

HSTalks The Biomedical & Life Sciences Collection

From COVID-19 to the basics of RNA

A Learning Journey

How does the SARS-CoV-2 virus infect cells?



Extract from:
'Interspecies transmission of SARS-CoV-2'
Dr. Dalan Bailey – The Pirbright Institute, UK

1 min (02:13 - 03:06)

And what are mRNA vaccines?



Extract from:
'Vaccination'
Dr. Anita Milicic – University of Oxford, UK

1 min (17:04 - 18:04)

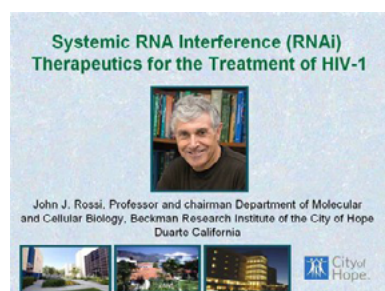
Are there other ways of applying this novel approach?



Extract from:
'Imperial College London's saRNA Vaccine - COVAC1'
Dr. Katrina Pollock – Imperial College London, UK

3.5 mins (00:15 - 03:41)

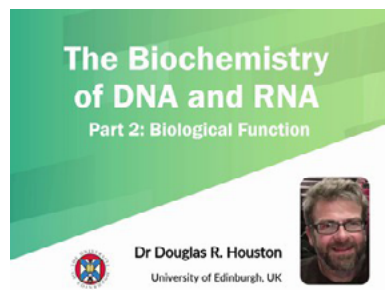
What about RNA-based therapies against viruses?



Extract from:
'Systemic RNA interference (RNAi) therapeutics for the treatment of HIV-1'
Prof. John Rossi – Beckman Research Institute of the City of Hope, USA

1 min (03:46 - 04:58)

So, what types of RNA do we have in our cells?



Extract from:
'The biochemistry of DNA and RNA 2: biological function'
Dr. Douglas Houston – University of Edinburgh, UK

1 min (01:46 - 02:40)

And how are mRNA molecules normally produced?



Extract from:
'Gene structure, expression and regulation: DNA structure and replication'
Dr. Carole Sargent – University of Cambridge, UK

13 mins (23:15 - 36:30)

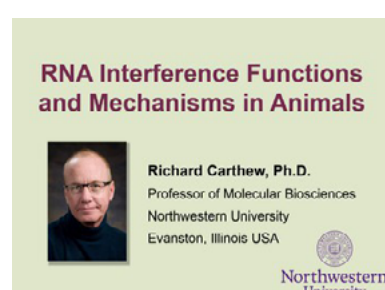
OK, but then how are proteins created from these mRNA molecules?



Extract from:
'Gene structure, expression and regulation: translation and regulation of gene expression'
Dr. Carole Sargent – University of Cambridge, UK

14 mins (00:41 - 14:41)

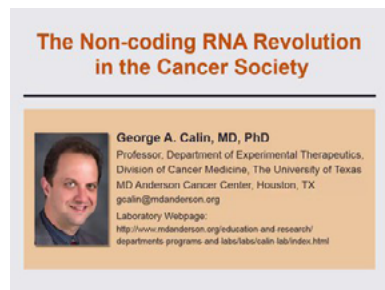
And what is RNA interference?



Extract from:
'RNA interference functions and mechanisms in animals'
Prof. Richard Carthew – Northwestern University, USA

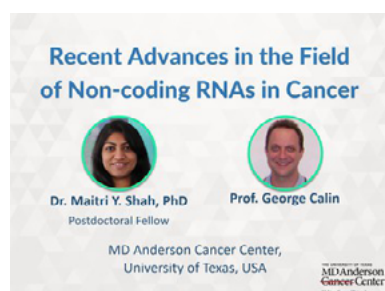
24.5 mins (04:10 - 28:43)

What about the increasing focus in recent years on non-coding RNA in cancer?



Extract from:
'The non-coding RNA revolution in the cancer society'
Prof. George Calin – MD Anderson Cancer Center, USA

35 mins (12:06 - 46:58)



Whole talk:
'Recent advances in the field of non-coding RNAs in cancer'
Prof. George Calin & Dr. Maitri Shah – MD Anderson Cancer Center, USA

35 mins (00:00 - 35:06)