Biomarker and Trial Optimisation Needed to Drive R&D Progress in Alzheimer's and Related Disorders – ICON Survey

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DUBLIN--(BUSINESS WIRE)--Jan. 8, 2025-- ICON plc, (NASDAQ: ICLR) a world-leading clinical research organisation powered by healthcare intelligence, today released the findings of a survey of over 120 biotech and pharma professionals developing treatments for neurodegenerative disorders. The findings indicate that, despite recent successes in developing disease modifying treatments for Alzheimer's, persistent challenges that remain in neurodegenerative clinical trials can be mitigated by underutilised trial methodologies.

ICON outlines how these innovations, including increased use of biomarkers and innovative trial designs, can be implemented in its new whitepaper: 'Early, precise and efficient: The methods and technologies advancing Alzheimer's and Parkinson's R&D'.

Biomarkers are one of the most promising tools to identify potential clinical trial participants early in their disease progression. Encouragingly, nearly all respondents (97%) reported using biomarkers to identify patients and over half (59%) are leveraging AI tools to accelerate biomarker detection. Whilst this uptake is promising, biomarkers are not yet being optimised for full implementation. The use of biomarkers can sometimes make a trial longer, more expensive, and slower to enrol patients. However, implementation of biomarker tests could be increasingly implemented to address some of the more resource-intensive eligibility criteria, such as imaging or CSF status.

Innovative clinical trial methodologies can also speed up drug development, yet the survey findings indicate that respondents are not experimenting with these as much as they could. For example, only 28% of respondents reported implementing an adaptive trial design of any type, while even fewer reported using historic controls (22%) or master protocol designs (19%), all of which can accelerate patient recruitment.

Peter Schueler, MD, Senior Vice President, Drug Development Solutions, Neurosciences at ICON commented: *"Neurodegenerative clinical research is exceptionally complex and challenging. The main two roadblocks survey respondents identified for innovative tools were costs and difficulty validating the impact. At ICON, we believe that the industry can make more use of lessons learned from recent successes in Alzheimer's and continue to turn the tide in related indications such as Parkinson's."*

Encouragingly, the survey revealed sponsors are not deterred from investing in R&D, especially in a diversified way. A large majority of respondents (87%) reported that they plan to invest in multiple therapeutic areas or a combination approach. They are also using AI to accelerate R&D, predominantly for the initial steps of the development process. For example, half of respondents who reported using AI or machine learning employ it for hypothesis generation (48%) and lead discovery (50%).

Interestingly, the survey findings suggest that collaboration across industry is also an underappreciated acceleration opportunity. Only 29% of respondents indicated that it was an area that could support and accelerate R&D.

Peter Schueler observed: *"The recent successes in developing treatments for Alzheimer's disease can be attributed, in part, to improvements in trial design and execution. Replicating and improving upon this initial clinical success is essential to alleviate the growing burden of neurodegenerative diseases. Further engagement is needed across the clinical trial ecosystem – with established platforms, advocacy groups, biotech and pharma – to examine how best to work together in a way that balances the practicalities and risks associated with this complex therapeutic research field."*

For further information on this whitepaper, please visit http://www.iconplc.com/CNS-trials

About ICON plc

ICON plc is a world-leading healthcare intelligence and clinical research organisation. From molecule to medicine, we advance clinical research providing outsourced services to pharmaceutical, biotechnology, medical device and government and public health organisations. We develop new innovations, drive emerging therapies forward and improve patient lives. With headquarters in Dublin, Ireland, ICON employed approximately 42,250 employees in 106 locations in 55 countries as at September 30, 2024. For further information about ICON, visit: www.iconplc.com.

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