

## Karolinska Institutet Animal Welfare Body Annual report 2021

### Background

Karolinska Institutet (KI) has the mission to improve human health and to find new strategies to curb human diseases. Many research projects at KI are based on data from laboratory animals of different species. All animals used for scientific purposes are protected by law and must be treated in the best possible way, regarding both, housing and experiments. Each organization carrying out animal research must establish an animal welfare body (AWB), with well-defined roles and a composition of professionals stipulated by General Advice on experimental animals, SJVFS 2019:9 Saknr L150, chapter 5.

The AWB at KI consists of eight permanent members: the chairman, the named animal care and welfare officer, a veterinarian and its deputy, a researcher and its deputy, an animal technician and its deputy. In all matters concerning non-human primates an ethologist is consulted. The AWB has the mandate to take decisions on amendments to ethics licenses following an application from the license holder (PI). At KI all AWB decisions are taken by majority vote and the AWB reports directly to the Committee of Research and the Site License Holder.

### Meetings and working structure

The AWB delegates had 10 meetings during 2021, roughly every 4 weeks, for consultations and formal decisions. A total of 17 applications have been handled, 15 have been approved. Four amendments were administrative decisions, thirteen applications involved changes which did not risk affecting the welfare of experimental animals in a negative way, in contrary, most improved animal welfare. The amendments involved different laboratory animal species, from mice (the majority) to rats and zebrafish, for which hypothermic shock has been implemented as an euthanasia method. Other examples are refinement of treatments regimes or training sessions.

The AWB has systematically reviewed SOPs (standard operational procedures) for animal care and veterinary guidelines at KM facilities.

Recommendations from the Swedish 3R Center (S3RC) on single housing in mice have been discussed and adapted to KM.

In collaboration with several research groups AWB has compiled recommendations for the health assessment of arthritis models in mice.

3Rs groups have been formed at all animal facilities, with veterinarians and animal technicians. Recently introduced 3R initiatives have been listed for each facility, and discussion on further plans are in progress. The 3Rs groups participated at an 3Rs workshop on training of mice and rats.

Following the decision of the dean of KI that AWB will evaluate applications from researchers at KI concerning collaborations in international research projects based on laboratory animals, AWB has compiled an application form and a questionnaire about the research projects, to gather the necessary information about the planned studies. AWB is working

on an assessment tool to support researchers in the decision if the planned collaborative project needs to be evaluated by the AWB.

From the start of the year all staff members of KM are informed on AWB work in a dedicated section of the "Nyhetsbrev Komparativ medicin", which is distributed four times per year.

Collaborations with other AWB on regional or on national plan and with Swedish 3R Center

The regular information exchange between representatives from AWBs in Stockholm/Uppsala region continues. This collaboration facilitates research projects involving groups at different universities or hospital sites in Stockholm or Uppsala, and they are also beneficial to research groups active at several sites.

AWB representatives actively participated at several webinar series organized by S3RC for example on animal free antibodies, animal free cell culture methods. Representatives from the AWB at KI participated at the national AWB meeting organized by the S3RC. The first part focused on difficulties in evaluating anesthesia in fish, refinements in the care of rodents and 3R in working with wild animals. The second part focused on the concept of "culture of care" and highlighted its importance and steps on the way to apply it.

The AWB was also represented at several international events such as "Focus on Fish (arranged by RSPCA); The EU scientific conference "Towards replacement of animals for scientific purpose"; Nordic 3Rs webinar at which KI was one the organizers.

### Goals for 2022

- Facilitate and coordinate 3R-groups at different KM animal facilities.
- Organize an international conference on "Refinement of animal models of disease with severe severity" in August 2022, together with RSPCA from United Kingdoms.
- Continuously review and analyze retrospective reports from CDFN, guidelines and strategy documents involving animal welfare. The information will be used to improve animal welfare in current research at all KI institutions in communication with the researchers and in recommendations from awb.
- Compile further recommendations for the work with different animal species, focus on zebrafish.
- Outreach in form of lectures and workshops (CPD activities) to scientists and all technical personnel involved in animal work.
- Networking with AWBs in the region to facilitate research projects / research groups active at different sites e.g. by common workshop.