Matched patient PDX avatar-directed programs for clinical advancement

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Patient derived xenograft (PDX) platforms where patients' solid tumors are engrafted to form mouse-avatar models for conducting personalized treatment testing have been established. Therapeutic treatment responses in these mouse avatars are being used prospectively to guide patient treatment and are then compared with the treatment responses in patients. Biomarker data is being collected and analyzed to ascertain signatures of molecular response to treatment for downstream predictive patient treatment algorithms for designing better prescriptive treatments. These avatar platforms have shown efficient patient tumor take rate while maintaining high genomic and histopathology fidelity to the original patient tumors. PDX programs are being expanded to support large-scale predictive medicine clinical trials in multiple therapeutic areas. These resources are being employed by the global drug discovery and development community for conducting efficient high-throughput translational medicine screens across a multitude of avatar models.

Biography

Neal Goodwin, serves as Vice President Corporate Research Development for Champions Oncology. His responsibilities include development of the patient derived tumorgraft pharmacology portfolio for both the personalized oncology and translational oncology solutions. He previously served as the Director Research and Development and the founding Program Director of JAX Cancer Services. Goodwin was the co-founder and Chief Scientific Officer of ProNai Therapeutics, an advanced clinical trial-staged oncology therapeutics firm. He also previously served as a senior research scientist in genomic technologies at Pharmacia. Goodwin received a Ph.D. 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).

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