

AN ARCHITECT'S LETTER TO:

HDR Architecture firm

Stantec Architects

PCL Construction Management

The Jim Pattison Foundation

Smith + Anderson Engineering

RJC Consulting engineers

City of Vancouver Planning

Letter From: ADAV Society of BC

INSTA: @ADAVSOCIETY

<http://adavsociety.org/>

Email : stopstpaulsanimalresearch@gmail.com

Hello,

As an architect and on behalf of the Animal Defence & Anti-Vivisection Society of BC (ADAV), I am writing to you about the medical research facilities you are involved in. If you allow me, I would like to share with you my struggles in the past few years after learning about animal experiments as an architect because, I too, have been involved in healthcare projects without knowing.

It all started after I watched a documentary called **“Animal People” that was on Netflix** for a short time. It is the story of those that fought against a research lab in the UK. The work they did may be the reason why European union voted to phase out all animals in research in 2021. I want to ask you kindly to watch that documentary because you are involved in designing spaces for animal research. How can we be building new facilities that are over 800,000 SF for St. Paul’s, that will include animal use, if Canada is legally obligated to the 3 Rs (Reduce, Replace and Refine use of animals)? Will you join us in asking St. Paul’s to phase out its animal research like European countries and replace it with new modern technologies and plan for a sustainable future for its new building?

Architects are visual so I have put together some statistics for you in this letter regarding animal experiments in Canada.



Kristal KC, Canadian Artist,
Prisoners of Science, 2022

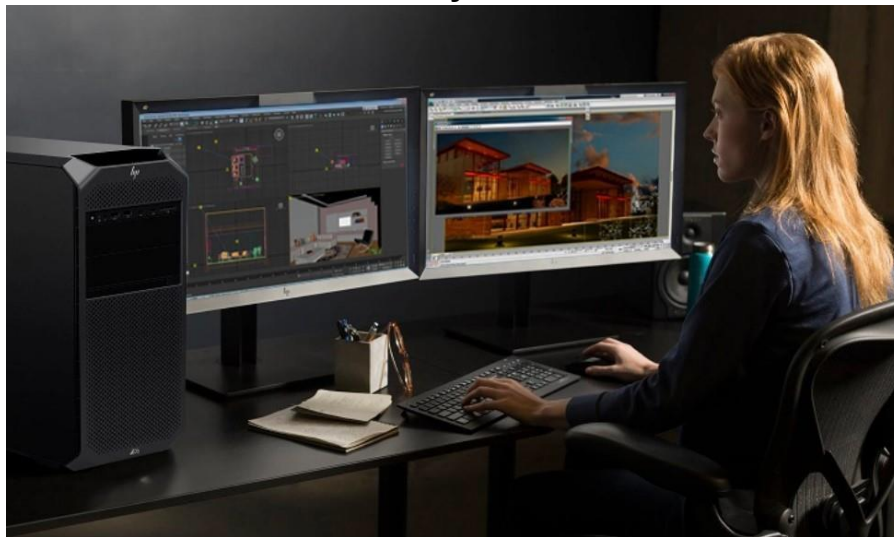
Some of the following images are hard to look at for those who love animals but:
“When the suffering of another creature causes you to feel pain, do not submit to the initial desire to flee from the suffering one, but on the contrary, **come closer, as close as you can to her who suffers, and try to help her.**”

Leo Tolstoy

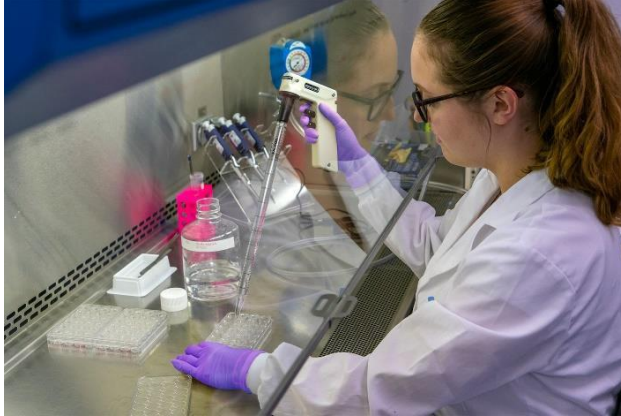
How ARCHITECTS worked in the last century....



How ARCHITECTS work today...



This letter includes some examples of how Canadian researchers have been doing the same experiments over and over again. **Architects embrace change. Architects initiate change and are inspired by change.** However, you will agree with me that long established organizations who receive funding are very hard to change. There are many people involved in breeding, transporting, cleaning waste, removing corpses, certifying, and performing the experiments. As architects should we not ask St. Paul's Hospital to modernize its medical research with human biology related methods?



Example: Despite new technologies such as MatTek Life Sciences' EpiAlveolar, we are, as you can see below, continuing the archaic use of animals that is both cruel and unreliable. The MatTek Life Sciences' EpiAlveolar is a first-of-its-kind 3-dimensional model of the deepest part of the human lung that can be used to study the effects of inhaling different kinds of chemicals, pathogens, and (e-)cigarette smoke without the use of animals.

Medical research in 1900s....



New technology

Medical research in 2021 using old methods ...



Research methods



Old technology



MatTek Life Sciences' EpiAlveolar, Human lung cells



Last century tobacco tests....



Today's tobacco tests...



New technology

**Research
methods**



Old technology

1-Europe to phase-out animals, but Canada? No!

In September 2021, The European Parliament voted overwhelmingly in favour of a resolution to phase out ALL animal experiments with overwhelming cross-party support.

“The resolution is a strong statement that covers all animal use for research, testing and education. Nearly 70% of these animals are used in biomedical research, an area where, according to statistics, little to no reduction has been achieved. This is despite a 35-year-old legal requirement that animals must not be used where alternatives are available.

Continued reliance on animals as a first resort cannot be justified in light of the modern non-animal technologies like human organ-chips and next-generation computer models now available.”

Breaking: European Parliament votes to phase out animal testing and research

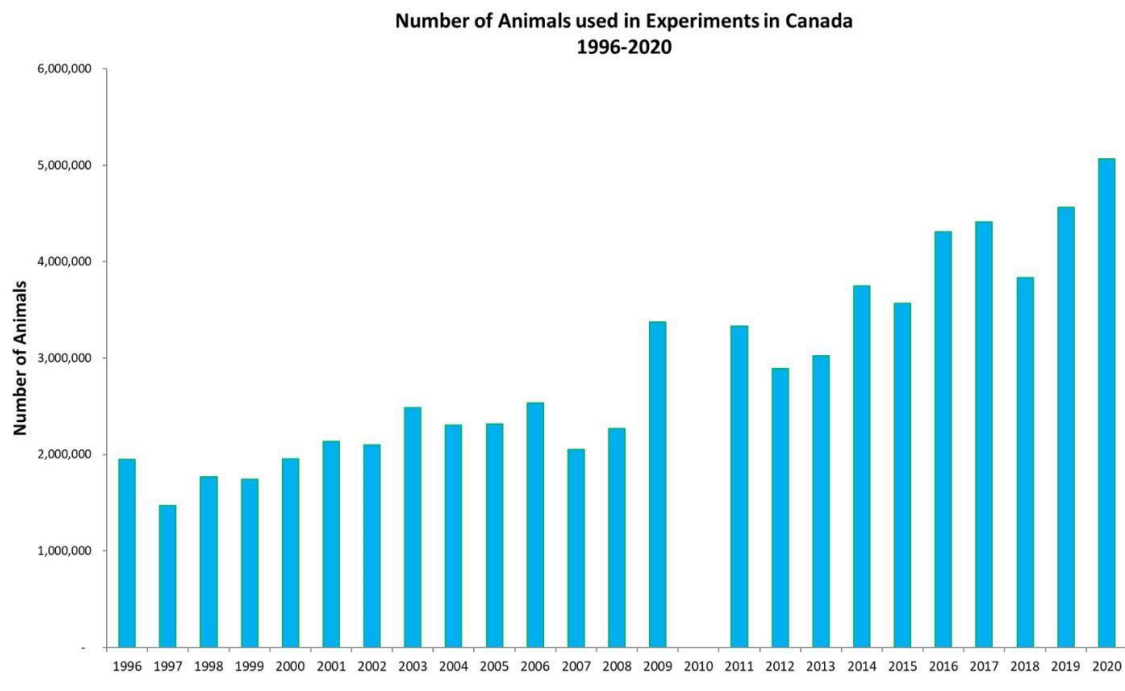
By Kitty Block and Sara Amundson

September 16, 2021 5 Comments



2- Number of animals used in experiments is increasing in Canada:

Despite the legal requirement of reducing, replacing and refining [NOTE USED SAME ORDER AS GIVEN BEFORE] animals in research we see the number of animals used are increasing.



3- Canadian animal testing statistics:

Animal Research in Canada in 2020			
Species	Number of Animals	% of Total	% Change from 2019
Mice	1,085,613	21.4%	-22%
Birds	2,535,052	50.0%	112%
Fish	594,770	11.7%	-34%
Cattle	573,502	11.3%	-9%
Rats	131,229	2.6%	-25%
Amphibians	56,051	1.1%	-51%
Dogs	8,338	0.2%	-32%
Primates	5,932	0.1%	23%
Cats	3,738	0.1%	-37%
Other Mammals	69,083	1.4%	-41%
Reptiles	4,470	0.1%	-44%
Total	5,067,778	100%	11.1%

This chart has been produced by Canadian Council of Animal Care (CCAC).

4- Pain level reports of animals used in 2020:

Please note that more often than not adequate anesthesia is not used for animals in science. Pain, suffering, and harm were also measured and classified under five categories:

A: experiments of most invertebrates or on live isolates;

B: experiments which cause little or no discomfort or stress;

C: experiments which cause minor stress or pain of short duration;

D: experiments which cause moderate to severe distress or discomfort; and

E: Procedures which cause severe pain near, at, or above the pain tolerance threshold of unanesthetized conscious animals...

Animal Research in Canada in 2020		
Category of Inasiveness	Procedures	% of Total
A	0	0.0%
B	3,368,251	65.9%
C	831,933	16.3%
D	911,293	17.8%
E	94,543	1.8%

Severe Pain above tolerance threshold

5- Number of animals used in science in 2020:

8338 DOGS



3738 CATS



5932 MONKEYS



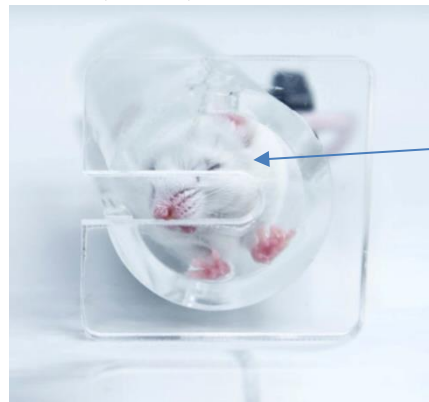
69083 OTHER MAMMALS



2,535,052 BIRDS



1,085,613 MICE

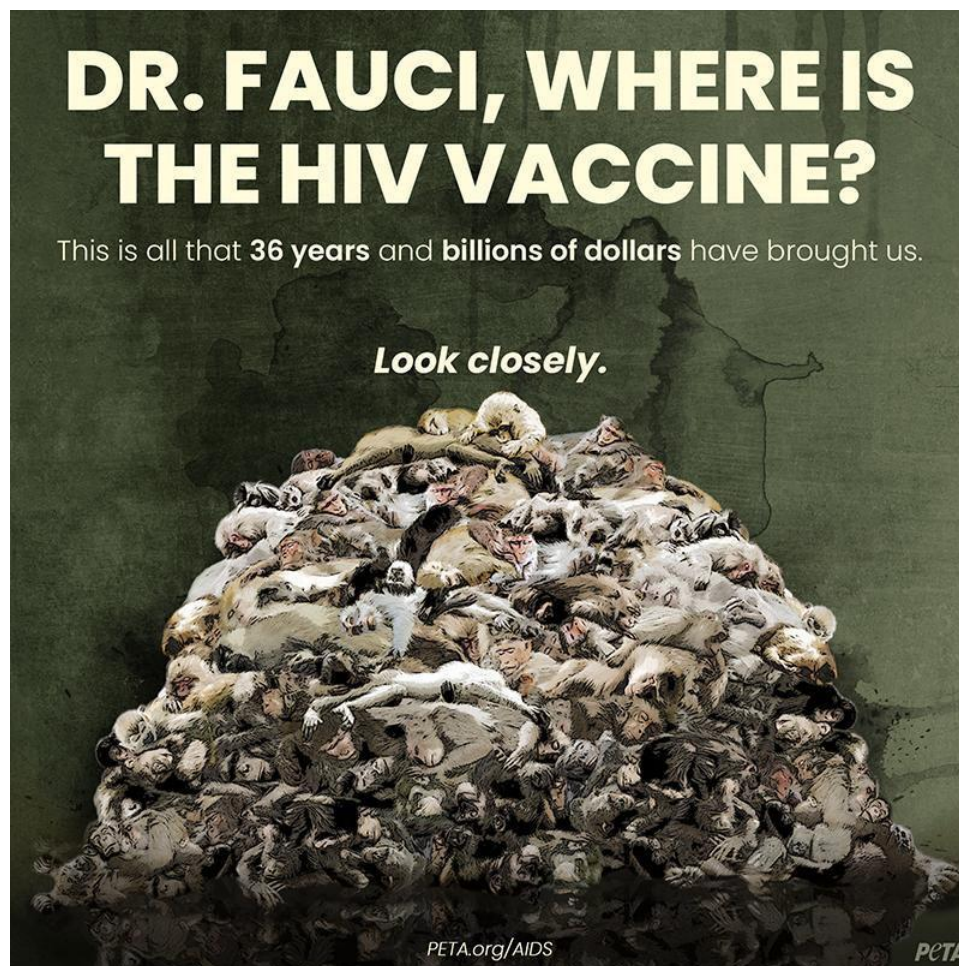


Can you guess why this mouse is inserted in this tube unable to move for a long time?
See page 17 for the history of this kind of test that continues today...

6- FDA reports: 95% of drugs that pass animal testing fail during human trials. “The only industry that accepts such failure rates”.

Dr. Chandrasekar, (Canadian doctor and researcher)

In 2004, the FDA estimated that 92 percent of drugs that pass preclinical tests, including “pivotal” animal tests, fail to proceed to the market. More recent analysis suggests that, despite efforts to improve the predictability of animal testing, the failure rate has actually increased and is now closer to 96 percent. **Many of these drugs rejected during animal testing could actually be beneficial for treatment of human diseases. Life saving drugs such as Penicillin and Aspirin would not have passed with today’s animal testing guidelines as they have deadly results on animals.**

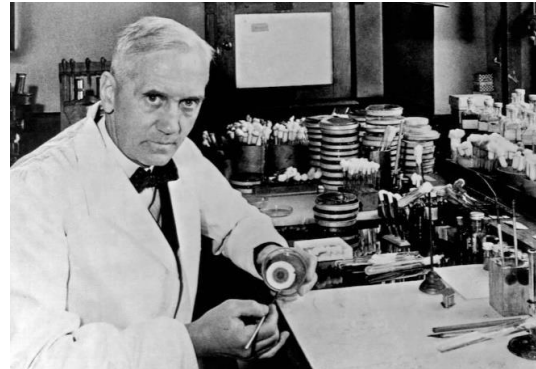


Example: 90 HIV vaccines that were successful in animal testing have failed. Yet, we continue to fund tests on these animals with tax payer’s money. More than 16 billion dollars in the US each year goes to animal testing.

For more information on why animal testing is stopping medical progress see article published on the National Library of Medicine, Cambridge University Health:
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4594046/>

7- Drugs and chemicals impact humans and other animals differently:

Penicillin, the world's first antibiotic, was delayed for more than 10 years by misleading results from experiments in rabbits, and would have been shelved forever had it been tested on guinea pigs, which it kills. Sir Alexander Fleming himself said: 'How fortunate we didn't have these animal tests in the 1940s, for penicillin would probably never have been granted a licence, and possibly the whole field of antibiotics might never have been realised.'



Hundreds of drugs to treat strokes (eg, Cerestat, MaxiPost, Zendra, Lotrafiban, Gavestinel, Nimodipine, Clomethiazole) have been found safe and effective in animal studies but have injured or killed human patients in clinical trials.

'Arthritis drug Vioxx, withdrawn from the global market in September 2004, appeared to be safe and even beneficial to the heart in animals, but caused as many as 140,000 heart attacks and strokes in the US alone. The associate safety director of the US Food and Drug Administration (FDA) described it as the 'single greatest drug-safety catastrophe in the history of the world'.

Cigarette smoke, asbestos, arsenic, benzene, alcohol and glass fibres are all safe to ingest, according to animal studies.

Of 22 drugs shown to have been therapeutic in **spinal cord injury** in animals, not one is effective in humans. Dogs and cats are intentionally paralyzed for research at ICORD in Vancouver, (see picture on page 11). For more pictures see Lifeforce Foundation's website.

Cancer: Of 20 compounds known not to **cause cancer** in humans, 19 do cause cancer in rodents.

Thalidomide, the infamous cause of birth defects in more than 10,000 children in the early 1960s, induces birth defects in very few species. Dr James Schardein, the doyen of birth defect studies, says: 'In approximately 10 strains of rats, 15 strains of mice, 11 breeds of rabbits, two breeds of dogs, three strains of hamsters, eight species of primates, and in other such varied species as cats, armadillos, guinea pigs, swine and ferrets in which thalidomide has been tested, teratogenic effects have been induced only occasionally.' This drug was the reason animal testing is mandatory today, but Ironically, if Thalidomide were assessed exclusively on its results in such tests as today's regulations, it would still be passed today.

For more information visit: http://www.theecologist.co.uk/current_issue/animal_testing.htm

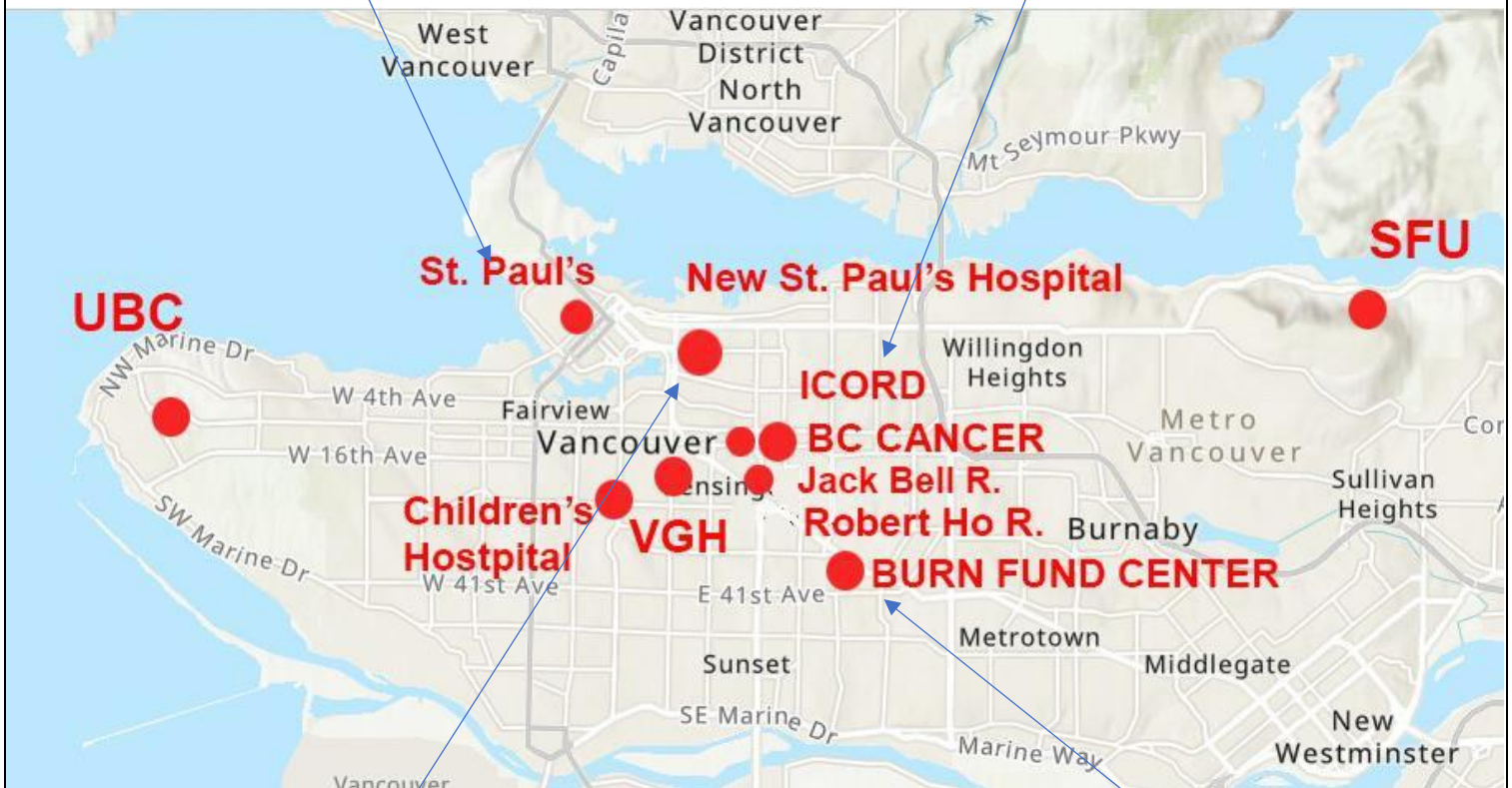
8- Map of institutions that use animals in Vancouver:



Restrained monkeys



Intentionally paralyzed



800,000sf of new research facility
Proposed at St. Paul's will include
Animals in science...

Fire fighting:



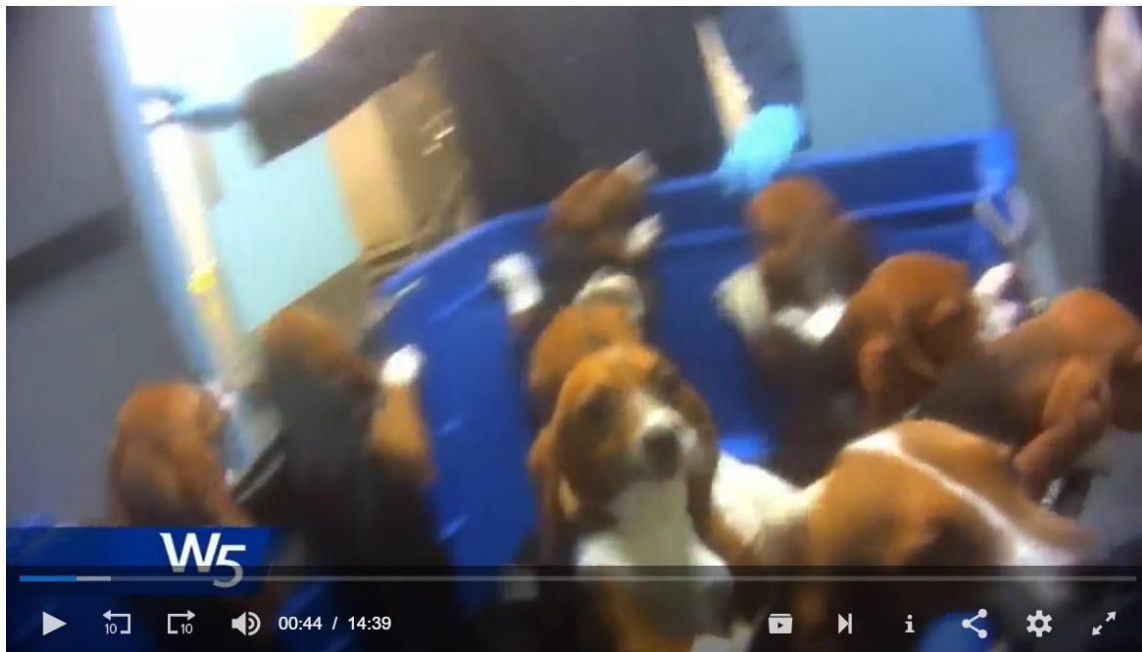
Pictures from:

<http://www.lifeforcefoundation.org/gallery.php?cur=3Es&id=3Es>

9- Where do the lab animals come from in Canada?

Animals in labs are “Purpose bred” or “Random source”. “Purpose bred” animals are bred specifically to be experimented on. They have had no lives outside of the laboratory. “Random source” animals are from pounds and shelters – former companion animals that were picked up as strays, or surrendered by their people. **Most of these random source dogs and cats are from shelters in Ontario and Quebec.**

Non human primates that are listed as endangered species are being torn away from their families to be shipped to US and Canada for use in science. Most of these animals are imported from Asia with no animal welfare oversight. Baby monkeys are torn away from their mothers from a very young age.



Undercover photo from Montreal's lab – Purpose bred beagles

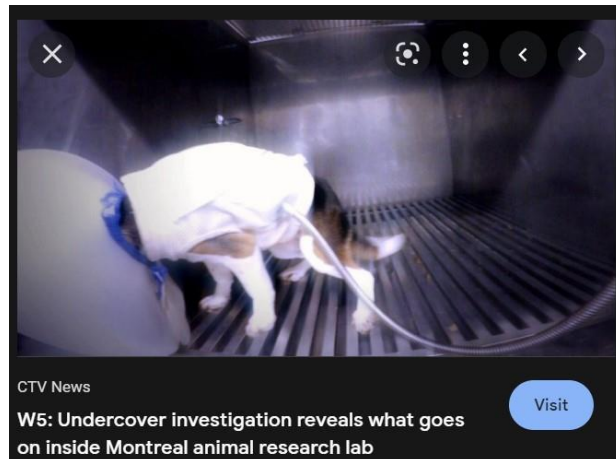
10- Why beagle dogs are used in labs?

Beagles are used in laboratories because they are small and friendly. Many times, their vocal cords are cut so that researchers don't have to hear their constant howling and crying.

11- Canada - Montreal's lab investigation 2017:

The video shows dogs aggressively thrown into cages, pigs restrained as they squeal, and technicians slamming animals onto stainless steel operating tables. "Dogs howling, crying all day long," recalled the investigator. "Up and down the halls you'd go, and that's all you would hear is the dogs howling and crying." The public rarely gets to see what the animals endure. While animal testing is legal, it is nevertheless very upsetting to watch.

Dogs are inhaling chemicals. The dogs are shown thrown into cages by grabbing their inhaling tubes. They are shown drooling and throwing up on the floor with the most painful toxicology tests.



Published Saturday, March 11, 2017 7:00AM EST

A dog digesting a large dose of chemicals is in pain. Toxicology tests are the most painful tests. Video shows she starts bleeding and vomiting.

Drooling

Bleeding



The video shows a technician hitting the dogs in the face repeatedly to train them to wear the inhaling gear. Their eyes are shut and they are wearing the masks. They are slapped and hit in the face until they don't try anymore and accept their fate.



Monkeys are restrained for various tests. Monkeys are highly intelligent animals. This photo is taken in 2017 in a Montreal lab.

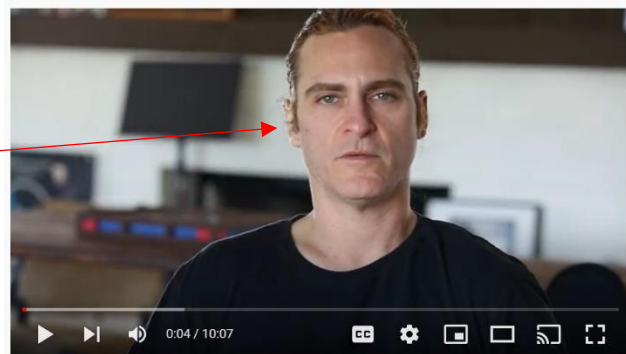


Screaming pigs have blistered backs while chemicals are tested on their skin. An alternative approach is available for chemical testing at The Canadian Center for Alternative Testing, but currently the government of Canada is only funding animal experiments. The undercover investigator says this is the hardest to watch. Pigs are very vocal and chemical testing is the most painful test.



Full investigation of the Canadian Toxicology Lab can be seen in this video, despite alternative testing methods available.

Narrated by Joaquin Phoenix



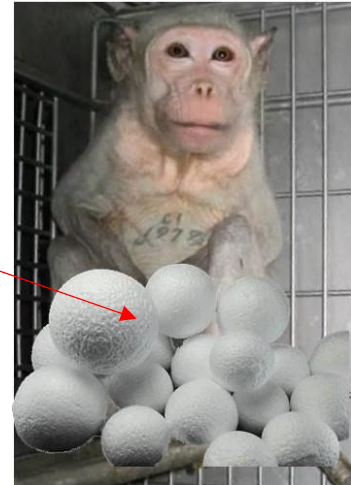
LCA Investigation Reveals Cruelty at ITR Toxicology Research Lab!

Unlisted

If you like to know more, please see: <https://www.youtube.com/watch?v=-0YV3TmRyEA>

12- The Heart and Stroke Foundation of Canada:

The charity supported Heart and Stroke Foundation of Canada has co-funded a research in which a crude version of a stroke was simulated in macaque monkeys by injecting increasingly large Styrofoam balls into their arteries. The animals were forced to live like this for weeks, suffering multiple strokes and partial paralysis before being killed. The surgical procedure was botched in three of the monkeys. As a result, they had to be killed before completion of the study.



13- The MS Society of Canada

has co-funded research in which the sciatic nerves of mice were exposed and crushed, crippling them. The mice were left to suffer for up to a month, additionally enduring pressure being applied to their feet until they pulled them away in pain. At the end of the study, the feet of the mice were dipped in ink and they were forced to drag themselves across sheets of paper to record their level of crippling. The animals were then killed with a needle of formaldehyde jabbed into their hearts. ⁶



14- Parkinson Canada

... has co-funded research in which macaque monkeys were repeatedly injected with an industrial chemical and contaminant of illegal drugs to create lesions on their brains, then chemically paralyzed and given electric shocks without pain relief.

True photo of monkey used in this experiment. The jacket contains the pump to repeatedly inject the male monkey with chemicals....



15- Canadian Center for Alternatives to Animal Methods:

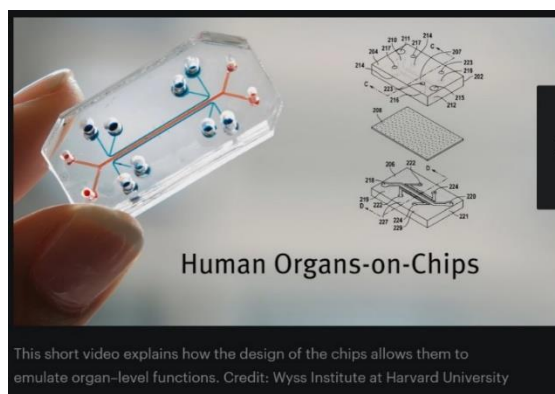
This center was founded by donations of Eric Margolis, former owner of a laboratory to develop and use new technologies in Canada that replace animals in labs. This center does not receiving any government funding. All tests that apply for government funds are required to show use of animals as the “gold standard”. This center is the future of research and is running out of funds as billions of dollars are going into animal testing models.



At the University of Windsor, the Canadian Centre for Alternatives to Animal Methods focuses on developing alternatives to animal testing, but gets no federal funding. Photo: Eric S. Margolis Foundation and University of Windsor.

16- New technologies for non-animal testing:

- Researchers have created “organs-on-chips” that contain human cells grown in a state-of-the-art system to mimic the structure and function of human organs and organ systems. The chips can be used instead of animals in disease research, drug testing, and toxicity testing and have been shown to replicate human physiology, diseases, and drug responses more accurately than crude animal experiments do.
- Through research at the Institute for Biochemistry in Germany, scientists created fully human-derived antibodies capable of blocking the poisonous toxin that causes diphtheria. This method can end the practice of injecting horses repeatedly with the diphtheria toxin and draining huge amounts of their blood in order to collect the antibodies that their immune systems produce to fight the disease
- A variety of cell-based tests and tissue models can be used to assess the safety of drugs, chemicals, cosmetics, and consumer products. A tissue model is a 3-dimensional, human cell-derived model that can be used to replace rabbits in painful, prolonged experiments that have traditionally been used to evaluate chemicals for their ability to corrode or irritate the skin.



Human-Patient Simulators



17- ARCHITECTURAL SPACE USED IN MEDICAL EXPERIMENTS:

These experiments used design of space for experiments created by Harry Harlow. As an architect, seeing the sections of the pit of despair is very horrifying. We are used to designing spaces for people to enjoy their lives and to see a space designed to drive primates insane was very hard.

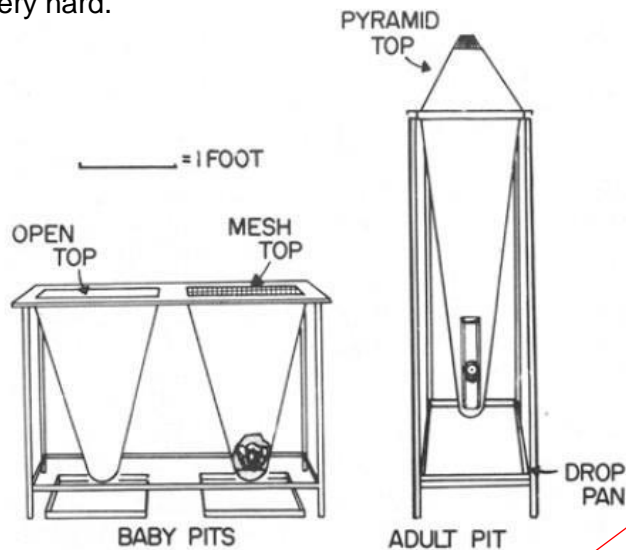


Fig. 2. Baby and adult pits.

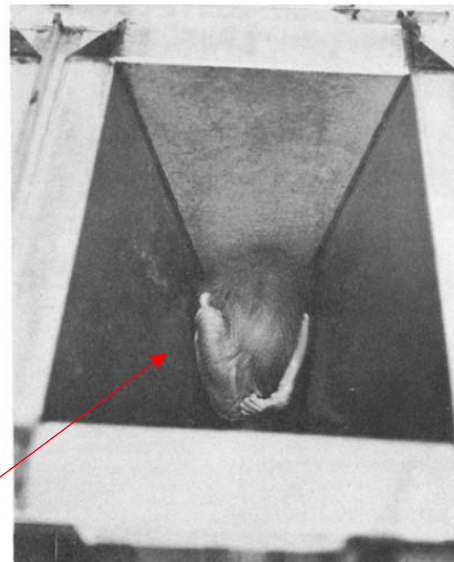


Fig. 4. Typical posture of animal during pit incarceration.

Pit of despair was designed for both Baby monkeys and adult monkeys. One of the researchers says that even the happiest monkey could not survive the pit of despair. Some monkeys were left there for years.

Baby monkeys were confronted with robot monsters in The Tunnel of Terror. They were separated from their mothers from birth...

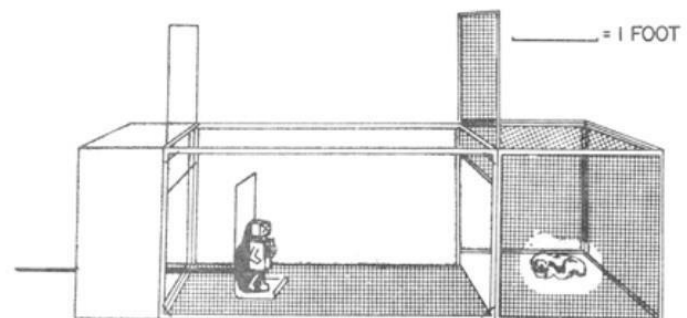
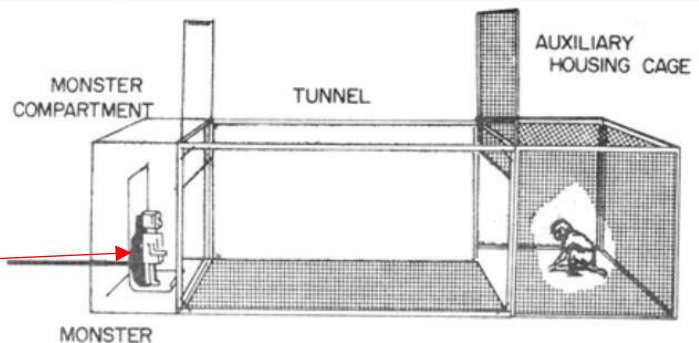


Fig. 6. The tunnel of terror.

If you are an architect, please watch the video https://www.youtube.com/watch?v=shlazzq_66Aw

CONCLUSION:

Architects are trained to question the status quo, to discover new ways, and not to be mere followers of the old traditions. I started my architectural school doing plans in ink pens and by the end of my studies we were already using 3d printers. Architects are not afraid of new technologies. We seek them. We care so much as to have a bird friendly design guideline in Vancouver so that birds don't fly into glass. To find out 2,535,052 birds were used in science in 2020 is shocking. Peta has a voice record of an owl under testing and her screams of pain will never leave me alone when I sleep. As an architect and a human being, having learned about what happens behind closed doors, I have not been able to turn away. I will not rest until every Vancouverite knows why animal experimentation not only hurts animals, but it hurts people as well, because conclusions drawn from animal research, when applied to human diseases are likely delay progress, mislead and do harm to humans. We have evolved by millions of years from other animal models and we simply can not rely on them when alternatives are available. **Covid 19 vaccines** are a testament to why we have to change because if we did not change the testing rules, we could not have so many new effective vaccines today.

"I abhor vivisection. It should at least be curbed. Better it should be abolished. I know of no achievement through vivisection. No scientific discovery that could not have been obtained without such barbarism and cruelty."

Dr. Charles Mayo, Founder of Mayo Clinic
One of America's most highly respected surgeons.

WHAT CAN YOU DO?

- 1- Join us on **INSTAGRAM: @ADAVSOCIETY** to stay up to date and join our demonstrations.
- 2- Ask St. Paul's Hospital to stop using animals in science by signing our petition on change.org
- 3- If you work for a company involved in work related to animal science speak up and raise awareness for people around you.
- 4- Buy cruelty free products with a jumping rabbit logo. Shampoos, detergents, tooth paste, cosmetics and the like are tested in Canada.
- 5- If your company or someone you know is donating, please ask them to specify that their donations should not go to animal testing. For example, at Children's hospital you can specify where your donations are used.
<https://www.humanecharities.ca/>
- 6- Stay informed: Watch "The Medical illusion" by Canadian film maker Gary Charbonneau to find out the scientific reasons why we need to change.
- 7- SUPPORT CANADIAN CENTER FOR ALTERNATIVES TO ANIMAL METHODS. <https://www.uwindsor.ca/ccam/>