



RICHARD J. ROBERTS

NOBELOVA NAGRADA ZA FIZIOLOGIJU ILI MEDICINU
NOBEL PRIZE IN PHYSIOLOGY OR MEDICINE

Richard John Roberts rođen je u Derbyju u Engleskoj. Diplomski studij kemije i doktorski studij organske kemije završio je na Sveučilištu u Sheffieldu, a postdoktorsko istraživanje proveo je na Harvardu baveći se molekularnom biologijom.

Za neovisno otkriće 'odvojenih gena' dobio je Nobelovu nagradu za fiziologiju ili medicinu 1993. godine s Phillipom Allenom Sharpom. 1977. je Roberts ustanovio da su geni adenovirusa (jedan od virusa koji uzrokuju prehladu) diskontinuirani: segmenti DNK koji kodiraju proteine (egzoni) isprekidani su intronima, segmentima DNK koji ne sadrže genetsku informaciju. Prethodno su znanstvenici vjerovali da se geni sastoje od

Richard John Roberts was born in Derby, England. After finishing his studies, he obtained his doctor's degree in Organic Chemistry at the University of Sheffield in the UK and carried out his postdoctoral research at Harvard University in the USA to become a molecular biologist.

In 1993, he won the Nobel Prize in Physiology or Medicine with Phillip Allen Sharp for his independent discovery of 'split genes'. In 1977, Roberts established that the genes of the adenovirus (one of the viruses that cause the common cold) are discontinuous: the segments of DNA that code for proteins (exons) are interrupted by segments of DNA that do not contain genetic information (introns). Previously, based on studies of bacterial DNA, biologists believed that genes

neprekinutih dijelova DNK, čiji su svi dijelovi kodirali proteinske strukture. Od tada je ustanovljeno kako je diskontinuirana genska struktura koju su otkrili Roberts i Sharp prisutna kod svih viših organizama (eukariota). Osim što je ovo otkriće važno za proučavanje genetskih bolesti, vjeruje se da ovakva struktura vodi evoluciju naprijed, dopuštajući kombinacije informacija iz različitih dijelova gena.

Zaposlen je u biotehnološkoj tvrtci New England Biolabs u SAD-u gdje je glavni znanstvenik. Područje njegovog istraživačkog interesa su restrikcijske endonukleaze, DNK metilaze i računalna molekularna biologija.

consisted of continuous stretches of DNA, all of which encoded protein structure. It has since been established that the discontinuous gene structure discovered by Roberts and Sharp is the most common structure found in higher organisms (eukaryotes). In addition to having important implications for the study of genetic diseases, this structure is believed to drive evolution by allowing information from different parts of the gene to be brought together in new combinations.

Richard J. Roberts is the Chief Scientific Officer at New England Biolabs, a biotechnology firm in the USA. His research interests are restriction endonucleases, DNA methylases and computational molecular biology.



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