Cancer Immunology Research

About the Masters

Nils Lonberg and Alan J. Korman, 2016

Dr. Lonberg is Senior Vice President, Oncology Discovery Biology, at Bristol-Myers Squibb, where he leads drug discovery efforts for both targeted and immuno-oncology agents. Dr. Lonberg began his career in the biotechnology/pharmaceutical industry, leading the GenPharm International research group that developed genetically engineered strains of mice with germline configuration human immunoglobulin genes. These transgenic animals have been used to discover more than three dozen clinical-stage human sequence antibodies, including 10 FDA-approved products (golimumab, ustekinumab, ofatumumab, canakinumab, ipilimumab, nivolumab, secukinumab, daratumumab, bezlotoxumab, and olaratumab). GenPharm International was acquired by Medarex in 1997, and then by Bristol-Myers Squibb in 2009. In 1998, the Medarex drug discovery group began to focus on antibody therapies that target and modulate immune-attenuating pathways to activate patient immune responses to cancer cells (so-called "checkpoint blockade" therapies). Ipilimumab, which began clinical testing in 2000, was the first-ever checkpoint blockade cancer therapy to enter clinical development and to gain regulatory approval. Ipilimumab, approved in 2011, was also the first drug to demonstrate, in a randomized clinical trial, a survival benefit for patients with metastatic melanoma. A second checkpoint blockade cancer therapeutic, nivolumab, entered clinical development in 2006 and gained regulatory approval in 2014. Dr. Lonberg received his PhD in Biochemistry and Molecular Biology from Harvard University (Cambridge, MA) in 1985, where he studied under Dr. Walter Gilbert. He was a postdoctoral fellow at Memorial Sloan Kettering Cancer Center (New York, NY) and was elected to the National Academy of Engineering in 2015.

Dr. Korman is currently Vice President, Immuno-Oncology, at Bristol-Myers Squibb, where he leads a group dedicated to the development of biologics in tumor immunotherapy. Dr. Korman started his career in the biotechnology industry at Supragen in Colorado in 1993, which became part of NeXstar Pharmaceuticals. At NeXstar, he initiated the development of therapeutics targeting *CTLA4*. In 2000, he joined Medarex (Bristol-Myers Squibb since 2009) and continued the development of antibody therapeutics in tumor immunotherapy with programs targeting PD-1 and PD-L1 along with the preclinical development of combinations in immunotherapy. Five additional antibodies in immuno-oncology (anti-LAG-3, anti-GITR, anti-OX40, anti-CD73, and anti-TIGIT) are currently in clinical development. Dr. Korman received his PhD in Cellular and Developmental Biology from Harvard University (Cambridge, MA) in 1984, where he studied molecular immunology in the laboratory of Dr. Jack Strominger. From 1984 to 1989, he was a Whitehead Fellow at the Whitehead Institute, Massachusetts Institute of Technology (Cambridge, MA), where he continued his work in molecular immunology in association with the laboratory of Dr. Richard Mulligan. He was also a Chargé de Recherche at the Institut Pasteur (Paris, France) from 1990 to 1993, where he studied viral superantigens.

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