

The Parkinsonian

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Can AI Speed Up the Search for Parkinson's Treatments?

Artificial intelligence helped researchers discover a promising new Parkinson's medicine years faster than traditional methods. Now, that treatment has reached its first human clinical trial. But what exactly did AI do—and could this change the future of Parkinson's research?

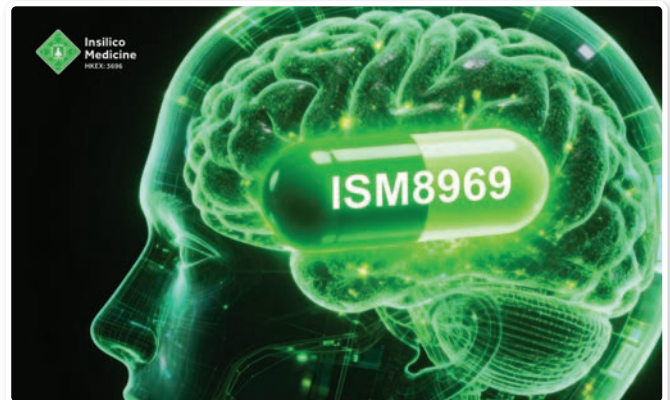
For decades, researchers around the world have searched for treatments that could slow or stop Parkinson's—not just relieve its symptoms. While today's medications can improve movement and quality of life, they cannot stop Parkinson's from progressing.

Now, researchers have reached an exciting milestone with a promising new oral treatment called ISM8969. The medicine is one of the first Parkinson's drug candidates developed using artificial intelligence to enter human clinical trials. Researchers hope it could one day help slow Parkinson's by reducing harmful inflammation in the brain.

A NEW WAY OF DISCOVERING MEDICINES

Developing a new medicine has traditionally been a long, expensive process. Researchers often spend several years designing and testing thousands of chemical compounds before identifying one with the potential to become a new medicine. For ISM8969, researchers took a different approach. They used generative artificial intelligence (AI) to help discover the treatment. The company behind ISM8969, Insilico Medicine, developed its own generative AI platform called Chemistry42. Researchers began by telling the AI platform what they wanted the medicine to do—in this case, reduce harmful inflammation linked to Parkinson's.

AI analyses enormous amounts of data to generate thousands of possible drug molecules. It predicts which molecules are most likely to work, be safe, cross the blood brain barrier and be suitable as a



tablet. Instead of spending years making and testing thousands of chemicals, researchers can focus on a much smaller number of the most promising candidates.

"We hope to induce a genuine paradigm shift with AI breakthrough in novel drug discovery."

— CAROL SATLER, MD, PHD, INSILICO MEDICINE

According to Insilico Medicine, using its AI platform reduced the time needed to discover and optimise promising drug candidates from 2.5–4 years to around 12–18 months.

WHY IS THIS POTENTIAL TREATMENT FOCUSED ON INFLAMMATION?

Research suggests that chronic inflammation in the brain, known as neuroinflammation, contributes to the progression of Parkinson's.

One part of the body's immune system, called the NLRP3 inflammasome, acts like an alarm system. Normally, it helps protect the body by responding to infection or injury before switching off again. Researchers believe that in Parkinson's this inflammatory pathway may remain overactive, causing ongoing inflammation that may contribute to damage of dopamine-producing brain cells.



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ISM8969 has been designed to target the NLRP3 inflammasome, reducing harmful inflammation while allowing the immune system to continue performing its normal protective functions. Researchers hope this could help slow the progression of Parkinson's.

THE BLOOD-BRAIN BARRIER AND PHASE 1 CLINICAL TRIALS

ISM8969 has recently entered a Phase I clinical trial in Australia with 100 participants involved. During this trial whether the medicine crosses the blood-brain barrier, an essential requirement for medicines designed to treat conditions affecting the brain, will be measured.

The blood-brain barrier protects the brain from harmful substances; however, it also blocks many medicines. ISM8969 has been designed to cross this barrier, preclinical studies suggest it reaches the brain and the Phase I clinical trial aims to confirm this in people by measuring the medicine in cerebrospinal fluid.

If the results show the drug is safe and reaches the brain, the next step will be Phase II clinical trials, where the medicine will be tested in people living with Parkinson's to find out whether it can slow the progression of the condition.

SO, CAN AI SPEED UP THE SEARCH FOR PARKINSON'S TREATMENTS?

The early evidence suggests the answer is yes.

AI is becoming a powerful tool that can help researchers explore more possibilities and identify

promising treatments much sooner. If successful, this approach could accelerate the search for new therapies. For people living with Parkinson's, that could mean more potential treatments entering clinical trials sooner, bringing fresh momentum to research and renewed hope for the future.

SOURCES:

<https://insilico.com/news/bno2kl4lp1-insilico-completes-first-in-human-dosing>

<https://www.parkinson.org/blog/science-news/inflammation>

<https://insilico.com/news/az7xmeem81-insilico-medicine-receives-ind-approval>



A MESSAGE FROM OUR CHAIRPERSON



KEVIN RAMSHAW

What better way to begin my brief stint as acting Parkinson's NZ Chairperson than attending a regional seminar. And where better to go than Northland for the Red Tulip Group's annual one-day seminar. A quick explanation: our current chairperson Christine Mercer's plans

for well-earned travel required an early finish in the role. I had just joined the board when Christine succeeded Peter Garelja. She said at the time that she had big shoes to fill. Introducing myself to the Northland folk, and seeing Peter in the audience, I had the same feeling although I noted that, for obvious reasons, I would probably fit Peter's shoes better than Christine's.

At its June meeting, the Board paid tribute to Christine for her wisdom, knowledge from her

nursing background and compassion drawing on her years as a care partner. I share Christine's experience as a caregiver but come from a different professional background – that of communications and advocacy.

There are big challenges facing Parkinson's NZ and indeed the whole of the charitable sector as demand for services grow whilst funding declines.

In November, Tony Lawson will also complete his term as a Trustee meaning we will have up to four vacancies to fill. So, there is more than just one pair of shoes to fill. If you have experience you think could benefit the board, please think about making yourself available as we will be calling for applications in early August.

Thank you to Northland for another great seminar and thank you to all of the Red Tulip Groups who work hard for our people.

KEVIN RAMSHAW

A MESSAGE FROM OUR CHIEF EXECUTIVE



ANDREW BELL

When I'm asked about Parkinson's, I often find myself starting with the numbers. Parkinson's is the fastest growing neurological condition in the world. Globally, it is estimated that over 10 million people live with Parkinson's. In New Zealand, around 13,000 people are affected—approximately

0.2% of the population. We are seeing unprecedented demand for our services, with 55-85 people joining each month. These figures help give shape to something that can otherwise feel difficult to explain, especially if the person has no prior knowledge.

However, the lived experience of Parkinson's cannot truly be captured by statistics. It is often said that "if you've met one person with Parkinson's, you've met one person with Parkinson's." While numbers help us understand the scale, individual stories remind us that Parkinson's cannot be reduced

to figures alone and there is, in fact, a strong thread of commonality. Many of us become highly attuned to the subtle, tell-tale signs—even when observing a stranger in the supermarket.

That's why, when I attend a Parkinson's event, I often describe it as feeling "tribal." We are united by shared experiences, even though no two journeys are the same. Our symptoms may differ, as do our treatments. Some people experience tremors and restlessness, while others freeze; some progress quickly, while others do so very slowly. Some are diagnosed at 50, others at 70.

Yet despite these differences, there is enough in common that we can recognise one another with a knowing glance. We ask questions like, "How long have you had it?", "Are you still working?", and "How's your driving?" These aren't random questions—they are ways of locating ourselves within a shared experience, finding connection even as we are told that everyone's journey is unique.

ANDREW BELL

Turning

Prepared by Emma Goldstraw,
Parkinson's Movement Specialist
and Health Coach.
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This is a simple exercise to practise turning safely, using a weight shift first, then stepping in the direction you want to go.

Turning is something we do every day, when moving around the house, changing direction, or turning to talk to someone. For people living with Parkinson's, turning can become more difficult. It can feel slower, smaller, or less steady. For some people, turning can also trigger freezing and people get stuck.

Practising turning helps build confidence, improve balance, and encourages more deliberate movement that can carry over into daily life.

HOW TO DO IT

- Stand tall with space around you
- Slow down before you turn
- Look where you want to go
- Think weight shift first, then step
- To turn right, shift your weight onto your left foot and step out with your right foot
- To turn left, shift your weight onto your right foot and step out with your left foot
- Take a few deliberate steps to complete the turn
- Avoid twisting or pivoting quickly on the spot.

HELPFUL CUES

- Turn your eyes, head and nose first, then move your feet
- Imagine stepping around a clock face rather than twisting on the spot
- Use a visual target if helpful, such as a line on the floor or a spot to step towards.



HOW OFTEN

- Practise turning left and right
- 5 turns each way
- 1-3 sets
- 5 days per week

Use the reps and sets as a guide and adjust to suit your energy and ability.

MAKE IT EASIER

- Practise near a bench, wall, or stable chair
- Take more steps to complete the turn
- Make the turn wider
- Go slower

MAKE IT HARDER

- Practise turning in both directions while walking
- Try a slightly smaller turn
- Add a pause before stepping off again
- Practise in different areas of the house

SAFETY

Make sure the area around you is clear. Practise near something stable to hold if needed. Avoid quick twisting or pivoting movements. Stop if you feel unsteady.

NOTE

This is general guidance only and not individual exercise prescription. If you're unsure whether this exercise is right for you, or have any concerns, please check with a health professional before getting started.



Meet Parkinson's Educator David Campbell

Kia ora,

I'm a Parkinson's Educator for the great region of Hawke's Bay, travelling between Takapau and Wairoa. We are fortunate to have some well supported exercise classes, social get-togethers, and carer support groups within the region, so if you are passing through, or visiting on holidays etc, look us up.

As well as having the privilege of seeing people in their homes and workplaces, I can often also be in contact with those who may have recently moved to some form of retirement facility or supported living environment. By offering information, support and education to those with Parkinson's – or the equally amazing people within family, whānau, friends and health care workers, who care for those with Parkinson's, I get to be part of many inspiring stories.

One of the biggest factors you'll hear from me, and from others, when talking about the best ways to manage Parkinson's, is the value of consistent exercise or activity. For some this can be a little daunting, however it's important to remember it's about consistency – not always volume. Short bursts of exercise with some increased intensity can be really effective too. If you enjoy something and/or can see a benefit from doing it, chances are, you'll do it again.

Hence, exercise needs to be targeted to where you may see the benefit (and hopefully still be enjoyable). Balance, strength, mobility, gait patterns, voice projection, short term memory, multi-tasking, and co-ordination can all be targeted with the right exercise or activity.



DAVID CAMPBELL

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I've met plenty of people who struggle with the idea of being in larger exercise classes or groups, so getting some guidance from an exercise instructor, physiotherapist, personal trainer etc. can be a great way to start. From there, receiving the great social benefits of a larger exercise group could be something to add to your routine.

There is a saying – 'you get good at what you do'. Get good at moving.

Become a beacon of hope that will benefit generations to come.

Leave a gift in your Will to Parkinson's New Zealand.

Find out how at:

www.parkinsons.org.nz/get-involved/bequest



Impulse Control and Dopamine Agonists in Parkinson's

Some Parkinson's medicines can increase the risk of impulse control behaviours. Most people do not develop these behaviours, but recognising changes early means they are much easier to manage.



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WHICH MEDICINES ARE LINKED?

The medicines most commonly associated with impulse control disorders are dopamine agonists, including:

- Pramipexole
- Ropinirole
- Apomorphine

WHAT BEHAVIOURS SHOULD I LOOK OUT FOR?

Common behaviours include:

- Binge eating
- Gambling
- Compulsive shopping or spending
- Changes in sexual behaviour

Other warning signs may include:

- Repetitive hobbies or activities
- Giving things away excessively
- Aimless walking or driving
- Repetitive sorting, organising or dismantling objects (punding)
- Taking Parkinson's medication more often than prescribed or feeling unable to stop (dopamine dysregulation syndrome)

WHO IS AT HIGHER RISK?

- Developed Parkinson's at a younger age
- Have lived with Parkinson's for many years
- Experience significant motor fluctuations
- Have depression, anxiety or psychosis
- Are male

WHAT SHOULD I DO?

- Learn the possible warning signs before starting a dopamine agonist.
- Tell your partner, family or carer what to watch for.
- Report any behavioural changes to your healthcare professional as early as possible.
- Do not stop dopamine agonists suddenly. They need to be reduced gradually under medical supervision.

This information was taken from our recent impulse control webinar with Dr Matthew Croucher:

<https://www.parkinsons.org.nz/resources/impulse-control-and-the-role-of-agonists-webinar>

"I've stopped falling!" Finally! Walking aids for Parkinson's

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Stability - The U-Step 2's ultra stable foundation braces you in every direction, its U-shaped base surrounds you and moves with you.

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Laser - The U Step 2's unique laser offers an entirely safe, obstacle-free visual cue that helps you break the freezing episode and walk normally.

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Also available, the Lasercane - a cane that projects a laser line on the floor for you to step over to help overcome freezing. Ideal for those who do not need a walker as yet but require the obstacle-free visual cue to get you moving freely again



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Email info@ustep.co.nz



Spark the Night 2026

This year's Spark the Night campaign brought a brilliant burst of blue to more places than ever before, with a record number of landmarks lighting up for Parkinson's awareness. While some weather events meant a few landmarks were unable to participate, we're grateful to every region across Aotearoa New Zealand that helped put Parkinson's in the spotlight. More than 40 landmarks joined in, creating a vibrant show of support for the 12 million people worldwide, including 13,000 New Zealanders, living with Parkinson's.



THANK YOU TO OUR FUNDERS



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Adult Bib

Soft, practical, and easy to wear, it's perfect for adults who need extra protection with a discreet and comfortable fit.



Bendable Cutlery Set

Bendable cutlery designed to adjust at any angle for a more comfortable and effortless eating experience. Perfect for individual eating needs



Guiding Light Strip

Lights the way for safer movement at night.



Sippy Cup

Spill-proof cup for easy drinking.



Non-Spill Spoon

A smart non-spill spoon with a bottom-release design that transfers ingredients effortlessly no tossing or shaking needed. Perfect for people with shaky hands, offering a cleaner, easier, and more convenient way to transfer ingredients.



Breakfast Bowl & Meal Plate

Keeps food in place to prevent slipping or tipping



Weighted Gloves

Weighted gloves are specially designed to help reduce hand tremors, improve stability, and make everyday tasks easier and more manageable.



Hand Grip Tools

with 3 adjustable settings designed to fit more than five everyday items, including toothbrushes, pens, makeup brushes, hair brushes, electric toothbrushes, cutlery, and shavers. A must have aid for shaky hands and anyone needing extra stability and control.



Finger Stylus

Is a touch screen tool that improves grip and control, making it easier to tap, draw, or write on digital devices



Finger Ring Food Picker

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