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An Innovative Program to Train Future Nobel Laureates Belonging to Türkiye and Pakistan

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Abstract – Alfred Nobel signed his final will on November 27, 1895, in which he wrote that his entire remaining estate should be used to endow “prizes to those who, during the preceding year, have conferred the greatest benefit to humankind”. Nobel prizes are awarded in 5 categories, viz. chemistry, literature, peace, physics as well as physiology and medicine combined with the Sveriges Riksbank prize in economic sciences. However, most of the prizes are bagged by persons belonging to United States or Western Europe. Türkiye and Pakistan, each, are honored with 2 prizes (Orhan Pamuk and Aziz Sancar from Türkiye; Abdus Salam[¶] and Malala Yousafzai from Pakistan — another one from British India, now in the territory of Pakistan, Subrahmanyam Chandrashekar) The author has been motivating university students through lectures delivered before the announcement of Nobel Prizes in Physiology and Medicine as well as physics, the effort appreciated by Göran K. Hansson, Secretary General of the Royal Swedish Academy of Sciences (2015-2022). As assignment of a physics course taught at SZABIST in 2017, the author asked each student to submit a writeup and give a presentation on the life history, the significance of contribution, which merited award of Nobel prize as well as the personal qualities and the work ethics of a Nobel laureate in physics. In mathematical physics courses, taught during the fall term (second semester in University of Karachi), the author required the students to submit (in a sealed envelope) their proposed nominations of person(s) to be awarded Nobel prize in physics by September 30, with a promise to grant them bonus marks, if their nominations matched the actual award. These activities and exercises encouraged the students to study the work of Nobel laureates and motivated them to achieve excellence in the subject. In order to produce future Nobel laureates belonging to Türkiye and Pakistan, a systematic approach needs to be developed from the primary-level teaching, where students, having the willingness and the ability to think out-of-box as well as showing signs of creative thinking and critical analysis, are enrolled in enrichment programs, in which they are introduced to the life history and the struggle (like that of Marie Curie, née Skłodowska) of past winners of Nobel prize. In the secondary school, the same pupils are introduced to the significance of work of these luminaries (Nobel laureates) and in the university, these seekers of knowledge are asked to, critically, analyze the Nobel-prize winners’ contributions as well as identify cutting-edge topics, which, if systematically taken up, could win such a prize. One should realize that twenties are the formative years, in which there are avalanches of ideas, at times resulting in key contributions by prospective Nobel laureates. Examples are P. A. M. (Paul Andrian Maurice) Dirac[¶] and Lois-Victor de Broglie. [Certificate of Participation](#)

Keywords – Alfred Nobel, Karolinska Institutet, Nobel-prize announcement, Nobel-prize categories, Royal Swedish Academy of Sciences [Full Text](#)

[¶]The author had the honor to meet Abdus Salam at ICTP during 1988 and P. A. M. Dirac at Fermilab during 1980 — had audience with Hans Albrecht Bethe, William A. (Alfred) Fowler, Willis E. (Eugene) Lamb, T. D. (Tsung-Dao) Lee, Roger Penrose (did not receive Nobel prize at that time), Julian Schwinger and Steven Weinberg; listened to Carl D. (David) Anderson’s lecture via telephone line as well as corresponded with Eugene P. (Paul) Wigner. [Conference Program](#) (page 15)

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