

2025 Consensus Awards



Citation



Winner

MO8, a novel oral therapy for autism spectrum disorder

Meizon Innovations Holding Ltd

Meizon Innovations has developed MO8, a world-first therapy for autism spectrum disorder (ASD). This oral therapy aims to restore normal activity in the brain's amygdala among individuals with ASD, including those with severe or profound ASD. Currently, there are no effective treatments for ASD.

The amygdala is the region of the brain that controls social interaction and is reported to be hypoactive in autistic individuals. Pre-clinical studies of MO8 demonstrate that it has the potential to restore normal brain activity by promoting brain cell connections (synaptogenesis), resulting in improvements in the core behavioural deficits for ASD patients, specifically social interaction, communication difficulties and repetitive behaviours. Importantly, the indications are that MO8 will work in adults and children without changing any special talents or each person's individual personality.

The results of Meizon Innovations' research were published in *Nature Communications* in August 2024.

The development of MO8 follows two decades of research at the Florey Institute of Neuroscience and Mental Health by Dr Wah Chin Boon, founder of Meizon Innovations. She and her colleagues uncovered the process by which autism affects more males than females – 5 boys to 1 girl. Once the process was understood by Dr Boon and her team, she was able to screen for a molecule, MO8, which her research indicates can restore normal brain activity.

Judges Citation:

The Consensus judges felt that if clinical trials demonstrate its viability, MO8 will represent a revolutionary change in the treatment of autism. It offers the possibility of a life-changing therapy for millions of people worldwide.

The judges were impressed by the scientific research behind this Australian medical innovation and its consequent potential global impact. The judges also noted the passion and perseverance of Dr Boon and her team in their long journey towards developing MO8.

Innovation

Dr Boon and her colleagues' innovative, ground-breaking research has pinpointed MO8 as the means to restore normal brain activity in the amygdala by promoting synaptogenesis or brain cell connections among children and adults with ASD.

Currently, there are no effective treatments for ASD, only repositioned psychotic drugs which do not address the root cause of ASD.

Whilst MO8 will not cure ASD, it offers the opportunity to greatly improve the lives of people with ASD, including non-verbal individuals, and the families and carers of those with ASD. It will enable individuals with autism to live with greater independence, improve social skills, and relieve excessive grooming without impacting each individual's personality or talents.

Also importantly, as MO8 is an oral therapy it will be non-invasive and easy to ingest, and is predicted to improve brain cell connections in a matter of weeks.

Potential

The judges were convinced that MO8 offers a well-researched approach to the treatment of ASD, with enormous potential to improve the lives of millions of people, to relieve pressure on their families and carers, and to reduce healthcare costs.

As well as these significant social and healthcare benefits, the judges noted that MO8 has other attractive features which offer enormous potential:

- **Market:** As a world-first, it will hold an unique position in a huge global market – there are an estimated 75 million people with ASD, according to WHO. Therapeutics for ASD are projected to be worth USD 3.44 billion by 2032. There are currently no competitors.
- **Convenience:** As an oral therapy it is easy to ingest, making it convenient to take, especially for children.
- **Extensive:** It is suitable for people across the entire autism spectrum, both children and adults.

Performance

Meizon Innovations has met all compliance and regulatory codes and standards to date, including positive engagement with the US FDA on toxicology, manufacturing and clinical trial design. The company's use of organ-on-chip technology supports innovative compliance and leadership in toxicity evaluation, and has been acknowledged by the FDA as helping to define future regulatory norms.

Conclusion

With Phase 1 clinical trials on the horizon and a long journey ahead with the additional phases of clinical trials, the judges congratulate Dr Boon and her colleagues for their innovative research and the possibility of transforming the lives of so many people around the world.

The judges were unanimous in awarding this Consensus MedTech Award in light of MO8's tremendous potential social impact, and the commitment and dedication of Dr Boon and her team to their research and in meeting all the regulatory hurdles that are required globally to bring a new medical product to market.