WuXi AppTec Pioneering Role in Advancing Targeted Protein Degradation



Shanghai, China Sep 28, 2025 (Issuewire.com) - Envision a drug that not only turns off toxic proteins but destroys them entirely, fighting disease that we previously thought couldn't be treated. That is the promise of targeted protein degradation (TPD) therapy, a game-changing technology that's the buzz in the medical community. WuXi AppTec, a Global CRDMO platform, has been developing its expertise and service infrastructure since the early days of this technology, assisting scientists in turning bold concepts into reality as credible therapies. With the ability to surmount some of the most formidable challenges, WuXi AppTec is enabling clients to bring these new treatments to patients. Let us look at how they're breaking through in the TPD arena.

The Promise and Challenges of Targeted Protein Degradation Therapy

TPD therapy are designed to break some of the major barriers of traditional small molecule drugs by leveraging the body's ubiquitin-proteasome system to degrade disease-inducing proteins entirely.

The innovation of TPD is the targeting of over 85% of "undruggable" proteins that do not have a site to bind to conventional drugs, hoping for new light at the end of the tunnel for cancer and neurodegenerative disease.

Yet, challenges are not behind. PROTACs®, being large bifunctional proteins, require high specificity two-targeting recognition, linker synthesis, and better drug-likeness attributes like solubility and bioavailability. Addressing all these issues requires the best-in-class expertise and innovation to bring

laboratory concepts to successful cures.

WuXi AppTec's Role in Accelerating TPD Development

With its robust capabilities and TPD specialty platform as a world-class top-ranked Contract Research, Development, and Manufacturing Organization (CRDMO), WuXi AppTec is poised to tackle such challenges. With offices in Asia, Europe, and North America, it works with nearly 6,000 partners in over 30 countries, with a vision to make "every drug" can be made and "every disease" can be treated. With its end-to-end fully integrated services from discovery to clinical trials, it speeds up TPD development with accuracy.

TPD platform has been designed to address protein degrader complexity across the entire TPD functional cycle of molecule design, complex formation validation, and ubiquitination and degradation optimization.

WuXi AppTec has over 1,000 chemists with linker and E3 ligase ligand synthesis expertise and state-of-the-art technologies like native mass spectrometry for ternary complex confirmation. WuXi AppTec's inhouse ready-to-screen libraries and PK/PD analysis make hit discovery to clinical candidates process fast and cost-effective. Advanced screening tools like DNA-encoded libraries (DEL) and one-bead-one-compound (OBOC) DEL facilitate rapid identification of PROTAC® candidates. WuXi AppTec enables faster identification and optimization of functional PROTAC® molecules. Turning a hit into a viable drug requires systematic and integrated follow-up development. WuXi AppTec's research infrastructure is equipped to confirm protein complex formation and target degradation, while dedicated chemists, DMPK and formulation teams address key challenges such as solubility, absorption, and metabolic stability—helping to improve drug-like properties and accelerate progress toward the clinic.

WuXi AppTec's Impact in TPD Projects

Since WuXi AppTec opened its business for targeted protein degradation in 2016, it has collaborated with over 150 firms-two-thirds of all the global TPD developers. It has synthesized over 188,000 high-complexity TPD molecules, of which over 70 have been advanced into preclinical candidates and over 10 into late-stage development. Wuxi AppTec has been on the front line to ensure that every organization in this field has their support through mutual collaboration.

Having global reach, undergirded by fresh thoughts and open innovation, it is empowering clients to fast-track the development of TPD therapeutics that bring hope to patients afflicted with tough-to-treat ailments.



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