



## **FOR IMMEDIATE RELEASE**

### **Avalon Pharmaceuticals, Inc. Announces Filing of IND for AVN944 for the Treatment of Cancer**

Germantown, MD, September 7, 2005--Avalon Pharmaceuticals, Inc. announced today that on September 1st it submitted an Investigational New Drug (IND) application to the U.S. Food and Drug Administration (FDA) for their lead candidate, AVN944 for treatment of cancer. Subject to FDA acceptance, the Company plans to begin its first U.S. Phase I clinical trial of AVN944 in patients with hematologic malignancies.

AVN944 is an inhibitor of the enzyme inosine monophosphate dehydrogenase (IMPDH), an enzyme that is essential for the de novo synthesis of the nucleotide guanosine triphosphate (GTP). AVN944 appears to inhibit cell proliferation by denying dividing cells of the GTP necessary for synthesis of DNA and RNA. IMPDH is highly upregulated in hematologic cancers, but many other types of cancer cells are also sensitive to IMPDH inhibition.

"The filing of this IND for AVN944 is a significant step forward for Avalon Pharmaceuticals as we seek to further the development of our therapeutic pipeline," said Ken Carter, Ph.D. Chief Executive Officer of Avalon. "We believe the results of the pre-clinical research on AVN944 combined with the results of the initial non-US clinical trial on normal human volunteers conducted by Vertex Pharmaceuticals demonstrate that AVN944 has the potential to have clinical benefit for cancer patients. Additional preclinical studies and clinical testing will be necessary to establish efficacy and safety of AVN944 in cancer patients before we can expect to file an NDA with the FDA and market a commercial product."

AVN944 was in-licensed by Avalon from Vertex Pharmaceuticals, Inc. in February of 2005. Vertex Pharmaceuticals, Inc. conducted a Phase I trial in the U.K. in normal human volunteers where AVN944 was shown to be orally bioavailable and well-tolerated.

### **About Avalon**

Avalon Pharmaceuticals is a biopharmaceutical company focused on the discovery and development of small molecule therapeutics for the treatment of cancer. Avalon seeks to discover and develop novel therapeutics through the use of a comprehensive, innovative and proprietary suite of technologies based upon large-scale gene expression analysis which it calls AvalonRx™. Avalon Pharmaceuticals was established in 1999 and is headquartered in Germantown, Maryland.

*This announcement contains, in addition to historical information, certain forward-looking statements that involve risks and uncertainties, in particular, related to the development of AVN944. Actual results could differ materially*

*from those currently anticipated as a result of a number of factors, including that there can be no assurance that such development efforts will succeed, that AVN944 will receive required regulatory clearance or, even if such regulatory clearance is received, that any subsequent products will ultimately achieve commercial success.*

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