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Oncology Expert George Demetri, M.D., Joins Blueprint Medicines as a Clinical Advisor

Dr. Demetri Also Appointed to Company's Scientific Advisory Board

CAMBRIDGE, Mass. – May 8, 2012 - Blueprint Medicines, a company harnessing the understanding of the molecular blueprint of cancer to develop personalized, highly-selective cancer therapies, today announced the addition of George Demetri, M.D., as a clinical advisor and member of the scientific advisory board. Dr. Demetri is the director of the Ludwig Center at the Dana-Farber/Harvard Cancer Center and senior vice president for experimental therapeutics at the Dana-Farber Cancer Institute in Boston.

In addition to advising Blueprint Medicines on clinical and program development strategies, Dr. Demetri also joins the members of Blueprint Medicines' distinguished SAB, which includes experts in cancer genomics, clinical oncology and rational drug development. The company's current scientific advisors include Nicholas Lydon, Ph.D., Brian Druker, M.D., Charles L. Sawyers, M.D., Scott Lowe, Ph.D., David Armistead, Ph.D., Giulio Draetta, M.D., Ph.D., William C. Hahn, M.D., Ph.D., and Ben Askew, Jr., Ph.D.

"It is a pleasure to welcome Dr. Demetri to Blueprint as a clinical adviser and member of our SAB," stated Chris Varma, Ph.D., president and chief executive officer of Blueprint Medicines. "Dr. Demetri brings significant experience in cancer research and drug development that is a perfect complement to our founding and internal team at Blueprint Medicines. His commitment to finding new alternatives to treat cancer, individualize therapy through biomarker development and increase patients' quality of life will play an important role in our future drug development efforts."

Dr. Demetri's research and clinical interests have focused on the translation of scientific discoveries into targeted drugs for the management of sarcomas as a model for solid tumor research and development. This work has led to the successful development of both Gleevec and Sutent, the only two drugs FDA-approved as treatment for the gastrointestinal sarcoma known as GIST. Additionally, Dr. Demetri previously served on the scientific advisory board of Plexxikon, participating in the development of the breakthrough melanoma drug, Zelboraf. A fellow of the American College of Physicians, Dr. Demetri is a member of several professional societies and editorial boards of scientific journals. He is the chair of the medical advisory board for the Sarcoma Foundation of America. Dr. Demetri received his undergraduate degree in biochemistry

from Harvard College, pursued a research fellowship in France and received his M.D. from Stanford University School of Medicine. Following internal medicine residency and chief residency at the University of Washington Hospitals in Seattle, he completed a fellowship in medical oncology at the Dana-Farber Cancer Institute and Harvard Medical School, where he has served as an attending physician since 1989. He became the director of the Ludwig Center at Dana-Farber Cancer Institute and Harvard Medical School in 2005.

"We need more sophisticated and effective tools to improve the outcomes for patients with cancer, especially as resistance to current targeted therapies continues to present life-threatening problems," said Dr. Demetri. "As a result of the cancer genomics revolution, we now understand many of the genomic aberrations that cause cancer. I look forward to working with Blueprint's remarkable team to harness this knowledge and to use their unique Insights-to-Validation™ platform and powerful chemical library to develop the next generation of genomically driven, highly selective and potent therapies."

About Blueprint Medicines

Blueprint Medicines is driving the development of personalized, highly selective cancer therapies that harness the growing understanding of the molecular blueprint of cancer. Using its powerful Insights-to-Validation™ Platform and proprietary chemical library, Blueprint Medicines is working to develop new therapeutic compounds and combination therapies that target the molecular aberrations that cause cancer and the emerging resistance mechanisms that make it increasingly difficult to treat. Blueprint Medicines was founded in 2011 by a proven team of scientists, including Nicholas Lydon, Ph.D., and Brian Druker, M.D., entrepreneurs with world-renowned expertise in the development of targeted cancer therapies, cancer genomics, and rational drug development, and Third Rock Ventures. Blueprint Medicines is poised to realize the promise of the cancer data "revolution": truly personalized therapies that improve outcomes and shift cancer to a manageable condition. For more information on Blueprint Medicines, please visit the company's website at www.blueprintmedicines.com.