

3 BIGGEST CHALLENGES OF DRUG DISCOVERY

The path to discovering new drugs can be long and difficult



1 COMPLEX SCIENCE

Breakthroughs in science, such as epigenetics and the role of the microbiome, are making us realise that patients are incredibly heterogeneous.

This may be a big reason why many clinical studies keep failing.

We need to understand heterogeneity if we are going to be able to stratify patients and increase the probability of success.

2 AFFORDABILITY

Drug discovery is an expensive process, but at the same time, drugs need to be affordable for those who need them.

As an example, in the UK there are around 850,000 people living with dementia, currently costing the state £32 billion to look after.

By 2050, it is estimated that this will rise to 2 million people. A treatment costing several hundreds of pounds a year would bankrupt the NHS.



3 SAFETY



Patients and society want safer and safer drugs.

No drug is completely safe, and we need to reach a balance.

Managing the intake of a drug is like managing the intake of a poison; there will be side effects if we ate a spoonful of salt everyday.

Watch the full interview with Chas Bountra to learn more

SOURCE

Responses from an interview with Chas Bountra, Professor of Translational Medicine, Oxford Structural Genomics Consortium, University of Oxford, at ELRIG Drug Discovery 2016.

<http://www.labtube.tv/video/what-are-some-of-the-biggest-challenges-of-drug-discovery-today>