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LETTER TO THE EDITOR
THE TERM PROSTATE-SPECIFIC ANTIGEN SHOULD BE ABANDONED IN FAVOUR OF SEMENOGELASE

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Biochemical nomenclature is a very important part of the biomedical nomenclature. As many other aspects of health sciences, nomenclature should be evidence-based. Many things (substances, microorganisms, diseases, etc.) when discovered are termed with simplicity, according to the style, personality, or terminological rigor of the authors of the first papers describing the finding. Nomenclature derived from such simplicity is not scientifically sustainable and may be misleading. On the contrary, nomenclature recommended by the international scientific authoritative bodies facilitates communication worldwide across scientific disciplines and is scientifically sustainable.

One paradigmatic example of this lack of scientific rigor in naming is the term *prostate-specific antigen* (1, 2). During the last 20 years, this term is used in health sciences to refer to a molecule produced mostly, but not only, by the prostate gland to liquefy the seminal coagulum after ejaculation, allowing sperm to swim freely and, probably, dissolving the cervical mucous cap to allow the entry of sperm (3). As it is well known, the concentration of this protein in blood plasma (or serum) is a biomarker for the diagnosis of prostate cancer, which in spite of it is completely not specific for this disease.

A lot of time has passed from the first publications on the so-called prostate-specific antigen (PSA), and very many papers on different aspects of this molecule have been published (4). During this time, not only the biomedical knowledge about this protein has evolved, but also nomenclature and terminology have evolved. Thus, it is the time to change the name of the so-called prostate-specific antigen for a name having scientific rigor, based in the fact that this protein is an enzyme: PSA is a peptidase of S1 family (trypsin family) which official (trivial) name according the IUBMB is *semenogelase* (EC 3.4.21.77), the gene of which is located on the nineteenth chromosome (19q13). Nevertheless, besides prostate specific antigen and semenogelase, this protein has received several names during the last years depending on the field of study, among others: kallikrein III, P-30 antigen, seminin, α-seminoprotein, γ-seminoglycoprotein, γ-seminoprotein, and γ-SM. All these names should be abandoned in favor of semenogelase, of course.

References

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NOTE : Xavier Fuentes-Arderiu is titular member of the IFCC-IUPAC Committee/Subcommssion on *Nomenclature, Properties and Units.*