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MEDIA RELEASE   **25 March 2020**

COVID-19: REASSESSING THE ANIMAL MODEL IN MEDICAL RESEARCH

There are no vaccines for any of the coronaviruses that have caused outbreaks in the past 20 years, despite extensive animal research

Animals currently being used in COVID-19 research globally include **mice, primates, and ferrets.** However, each animal species is a complex system and therefore cannot serve as a model for another. Even among humans, there are important differences between children and adults, men and women, in terms of susceptibility to COVID-19. **Rather than experimenting with animals, it would be more intelligent – and far more scientific - to invest in high-performance technologies of the 21st century.**

One example is the "MIMIC" (Modular IMmune In vitro Construct), an in vitro model of the human immune system "*The information you get from this type of test is far and beyond what you'd get out of a mouse study*," says Michael Rivard, vice president of corporate development at VaxDesign, "*both because it's humans and because you can see the effect across a spectrum of genotypes*".[1]

Scientists closely involved in the search for a treatment or a vaccine against COVID-19 are increasingly recognising the fact that animal tests are unreliable to predict human reactions. According to Tal Zaks, medical director of Moderna, a biotech company in the United States, "*I don't think proving this in an animal model is on the critical path to getting this to a clinical trial*".[2] Karen Maschke, editor of the journal Ethics & Human Research, pointed out that animal studies are often poor predictors of what will work in humans[2].

Fortunately, non-animal research is being pursued, including human biological sampling and drug repurposing. Faced with an emergency situation, researchers decided to test new treatments directly on patients to fast-track the process. It should be noted that these are not untested medical drugs but rather drugs used for other diseases, or else different combinations of drugs already on the market.

Prevention of future pandemics should not be neglected. **Rachel Smith, HRA Campaigns and Communications Manager urges** '*Measures may be taken to prevent trade and consumption of wildlife, to resist intensive farming and ensure that there are controls in place to ensure laboratory animals are not sold on to wet markets in China or elsewhere*'.

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[1] https://www.fiercepharma.com/vaccines/vaxdesign-offers-an-alternative-to-animal-studies
[2] https://www.statnews.com/2020/03/11/researchers-rush-to-start-moderna-coronavirus-vaccine-trial-without-usual-animal-testing/

Dr Andre Menache, HRA adviser states: "*It is time to change the current paradigm in biomedical research if we want to preserve our health in the face of emerging diseases of the 21st century. Perhaps the COVID-19 epidemic will help us to question some of our outdated scientific practices as well as the obsolete regulations that still impose them*".

Ends

Notes:

Dr Andre Menache, BSc (zoology), BSc(Hons), BVSc, MRCVS
CEO of Antidote Europe, André Menache is a zoologist and a veterinary surgeon. He has a particular interest in medical law and was instrumental in amending the Declaration of Helsinki. Dr Menache's scientific opposition to animal experimentation led him to uncover serious methodological shortcomings in human experimentation ("clinical trials"), about which he has published several papers.

"MIMIC" (Modular IMmune In vitro Construct) A Clinical Trial in Test Tube
https://www.ncbi.nlm.nih.gov/pubmed/19807200

A Palate for Pestilence: Ominous Links Between COVID-19 and Industrial Animal Farming
https://sentientmedia.org/ominous-links-between-covid-19-and-industrial-animal-farming/

Further information on vaccine research without animals can be found at:
https://www.humanvaccinesproject.org/
https://www.pcrm.org/news/ethical-science/vitro-human-immune-cells-effective-evaluating-new-vaccines
https://www.pcrm.org/news/ethical-science/fighting-zika-virus-computer-assisted-approaches
https://www.pcrm.org/news/ethical-science/new-human-based-model-test-influenza-effects

HRA's report Better Ways to Do Research.

Artificial intelligence applications to contain COVID-19 (ICT Works)
https://www.ictworks.org/artificial-intelligence-coronavirus-covid-19/#.XnP2OogzbIU

HRA Podcast – Covid10 – Why animal research is not the answer
https://www.podomatic.com/podcasts/humaneresearchaustralia/episodes/2020-03-23T20_09_57-07_00