

## **PSA: The “Milestone” in Urology**

**Introduction and Objectives:** To present the discovery and the role of the Prostate-Specific Antigen, the most widely-used tumor marker in the world, which revolutionized the diagnosis and management of diseases of the prostate gland.

**Material and Methods:** The review of the related medical literature focusing on the discovery and categorization of prostate antigens.

**Results:** Richard J. Ablin and his colleague Witebsky were the first who studied the properties of prostatic tissue and observed that two antigens were specific to the human prostate, one being prostatic acid phosphatase and another described with the generic term “prostate-specific antigen”. In 1971, Mitsuwo Hara investigated antigens in human semen and found  $\gamma$ -seminoprotein, an antigen that was later shown to be familiar to PSA. In 1979, Ming C Wang characterized an antigen from the prostate and named it prostatic antigen. Further research showed that this antigen was specific to the prostate and finally characterized it as prostate-specific antigen (PSA). In 1980, Lawrence Papsidero showed that PSA in serum was similar to the PSA identified in the prostate. Thomas Stamey and Chu with further detailed studies finally established the use of PSA as a tumor marker.

**Conclusions:** The collective research of many eminent scientists, lead to the discovery of PSA that changed the whole management and treatment of benign and malignant diseases of the prostate.