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**Avalon Pharmaceuticals Discovers Prostate Cancer Biomarker  
-Findings on D-PCa-2 published in the *International Journal of Cancer* –**

**--Discovery has Potential Implications for More Effective Diagnosis of Prostate  
Cancer--**

**Germantown, MD – February 4, 2004** - Avalon Pharmaceuticals, Inc. announced today the discovery of a prostate cancer biomarker in the peer-reviewed journal of the International Union Against Cancer, the *International Journal of Cancer*. The paper entitled: “D-PCa-2: a novel transcript highly over-expressed in human prostate and prostate cancer” appears on the journal’s website (<http://www3.interscience.wiley.com/cgi-bin/jissue/76502439>) in the “Early View” online articles section and will be issued in the *International Journal of Cancer*’s print publication on May 10, 2004 (Volume 109, Issue 6). The study, conducted together with scientists from the Technical University of Dresden in Germany, has potential implications for the creation of a more effective prostate cancer diagnostic tool.

Based on the samples studied to date, the gene (D-PCA-2) appears to be more specific for prostate cells than the established standard marker for this organ, PSA (prostate-specific antigen). There is no clear difference in the level of expression of this gene in normal vs. malignant prostate cells. D-PCa-2 is present, however, in lymph nodes from patients with metastatic prostate carcinoma, but could not be detected in the lymph nodes from cancer-free individuals. It is generally believed that prostate cells circulate in the blood and lymph nodes of prostate cancer patients but not in normal healthy individuals, so the screening for a highly prostate selective marker such as D-PCa-2 in the blood or lymph nodes of males could be a more effective test for prostate cancer than current methods.

"We are excited about this finding and believe the D-PCa-2 gene has great promise as a prostate marker. We recognize, however, that significant additional work is required in a broader clinical population in order to validate its utility" commented Kenneth C. Carter, Ph.D., President and Chief Executive Officer of Avalon Pharmaceuticals, Inc. "It is also important to note that this report on D-PCa-2 is the first to be published among many biomarkers and targets discovered from Avalon’s novel genomic and cytogenetic programs for gene discovery."

D-PCa-2 was initially discovered in a screen of the GeneExpress<sup>(R)</sup> transcriptome database by Dr. Bernd Weigle, Group Leader at the Institute of Immunology at the Technical University Dresden, while working as a visiting scientist with Dr. Reinhard Ebner, Principal Scientist at Avalon Pharmaceuticals. The work was continued in a close collaboration when he returned to his position at the Technical University of Dresden, Germany.

## **Prostate Cancer**

Prostate cancer is the most commonly diagnosed cancer in the United States among men and is the second most common cause of cancer deaths among men. The American Cancer Society estimates that there will be about 230,900 new cases of prostate cancer in the US.

## **About Avalon Pharmaceuticals**

Avalon Pharmaceuticals utilizes unique and proprietary forward chemical genomics-based methods to accelerate the discovery of novel targets, biomarkers and drugs. Avalon's unique capabilities in cytogenetics and gene expression analysis allow Avalon to rapidly discover and validate novel oncology targets. For the discovery of small molecules Avalon utilizes a comprehensive systems approach, enabling more informed decisions at earlier stages in the drug discovery process. These innovative techniques allow for the rapid identification of lead compounds through an enriched understanding of the mechanism of action within diseased cells, leading to accelerated medicinal chemistry driven lead optimization programs and clinical development. This revolutionary systems approach is applicable across multiple disease areas. Currently, Avalon is focusing its efforts to produce the next generation of cancer medicines. Avalon Pharmaceuticals was established in 1999 and is headquartered in Germantown, Maryland.

For more information please visit [www.avalonrx.com](http://www.avalonrx.com).

*This press release includes forward-looking statements based on Avalon's management's current expectations. Factors that could cause future results to differ materially from such expectations include, but are not limited to: the ability to secure future funding; the success of the Companies' research strategies; the applicability of the discoveries made therein; the difficulties inherent in the development of pharmaceuticals, including uncertainties as to the timing and results of preclinical studies; delayed achievements of milestones; reliance on collaborators; uncertainty as to whether the Companies' potential products will succeed in entering human clinical trials and uncertainty as to the results of such trials; uncertainty as to whether adequate reimbursement for these products will exist from the government, private healthcare insurers and third-party payors; and the uncertainties as to the extent of future government regulation of the pharmaceutical business.*

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