

Alan D. D'Andrea, M.D., Receives the 52nd Annual AACR G.H.A. Clowes Memorial Award

CHICAGO — Alan D. D'Andrea, M.D., the Alvan T. and Viola D. Fuller American Cancer Society professor of radiation oncology at the Dana-Farber Cancer Institute and Harvard Medical School, has received the 52nd Annual AACR G.H.A. Clowes Memorial Award for his work in understanding cancer survival and progression, which has included milestones such as cloning the erythropoietin receptor and examining the Fanconi Anemia family of proteins involved in maintaining DNA stability.

D'Andrea's lecture, "Targeting DNA Repair in Cancer Therapy: Lessons From Fanconi Anemia," will take place at 5:30 p.m. CT on Saturday, March 31, in room S100 of McCormick Place South at the AACR Annual Meeting 2012, held here March 31 – April 4.

"Dr. D'Andrea has been a vital contributor to cancer research," said Margaret Foti, Ph.D., M.D. (h.c.), chief executive officer of the AACR. "His work has greatly enhanced our knowledge of the field of DNA instability and repair mechanisms. Furthermore, his studies have provided us with a better understanding of the biological relationships of rare hereditary diseases, such as Fanconi anemia, and cancer."

The AACR and Eli Lilly and Company established the G.H.A. Clowes Memorial Award in 1961 to honor G.H.A. Clowes, a founding member of the AACR. This honor recognizes an individual with outstanding recent accomplishments in basic cancer research.

"I am greatly honored to receive the 2012 G.H.A. Clowes Memorial Award from the AACR," D'Andrea said. "Work from my laboratory has shown that the study of rare pediatric cancer susceptibility syndromes, such as Fanconi anemia, can lead to broad insights into the cause and treatment of cancer in the general population. My laboratory members and I are especially grateful to the children and families with Fanconi anemia who have been our close partners in this research during the last two decades."

During his postdoctoral studies, D'Andrea cloned the erythropoietin (EPO) receptor, a key protein involved in red blood cell production (erythropoiesis) and survival. The receptor's role in erythropoiesis offers a potential avenue for cancer therapeutics, as a blood supply is necessary for the growth and spread of cancer. D'Andrea continues to investigate the receptor in hematological malignancies, examining the ways that inherent (somatic) mutations and/or epigenetic modifications of the receptor affect its downstream, intracellular signaling pathways including JAK/STAT (Janus kinase/signal transducer and activator of transcription) and MAPK (mitogen-activated protein kinase).

D'Andrea has also investigated DNA repair mechanisms, more specifically how DNA damage impacts chromosomal stability, cell cycle progression and resulting cancer susceptibility. He has examined these processes in rare chromosomal instability syndromes including ataxia

telangiectasia, Fanconi anemia and Bloom's syndrome. His most extensive work has involved Fanconi anemia, which has the potential to lead to the onset of acute myelogenous leukemia. D'Andrea's work in DNA repair mechanisms has led to studies of the FANCC protein. He discovered that this protein is part of a complex of proteins that block the harmful effects of DNA-damaging agents, in turn assisting in the preservation of DNA integrity in the body. His research into the FA protein family continues to provide insights that enhance the understanding of DNA repair processes in different disease pathologies.

D'Andrea received his medical degree from Harvard Medical School. He did his residency at The Children's Hospital of Philadelphia in pediatrics and his fellowship at Dana-Farber Cancer Institute and Children's Hospital of Boston in pediatric hematology and oncology. He returned to Dana-Farber Cancer Institute and Children's Hospital of Boston after postdoctoral studies at the Whitehead Institute. He is professor in the departments of radiation oncology and pediatrics, genetics and complex diseases and co-director of Gene Therapy Center, Children's Hospital of Boston.

He has received many awards, including the American Academy of Pediatrics Excellence in Research Award, the E. Mead Johnson Award for Research in Pediatrics and the Fanconi Anemia Scientific Symposium's Award of Merit. In addition, D'Andrea has published numerous papers in high-impact peer-reviewed journals.

###

=