Cell Discovery May be Key to Treating Currently Incurable Neurological Diseases

New study shows potential for unprecedented recovery from stroke, Alzheimer's disease, ALS and many other brain and spine diseases and injuries

The Ohio State University Wexner Medical Center

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NEWS PACKAGE

SUGGESTED TEASE	ALS, ALZHEIMER'S DISEASE, SPINAL CORD INJURIES – JUST A FEW NEUROLOGICAL CONDITIONS THAT ARE CURRENTLY WITHOUT A CURE. BUT A NEW SCIENTIFIC DISCOVERY IS PROVIDING HOPE THAT THE EFFECTS OF THESE DEVASTATING BRAIN AND SPINE DISEASES AND INJURIES CAN BE REVERSED. DETAILS, COMING UP.
ANCHOR LEAD	NEUROLOGICAL CONDITIONS AFFECT MILLIONS OF PEOPLE, RANGING FROM DISEASES THAT CAUSE A SLOW DECLINE, SUCH AS MULTIPLE SCLEROSIS AND PARKINSON'S DISEASE, TO TRAUMATIC INJURIES TO THE BRAIN AND SPINE. BUT FOR ALL THOSE SUFFERING FROM THESE DEVASTATING CONDITIONS, THE EFFECTS HAVE LONG BEEN BELIEVED TO BE IRREVERSIBLE. NOW, A NEW SCIENTIFIC DISCOVERY OF A TYPE OF IMMUNE CELL MAY BE THE FIRST STEP IN CHANGING THAT, PROVIDING NEW HOPE FOR UNPRECEDENTED RECOVERY.
(PACKAGE START) ---------- **CG: Courtesy: The Ohio State University Wexner Medical Center** **:00 - :03** Wrestling photos of Mark Shots of Mark's brother and wife helping into wheelchair	(Nats - Sound) :02 MARK ZIMMER HAS BEEN AN ATHLETE ALL HIS LIFE, BUT WHEN HE BEGAN EXPERIENCING WEAKNESS IN HIS LEGS AND TRIPPING OVER HIS FEET, HE KNEW SOMETHING WASN'T RIGHT. :06
CG: Mark Zimmer **Diagnosed with ALS**	*"I'm basically being turned into a statue. Every day, little by little, I lose a little something."* :08
Shots of Brenda helping Mark outside	MARK WAS DIAGNOSED WITH A-L-S, A DEGENERATIVE NEUROLOGICAL DISEASE WITHOUT A CURE. IT'S ONE OF A WIDE SPECTRUM OF DISORDERS THAT CAUSE DAMAGE IN THE CENTRAL NERVOUS SYSTEM, RANGING FROM MULTIPLE SCLEROSIS AND ALZHEIMER'S DISEASE TO SPINAL CORD

CG: Dr. Benjamin Segal **Ohio State Wexner Medical Center**	INJURIES AND STROKE, ALL OF WHICH HAVE EXTREMELY LIMITED TREATMENT OPTIONS. :15
	"Those nerve fibers do not regenerate in human beings. There usually is a permanent dying back of the nerve fibers. And there really is no recovery." :14
Shots of researchers in lab	BUT RESEARCHERS AT THE OHIO STATE UNIVERSITY WEXNER MEDICAL CENTER ARE ONE STEP CLOSER TO CHANGING THAT. IN A NEW STUDY, THEY DISCOVERED A NOVEL IMMUNE CELL THAT NOT ONLY PRESERVES NERVE FIBERS BUT CAN EVEN REVERSE NERVE DAMAGE AND RESTORE FUNCTION. :11
Dr. Segal (CG'd earlier)	*"It doubles the number of surviving nerves and it also stimulates a significant number of them to begin regenerating new fibers or growing new fibers." :11*
Shots of Dr. Sas and Dr. Segal collaborating	RESEARCHERS PREDICT THIS WILL LEAD TO PREVIOUSLY UNHEARD OF RECOVERY IN PATIENTS AND NEW THERAPEUTIC BREAKTHROUGHS FOR A WIDE RANGE OF NEUROLOGICAL DISEASES AND INJURIES. :08
Dr. Segal (CG'd earlier)	*"I treat patients who have permanent neurological deficits and they have to deal with a whole range of symptoms every day. The idea of being able to restore neurological function is really amazing." :16*
Mark Zimmer (CG'd earlier)	*"These research doctors are, they are sincere, humble and extremely brave with the amount of time and effort that they put into trying to unlock the mysteries of this diabolical disease."* :12
Shots of Mark and Brenda on patio	AT THE OHIO STATE WEXNER MEDICAL CENTER, THIS IS BARB CONSIGLIO REPORTING. :03
(PACKAGE END) ---------- **ANCHOR TAG**	NOW THAT RESEARCHERS HAVE IDENTIFIED THIS HEALING CELL, THEY WILL WORK TO EXTRACT IT AND GROW MORE OF THESE CELLS IN A LAB TO AMPLIFY THEIR HEALING EFFECTS. THEY HOPE THAT THEY CAN THEN INFUSE THESE CELLS INTO PATIENTS AS AN EFFECTIVE TREATMENT FOR NEUROLOGICAL DAMAGE.

SOCIAL MEDIA

Share it! Suggested tweet:	There is new hope for the millions living with currently incurable neurological diseases after researchers at

Suggested post:	@OSUWexMed discover a type of cell that repairs the central nervous system. https://bit.ly/333GGcR There is new hope for recovery for the millions living with neurological conditions long been believed to be incurable. In a new study, researchers at The Ohio State University Wexner Medical Center discovered a type of immune cell that can prevent and even repair damage in the central nervous system, potentially providing a breakthrough in the treatment of epilepsy, ALS, spinal cord injuries and much more. https://bit.ly/333GGcR

EXTRA BITES

CG: Dr. Benjamin Segal **Ohio State Wexner Medical Center**	Segal says this research provides potential for future treatments: *"There's so much that we're learning at the bench that has yet to be translated to the clinic, but I think that there's huge potential for the future."* :10 Segal describes the novel cell discovered in the study: *"It's an immature cell that arises from the bone marrow and then migrates to sites of damage in the nervous system where it has this beneficial therapeutic effect." :15* Segal says the cell regenerated nerve fibers throughout the central nervous system: *"So far, we have found that these cells, this unique immune cell is effective in promoting the survival and the regeneration of nerve fibers across different types of nerve cells derived from different regions of the central nervous system." :17* Segal says they're working to enhance the healing properties of these cells: *"We want to know how these cells normally arise in the body and how we could enhance their numbers and, and their pro regenerative or healing properties." :12*
CG: Mark Zimmer **Diagnosed with ALS**	Mark says funding research is imperative to finding solutions: *"We're finally starting to see that this disease can be solved, it's just going to require charity from everybody else. Faith, hope and charity is what's going to get the job done with these researchers." :18* Mark says it continuously gets harder to live with ALS: *"Once you think you're okay and I can live with this, that's when ALS takes something else away from you. And it becomes that much more strenuous and difficult." :12*
CG: Mark Zimmer **Diagnosed with ALS**	Mark says research provides hope for effective ALS treatment: *"They will figure it out. I do believe that the neuroscience that's going on, there's more hope today, much more*

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	hope with many more things that they are learning from each other than ever before." :19

References

[1]*A new neutrophil subset promotes CNS neuron survival and axon regeneration*, **Nature Immunology, Volume 21, Issue 12, Oct., 26, 2020**. Online: https://doi.org/10.1038/s41590-020-00813-0

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