

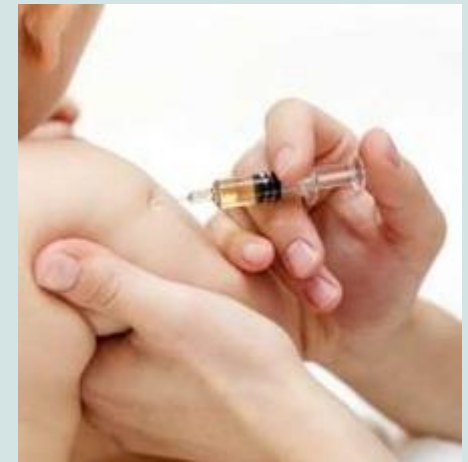
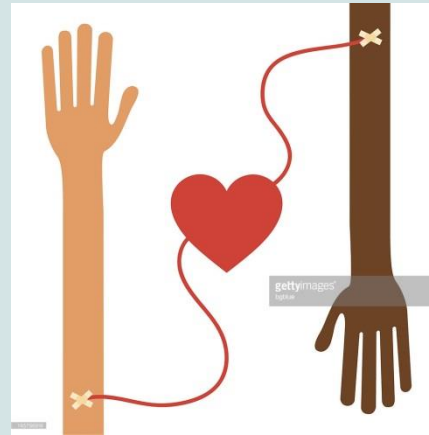
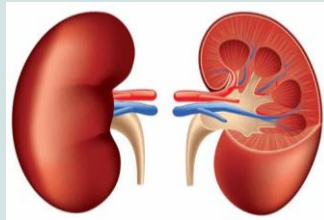
Where do medicines come from?



Name • Job Title • Organisation

Please stand up

Sit down if you have ever:



Diagnosis



What is making this girl sick?

Research- the discovery of insulin



Treatment- a life transformed



Brief history of animal research

1600-1900

- Smallpox vaccine (cows)
- Typhoid, cholera, plague vaccines (mice, rats)
- Rabies vaccine (dogs, rabbits)

1900s

- Rickets treatment (dogs)
- Corneal transplants (rabbits)
- Discovery of vitamin C/ Scurvy (guinea pigs)

1910-1920s

- Blood transfusions (dogs, guinea pigs, rabbits)
- Insulin for diabetes (dogs, rabbits, mice)

1930-1940s

- Antibiotics- Penicillin / streptomycin (mice)
- Diphtheria vaccine (guinea pigs, rabbits, horses, monkeys)
- Kidney dialysis (guinea pigs, rabbits, dogs, monkeys)

1950-1960s

- Polio vaccine (mice, monkeys)
- Kidney transplants (dogs)
- Heart transplants (dogs)
- Cardiac pacemakers (dogs)

1970-1980s

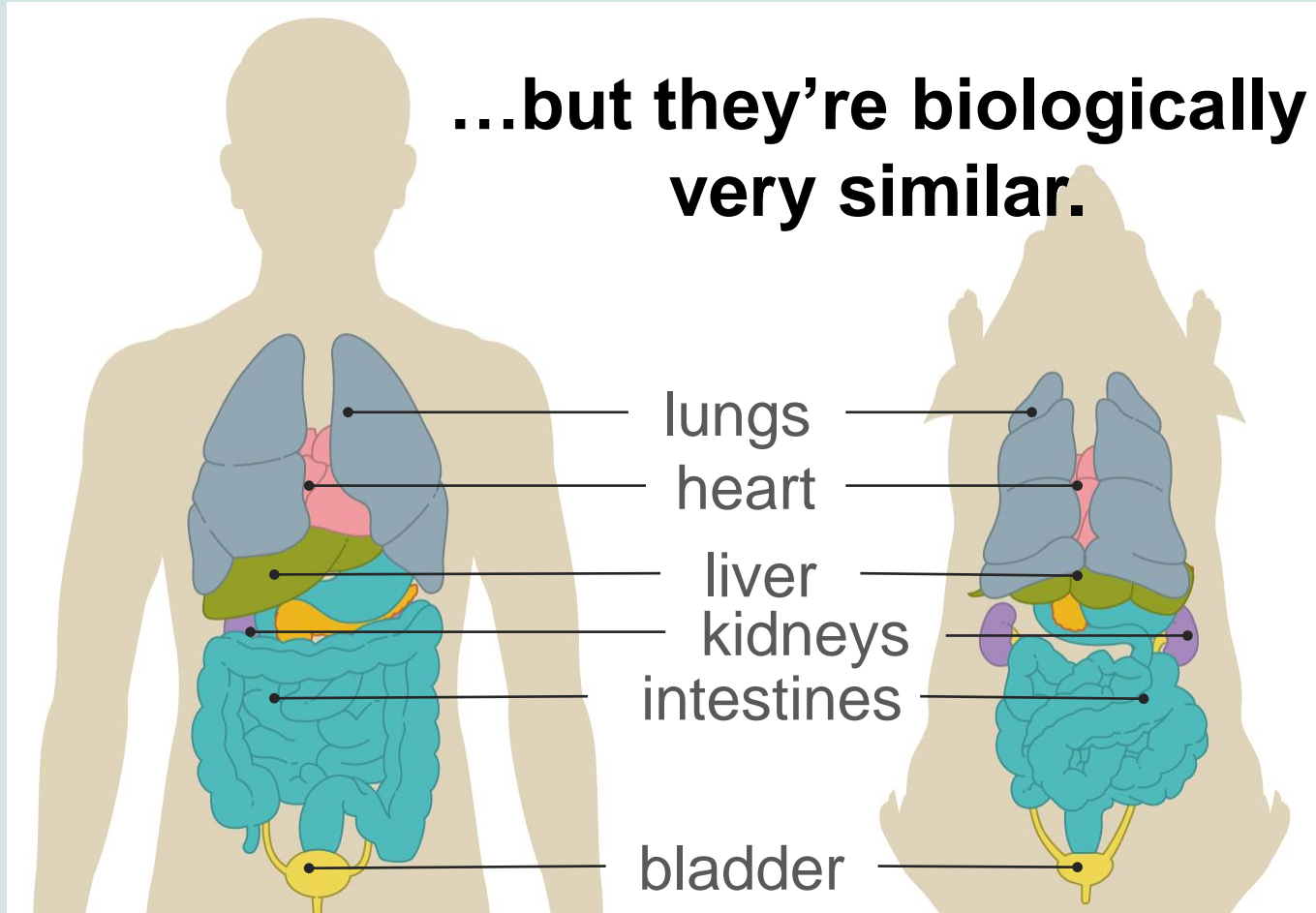
- Chemotherapy (mice)
- Leprosy treatment (armadillos, mice)
- Asthma inhalers (guinea pigs, rabbits)
- MRI scanning (rabbits, pigs)
- River blindness treatment (rodents, cows)

1990-2000s

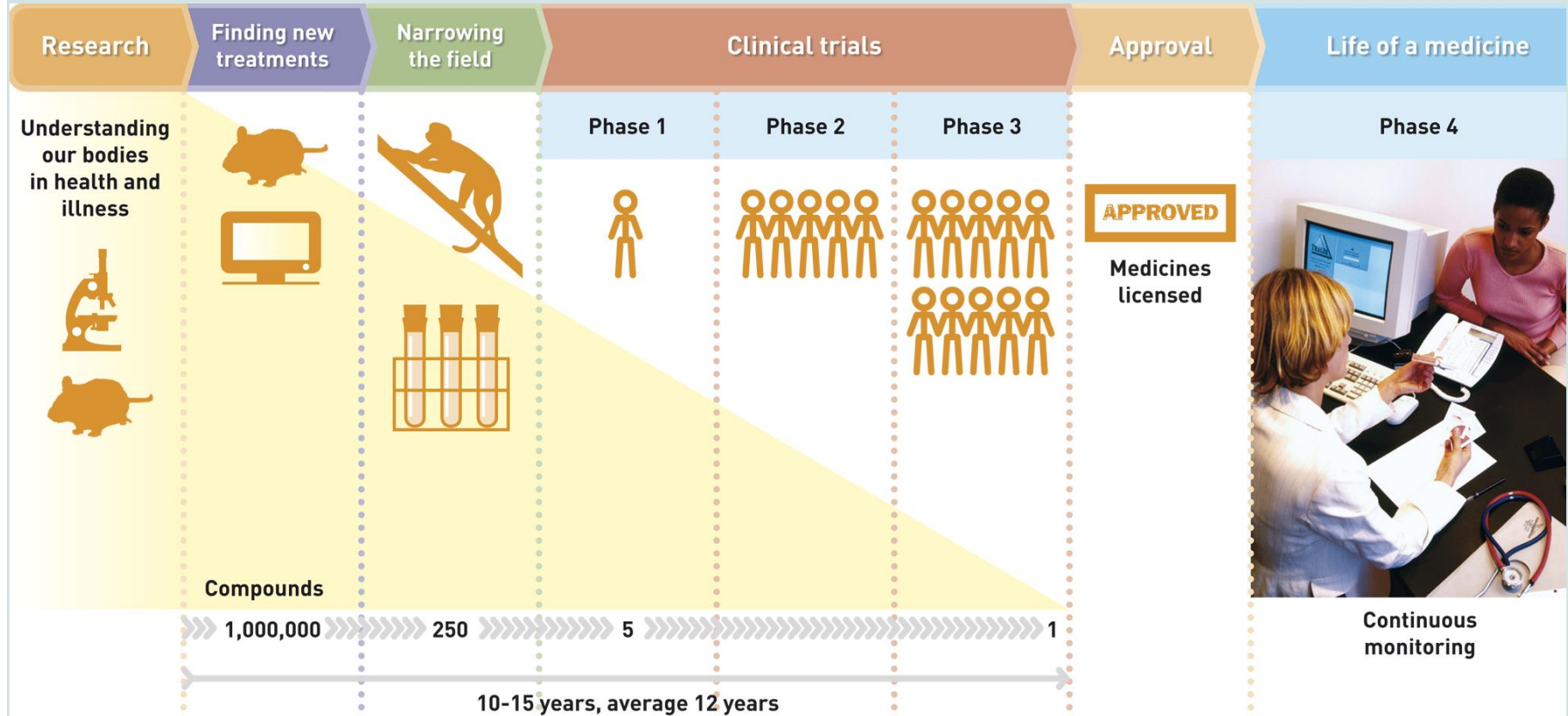
- HIV combined therapy (mice, monkeys)
- Meningitis vaccines (mice)
- Cervical cancer vaccine (rabbits, cows)
- Parkinson's deep brain stim (monkeys)

Animals aren't the same as humans...

...but they're biologically very similar.



The making of a medicine



Animals in society

Each year in the UK how many animals are:



killed for food?
1.3 billion



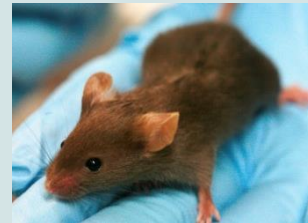
killed as pests?
20 million



killed by cars?
11 million



killed by cats?
275 million



used in research?
4.14 million

Animals and you

In their lifetime, the average person in the UK will consume:



1,500 chickens



46 fish



25 pigs



18 sheep



6.5 cows

Animals and you

For each person in the UK animal research will use:



4 mice



1 fish



1/2 rat

The law on animal research

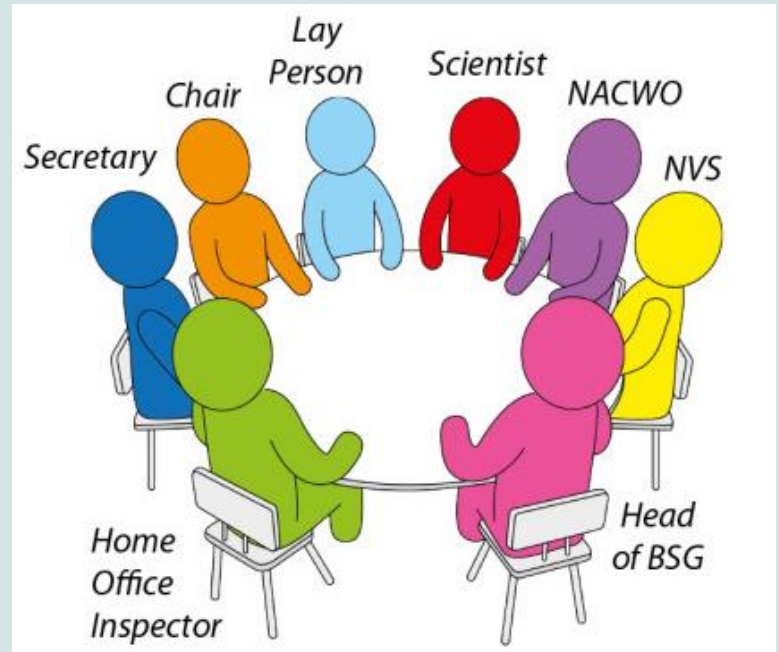
ELIZABETH II



Animals (Scientific
Procedures) Act 1986

The Government Says:

“We have legislated so experimentation is only permitted when there is no alternative research technique and the expected benefits outweigh any possible adverse effects.”



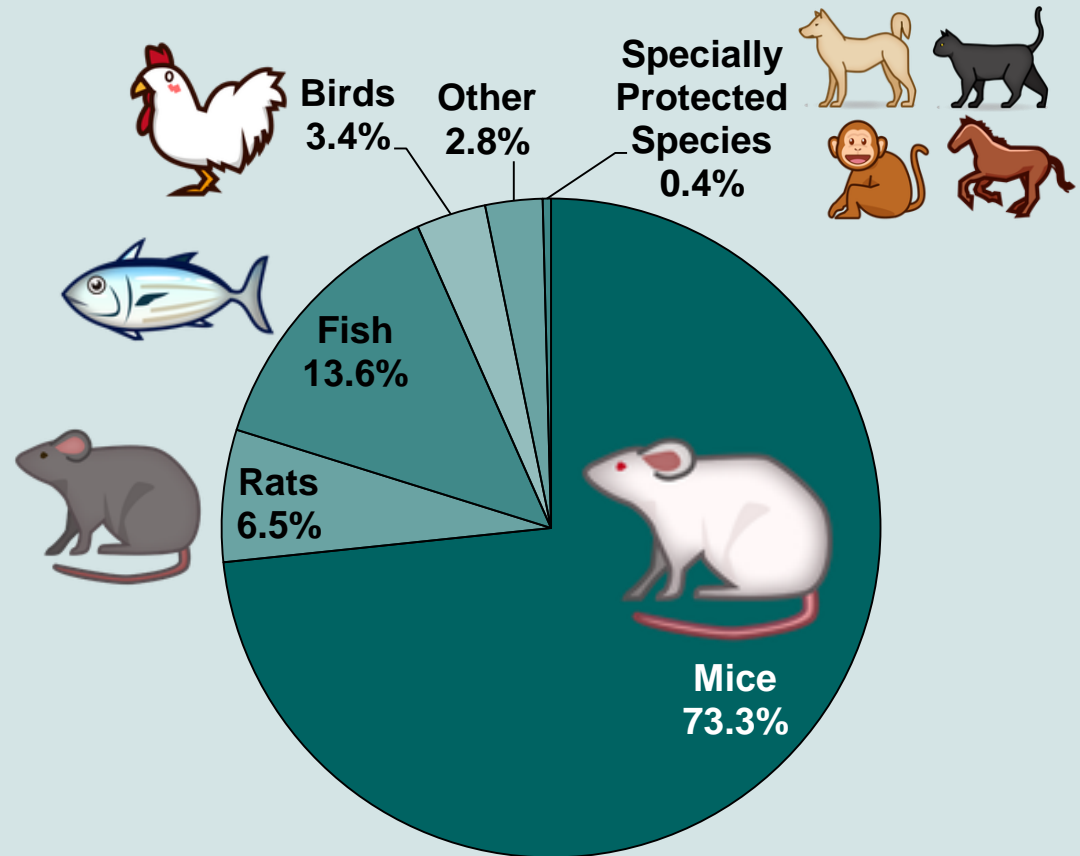
The 3Rs

- Replacement
- Reduction
- Refinement

www.nc3rs.org.uk



Animals used in research, Great Britain, 2015



What refinements do you see?



What refinements do you see?



What refinements do you see?



Parkinson's Disease



Thank you for listening

More information available at:

- www.uar.org.uk
- www.animalresearch.info
- speakingofresearch.com
- www.nc3rs.org.uk

Name
Job title
Website

Welcome

We aim to provide all you want to know about animal research, whether you are a concerned member of the public or have a special interest.

