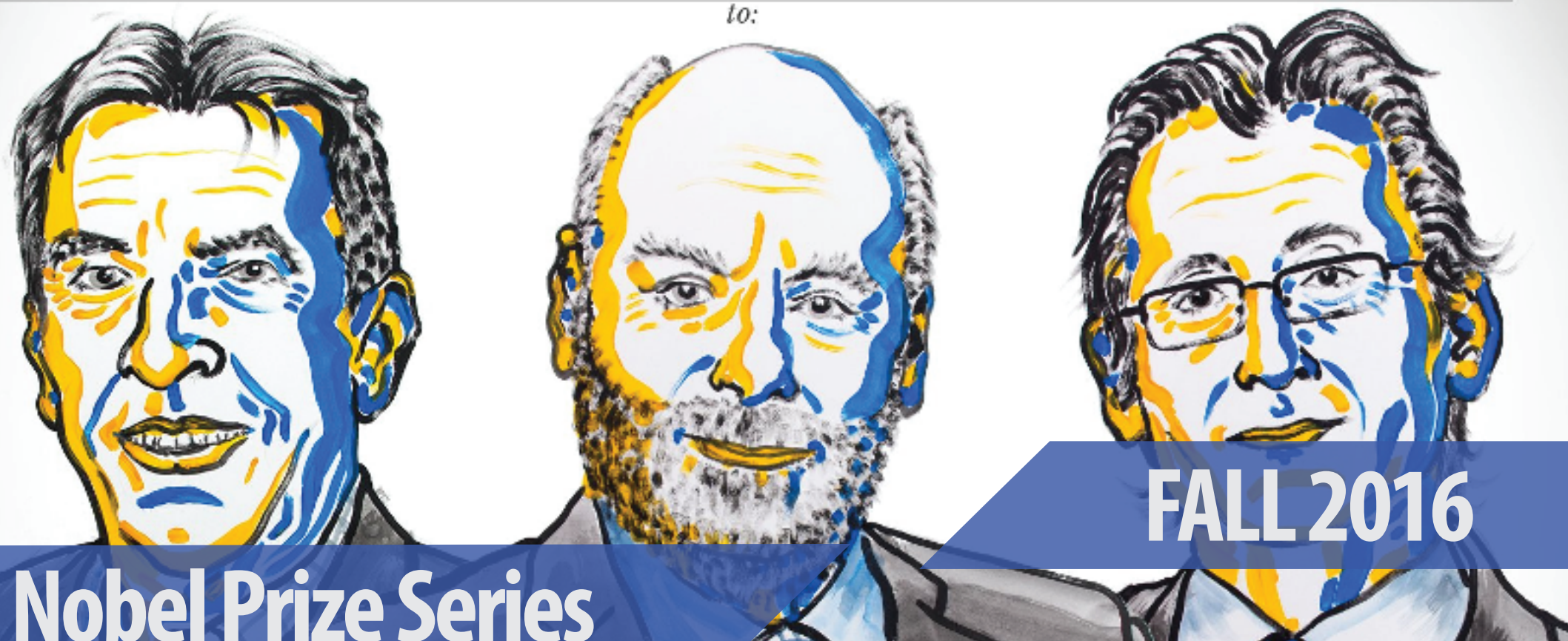


2016 NOBEL PRIZE IN CHEMISTRY



Engin U. Akkaya & Bilge Baytekin

Bilkent University

Chemistry Nobel Prize of 2016 and Personal Reflections

day

DEC 7, 2016 WED

location

EE01

time

15:40

ABSTRACT

The laws of motion for our world, and that of molecules are different. As a consequence, a molecule-based machine is not likely to be a miniaturized version of a macroscopic machine. This year's Chemistry Nobel laureates illuminated the path towards functional molecular machines. Jean-Pierre Sauvage and Sir J. Fraser Stoddart showed their mastery of "interlocked" molecules for controlling relative motions of their constituent parts. Ben Feringa, on the other hand, focused on unidirectional movement of molecules. While inspired by nature (ATP synthase, flagellar motor, ribosome) the progress in molecular machines has been largely independent of our understanding of protein-based natural examples. In fact, their potential, not being constrained by evolutionary pressure, is much greater.

In the second part of the presentation, we will take a personal look, and try to understand what it takes to be a Nobel science laureate and imagine the life of the laureates after that phone call from Nobel Committee. Considering the clout that it comes with, we will also try to find out whether that power and prestige always put to good use -or not. We will consider a few cases of close interest.

