Onco-Hu:
Humanized Mice for Evaluation of Immuno-Oncology Therapeutics

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Summary
The recent clinical success of immuno-oncology drugs has encouraged the development of new therapeutics that engage the immune system to fight cancer. A new pre-clinical model for evaluating human immune checkpoint inhibitors was developed recently in the highly immunodeficient NOD scid gamma (NSG) mouse strain. This model, called Onco-Hu uses patient-derived xenografts (PDX) of cancer in NSG mice that are reconstituted with a human immune system. The humanized immune system exhibits functional T cell responses and enables long-term studies. In this presentation we will explain how Onco-Hu models are created, and we will show pembrolizumab efficacy data collected from diverse Onco-Hu models.

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Andy Schile is the Scientific Advisor at The Jackson Laboratory, where he provides scientific oversight for the Sacramento, California, mouse facility.

He specializes in the design of phenotyping studies, and he develops disease models in immunodeficient mice and other strains.

Andy also worked as the Senior Technical Information Scientist at The Jackson Laboratory.

In this position he specialized in educational outreach involving research applications for immunodeficient mice and other mouse models of disease.

He has also worked with the In Vivo Pharmacology group to design and conduct studies involving humanized mice and PDX models.

Before joining The Jackson Laboratory in 2008, Andy earned a Ph.D. in biology from The Rockefeller University, where he developed a mutant mouse strain to study programmed cell death in development and cancer.