0 to 100: Starting an animal research program from scratch and applying for AAALAC accreditation in two years

Christopher S. Keator, PhD; Jill A. Bland, BBA, CeCd; Nathan W. Brown, BS, LATG, CMAR; Leandra H. Burke, MPA, CCRP; Bronwyn Drost, BA; Nichol E. Holodick, PhD; James A. Jackson, DVM; Emily Philipp-Petrick, BS, LVT; Amy S. Shipley, PhD; Steven J. Weber, MHSA, PhD

ABSTRACT

Problem Statement: Tasked with cultivating a brand new animal research program for a young medical school, you soon realize you're staring at an empty vivarium and have no staff, equipment, policies, forms, or oversight bodies. The institution has just hired a tea

Description of Research: at an empty vivarium and have no staff, equipment, policies, forms, or oversight bodies. The institution has just hired a tea

BACKGROUND

During the early stages of developing the WMed IACUC and vivarium, we quickly discovered there was a lack of published information to guide the development of new animal care programs. Additionally, building an animal research program with well-established investigators, those with existing NIH grants and genetically modified mice used for translational studies, happens so infrequently that we were unable to find anyone who remembered going through a similar process. Thus, our primary goal is to provide the details of how our private 501(c)(3) nonprofit medical school built a new PHS-assured animal program, outlining our challenges to hopefully help other institutions considering or in the process of building a new program or gaining AAALAC accreditation.

It is widely recognized that AAALAC accreditation is considered the 'gold-standard' and highest level of accreditation for an animal research program [1]. This is especially true for smaller programs, where the AAALAC 'stamp of approval' may help programs secure additional funding from private donors to help the program grow and mature [2]. Oftentimes, smaller programs (those with fewer than 20 investigators) have limited funds awarded by the various public agencies (NIH, NSF, DOD, etc) and therefore AAALAC approval can also be used as advertising to recruit well-funded and established researchers to a growing program, which can immediately boost productivity and create a positive feed-forward cycle of growth. New programs should decide very early (in developing the ACU program) if they will seek accreditation by AAALAC, because this knowledge can be used as a framework by the institution to ensure high quality animal care and use practices that are supported (and in some cases required) by AAALAC [3].

There are more than 1000 institutions in 47 countries accredited by AAALAC [4] and we set AAALAC accreditation as our primary goal at our first meeting of the WMed IACUC; this lofty standard kept IACUC members, vivarium personnel, principal investigators, and research teams focused on the ultimate goal of having the best program possible for our institution. WMed is a small medical school classified as a Group 3 institution by AAALAC, and therefore readers should recognize that our timeline of events and recommendations apply best to similar-sized programs (25,000 sf) working with mice and/or a limited number of non USDA-regulated animal species.

TIMELINE

Below is a timeline depicting the evolution of the WMed animal care and use program. Emphasis is placed on the challenges encountered during the first 2 years of development. The program received full accreditation from AAALAC in March 2019.

CHALLENGES

1. Staff, forms and more forms. There are templates for various processes (OLAW is a great resource), but our program needed to create customized protocol and amendment forms, import/export forms, facility and (vehicle) inspection forms, inventory forms, and every other form we had never heard of prior to starting a program.

2. Drafting, reviewing and approving IACUC Policies and SOPs. We have taken a minimalist approach – see our complementary poster to better understand our strategy.

3. The unexpected will happen. We were significantly delayed in getting mouse cages because there was a shortage of plastic use because the auto industry uses the same plastic for various automobile components.

4. Blending different backgrounds with cohesive skills. Our animal program is comprised of persons intimately familiar with industry and academia, and those entities typically function quite differently – it’s been interesting to learn from each other as we develop a new program.

5. Negotiating the Assurance with OLAW. We were unable to find anyone who had submitted an Assurance within the first year of starting an ACU program, but luckily the OLAW Division of Assurances guided us through the process; the requested revisions were similar to the review process when publishing a manuscript.

6. Attention of vivarium and IACUC members. Turnover happens everywhere, but for new programs like ours we realized that losing one member of the IACUC (without an alternate) was a big loss and losing an animal care technician for a small program shifted a significant amount of animal work [e.g. ~25%] to other staff members.

7. Post-approval monitoring and training. We’ve all heard that these topics are challenging for all programs – we wholeheartedly agree and these topics are often on the agenda for our IACUC meetings.

8. Adopting an electronic platform. WMed also has an Institutional Review Board (IRB) for human subject research, and therefore we opted to use MedRIS for our IACUC and animal inventory system; the implementation is slow and requires revisiting those troublesome forms listed as challenge #1 – enough said.

REFERENCES


