

## Publications about Sperm during the Years 1897 to 2010

### Background

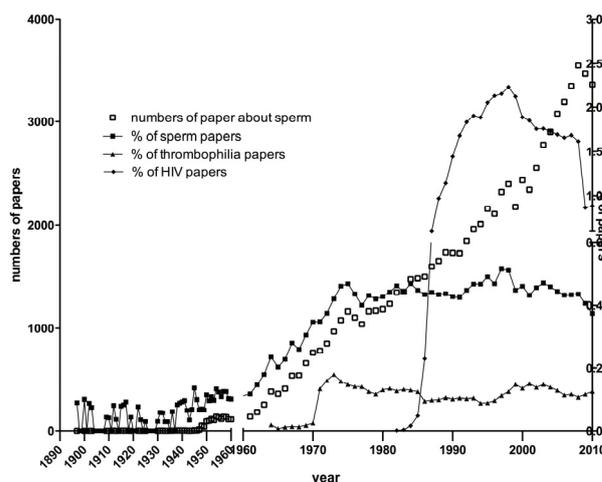
Sperm cells are one of the most stellar and fascinating cells in all species. One of the most distinctive characteristic of these cells is their movement dynamics which can be observed through a light microscope. The first paper regarding sperm cell biology that appeared on PubMed was presented by Dr. W.F. Whitney (1). There, he showed the staining properties of spermatozoa and it was published in the *Boston Society of Medical Sciences Journal* in 1897. From that time on, around 82,998 papers have been published about sperm. The objective of the present paper was to evaluate the dynamic of sperm publication in the world using PubMed indexing database between 1897 and 2010 and the percentage of papers published on sperm per year.

### Methods

The number of papers published about sperm during the years 1897 to 2010 was searched using the keyword *sperm* through the EndNote software. In addition, in order to compare the percentage distribution of the papers on sperm, two other biological terms, thrombophilia and HIV— human immunodeficiency virus, were searched in the same period of time. The percentage represented the fraction of each term to the total number of publications.

The percentage distribution of publications on sperm from the total number of papers published in the biological literature after 1970 was 0.4%; on the other hand, publications on sperm had been only 0.05% before 1960, indicating an increase in the proportion of papers published on sperm. The aforesaid distribution was compared to two other biological terms: thrombophilia and HIV, and as observed, the percentages of these terms were different from that of sperm. In thrombophilia case, the number of papers increased during 1970s to 0.1%, and in the case of HIV, the papers increased rigorously in early 80s to 1.5–2% of the total publications in the biomedical world.

It is important to note that the proportion of HIV publication which is about three folds greater than papers on sperm, is the result of scientific, social and epidemiologic importance of HIV (Figure 1).



**Figure 1.** Number (Y axis left) and percentage (Y axis right) of the published papers about sperm for each year (X axis) from 1897 to 2010 in PubMed

Based on this analysis, it is possible to conclude that the increase in the proportion of papers about sperm has been the result of the important investigations in the 50s, 60s and 70s, which slowly emerged through the passage of time. Finally, increases in the number of published papers about sperms are constant from 1970 to the present time and the possibility still lingers for another round of increase in the number of publications as some investigator my still come up with new ideas about sperm. Caption for Figure 1: The graph shows the number (Y axis left) and percentage (Y axis right) of the published papers about sperm for each year (X axis) from 1897 to 2010 in PubMed. The left axis shows the numbers of paper about sperm for each year (the open square). The right axis shows the percentage of sperm (the closed square), thrombophilia (the closed triangle) and HIV papers (the open triangle).

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### Reference

- Whitney WF. The double staining of spermatozoa. *J Boston Soc Med Sci.* 1897;1(7):9-10.

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