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MELBOURNE

Drug Discovery in the Ubiquitin Proteasome System



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Public Event

A Biotech to Big Pharma Journey

Dr Larry Dick
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The Ubiquitin Proteasome System (UPS) is the principal means for intracellular protein turnover in eukaryotic cells. The search for proteasome inhibitors began as an effort to elucidate the molecular mechanisms underlying the many aspects of biology and pathobiology effected by protein turnover. The serendipitous discovery that proteasome inhibitors can be a highly effective treatment for the bone cancer, multiple myeloma, helped to catalyze further research into the UPS which today continues to spur investment in drugs able to modulate this system for a diverse range of therapeutic objectives.

Biography

Larry Dick has been studying the Ubiquitin Proteasome System for over 30 years. He began this work as a postdoctoral fellow with Drs. Clive Slaughter and George DeMartino at UT Southwestern Medical Center. He helped to start the biotech company MyoGenics, where he worked on the team that discovered the widely used proteasome inhibitor research compound, MG-132, and the first-in-class proteasome inhibitor multiple myeloma drug, VELCADE. Subsequently, he led the proteasome

inhibitor discovery team at Millennium Pharmaceuticals that produced NINLARO, the first oral proteasome inhibitor approved for relapsed refractory multiple myeloma. Additionally, at Millennium/Takeda, he led the team that discovered adenosine sulfamate analogs as potent inhibitors of ubiquitin-like protein activating enzymes and described their novel mechanism of action. To date those efforts have yielded three first-in-class investigational oncology drugs: pevonedistat (MLN4924), an inhibitor of NEDD8 activating enzyme in a phase 3 clinical trial for acute myeloid leukemia, TAK-243 (MLN7243), an inhibitor of ubiquitin activating enzyme in phase 1 trials, and TAK-981, an inhibitor of SUMO activating enzyme recently started in phase 1. Currently he is an independent drug discovery consultant and a member of a team working on proteasome inhibitors as antimalarials. This collaboration involves scientists from Medicines for Malaria Venture in Geneva Switzerland, Takeda Oncology in Cambridge Massachusetts, USA and the Tilley Group at Bio21.



Event Details

Date:
Tuesday 29 October 2019

Time:
3 - 4pm, followed by refreshments

Venue:
Bio21 Institute Auditorium and Atrium, 30 Flemington Road, Parkville

Enquiries:
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Bookings:
Bookings are essential for this free public lecture. Register at www.bio21.unimelb.edu.au