

A Commentary on the Role of “Female Gender” in Receiving the Nobel Prize for Physiology/Medicine

Vellimalai Kannan*

Department of Physiology, PSG Institute of Medical Sciences and Research, Peelamedu, India

Commentary

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*For Correspondence

Kannan Vellimalai, Department of Physiology, PSGIMS&R, Coimbatore, Tamil Nadu, India, Tel: 0422-2570170.

E-mail: zestoflife2004@yahoo.co.in

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ABSTRACT

In browsing through the list of Nobel Prize Laureates, only about 5.3% of women have won the Alfred Nobel Prize for Physiology and Medicine. In countries with highest number of Nobel laureates like USA & UK, only about 4% of them are Females. This review article analyses the role played by the “female gender” in receiving the nobel prize for Physiology and Medicine.

INTRODUCTION

Nobel Prize is one of the highly prestigious awards to be won by the mankind. Each recipient receives a medal, a diploma and a cash prize of about 8 million Swedish Krono that has varied through the years (**Figures 1-3**). Now cash prize is equivalent to 6 crore and 25 lakhs. Nobel prize medals are handmade with recycled gold with careful precision. So far only 48 women have received (822 men) the distinction and among them, only 12 women got the honor for Physiology/Medicine whereas 211 individuals have received Nobel Prize for Physiology/Medicine.

The first woman to receive the Nobel Prize for Physiology/Medicine was in the year 1947. It is about 46 years after inception of the prize (1901).



Figure 1. Picture of Albert Nobel medal.



Figure 2. Method of carving the medal.



Figure 3. Diploma.

INTERESTING FACTS ABOUT WOMEN NOBEL PRIZE LAUREATES

Gerty Theresa Cori-Nee Radnitz -1947

She proposed “the cori cycle” in the metabolism of glycogen → the hypothetical model of how the body uses chemical reactions to break down carbohydrates ^[1].

Barbara Mc Clintock -1983

She is one female researcher who received the nobel prize in Toto for Physiology/Medicine. She received the nobel prize for the theory of “Transposition” –the theory that genes turn on and off physical characteristics.

Rita Levi-Montalcini -1986

She worked on the nerve development in chicken embryo. She isolated nerve growth factor (NGF)-a protein that guides the growth, maintenance and survival of nerve fibers [2].

She is the first nobel laureate to reach the age of 100. She died in the year 2012 at which her age was 103 years.

Gertrude B Elion- 1988

She developed a number of new pharmaceuticals designed to kill pathogens without harming the healthy cells. She was working in the present "Glaxo" [3].

Smith Klein" Pharmaceutical Company

Her work was spurred by her grandfather's death due to stomach cancer at her age of 15 years.

Christiane Nusslein-Volhard-1995

Her research of genetic mutation in fruit flies helped us to understand "Evolution" thanks to her discovery about the genetic makeup of a common ancestor.

In 1994 Christiane Nusslein-Volhard name was given to an asteroid in space [4].

Elizabeth H Blackburn and Carol W Greider-2009

Both women researched telomeres, the end caps of chromosomes created by repeating stacks of "extra" DNA bases. When DNA replicates, the telomeres are shortened and the chromosomes deteriorate-the cause of aging and chromosomes fusion which leads to cancer. Later on they discovered "telomerase"-a telomere protecting enzymes.

DISCUSSION

Out of the 12 female awardees, 2 females share the prize for medicine/physiology in the year 2009. The subjects which was chosen by the awardees are

- a) Genetics – 3 studies
- b) Cell biology – 1 Study
- c) Investigation – 1 study
- d) Treatment – 2 studies
- e) Discovery – 3 studies
- f) Biochemistry -1 study

Among the above titles, discovery of Human Immune Deficiency Virus (HIV) was a phenomenal study which made the scientists to develop anti -HIV drugs. Also 6 articles were concerned with molecular level research.

Among the countries the awardees belong to are: 7 from USA and one each from Germany, France, Norway and China. Also out of the 11 topics, 7 core-physiologists did the study in their respective subjects.

CONCLUSION

Though the number of females who has won the prize is increasing, still it's a long way to achieve the gender equality in the nobel prize There is still a huge "gender gap" in the awarding of nobel winners for Physiology and Medicine.

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