Advanced tumor biology platforms for drug advancement

Historically, collections of patient derived xenograft (PDX) models have been employed for testing investigational compounds for efficacy predictions. PDX-based platforms can be used synergistically with spontaneous mouse models and GEMMs for making discoveries of new therapeutic targets, resistance mechanisms and biomarker signatures of response. Despite a growing number of available retrospective PDX models, there is a prevailing limitation to their use in simulating clinical trials, because patients are under new selective pressures of resistance and this requires new schemes to effectively real time model the clinic. Coupled-PDX trials are being advanced where ongoing clinical trials are being combined with companion PDX studies that can help guide follow-on trial design. Ultimately, matched patient-PDX-directed trials can be advanced where appropriate patients will have PDX models established and screened for experimental therapeutics efficacy. Patients then will be enrolled onto trials based on their PDX drug response and this has a potential to dramatically elevate positive patient response rates.

Biography
Neal Goodwin, serves as a Vice President Corporate Research and Development for Champions Oncology. His responsibilities include development of the patient derived xenograft pharmacology portfolio for translational oncology and clinical oncology programs. He previously served as Director of JAX Cancer Services and prior to JAX he was the Co-founder and Chief Scientific Officer of ProNAI Therapeutics (NASDAQ: DNAI). He received a in Microbiology from The University of Montana and served a Postdoctoral fellowship in functional genomics at The Jackson Laboratory with John Schimenti (now at Cornell).

NGoodwin@championsoncology.com