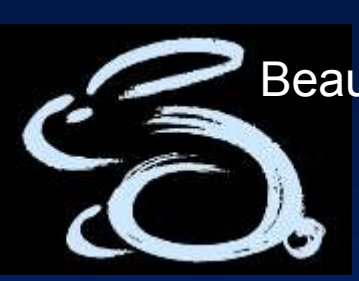


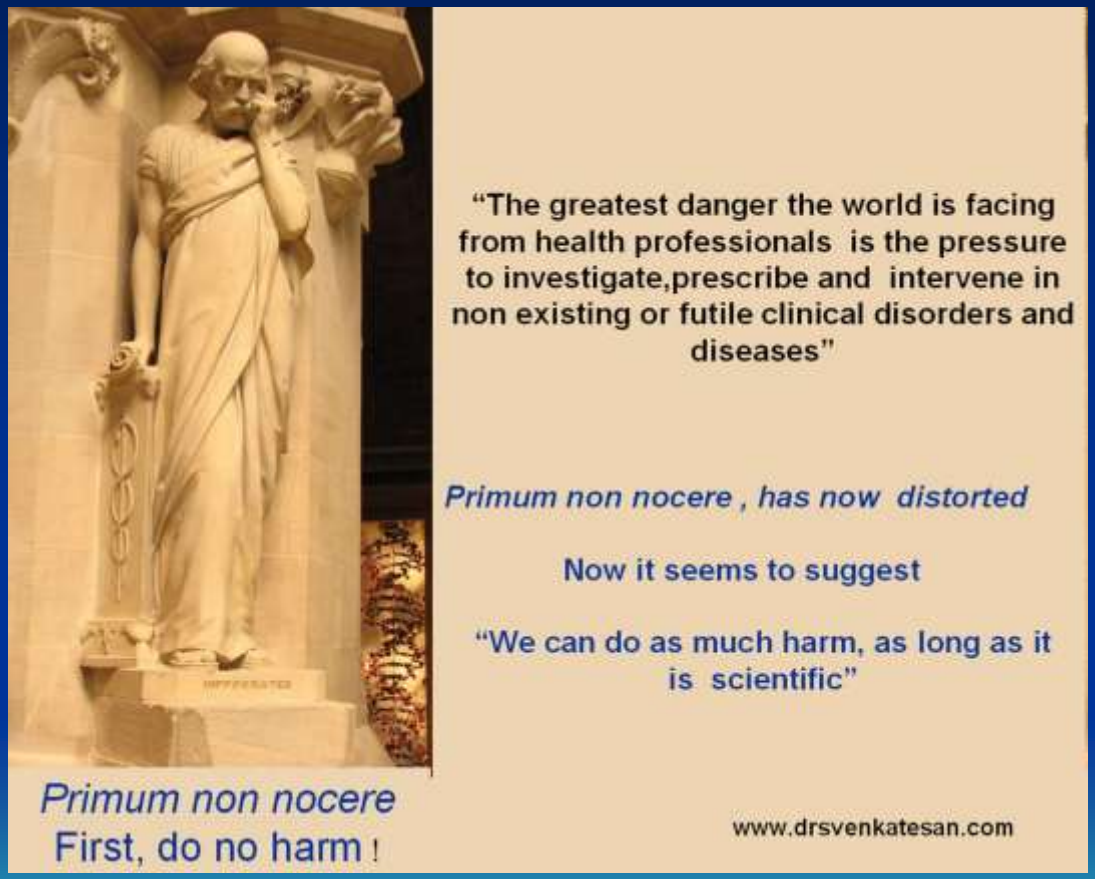
Beauty Without Cruelty *Defending Animal Rights* 1975 – 2013 www.bwcsa.co.za

VIVISECTION
Past, Present & Future

Presented by Toni Brockhoven

Primum non nocere is a Latin phrase that means **"First, do no harm."**

Nonmaleficence, which derives from the maxim, is one of the principal precepts of medical ethics.



There are numerous records on animal experiments, among them the discovery of the function of the optical nerve by Alcmeon of Croton around 450 BCE . The 'Father of medicine', Hippocrates (460-377 BC), conducted animal experiments as well, such as the one described in his book ‘On Heart’, in which he cut a pig’s throat, in order to examine the swallowing and opened his thorax with the aim of describing the atrial and ventricular function. Zagreb: Medicinska naklada; 2004.

And there were those against vivisection, The Roman encyclopaedist Celso (1st century ACE) in his book De Medicina attacked the practice of vivisectionism, pointing out that it does not take into an account the influence of the pain.

The Bolognese Professor Mondino de Luzzi (1270-1326) introduced anatomical dissections. King of France Louis XI went even further and in 1474 allowed his physicians to open the abdomen of the criminal sentenced to death in order to practice extraction of gall stones. In the Holy Roman Empire, imperial physicians studied the impact of poisons on sentenced criminals, but allowed the survivors to go free. Bruno Atalić Historical development and ethical considerations of vivisectionist and antivivisectionist movement

The world's first organisation campaigning against animal experiments, NAVS, was founded in 1875 and the same campaigns continue 138 years later, for the same reasons:

Animal test results cannot be directly applied to humans as they are inaccurate, as well as being inhumane and unnecessary.

The first known legislation against animal cruelty in the English-speaking world was passed in Ireland in 1635. It prohibited pulling wool off sheep, and the attaching of ploughs to horses' tails, referring to "the cruelty used to beasts," which is probably the earliest reference to this concept in the English language. cfawr.org/current-legislation.

Currently, in South Africa, animals are still classified in law as being “things” or movable property!

There is some specific legislation that affords some classes of animal limited protection but human interests always take precedence over those of animals. For this reason, a domestic animal (dog or cat) who is cruelly treated may receive protection under the Animals Protection Act (1962), but the same dog or cat, being used for medical research, would not necessarily receive such protection.

While lab animals fall under the APA, the Act is not designed to protect them and acts of cruelty against domestic animals, that would be prosecutable under the Act, would be condoned as being “necessary”, when applied to lab animals.

Each research institution writes their own rules and codes of conduct and is tasked with ensuring compliance, ie self regulation.

South Africans have no idea about animal experimentation in South Africa, because meetings of the Animal Ethics Committees (AECs) which approve experiments are conducted without public knowledge : Meetings are not advertised, and the general public are unable to obtain copies of the agendas or minutes of their meetings, and even less so the details of the experiments they approve, or the reasons for the research and experimentation.

THE HUMAN COST

According to a study in leading US medical journal Journal of the American Medical Association (JAMA), the US sees 106,000 deaths annually from medications *correctly prescribed and correctly taken* by patients. That's about 290 every day, or one every five minutes. [JAMA 14/4/1998]

The same study also considered patients who were so badly injured by medications that they needed hospital treatment. These were calculated to be 2,250,000 hospital admissions each year. That's over 6,000 every day, or one every 14 seconds.

NON ANIMAL METHODS FOR RESEARCH The following biomedical research practices offer real, immediate insight into the effective treatment and prevention of human disease.

- **IN VITRO**
- **ADVANCED TECHNOLOGY**
- **COMPUTER AND MATHEMATICAL MODELLING**
- **EPIDEMIOLOGY** (Epidemiology is the study (or the science of the study) of the patterns, causes and effects of health and disease conditions in defined populations
- **GENETIC RESEARCH** (DNA based testing)
- **CLINICAL RESEARCH** (determines the safety and effectiveness of medications, devices, diagnostic products etc)
- **AUTOPSIES**
- **POST MARKETING DRUG SURVEILLANCE**

The concept behind **cell culture** is simple, but the degree to which it has evolved is incredible. In 1996 the techniques available then were evaluated alongside animal tests, and the cell culture ones were found to be more accurate.

(Clemedson C, McFarlane-Abdulla E, Andersson M, et al. MEIC Evaluation of Acute Systemic Toxicity. ATLA 1996;24:273-311)

Since then, cell culture use has expanded. The American National Cancer Institute (NCI) has developed a screening project to identify cancer drugs using only cell culture methods. NCI explains that "This project is designed to screen up to 20,000 compounds per year for potential anticancer activity. The operation of this screen utilizes 60 different human tumour cell lines, representing leukaemia, melanoma, and cancers of the lung, colon, brain, ovary, breast, prostate and kidney."
(http://dtp.nco.nih.gov/branches/btb/ivclsp.html)

What about drug testing?

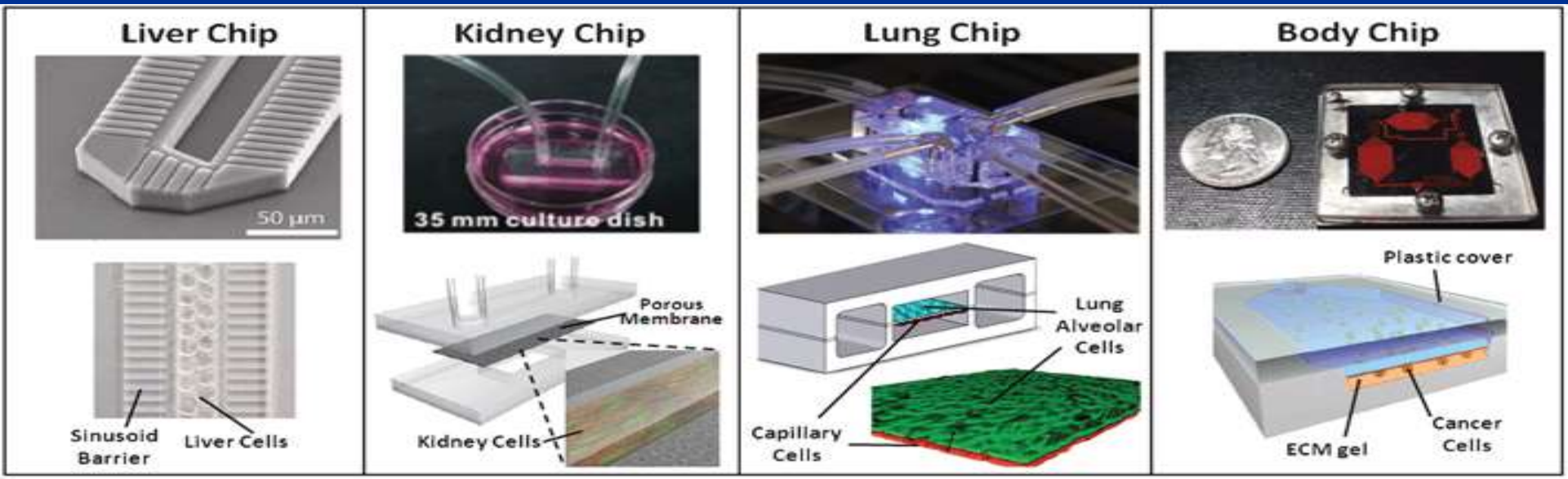
The Journal of the American Medical Association reported in April 1998 that adverse reactions to prescription drugs - all of which must first pass a battery of animal tests - kill more than 100,000 humans each year.

Previously, drug screening had been done using animals. A textbook concludes that: "*despite 25 years of intensive research and positive results in animal models, not a single anti-tumour drug emerged from this work.*" (JCW Salen, Animal Models-Principles and Problems in Handbook of Laboratory Animal Science 1994)

As of July last year a USA research project to develop transparent silicon microchips with hollow channels, that contain living human tissue and pumps to replicate organ function began, and is predicted to provide faster, cost-effective and more accurate results for testing diseases, toxins and pharmaceuticals. Tissue Chip For Drug Testing" funded by National Institute for Health (NIH), the FDA and DARPA - Defense Advanced Research Agency

“More than 30 % of promising medications have failed in human clinical trials because they are determined to be toxic, despite promising pre-clinical studies in animal models.”

While chips are already being used in some areas, this project intends to improve upon existing test measures and overcome the limits of individual chips by creating and combining multiple chips to emulate the entire human body, in addition to designing software that can control and analyse different functions.



What about all the breakthroughs we've gained through animal research?

The historical value of animal research with regard to human health remains in question.

The major illnesses affecting humanity are among the ones with no animal model!

Heart disease in humans is caused by eating a high cholesterol, high fat diet.
Attempts to replicate this in animals have been determined.
Experimenters started by feeding commonly used lab animals such a diet, but could never get the key result – narrowing arteries. They moved onto other animals including bears, pelicans, kangaroos, seals, sea lions, chimpanzees, baboons, gorillas, pigs, horses, parrots, ducks and chickens.

They all failed…

Gross, D, 'Animal Models in Cardiovascular Research' Martinus Nijhoff, The Hague, 1985

In 2000 Health Minister Manto Tshabalala-Msimang said she would not institute a judicial inquiry into animal experimentation practices in South Africa.

She was replying to a question in the National Assembly from Errol Moorcroft (DP). *"Animals had always played a very important role in the testing of drug toxicity, as well as drug development. This benefits both animals and humans alike since some drugs are used in humans and animals,"* she said.

(Source: Daily Dispatch, 9 June 2000)

Apparently scientists know more about HIV than any other Virus.

www.genethik.de/aids/aids07

Despite the fact that most of this knowledge came from studying PEOPLE, vast amounts of money are still spent each year by scientists trying to find a disease “model.”

They research using cats, monkeys, chimpanzees, rabbits, guinea pigs and mice.

Although Chimpanzees can be infected with HIV, they never develop AIDS or AIDS related illnesses like cancer. They do not even carry the HIV virus in all the body fluids that AIDS patients do, despite the fact that they share 98% of our genetic make-up!

New research concluded that the vaginal microbicide gel PRO 2000 does not prevent HIV infection in women, for which they had 9385 women volunteer, The study confirmed the results, were made known in February 2010.

In animal testing, PRO 2000 had demonstrated a protective effect against HIV and other sexually transmitted infections, by preventing HIV cell entry.

http://www.mrc.ac.za/pressreleases/2009/pro2000.htm

There is also an increase in research on animals for indigenous medicines.
www.unisa.ac.za News, newsletters & events

It is on a cellular level that most of today's research is done. Cellular differences between species determine such things as the response to therapy, susceptibility to toxins, incidence, clinical manifestation and prognosis of diseases.

This would be the perfect opportunity to use anecdotal evidence, clinical research, epidemiology and other non-animal methods!

On August 6th this year, the Journal of Visualized Experiments published two new methods for scientists to study and treat tumour growth.

The methods introduce a lab-born, human tissue structure with replicated human biochemistry – offering scientists the opportunity to grow, observe, and ultimately learn how to treat biopsied human tumour cells.

With the method the team has created, a lab could, in the future, take a biopsy of a cancer cell and do tests to find the most effective treatment before ever administering drugs to the human patient while in the long term develop disease models where no animal models are available.

www.newswise.com / http://neavs.org

If animal experimentation is of such questionable value, why does it persist?

Vivisection is easily published.
Vivisection is self-perpetuating.
Vivisection appears more "scientific" than clinical research.
Vivisection is lucrative.
Vivisection's morality is rarely questioned by researchers

Those who benefit:
Scientists, physicians, hospitals, medical conglomerates, pharmaceutical companies, politicians, animal farmers and vendors, lawyers….

ACTION

We need transparency with respect to animals in research in SA, with the DAFF publishing annual statistics that includes, but is not limited to, the number of protocols received annually, and of these, the number accepted, rejected, or sent back for resubmission, and of the protocols accepted:

- The severity category of each experiment;
- How many are teaching / research / other;
- The number of protocols where analgesia is not provided;
- The amount and species of animal used.

ACTION Cont'd

If research institutions breed animals for research, information to be supplied wrt the number of animals:

- Used in research protocols;
- Not used in research protocols and euthanised;
- Sold to other institutions for research.

We also need a blanket ban on cosmetic animal-testing in South Africa, or animal-tested imports, with severe penalties for non-adherence.

In India, the use of modern non-animal testing is now mandatory, replacing invasive tests on animals. This means that any manufacturer interested in testing new cosmetic ingredients or finished products must first seek the approval from India's regulator Central Drug Standards Control Organisation. India will move toward a sales ban as well, important because this will prevent companies from outsourcing testing to third countries and importing the animal-tested cosmetics back into the country for sale.

Israel and the 27 countries that make up the European Union have implemented both testing and sales bans to bring an end to cosmetic testing induced animal suffering in their respective jurisdictions.

Why should South Africa not be the first African country to do so? We have no excuses; the technology is available.

All that is required is the will.

Thank you.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SAVE THEM!
Use the BWC humane guide.
FIND IT www.bwcsa.co.za
Beauty Without Cruelty Defending Animal Rights