

**Would  
you  
gamble**



**with  
your  
health?**

Until the Government stops requiring 'proof of safety' in animals and allowing drug companies to use such 'proof' as a legal defence when their drugs kill people, we will continue to suffer serious and fatal adverse drug reactions that could have been avoided.

**Please help Safer Medicines Campaign** to encourage informed debate amongst the public, scientists, politicians and the media. As an independent group of scientists, we are uniquely placed to explain why animal testing is a major obstacle to medical progress today.

We believe that treatments for patients should be based on reliable evidence which is relevant to humans. In light of recent drug disasters, we want to see animal tests scientifically evaluated. **You can add your support for an evaluation on our website.**

**82% of GPs and a majority of MPs support such an evaluation**

We regularly address MPs and speak and debate on TV and radio, as well as to schools, universities and the public. We publish many articles and letters in newspapers and scientific journals as well as producing educational literature. But we operate on a shoestring and need your support to continue this vital work.

***With your support we will do much more – please give generously today!***

I enclose  £10  £20  £50 £\_\_\_\_\_ to support your vital work

- We can keep costs to a minimum by not sending receipts. Please tick if you would like a receipt
- Please tick if you do not wish to receive our twice-yearly newsletter

Please send \_\_\_\_\_ more of these leaflets (donations towards costs appreciated)

Name: \_\_\_\_\_

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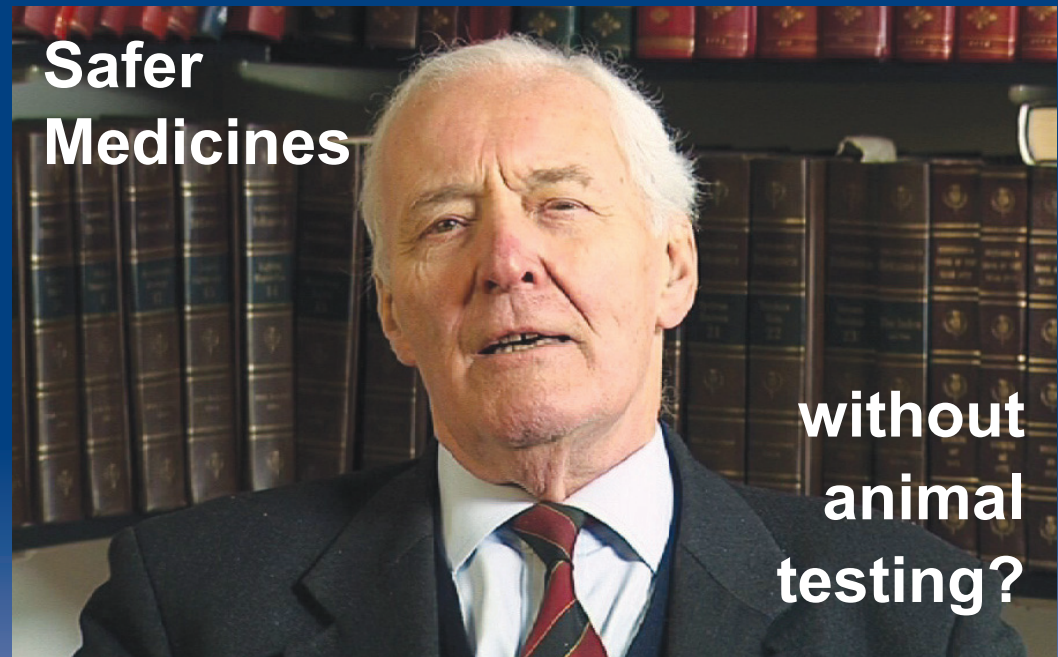
Please make cheques payable to Safer Medicines Campaign and send to:

**Safer Medicines Campaign, PO Box 62720, London SW2 9FQ**

*We rely completely on your generosity. We receive no corporate or government funding and have no expensive overheads: all of our office space is donated without charge. 100% of your donation will go directly towards our vital work.*

***Thank you***

**Safer  
Medicines**



**without  
animal  
testing?**

Watch **Safer Medicines**

at [www.safermedicines.org](http://www.safermedicines.org)

(the film contains no animal images)

**'This important short film shows that methods are available that promise to reduce the alarming toll of serious drug side effects for the benefit of humanity'**

**– Tony Benn**

**Safer Medicines Campaign** is an independent, not-for-profit organisation of doctors and scientists whose aim is to protect public health and safety. We believe medicines are essential but that their safety should be improved by replacing misleading animal tests with superior techniques based on *human* biology.

**82% of doctors are concerned that animal data can be misleading**

***Help us put patient safety first***

**Safer Medicines Campaign**

*formerly Europeans for Medical Progress*

**[www.safermedicines.org](http://www.safermedicines.org)**

**Patrons: Tony Benn, Dr Caroline Lucas MEP, Mat Fraser**

## 'Animal testing makes all of us guinea pigs'

– Mat Fraser, thalidomider

Thalidomide was advertised as 'harmless as a sugar cube' after huge doses produced no ill effects in animal tests



Photo: JW Evans

- The 2006 Northwick Park clinical trial disaster showed just how unreliable animal testing can be. Six young men were given a drug *because* it was shown to be safe in monkeys at enormous doses – yet it nearly killed them.
- Arthritis Painkiller Vioxx, withdrawn in 2004, was 'proved safe' in animals. Yet it killed up to 140,000 people – the biggest drug disaster in history.
- The devastating effects of these drugs can be revealed in tests on human tissue. Yet such tests are not required in order to licence a drug, while tests on two species of animals are.

## Animal tests usually protect us though, don't they?

- In fact, 9 out of 10 new drugs successful in animal tests go on to fail in human trials.
- More than 250,000 Britons are hospitalised every year by adverse drug reactions – **British Medical Association**.
- Drug side effects are the fourth biggest killer in the western world.

We do not claim that animal tests are solely responsible for these shocking figures but as they are currently our chief safety screen before new drugs are tested on people, it is only reasonable to question their reliability.

## According to leading scientists:

'To a real degree, the people who get the drug in the first few years after its approval are being experimented on' – Dr Brian L Strom, Professor of biostatistics and epidemiology, University of Pennsylvania

'We do trials in people because animal models do not predict what will happen in humans' – Dr Sally Burtles, Cancer Research UK

'Relative lack of severe toxicity in animal models should never be construed as a guarantee of safety in man, as the story of thalidomide taught us' – Professor Michael Goodyear, Department of Medicine, Dalhousie University, Canada

'Animals are very, very poor predictors of human metabolism' – Dr Stephen Dueker, President and founder of Vitalea Science, California

## Superior methods

Fortunately, there are many superior human-based technologies available today which could make our drugs safer and accelerate our understanding, treatment and prevention of disease. They include:

- **Microdosing:** miniscule doses of new drugs reveal how they are metabolised in humans safely and with unsurpassed accuracy – enabling safer clinical trials.
- **Tests on human tissue** are indispensable. Companies such as Asterand, Biopta, SimuGen and VaxDesign work exclusively with human tissue because it is more appropriate than animal tissue.
- **Microfluidics chips** use interconnected human tissue samples to mimic drug effects on the whole body. Hurel (**Human Relevant**) Corporation is pioneering this field.
- **Human DNA chips** can reveal who will respond to a drug and who may be harmed by it; thus enabling **personalised medicine**. Currently, 'More than 90% of drugs only work for 30-50% of people' – Dr Allen Roses, GlaxoSmith-Kline
- **Computer simulations** now include virtual organs and virtual clinical trials, which can predict drug effects in humans more accurately than animals can.
- **UK Biobank** – the world's largest epidemiological project – and other population studies – will reveal how genes and lifestyle combine to cause diseases, as they revealed the link between smoking and lung cancer and many other such links.

'A flood of new data on human genetics is making drug research in animals redundant. If you have information on human genes, what's the point of going back to animals?' – Dr Gordon Baxter, Chief Executive Officer, BioWisdom Ltd, Cambridge, UK

## Toxicity testing in the 21<sup>st</sup> century

In 2007, the US National Research Council called for the replacement of animal tests for assessing the safety of chemicals with superior human-based tests. They described the current system as unsustainable due to the cost, the time taken and the 'dubious relevance' of the results. They recommended '**a paradigm shift from the use of experimental animals toward more efficient in vitro tests and computational techniques.**'

Clearly, this applies equally to the safety testing of medicines.

'Animal testing should be compared with the superior methods now available, such as those in the box above. New methods which are more reliable and relevant will benefit everybody: the public, the environment, businesses and laboratory animals.'

– Dr Caroline Lucas, Green MEP

