macrophages, and reactive astrocytes, suggesting that it may help modulate Immune cell infiltration in the CNS.4

"We plan to conduct clinical trials in the future to evaluate the safety and efficacy of INI-0602 in human patients with MS," said Ryo Yamasaki, MD, PhD, associate professor from the Faculty of Medical Sciences at Kyushu University, in a news release.

For details of all news stories see page 14

References further details, etc

Page 2 Progression may be caused by factors outside the brain

https://medicalxpress.com/news/2024-07-multiple-sclerosis-linked-immune-response.html

Page 3 Frexalimab study in progressive MS

https://multiplesclerosisnewstoday.com/news-posts/2024/07/08/frexalimab-reduces-blood-levels-nfl-protein-1-year-ms-study/

Page 4 Foralumab for non-active prog-MS

https://multiplesclerosisnewstoday.com/news-posts/2024/08/01/foralumab-fda-fast-track-designation-nonactive-spms/

Pages 5-6 Neural sleeves

https://cionic.com/neuralsleeve

Page 7 Aba-101 phase 1 trial in prog-MS

https://multiplesclerosisnewstoday.com/news-posts/2024/07/12/phase-1-trial-aba-101-progressive-ms-expected-late-2024-start/?utm_source=MS&utm_campaign=1913821475-

Page 8 CAR T cell therapies in progressive MS

https://multiplesclerosisnewstoday.com/news-posts/2024/08/14/testing-phase-1-trial-car-t-cell-therapy-azer-cel-progressive-ms/?utm_source=MS&utm_campaign=07c14e3726-Email_ENL_NON-US_MS&utm_medium=email&utm_term=0_b5fb7a3dae-07c14e3726-71290133

Page 9 Alzheimer's risk less in MS patients

https://multiplesclerosisnewstoday.com/news-posts/2024/08/27/ms-patients-less-likely-alzheimers-study/?utm_source=MS&utm_campaign=7c2d051061-

Email_ENL_NON-US_MS&utm_medium=email&utm_term=0_b5fb7a3dae-7c2d051061-71290133

Page 10-11 Disability Pride feature

For Ben's original feature see https://multiplesclerosisnewstoday.com/columns/chairborne-a-column-by-ben-hofmeister/2024/07/25/disability-pride-tricky-concept-relate/

The Disability Pride Flag was created by Ann Magill in 2019. The original flag featured a lightning bolt design and bright colours on a black background. The flag was redesigned in 2021 with muted colours and straight stripes in response to feedback from those with visually triggered disabilities to make the flag more accessible. The flag now comprises a number of different elements, each symbolising different aspects of the disability experience. The coloured stripes are placed diagonally across the flag to show how disabled people have to cut across barriers in society.

Page 12 Glial cells linked to MS progression

https://multiplesclerosisnewstoday.com/news-posts/2024/08/28/glial-cells-implicated-ms-disease-progression-development/?utm_source=MS&utm_campaign=e9b82cf234-Email_ENL_NON-US_MS&utm_medium=email&utm_term=0_b5fb7a3dae-e9b82cf234-71290133

Page 13 Connexin 43 as therapeutic target in prog-MS

https://www.pharmacytimes.com/view/researchers-identify-a-potential-therapeutic-target-for-multiple-sclerosis

To Contact me email iancookjournalist@yahoo.co.uk or via twitter@iancookMSer

DISCLAIMER:

This ezine is strictly a news and information ezine/website about MS . It DOES NOT provide medical advice, diagnosis or treatment. This content is not intended to be a substitute for professional medical advice, diagnosis, or treatment. Always seek the advice of your doctor or other qualified health

provider with any questions you may have regarding MS or any a medical condition. Don’t disregard professional medical advice or delay in seeking it because of something you have read in this ezine.

To Contact me email iancookjournalist@yahoo.co.uk or via twitter@iancookMSer