UNIVERSITY OF COPENHAGEN

The Way Forward with European Legislation on Animal Experimentation - A Stakeholder Perspective

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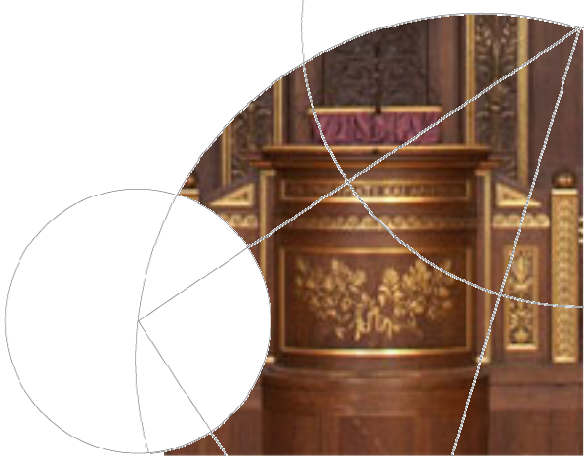

PLAN FOR THIS WEBINAR

1. Presentation of main findings from ANIMPACT stakeholder study
2. Votes on key issues
3. General discussion

BACKGROUND

- **The successful implementation of Directive 2010/63/EU depends on how it is received by key actors with a practical or a strategic role in relation to research and development involving animal research**
- **In this presentation we will focus on three groups of actors: Bench scientists, pharma industry and funders**

A MISSING STAKEHOLDER?

- **It could be argued that there is a one-sided focus on stakeholders which have a vested interest in animal experimentation**
- **What is clearly missing is a representation of stakeholders which have concern for animals as their prime focus**
- **This means that we cannot claim to give a full analysis of the function of the Directive**
- **Rather, our analysis is primarily focussed on how the Directive works for those whose daily activity is directly influenced by it - not on whether concern for animals is given a fair representation**

AIM OF THIS TALK

- **To find out what key stakeholders whose work is directly influenced by Directive 2010/63/EU consider a good regulatory regime**
- **To determine how the directive and regulations build upon it compare with that regime**
- **Note: Some scientists and other stakeholders are primarily aware of their own national regulation and may only indirectly be aware of the Directive**

CHARACTERISTICS OF INTERVIEWEES - SCIENTISTS

- **26 bench scientists, with two exceptions, all from universities**
- **Most biomedical but also a few from basic or animal science**
- **Worked in 3 EU countries: Portugal (8), UK (9), and Denmark (9); and were, with two exceptions, native**
- **There were 12 females and 14 males**
- **Age ranged from 35 to 64 years with an average of 50 years – so an overweight of senior people**
- **Worked with a range of species: Mice (16), pigs (3), fish (3), goats and sheep (2), and rats (1)**

CHARACTERISTICS OF INTERVIEWEES – PHARMA AND FUNDERS

- 6 representatives of pharma companies
- 3 representatives of funders
- All from UK and Denmark
- Efforts are ongoing to get interviews from Portugal

FOUR MAIN THEMES AND FOUR SUB-THEMES

1. Is regulation needed, and if so, why?
2. Ideas about a good and well-functioning regulatory system
3. How well does the existing regulation function?
    1. Minimum standards for housing and the like
    2. Authorization system
    3. 3Rs
    4. Reporting requirements, e.g. severity assessment
4. How are changes following the revision of the Directive perceived?

IS REGULATION NEEDED, AND IF SO, WHY?

- **Wide agreement among bench scientists and pharma companies that regulation is needed for two reasons:**

  1. **Because it protects research and researchers**

  2. **Because without regulation some researchers would go beyond what is an ethically acceptable way of treating animals**

PROTECTION OF RESEARCHERS

"... much better for us to have this kind of system [where experiments are approved by a committee with representatives of animal welfare organisations] because it takes away that kind of speculation, that must be terrible, ... to sit in a situation where you don't want to tell what you do, you don't want to put signs on your building that this is the lab of something because then you know people would come in and, and burn it, or you would be attacked ..." SCI DK

"I think it protects us, as well as the animals, that we have a system that's very clear ... It means that we can safely say with honesty that we are doing the experiments under an umbrella of regulation that requires us to take into account animal welfare and to have ... a valuable purpose to the experiment." SCI UK

FURTHER FOCUS FROM PHARMA AND FUNDERS

- **General statements about the value of a level playing field**
- **General statements about the value of bringing good standards existing in some places to be applied across Europe**
- **Specific references to how common rules and practices across countries may facilitate the international operations of the interviewee's organization.**

LEVEL PLAYING FIELD

"... it's very important that [biomedical research] is regulated at European level (...) the wider we can get in that level of standards is great from an animal welfare point of view (...) the term that gets used is level playing field (...) let´s say, if you want to collaborate with a lab in Spain, you would want to have the confidence that if they're working under the EU directive you know that their standards will be of a certain level. (...) it's really important, so that you know wherever you go in the EU there is a baseline that is good." PHARMA UK

ALLOWING BETTER COLLABORATION

"... for us as a funder it's comforting to know that there is legislation across the EU, so that we can be confident. In the UK we're confident in the processes and we understand the regulations that exists and that makes us confident to fund in the UK, and so if we had a similar thing across Europe then obviously that means that we're much more comfortable funding in different countries." FUND UK

WHAT IS GOOD AND PROPER REGULATION?

- **A good regulatory system according to the interviewed bench scientists is:**
  - **Without a too long, bureaucratic and time consuming application process**
  - **Run by competent people**
  - **With reasonable and not too restrictive standards**
  - **Flexible**
  - **Consistent over time**
  - **Proportional compared to regulation of other forms of animal use**
  - **Fair level compared to other countries**

VIEWS ON GOOD AND PROPER REGULATION REFLECT EXPERIENCES WITH THE OPPOSITE

- **All the descriptions of what is a good regulatory system are going together with concerns about deficiencies in the actual system.**
- **Particularly in Portugal there are concerns among the scientists about the competent authority being slow**
- **In UK there are complaints about lack of consistency across Home Office inspectors**
- **General concern about lack of flexibility, long waiting times and unnecessary paperwork**

FUNCTION OF ACTUAL REGULATION

- **For a start it is important to stress that large parts of the Directive has been accepted and implemented without any serious problems**
- **This is for example the case for minimum standards for housing and the like**

HOW WELL DOES THE ACTUAL AUTHORIZATION FUNCTION? – POSITIVE VIEWS

- **Even though it takes time to write applications to regulatory bodies this time may be well invested – it may lead to better research**
- **Focus on ethics may be a win-win for research quality and animal welfare**
- **The licensing process is useful when it comes to defending animal experiments to the public**

POSITIVE VIEWS

"… it´s another level of bureaucracy, but I think in generally it leads to better projects …" SCI UK

"… I think is fine, we spend … time on it, but normally this is just making the protocols more efficient. (…) We think we have been much better in planning and thinking before we start." SCI DK

"… all aspects of the Home Office regulations of animal work, which includes the 3Rs, are a positive additive to science. And enabling you to produce science, which, first of all, has justification, and secondly is robust, and reproducible." SCI UK

"[When we] finally get the license to do it well then my speculations about if this is OK are gone and that makes it much easier to talk with anyone about animal experiments …" SCI DK

HOW WELL DOES THE ACTUAL AUTHORIZATION FUNCTION? – NEGATIVE VIEWS

- **Too rigid requirements for licensing of individuals (e.g. students) helping out in the lab**
- **Too much time is wasted on filling out applications and waiting for responses.**
- **Science by nature has a dynamic element but this fits badly with the regulation system with detailed license applications for 5-year projects**
- **Regulation, directly and indirectly, imposes costs which at the end of the day goes from the actual research or the care of the animals**

NEGATIVE VIEWS

"… originally (…) I could as a responsible investigator involve PhD students, or medical students in the carrying out of experiments, so they were allowed to help out as long I did the solution, now this no longer possible …" SCI DK

"…regulations] makes [my work] more expensive. (…) It is basically because things need to be checked, I mean record keeping, we have one person working in the fish facility who is basically all day putting things in a data base, that's all she does and she has to be paid." SCI UK

"… maybe after 5 years, or 4 years, there is discovered a better way to anesthetize them. More new knowledge about how to painkill, but then I have to use the old way because that's what we got the license to do …" SCI DK

MORE NEGATIVE VIEWS

"That type of very bureaucratic regulation is not good at all. It doesn't benefit the collaboration with researchers, all. (...) one should try to alert researchers, one should make an effort (...) one has to be careful with how one does things and bureaucracy doesn't help." SCI P

"I think it's, that's a heavy process in Denmark.(...)It's really difficult. Awkward and that destroys also our competition because we are way behind, I can wait for a year then everybody [else] is publishing right. (...) I think in other places, they do all these experiments, I mean all my collaborators do experiments. And I never heard them complain about a 1 year process, I mean that´s ridiculous. (...)" SCI DK

SPECIFIC VIEW OF FUNDERS

- **Confidence that the system for regulating animal experiments ensures that research in funded projects are compliant with the law**
  - **Although some say that funding is conditional on authorization of the animal research, no mention mechanisms for ensuring this**
  - **One of the funders explicitly said that this was entirely the responsibility of the institution where the work was to take place**

3Rs - REDUCTION

- **Widely shared concern among bench scientists, pharma and funders about the risk of using few animals**
- **Thus getting results with sufficient statistical power is an extremely important concern**
- **Furthermore, it is also reported that some experiments are not done because they would require too many animals**
- **And some argue that they reduce numbers to limit harm done to animals**
- **However, others highlight the need to keep animal numbers in line with what journal reviewers require**

FOCUS ON POWER

"In order to have confident data, you would have to have at least 20 animals in each group, for each experiment, otherwise (…) you can never get accepted (…) [20 is a more or less established number] that gives you really good statistical [power]" SCI DK

"… just to avoid you missing one data point and that nullifying the whole study we had on some extra animals so if our power calculations give 5 to 6, we do 8 just because it gives us that confidence that [if] something that you can´t control goes wrong, we're not going to compromise." SCI UK

3Rs – REDUCTION – SHARING OF TISSUE

- **Scientists generally have positive views of sharing of tissue**
- **However, they also point to a number of limitations**
  - **Scientific**
  - **Economic**
  - **Structural**

3Rs – REPLACEMENT

- **The scientists interviewed present a number of reasons for going on using animals:**
  - **Focus on very complex issues**
  - **Required by research question**
  - **Animals give more valid results**
  - **Focus on understanding animals**
  - **No available alternatives**
- **Also structural arguments:**
  - **The role of the scientist in question is to do animal work**
  - **Pressures from journals and funders to use animals**

ANIMALS GIVE MORE VALID RESULTS

"... the transgenic mice we work at, I mean we want to mimic the symptoms at the patient [...], these are kids and are very, very sick and we´re trying, I mean you cannot ask that in a cell culture, or any other similar system whether they will get epileptic seizures, or are they going to [...] attacks, do they behave like this, you cannot ask that in any other system ..." SCI DK

3Rs - REFINEMENT

- **Generally a positive attitude to refinement**
- **However, there are also some who on occasions see a dilemma between good science and good welfare (with welfare initiatives confounding results)**
- **Some also see structural and economic barriers for increased levels of refinement**
- **Some see refinement as a win-win: Better science and better animal welfare**

DILEMMA BETWEEN SCIENCE AND REFINEMENT

"I if we need to study something that only happens at the end of the disease, or if we want to know whether an intervention improves the lifespan of that model then yes, (...) we´re are aware that we´re going to make these mice ultimately very sick and we´re going to have to be very careful with monitoring them. If we weren´t interested in knowing that ... then we could use animals and take them to a much earlier endpoint, then we´d still sacrifice the animals, but they wouldn´t experience the same level of distress." SCI DK

WIN-WIN

"I´m very concerned about pain and stress. Because they are going to, confound my results. I mean if I´m measuring some kind of attentive process in a mouse, if I want the mouse to pay attention to computer screen and press buttons when it´s used into all the kinds of stimuli, I cannot have this mouse stressed, or in pain because this is going to clearly distort the cognitive processes I´m on to access, so I´m very concerned about having my mice happy. [laugh]…and satisfied with their living conditions [laughing]" SCI DK

HOW ARE CHANGES IN REGULATION PERCEIVED?

- **In general not much awareness of a change associated with the Directive**
- **Combination of a centralized competent authority and a local committee system can be viewed as a extra burden (Portugal) – on the other hand several appreciate the close working relation with the local committee**
- **Rigid requirement for education before participating in work with animals causes problems**
- **EU directive is a compromise – necessary but also leading to inconsistencies**

REPORTING REQUIREMENTS – SEVERITY ASSESSMENTS

- **There is an awareness of changes in requirements for severity classification and reporting – particularly among pharma interviewees**
- **One interviewee comments on the increase in administrative burden arising from these requirements**
- **While another interviewee remarks that in their organization, these requirements have resulted in more engagement in discussing severity when an animal experiment is planned.**

CONCLUSION

- All see a clear need for regulation of animal use
- They also to a large degree share the intentions behind the directive
- There are critical concerns – to some degree differing across countries – about the functioning of the actual regulation
- Replacement is not high on the agenda for people whose role it is to do animal experimentation
- Ambivalence concerning Reduction, and more positive view on Refinement
- Concern about unproductive paperwork

1. VOTE – THE RIGHT BALANCE?

- **A clear aim of the Directive has been to strike a balance between the need to do animal research and the concern for animal protection**
- **Has this balance been achieved?**
  - **Yes**
  - **No – too much protection of research interests**
  - **No – too much animal protection**
  - **Neither**
  - **Don’t know**

2. VOTE – TOO MUCH PAPERWORK?

- **A concern raised by many interviewees is that the Directive leads to too much paperwork at the cost of science and possibly also animal protection**
- **Do you agree that this is valid concern:**
  - **Yes**
  - **No – only in specific countries**
  - **No – the paperwork is necessary**
  - **Neither**
  - **Don't know**

3. VOTE – NEED FOR MORE FOCUS ON 3Rs?

- **Currently, those who use animals for their research do not have much focus on Replacement, and many of them don't see the need for further focus on Reduction.**
- **Should more be done to promote the 3Rs?**
  - **Yes**
  - **No**
  - **Neither**
  - **Don't know**

4. VOTE – NEED FOR MORE FOCUS ON HARM-BENEFIT ANALYSIS

- One of the novelties in the Directive is the requirement for harm-benefit analysis
- Should more be done to promote the idea of harm-benefit analysis?
  - Yes
  - No
  - Neither
  - Don’t know