Invité sur proposition des professeurs
Alain FISCHER et **Hugues de THÉ**.

Phillip A. SHARP

INSTITUTE PROFESSOR, PROFESSOR OF BIOLOGY ; MEMBER,
KOCH INSTITUTE FOR INTEGRATIVE CANCER RESEARCH

CONFÉRENCE EN ANGLAIS

RNA Interference, from Discovery to Patients

Vendredi 18 mars 2022

De 10 h 30 à 11 h 30 — Salle 2, site Marcelin Berthelot
Pass vaccinal requis, masque obligatoire

Historically, primarily through the research of the great French scientists Jacob and Monod, RNA has been viewed as the intermediary transmitting information between DNA and protein. However, the discoveries of the activities of short RNA in cells (microRNA or miRNA) in 1993 and of RNA interference (RNAi) in 1998 suggested that RNA has an extensive regulatory role in cells and could potentially be used as a therapeutic agent designed directly from the sequence of a gene. Critical biochemical experiments revealed the double-stranded small interfering RNA (siRNA) that when introduced into the human cell cytoplasm silences genes by cleavage of mRNA. Translating these scientific breakthroughs into therapeutic agents approved for treatment of disease required further breakthroughs in delivery of RNA into cells in tissue, designing siRNA that does not stimulate the innate immune response and has high specificity to silence the target gene and not others. Now, many patients are benefiting from these advances. With the subsequent introduction of mRNA vaccines, RNA has been firmly established as an important new therapeutic modality.

COLLÈGE DE FRANCE
1530

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