An Alliance for Evidence-Based Science



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Tom Holder makes false claims about human medical science, and won't agree to submit a scientist to debate the medical Board which illustrates our evidence, in public hearings that will have judges.

Tom Holder is not qualified in science and makes his living as a PR rep for the animal experimentation community. On 21st July, Mr Holder published false claims about human medical science in a <u>blog</u> in the Huffington Post, and we address this below.

Our science-based campaign For Life On Earth (FLOE) represents the medical evidence for the <u>locals in Grimston Hull</u>, who have been campaigning against B&K Universal's Beagles breeding unit for 5 years. We gave an <u>interview for BBC radio</u> last week, highlighting the urgent need for activists from the animal experimentation community to agree to submit the name of their scientist to participate in a thorough medical debate hearing, with the experts who illustrate our evidence: <u>Americans & Europeans For Medical Advancement</u> (AFMA/EFMA). These experts have proven, unequivocally, that using animals to model humans harms patients and the progress of medical research.

The <u>conditions</u> for our called for debate have been endorsed by Britain's foremost human rights defence barrister Michael Mansfield QC, and reflect rules that govern papers published in peer reviewed scientific literature: references are required in advance, so that independent scientists can study the paper and judge whether it is suitable for publication. The conditions for our debate hearing similarly require references to be submitted in advance, and for a panel of independent judges from the scientific community to be present in order to judge the opposing positions fairly.

The experts at AFMA/EFMA address every aspect of Tom Holder's misleading claims in their twenty papers published in the peer-reviewed scientific literature, and <u>on their website</u>. Below we offer a brief critique of Mr Holder's post, with relevant links for more information. We address each of Mr Holder's paragraphs in order:

Paragraph one: Mr Holder claims that modern medicine is built on basic research in animals which allows us to understand human physiology and the diseases humans suffer. By claiming this, Mr Holder means that animals are able to act as 'predictive' models for human patients. Current medical knowledge has proven this claim to be unequivocally false, this is best demonstrated by the articles and papers published by Dr Greek's Board at AFMA/EFMA. For example, their paper <u>Is the Use of Sentient Animals in Basic Research Justifiable?</u> addresses Mr Holder's specific reference to basic research, explaining how current science understands exactly why animals are not capable of acting as predictive models for humans. Empirical evidence and Theory additionally combine to prove that animal models fail human patients in every respect. For further information please watch Drs Greek and Menache testifying at the EU Parliament on May 11th.

The question of the claimed predictive value of animal models for humans is increasingly becoming the focus of leading scientific journals, including the British Medical Journal's Editor's Choice, June 2014, titled How Predictive and Productive is Animal Research? This article concluded by quoting from the paper it cited: 'If research conducted on animals continues to be unable to reasonably predict what can be expected in humans, the

public's continuing endorsement and funding of preclinical animal research seems misplaced'.

Insulin

Mr Holder makes false statements about the medical history of insulin. In 1869 human medical doctors identified insulin producing human pancreatic cells, which mal function in diabetic patients. This was a human-based discovery. When this was re-produced in animals it misled scientists to think it was a liver disease. Scientists Macleod and Banting isolated insulin in dogs, and were awarded the Nobel prize, but acknowledged they were simply re-producing what had been already demonstrated in man. When this insulin was given to man it had disastrous results: Roberts in the BMJ 1922: "The production of insulin originated in a wrongly conceived, wrongly conducted, and wrongly interpreted series of experiments [1]." Banting and Best went on to mass produce insulin from pigs and cows collected at slaughterhouses, but this is not claiming animals are 'predictive' models for humans - as is claimed for lab Beagles and other animals - it is using animals as factories to produce a product. Nowadays modern science has replaced animal insulin with human insulin, a safer alternative. **Reference** Roberts F: Insulin. BMJ 1922: 1193-1194 For the full text on insulin please visit this link.

Paragraph two: The greatly admired Downton Abbey star and National Theatre actor Peter Egan is promoting an important medical blog by Dr Ray Greek, titled 'The Nine Ways Animals are Used in Science'. We urge people to read this blog as it clarifies the nine main ways animals are claimed useful for science: for example category 7 covers using animals as a modality for ideas – as a heuristic – and, as Dr Greek's blog clarifies: today 'almost anything can be used as a heuristic device including cadavers (corpses) and human research volunteers', thus rendering the use of animals obsolete.

It is important to remind ourselves that Mr Holder holds no medical or science qualifications, yet he still persists in making unreferenced claims about the role animals have played in basic research. The bottom line is that Tom Holder must provide peer reviewed published evidence to back his claims, else there is no reason to believe him. This needs to be done on a case-by-case basis to examine each and every one of his claims. Sweeping statements or gish gallop is not acceptable.

As an example of what we mean by case-by-case, many activists from the animal experimentation community, like Mr Holder, falsely state that coronary stents are an example where animal experimentation was an essential tool, and subsequently saved many lives. Dr Greek worked for over a year on a paper, now published in the peer reviewed scientific literature, to show what contribution animal experiments played in the discovery and development of coronary stents. Dr Greek uncovered the medical history leading to the use of modern coronary stents and his paper includes over 400 (FOUR HUNDRED) scientific references. That is what Mr Holder must provide for each and every one of his claims. In his paper Dr Greek concludes: "Consistent with this, I have concluded that where dogs and pigs were helpful in terms of developing intra-arterial stents and the BT shunt, animal models were either used as a heuristic or to demonstrate effects that were consistent with the principles of physics". As we stated earlier: category 7 in the *Nine Ways Animals are Used in Science* is when animals are used as 'a heuristic' – as a modality for ideas - and 'almost anything can be used as a heuristic device including cadavers (corpses) and human research volunteers'. So contrary to the claims of animal modelers, Dr Greek's paper proves that animal models were not required for the discovery of coronary stents. For Dr Greek's full text please visit this link.

Paragraph three: Tom Holder cites a 70 year old law which is entirely out of step with current medical knowledge; the law still mandates the use of Beagles, falsely claimed as 'predictive' for the safety for new human medicines. Mr Holder fails to state that pharmaceutical companies openly acknowledge the failure of animals to predict human responses in their drug development process, and write about this often in the scientific literature. Please visit this link to read extensive quotes from the pharmaceutical industry, against their use of animal models prior to clinical (human) trials.

Paragraph four: Opposition to the Beagle unit is not opposition to the ban on cosmetic testing on animals. Mr Holder changes the subject to give the impression of good news, which is welcome, but entirely irrelevant to the subject of his blog. Mr Holder suggests there is 'public misconception' on this issue, yet his PR organisation 'Understanding Animal Research' refuses to submit the name of a scientist to clarify its position by debating the experts who represent our evidence.

Paragraph five: Mr Holder is selective about animals, inferring that some species, other than dogs, matter less. He also suggests these animals are less 'predictive' for humans. This ethical and scientific nonsense. It is also nonsense to suggest there is 'special protection' in place for dogs, cats, primates & horses. Let's be clear about the numbers of Beagles used according to the latest Home Office figures: In 2013, 2,873 Beagles were experimented on, that's 83% of the total number of lab Beagles. The following text outlines exactly what happens to Beagles during these experiments, it's provided by Dr Andre Menache, a leading veterinarian who opposes animal models on scientific and ethical grounds:

'The vast majority of the nearly three thousand beagles used every year in the UK are destined for toxicity tests (tests to see at what dose a new pharmaceutical drug or pesticide will harm the dog). A typical toxicity test lasts 90 days during which the dogs will be force fed the test product through a tube inserted directly into the stomach. The dogs receive no anaesthetic and no pain killers (analgesics). The dogs will be dosed the same number of times per day as a person would be prescribed, so either once, twice or even three times per day (for 90 days). Some dogs may die as a result of the drugs, which are given at low, medium and very high dose. Whether the dogs survive or not, they all will be killed at the end of the 90 day test period so that all of their organs can be studied. That's what the law sets down; the 70 year old law that is out of step with modern science. The following is an actual experiment describing this' http://www.ncbi.nlm.nih.gov/pubmed/7666582

We additionally recommend <u>this talk</u> by Dr Menache, which explains why <u>human-based research</u>, which is valid and viable, cannot be an 'alternative' to a method that has never worked in the first place.

Mr Holder's reference to the 3Rs supports a misleading Government policy that ignores current science, and thereby helps to maintain the use of invalid animal models. The new initiative <u>Patients Campaigning For Cures</u> sheds much needed light on the misleading 3Rs, please read their position <u>here</u>.

Paragraph six: Whether dogs are flown in or bred on site, they will be forced to endure the horrific procedures described above, which are proven, absolutely, to fail human patients. Mr Holder's description of the happy lives led by laboratory Beagles is deceptive. For a film of the graphic reality of what Beagles have to endure during the experiments please visit our <u>laboratory animals page</u>.

Paragraph seven: Mr Holder suggests the petition against this Beagle unit is 'misguided'. This is nonsense. The petition is quickly raising the profile for its cause, and creating an international network of highly motivated campaigners. We applaud Emma Hart and will continue to sign and share!!

Last, but by no means least, we're supporting the new initiative 'Patients Campaigning For Cures' who have launched a petition to help hold Tom Holder's claims to thorough public medical account. The petition calls for Mr Holder's PR organisation 'Understanding Animal Research' to stop wasting time and agree to submit a scientist for our called for medical debate hearing. Please SIGN and SHARE this petition widely!