

PREMIO INTERNAZIONALE «ANTONIO FELTRINELLI»
(Scadenza 31 dicembre 2013 – Premio € 250.000)

Relazione per il conferimento del Premio Internazionale «Antonio Feltrinelli» destinato, per il 2014, alla Medicina. Commissione: MICHAEL SELA (Presidente), LAMBERTO MAFFEI, SALVADOR MONCADA, MARIO STEFANINI, CARLO PATRONO (Relatore).

CHRISTOPHER MARTIN DOBSON, born October 8, in Rinteln (Germany) in 1949, is, since 2001, Professor of Chemical and Structural Biology, and, since 2007, Master of St John's College of University of Cambridge.

Chris Dobson's work has defined the physical principles of protein misfolding and aggregation. Through his research activities he has clarified the molecular basis of medical disorders based on these phenomena. Dobson discovered that essentially all proteins possess an intrinsic ability to misfold and self-assemble into an alternative type of highly organized protein structure, the amyloid state, that is observed in the organs and tissues of those suffering from Alzheimer's and Parkinson's diseases, and indeed of a large number of other syndromes including Type II diabetes and a range of systemic disorders: He went on to show that such misfolding behaviour can lead not only to loss of normal function but also to the formation of species that are highly toxic to cells and hence able to cause irreversible damage to organs such as the brain. His scientific production is of outstanding quality.

Relazione approvata dall'Assemblea delle Classi Riunite del 9 maggio 2014.