



Toolkit for conducting secure biomedical research involving laboratory animals

ARVO Toolkit for Conducting Secure Biomedical Research Involving Laboratory Animals

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ARVO Toolkit for Conducting Secure Biomedical Research Involving Laboratory Animals

Introduction: Conducting animal research in an age of animal rights activism

The Association for Research in Vision and Ophthalmology (ARVO) leadership considers the use of animals in research as one of the most important and critical issues facing vision scientists today. *The use of animals in properly designed vision research experiments is both ethical and necessary for the generation of the new knowledge needed to develop new treatments to protect people and animals from visual diseases and defects.*

Investigators who use animals **must** assume responsibility for the proper scientific and ethical design of experiments, as outlined in the [ARVO Statement for the Use of Animals in Ophthalmic and Vision Research](#).

This toolkit has been prepared and updated by the ARVO Animals in Research Committee to suggest both proactive and reactive strategies for ARVO members who use animals in their research. Use the links in the Table of Contents to jump to areas of immediate interest. The Animals in Research Committee also urges ARVO members to read this Toolkit and offer suggestions or additions for the next version. If you are targeted by an animal-rights activist organization, please contact ARVO staff via arvo@arvo.org.

Extreme acts from animal-rights activists have escalated to include personal attacks on researchers' homes, property and, in some cases, family members. The activities range from online harassment, picketing and harassment of investigators at their workplace or home, to vandalism and even attempted homicide. The frequency and severity of the acts of terror against scientists has led to many investigators "going underground" and disengaging from public discourse on animal research. However, in the absence of advocacy and education, the resulting information void has been filled by a campaign of disinformation and misinformation by activist organizations. This underscores the importance of educating the public on the necessity of animal research, as well as educating scientists on strategies to prepare for and cope with pressure from an animal-rights group.

Resources to help limit the impact of threats and attacks

[Protecting your lab personnel and research against an attack](#)

If your research requires the use of animals, you should follow several steps, regardless of whether you think your work may be targeted. **These are proactive measures that will give you initial security and save you stress if you are attacked.** This section presents an overview of what you need to do to protect yourself. The [National Association for Biomedical Research \(NABR\) has prepared an Animal Research Crisis Management Guide](#) that contains detailed information.

[Make sure your research complies with applicable national and local regulations](#)

Every ARVO researcher using animals **must** be familiar and comply with all applicable policies, regulations and/or requirements of governing institutional and national organizations and must follow

the [ARVO Statement for the Use of Animals in Ophthalmic and Vision Research](#). In the event that you are targeted by activists, ARVO will vigorously defend and support you after reviewing your research to ensure its compliance with this ARVO statement.

Develop and maintain an animal use research project file

In addition to the files normally maintained for your research project, you should start and regularly update a file that contains background material that is useful in case there is an inquiry about the use and care of animals in your research. This will ensure a prompt and measured response. For investigators conducting multiple projects, it is recommended that each project has a separate file or sub-file, making it easier to respond to specific requests without the release of unnecessary information.

Establish security procedures

At a minimum, every researcher should have a personal and professional security plan and coordinate it with institutional security representatives and local police. Animal rights activists tend to wax and wane in their attentions and attacks, so researchers must always be prepared.

Coordinate with your institution

Your institution is responsible for being prepared to defend itself – and you – against allegations of animal abuse made by animal-rights activists. Your institution should have an administrative plan of action for responding to such an incident. You should meet with the person responsible for activating the plan and review the procedures.

Preemptive security measures

ARVO is not able to provide information to members covering institution-specific policies for background checks and security clearances when hiring employees who access animal research facilities. Members should work with their institutions to ensure adequate safety of personnel, research animals and security of study data, and should prepare an action plan for responding to adverse incidents.

Use care in wording your research documents

Remember that non-scientists and others may read your publications and grant documents. This applies especially to federal grant applications, institutional documents and manuscripts describing experimental procedures involving animals.

Become an advocate for animal research

It is important to apprise members of the public and your local and national legislators about the importance of using animals in research, and the improvements in human and animal health that have arisen as a result of studies using animals. Written statements focusing on the scientific benefits/advances of your research efforts are particularly useful. Get involved in organizations which support science and the benefits of animal research to society.

Make sure your research complies with applicable national and local regulations

United States

- [US Animal Welfare Act and Regulations](#): A document with regulations to improve animal care and use in research, testing, teaching and exhibition.
- [Office of Lab Animal Welfare Public Health Service Policy on Humane Care and Use of](#)

- [Laboratory Animals](#): A tutorial for new animal care and use committee members, institutional administrators, investigators, animal care personnel and veterinarians.
- [ILAR Guide for the Care and Use of Laboratory Animals](#): Primary reference on animal care and use (required if research is conducted with Public Health Service funds).
- [NIH 2008 Guidance for Researchers & Institutions](#): Good animal care and good science go hand-in-hand: A list of resources for research that involves NIH grants.
- Institutional Animal Care and Use Committee (IACUC) within your institution.
- Other local or state regulations that may be in effect where your research is conducted.

Canada

- [Guide to the Care and Use of Experimental Animals by the Canadian Council of Animal Care](#): For research conducted in Canada.

United Kingdom and African continent

- [Responsibility in the use of animals in bioscience research: Expectations of the major research council and charitable funding bodies](#): Medical Research Council (MRC) guide for the use of animals for MRC funded researchers in UK and Africa.

European Union

- [EU legislation on the protection of animals used for experimental and other scientific purposes](#): Legislation passed by the European Commission that governs the use of laboratory animals.

Germany

- The German Animal Protection Act. [Tierchutzgesetz \(TschG\)](#), in German.

Israel

- The Israeli Animal Protection Act, in [Hebrew](#)

Develop and maintain an Animal Use Research Project File

Some universities will have well-developed online, secure depositories for maintaining the documents required for meeting legal regulations surrounding the use of animals for scientific purposes in their countries. Other universities may have less well-developed systems and thus place more responsibility on individual researchers to keep all the necessary documents. Described here is a list of some documents you will need (if in the USA) or, if you are located in another country, might like to consider developing. Storing these in a well-organized, secure electronic depository with separate folders for each project is helpful. Keep in mind approval expiry dates and approved animal use numbers, as these documents should be the most current versions.

At the forefront of all animal research are the 3R principles (replacement, reduction, refinement). All researchers should be able to clearly explain how they have approached the 3R process in the design of their research methodologies, and should adhere to best practice principles. Animal health and well-being should be at the center of all research, including environmental enrichment and minimization of pain and suffering. Showing sincere care and concern for animals is important and this needs to be reflected in the documents (even if they are only intended to be viewed at the university level). These documents should clearly show that researchers involved in the use of animals for scientific purposes know and accept their responsibilities.

Content Recommendations for Animal Use Research Project File

- **Approved research grant documentation**
- The final versions of the funded grant application, all animal ethics approvals and conditions for these approvals should be kept. For federally funded research, the [Vertebrate Animals section](#) of your grant provides an opportunity to articulate your justification for use of animals in research and interventions to minimize discomfort, distress and pain. During the project, animal monitoring and procedure sheets, approved modifications and notifications of any adverse events should be kept on file. At the end of the project, the final report document should be added (how long these documents need to be kept will vary across jurisdictions).
- **IACUC-approved protocol and any other related documents**
Current versions of IACUC (or your country's equivalent) -approved documents and any modifications to the approved projects. Reminders of approval expiry dates should be listed in your calendar. The details of the approved research and animal numbers should be known by all the researchers in the group. You may wish to work with your institution, with involvement of institutional legal counsel where needed, to develop redacted copies from which all information that could be used to identify personnel is removed.
- **Animal research training certificates**
Investigator and research team animal work training certificates and documentations of completed continuing education programs
- **List of awards received by researchers working on the project**
Produce a file of the main awards earned by members of the research team.
- **Brief description, in non-technical terms, of research project goals and accomplishments**
This statement should be prepared so that it could be given to the press or used in discussions with local community or patient groups and should describe the nature of your research, why it is being conducted, why the use of animals is necessary, how the research will benefit humans and animals (directly or in the future) and what official agencies have provided feedback on your research methods and ultimately provided legal approval under government regulations. Once you have drafted this statement, review it with the person your institution has designated to deal with the press and public. *See the Section: Coordinate with Your Institution.*
- **Representative list of citations for your research publications**
It is not necessary to compile a complete list of citations, but rather to give the range of publications in which citations have appeared, as well as the total number. This list could be crucial in countering typical claims made by animal-rights activists that the research is trivial, has no impact on scientific progress or is of no benefit to human and/or animal health.
- **References that demonstrate your procedures are humane and necessary**
Clearly elucidate why the work could not be done without an animal model and that standard approved procedures will be/have been followed.

- **Your institution's plan for responding to animal-rights activist allegations**

Include names and phone numbers of all parties that you or your lab personnel should contact at your institution in case of an attack or threat of an attack (including public and media relations, security, local police, physical plant, etc.).

Coordinate with your institution

Your institution is responsible for oversight of animal research and is ultimately responsible for defending itself and you against allegations of animal abuse made by animal-rights activists.

Your institution should have a plan of action for responding to such incidents. Ensure that you are aware of your institution's policies for dealing with security threats. Also be aware of your institution's policies for responding to requests for release of documents under the Freedom of Information Act (FOIA) or similar applicable mechanisms granting public access to details of your research, particularly if your work is supported by or subject to local or national government oversight, and that you are comfortable with these policies. Meet with the person responsible for activating the plan and review the procedures.

At a minimum, the plan should contain the following information:

- Names and responsibilities of key people within the institution who should be contacted immediately if an incident occurs, such as security, administrative representative, veterinarian, animal care and use staff
- Name of the individual who will be the official spokesperson
- Lines of communication
- Security procedures
- Public relations procedures
- Support groups within the community to contact
- Other organizations to contact nationwide

Ideally, the person designated to be the official spokesperson should not be a scientist who is working on the project, but rather someone who understands both the institution's animal care and use program and is accustomed to talking to the press and other groups.

- Some institutions provide training to scientists on how to deal with the press and answer questions in a non-technical, straightforward manner
- Encourage your institution to offer you and your colleagues such training
- The American Association for the Advancement of Science offers [workshops](#), and the National Science Foundation (NSF) has resources to help scientists [communicate](#) with the public
- ARVO offers the Science Communication Training Fellowship, a one-year [program](#) focused on the improvement of science communication and science advocacy skills amongst the early-career researchers within their membership

When meeting with the institutional representative, you should review the contents of the Animal Use Research Project File that you are maintaining and inquire if any other documents or letters would be useful. Ask to have your project description reviewed and edited to make it understandable to the general public.

If you find that there is no institutional plan or central office to handle an incident, discuss the necessity of preparing a plan with your department head or the person responsible for overseeing research.

Remember: an institutional plan is critical to protecting yourself against attacks. Your institution should be prepared to provide you with organized and effective support if your research is questioned, scrutinized or attacked.

The [National Association for Biomedical Research \(NABR\)](#) may be able to provide assistance and resources.

4. Establish security procedures

At a minimum, every researcher should have a personal and professional security plan in coordination with institutional security representatives and, if needed, local police. The frequency and severity of activity by animal-rights activists can vary, so researchers must always be prepared.

For data security, store backup copies of all your data, including computer materials, at a secure facility outside your laboratory. [The Federal Bureau of Investigations \(FBI\) has a number of resources](#) that will give you a general overview of cyber threats and the best types of cyber security practices. Secure sensitive documents, files and other media items so they are protected from theft in the event of a break-in.

Animal-rights activists may focus their attention on the investigator at his or her workplace. However, recent attacks have occurred at researchers' homes, so investigators should work with institutions to ensure adequate security in both places.

Past attacks have included mail and telephone calls to the homes of researchers and their neighbors, picket events at researchers' homes and attempts to get statements from family members about the appropriateness of the researchers' work.

Protect yourself, your staff, family, friends and neighbors by limiting the amount of information—particularly home telephone numbers, address and other personal information—that is available online, published in directories, and via social media.

Talk to your family members about possible ways they could unwittingly become involved and how to handle such situations. Review your home security measures and contact local police to alert them to potential situations.

Preemptive security measures

Animal rights activists have gained access to animal research facilities by applying for animal care positions in research facilities.

ARVO is not able to provide information to members covering institution-specific policies for background checks and security clearances when hiring employees who access animal research facilities.

However, ARVO members should work with their institutions to ensure adequate safety of employees and research animals. ARVO members are encouraged to conduct a risk analysis of the cyber and physical facilities and prepare an action plan for responding to adverse incidents.

Actions members can take include the following:

- Make it clear to employees and students that you are committed to animal welfare and open to discussing any concerns they may have regarding the use of animals.
- Be certain employees and students understand the importance of your research program and can properly describe procedures using appropriate, non-emotive terminology, and are aware that no deviation from strictly regulated, IACUC-approved protocols is permitted.
- Caution lab members against use of “morgue humor” or insensitive comments that could be interpreted as reflecting lack of care, callousness or disrespect. Ensure they are aware that under no circumstances should sensitive procedures and/or confidential data be discussed outside the lab.
- Avoid use of emotive language or potentially sensitive images in presentations given outside the lab and ensure that poster and PowerPoint presentations to be given by staff and trainees are carefully reviewed before they are presented outside the lab.
- Do not post confidential information, including the types of animals used in research studies, clients’ names, and security protocols on social media. The posting of photographs taken within the facility should be strictly prohibited.
- Invite institutional security and administration to visit your lab and animal care facilities so they will be familiar, not only with the layout of the facility, but also with the type of research that you are doing. Conduct a walk-through annually.
- Set up a schedule for monitoring animals (especially post-surgery or anesthesia). Make this a clear responsibility that is well documented and not to be taken lightly.

Use care in wording your research documents

Remember that many of your manuscripts and grant documents will be publicly available and are increasingly easily accessed either through Freedom of Information Act (FOIA) requests, or through open access publications. These documents may, therefore, be read by non-scientists, and by those who may be hostile to your work.

When preparing your grant applications, IACUC forms and other related documents, you should always consider the possibility that they could be read, redistributed and published out of context by animal-rights activists. This applies especially to those sections of grant applications and manuscripts describing experimental procedures involving animals. These sections are often used by animal-rights activist groups to “damn you with your own words.”

You are especially susceptible to being targeted by animal rights activists if you:

- Conduct research on dogs, cats or non-human primates;
- Conduct research funded by the National Institute of Neurological Disorders and Stroke or the National Eye Institute;
- Conduct research that has been accessed through [Freedom of Information Act](#) requests and/or can be readily accessed through standard public access policies (e.g., for those investigators who receive federal research support). Public access enhances transparency but can lead to an increasingly targeted and ongoing sequence of requests for more specific information.

Remember to coordinate with your institution and IACUC, so you will be notified when there has been a FOIA request about one of your projects or research subjects.

All investigators conducting research involving animals should be prepared to respond to FOIA requests promptly, as excessive delay in response might be construed as attempted obstruction of the process. Be proactive in protecting the identity of your laboratory staff and collaborators by working with your institution to prepare and maintain redacted copies of potentially responsive documents. It is recommended that members avoid use of identifiers such as gender pronouns or unique qualifications that could identify individual lab members in documents such as IACUC protocols, but are unlikely to be removed in the process of redaction. Ask if your institution has administrative and legal staff assigned to help gather and review documents prior to release to outside parties.

Ensure that you are aware of the full extent of research documents, images and data that may be considered responsive to FOIA requests. Research data that are not within the public domain (unpublished) remain the intellectual property of the researcher or sponsor and are generally protected from release under FOIA requests. Thus, it is strongly recommended that recording and storage of animal research data is accomplished in a manner that allows easy separation of responsive and non-responsive files and protection of confidential study data. If in doubt, advice should be sought from your institution. Preparing for this eventuality will greatly reduce disruption to your work if FOIA requests are received.

Because animal rights activist groups usually quote passages out of context and leave out vital information (such as the use of general anesthesia) or acquisition of tissues *after* euthanasia, you may not be able to completely prevent misrepresentation. However, if your document contains thorough explanation of procedures used to ensure that the animals experience minimal discomfort, you can help counter claims that surgical and experimental procedures are extreme. Ensure that plans and procedures to mitigate pain and distress are clearly articulated in research animal protocols. Include procedures to monitor subjects and steps that will be taken to mitigate pain or distress should these arise. Whenever possible, simple statements should be incorporated that clarify the non-invasive and non-painful nature of procedures. For example, procedures that may appear invasive to the public but, “are considered non-painful in humans and routinely conducted in awake human patients.”

Take care to avoid emotive language such as “sacrifice.” Avoidance of emotive language extends to medical record entries, e.g., an animal that exhibits mild squinting after a procedure should have this specifically documented in laboratory observations or medical records, and a management plan clearly outlined, rather than highly subjective comments made, such as, “eye looks painful”.

Investigators are strongly discouraged from photographing animal procedures, as these are likely to be responsive to FOIA and have been used to good effect to misrepresent animal research in large-scale media campaigns. Remember that, “a picture is worth a thousand words.”

To clearly convey the responsible and humane conduct of your research, ARVO members should go beyond the minimal statement required when drafting your manuscripts, applications, and animal care and use forms, and carefully consider how inaccurate impressions might be formed when individuals access publicly available documents. In addition, it is essential to stress and justify the importance, impact and significance of your work.

The Society for Neuroscience developed a document, [Best Practices for Protecting Researchers and Research](#), which was adapted from the ARVO Handbook for the Use of Animals in 2003.

Become an advocate for animal research

Contact national and local lawmakers

It is important to apprise your local and national legislators about the importance of using animals in research. Recently animal-rights activist groups have successfully used the legal system to challenge federal regulations regarding the care of animals in research.

The more legislators understand about the use of animals in research, the better equipped they will be to make decisions regarding new laws.

Pay attention to attempts to introduce legislation in your state. Bills are being increasingly driven by animal rights organizations with the intent to intensify burdens on Investigators using animals in their research, with the goal of stopping all use of animals in research. Lawmakers are likely to pay most attention to the most vociferous of their constituents. Adopting a stance within the “silent majority” does not counter arguments presented against animal research.

[Written statements to your legislators](#) focusing on the scientific benefits/advances of your research efforts are particularly useful. Consider alerting and mobilizing members of any non-profit foundations and organizations that may support and advocate for your research. Associated patient advocacy groups can provide particularly compelling arguments in favor of continuing animal research.

ARVO provides advocacy resources such as the [ARVO Advocacy Handbook](#), [International Advocacy Toolkits](#), the [Importance of Animals in Vision Research](#) document and [Animals in Eye and Vision Research](#) document.

Join and support organizations that foster public understanding of animal research

This list is not intended to be a comprehensive catalog, but is provided for ARVO members as a resource to connect them to the broader community of pro-research/pro-science organizations.

- [Americans for Medical Progress](#): A non-profit charity, AMP seeks to protect society’s investment in research by nurturing public understanding and support for the humane, necessary and valuable use of animals in medicine.
- [Speaking of Research](#): An advocacy group that provides accurate information about the importance of animal research and animal testing in medical and veterinary science.
- [Basel Declaration](#): Seeks to provide the framework for ethical use of animals in research just as the Declaration of Helsinki did for human subject research.
- [Foundation for Biomedical Research](#): A non-profit dedicated to improving human and animal health by promoting public understanding and support for biomedical research.
- [National Association for Biomedical Research](#): The only U.S. organization dedicated to solely advocating for sound public policy in support of ethical and essential laboratory animal research.
- [National Centre for the Replacement, Refinement & Reduction of Animals in Research](#): A United Kingdom-based scientific organization dedicated to replacing, refining and reducing the use of animals in research and testing (the 3Rs).
- [Understanding Animal Research](#): A not-for-profit organization that explains why animals are used in medical and scientific research.

Responding to public scrutiny and requests for information about the use of animals in your research

You cannot always anticipate when an animal-rights activist group will question or attack your research.

- One definite clue that your research is being considered for some type of attack is notification that someone has requested information pertaining to your research program or species of interest at your institution under the [Freedom of Information Act](#) (FOIA).
- Under the current guidelines, federally funded grant application files, including reports, are available virtually in their entirety to requesters under the FOIA. The funding agency will inform you that your grant materials have been petitioned. You should treat this as an alarm, and prepare yourself and your institution for an attack.

While initial FOIA requests do not guarantee immediate attack by animal rights activists, they are likely the earliest warning you will receive of your research program and institution being under threat. Work with your institution to redact identifying information from your documents. If you and your institution have taken pre-emptive steps to enable the prompt compliance with requests to release of documents, and if you have used care in wording your research documents, to limit misrepresentation and assure readers of your sincere and diligent adherence to the “3Rs” and of the importance of your work, many activists will move on to other targets.

Take the opportunity to review websites and other media to ensure that personal information, including personal telephone numbers and email addresses are not publicly available. At this time you should also pay particular attention to the content of your lab website. Review laboratory and personal security with your lab members, collaborators, family and friends. Ensure that any online profiles are brief, sympathetic and clearly state your mission

The methods used to stop or impede your research could range from letters sent to local newspapers, to more widespread and concerted news and social media campaigns, and even direct harassment and disruption or destructive laboratory break-ins.

- Whatever the form of harassment or attack, you will be in a good position to handle the controversy if you have followed the recommendations listed in Protecting your lab personnel and research against an attack.

If you believe for any reason that your research is being reviewed by an animal-rights activist group, you should take the following steps:

- Review your Animal Use Research Project File and make sure that all the necessary information on the project is documented and updated
- Inform your IACUC representative of your concerns and discuss which precautions described in the institutional plan should be activated
- Inform the funding agency program director of your concerns
- Inform ARVO and other professional societies that may become involved in defending you in the event of further scrutiny and attack
- In conjunction with the key people in your institution, including public relations expertise, consider proactive contact with the local media before the animal-rights activists do. A positive

press release from your institution on the importance of your research and its benefit to humans and animals could serve to diminish the negative impact that any subsequent activist campaign will be designed to inflict.

If your research comes under any form of scrutiny from an animal-rights activist group, even if it does not appear to be very threatening at first, ARVO recommends these steps:

1. Contact your institutional representative
2. Contact your funding source
3. Contact your professional societies

For additional guidance, see the "[Responding to FOIA requests](#)" guide developed by NABR, SfN and FASEB.

What to do if confronted or targeted by animal-rights terrorists

IF YOU ARE BEING HARASSED BY ANIMAL-RIGHTS TERRORISTS, YOU ARE LIKELY THE VICTIM OF A CRIME.

What to do if confronted or targeted by animal-rights terrorists? While individuals may differ as to how they react to the "legal harassment" of animal-rights terrorists, here are some suggestions to deal with the initial harassing contact.

1. Call the police and/or university security. The police are increasingly prepared for this type of crime and will have a security plan to follow. They understand the trespassing laws in your locale, understand "free speech" rights, and will protect you. Ask for increased police presence near your home if you or your family members feel physically threatened.
2. Call your department chair and/or immediate supervisor. The dean or upper level administrators and veterinarians should also be alerted.
3. Immediately contact [OLAW](#) if the health or well-being of animals is jeopardized or harmed.
4. Notify the [program official\(s\)](#) of the NIH funding component(s) or your other funding agencies of the incident.
5. Go where you feel safe if confronted physically.
6. Do NOT erase threatening emails or voice mails. The police will want this information.
7. Do NOT debate these people on the phone (just hang up!), the internet, or social networks, including YouTube, Facebook or Twitter. This is what they desire.
8. Be very careful about any contact with the press or online media. This can backfire and will certainly draw attention to the terrorists, which is what they are seeking.
9. Remove images of yourself and those of your family on Facebook and other social networking sites and university websites. Increase the level of privacy on these social networking sites or remove your personal data completely.
10. Although very inconvenient, you may elect to change your home, office and cell phone numbers. You may have to alter your email address as this will be the primary conduit for the harassment. Request the University IT department provide a mechanism to prevent unwanted electronic and voicemail messages, and to assure that any messages that reach you are captured by the police.

11. Discuss all aspects of the threat with your family. Warn your neighbors to watch for and report any unusual behavior in your neighborhood.
12. Remember, you are not alone in this, and have done nothing wrong. Talk to people you trust (including ARVO) to allay your concerns.

Contact your institutional representative

Assuming that your Animal Use Research Project File is in place and up to date, meet immediately with the person your institution has designated to handle this type of incident. The contacts should be listed in the institution's plan. These key individuals should take the following steps:

- Review the original institutional plan that outlines the procedures to be followed
- Identify the type of crisis, location (if appropriate), names and numbers of people involved
- Determine what information still needs to be collected and reviewed
- Specify what responses should be given to specific allegations, the timing of press releases and confirm who will be the designated spokesperson

It is important that you do not get directly involved with the people questioning your research. The strategy of animal-rights activists is to isolate the investigator, thereby increasing the possibility that the researcher will provide more information than necessary in an attempt to defend their work. By having an institutional spokesperson to interact with the animal-rights activist groups and the media, you can keep the confrontation out of the direct personal attack mode.

Contact your funding source

It is important that you contact the project officer from your funding source as soon as possible after any type of activity from an animal-rights activist group.

Your funding source has approved your grant proposal and, consequently, approved the plan for the care and use of laboratory animals needed for the funded research. Therefore, your funding source would want to be informed about any problem.

Your funding source can also provide support, such as letters highlighting the importance of the funded research and documented compliance with federal legislation on the care and use of animals. Federal granting agencies place a high priority on this issue and have worked closely with grantees who have been unjustly accused by animal-rights activist groups.

Contact professional societies

Your professional society can provide a variety of resources and support, including written letters and other suggestions. ARVO's support is one of your membership benefits, and you should take advantage of it.

Other associations also have policies and procedures in place to assist researchers who are unjustly attacked by animal-rights activist groups. These associations include the Society for Neuroscience (SfN), the Federation of American Societies for Experimental Biology (FASEB), the American Physiological Society (APS) and the National Association for Biomedical Research (NABR).

As researchers have discovered, an attack from an animal-rights activist organization will not be short-lived.

- They will not just “go away”
- For the most part, they are extremely well-organized and have the money and resources to plan and implement a noteworthy campaign against your research
- Their actions *will* affect your research and your life
- One ARVO member, who was targeted for more than two years, said, “The amount of time we spend defending ourselves and dealing with added layers of paperwork has dramatically increased. We all do less science than before.”

It is just as important to remember that you are not alone if you are attacked by an animal rights-activist group. Your institution, funding source, professional societies including their state and local chapters, and your colleagues can all offer a great deal of support.

- Do not hesitate to ask for their assistance and to participate actively in the coordination of this support with your institutional representative

ARVO also recommends the following documents that contain detailed information about actions to take in the event that your research is targeted.

- [Best Practices for Protecting Researchers and Research](#): Document prepared by the Society for Neuroscience that provides recommendations for researchers and the institutions they work for about how to preempt and react to animal-rights activists.
- [Guidelines for Crisis Management](#) (SfN members only): Society for Neuroscience guide for responding to a laboratory crisis.
- [Resources from the National Institutes of Health \(NIH\)](#): Provides information on how to report incidents involving NIH-funded animal research.
- [Crisis Management Guide](#): An essential guide to managing laboratory crisis (National Association for Biomedical Research).
- [Animal Welfare-Human Rights](#): Protecting People from Animal Rights Extremists: UK paper on the Government’s strategy for handling animal extremism.
- [Resources on Animal Rights Extremism](#): Federation of American Societies for Experimental Biology resources and information on animal extremism.

Know and understand the law

It is important to define the distinction between Animal Rights activism and terrorist activities that may be conducted by a subset of Animal Rights Extremists, as not all activists are terrorists. Activism involves legal activities that include letter-writing and media campaigns, producing leaflets and peaceful demonstrations to effect change through freedom of speech: these are activities that are fundamentally accepted in most democratic societies. Extremism occurs when activism moves beyond and outside the law. This can include actual vandalism, harassment, breaking into research facilities, and even arson and physical violence or incitement of others to participate in these activities.

The following laws define criminal acts directed against Investigators and Animal Research Enterprises and potential penalties for these crimes in the USA. ARVO members conducting research in other countries are encouraged to seek out and review laws that relate specifically to those countries.

- The [Animal Enterprise Protection Act of 1992](#) makes it a federal crime to intentionally cause physical disruption to the functions of an animal enterprise, which is defined as a commercial or academic enterprise that uses animals for a variety of purposes including research or testing. The passage of this act after five years of intensive effort is evidence of the importance of keeping your legislators informed.

Additional laws were subsequently passed in response to escalations in extremist attacks by animal-rights activists, including the following:

- [Federal Animal Enterprise Terrorism Act of 2006](#): Enhances the ability of the US Department of Justice to prosecute animal-rights extremists who use violence and terroristic threats.
- [Researcher Protection Act of 2008](#): California state law that helps enhance law enforcement's ability to protect academic researchers and their families from acts of violence and intimidation perpetrated by animal-rights extremists.

What ARVO can do for you

In 1989, ARVO established the [Animals in Research Committee](#) (ARC). Working with the ARVO Trustees, the Committee has developed the following documents, policies and assistance procedures.

[ARVO Statement for the Use of Animals in Ophthalmic and Vision Research](#)

The Association's fundamental premise for the Statement is contained in its introduction: "Because so much of vision research is aimed at understanding the structure and function of complex and intricately connected biological systems, work with living animals is vital to continued progress in many areas of clinical and basic research on vision. The proper use of animals in research is, therefore, an honorable and essential contribution to the improvement of both human and animal lives."

[ARVO's Procedure for Defending Members Harassed by Animal-Rights Activists](#)

ARVO's policy is to support its members whose research is unjustly attacked by animal-rights activists. This can include attacks in the media, harassment in social media platforms such as Facebook & Twitter, stalking, picketing of homes, releasing home address information and phone calls. ARVO can provide official Association support, as well as link members, thereby producing much-needed personal support. Join the ARVOConnect website and network with all other ARVO members.

Members can call the ARVO headquarters at +1.240.221.2900, or email arvo@arvo.org, if they have any questions or would like to locate a member who has experience dealing with animal-rights activist groups.

The Chair of ARVO's Animals in Research Committee will speak with the member to obtain a description of the research, ascertain the nature of the attack and gather the following information:

- The source of funding for the research, and whether the application for support was subjected to peer review
- Whether the animal care and use procedures under attack were reviewed and approved by the institution's IACUC
- Whether the research complies with the [ARVO Statement for the Use of Animals in Ophthalmic and Vision Research](#)

The purpose of this inquiry is to ensure that the member is, in fact, in compliance with the parameters set forth in ARVO's animal use statement and information will be provided to the ARVO Board of Trustees for review.

Members will be advised of resources available on the ARVO website and links to other organizations supporting animal researchers. ARVO can offer recommendations for appropriate response. However, any specific action taken by ARVO on behalf of your research will be decided on a case-by-case basis.

Educational materials

Please see [ARVO's Advocacy Resources webpage](#) for member-only resources that help members make the case for the responsible use of animals in research.

The Foundation for Biomedical Research (FBR) has a variety of educational brochures and species information sheets that can be downloaded from their website. See FBR's Resource page.

Annual Meeting presentations

Every year, the ARVO Animals in Research Committee schedules a workshop at the ARVO Annual Meeting that focuses on an animal in research issue.

Networking

ARVO's membership includes more than 11,000 eye and vision researchers from all over the world. As such, ARVO also ensures that the Animals in Research Committee includes members from around the world. Join the ARVOConnect website to network with all ARVO members.

Other groups providing information, resources and assistance

Several organizations have been formed to focus on the importance of the use of animals in research. With their limited funds they have developed a variety of useful materials and have provided exceptional support and services to researchers using animals. Many other organizations and academic institutions offer speakers bureaus, publications, educational resources and other resources.

National/International organizations

- [Association for Assessment and Accreditation of Laboratory Animal Care International \(AAALAC\)](#)
- [American Association for Laboratory Animal Science \(AALAS\)](#)
- [American Veterinary Medical Association \(AVMA\)](#)
- [Americans for Medical Progress \(AMP\)](#)
- [Association of American Medical Colleges \(AAMC\)](#)
- [Canadian Council on Animal Care \(CCAC\)](#)
- [European College of Laboratory Animal Medicine \(ECLAM\)](#)
- [European Partnership for Alternative Approaches to animal testing \(EPAA\)](#)
- [European Society of Laboratory Animal Veterinarians \(ESLAV\)](#)
- [Federation of European Laboratory Animals Science Association \(FELASA\)](#)
- [Foundation for Biomedical Research \(FBR\)](#)
- [International Council for Animal Laboratory Science \(ICLAS\)](#)
- [Institute for Laboratory Animal Research \(ILAR\)](#)
- [International Society for Transgenic Technologies \(ISTT\)](#)

- [National Association for Biomedical Research \(NABR\)](#)
- [Partners in Research Partners in Research](#)
- [Scientists Center for Animal Welfare \(SCAW\)](#)
- [Understanding Animal Research \(UAR\)](#)
- [Universities Foundation for Animal Welfare \(UFAW\)](#)

U.S. government agencies

- [Animal Welfare Information Center, USDA](#)
- [Office of Laboratory Animal Welfare](#)

State organizations

Many state organizations govern animal research. ARVO compiled this basic list, but please contact your institution's IACUC for further information.

ARVO is a member of the National Association for Biomedical research (NABR). NABR maintains information about laws governing the use of animals. NABR Animal Law Section.

Multi-state society

[States United for Biomedical Research \(SUBR\)](#)

Arizona

[Southwest Association for Education in Biomedical Research](#)

California

[California Biomedical Research Association \(CBRA\)](#)

Connecticut

[Connecticut United for Research Excellence, Inc. \(CURE\)](#)

Massachusetts

[Massachusetts Society for Medical Research, Inc. \(MSMR\)](#)

Michigan

[Michigan Society for Medical Research \(MISMR\)](#)

New Jersey

[New Jersey Association Biomedical Research \(NJABR\)](#)

North Carolina

[North Carolina Association for Biomedical Research \(NCABR\)](#)

Pennsylvania

[The Pennsylvania Society for Biomedical Research \(PSBR\)](#)

Texas

[Texas Society for Biomedical Research \(TSBR\)](#)

Wisconsin

[Wisconsin Association for Biomedical Research and Education](#)

Other resources

- [AAALAC Resources](#): Contains a listing of international regulations and resources by country
- [The Guide for the Care and Use of Laboratory Animals](#) (NRC 2011): Main resource used by Association for Assessment and Accreditation of Laboratory Animal Care's (AAALAC's) Council on Accreditation
- [Guide to the Care and Use of Experimental Animals](#): A list of guidelines from the Canadian Council on Animal Care
- [Institutional Animal Care and Use Committee Guidebook](#)
- NIH Anesthesia/Analgesia Formulary: Table of commonly used drugs at the National Institutes of Health (NIH) for pre-anesthesia, anesthesia, analgesia, sedation, tranquilization and restraint of animal species
- [NIH Medical Research with Animals Web site](#): Information for researchers and institutions, as well as the general public, including a fact sheet on the benefits of biomedical research and a Frequently Asked Questions section
- [NIH Model Organisms for Biomedical Research](#)
- [NIH Grants Policy Statement \(2021\)](#)
- [NIH iEdison](#): Helps government grantees and contractors comply with laws and regulations
- [Public Health Service \(PHS\) Policy on Humane Care and Use of Laboratory Animals](#)
- [Understanding Animal Research](#): Understanding Animal Research is an organization formed by the Research Defence Society and Coalition for Medical Progress.
- [Animal Research Information](#): Provides reliable information from scientists worldwide about the contribution of animal research to medical advances. Their blog provides informal commentary on animal-rights activities, scientific advances and policy developments as they happen.
- [Questions People Ask About Animals in Research: With answers from the American Physiological Society](#)
- [USDA, Animal Welfare Act and Regulations](#)
- [Guidelines for the Care and Use of Mammals in Neuroscience and Behavioral Research](#), National Academies Press
- [Standing Up for Science](#): The antivivisection movement and how to stand up to it
- [Responding to FOIA requests: A guide developed by NABR, SfN and FASEB](#).
- [Cyber Security resources](#): resources provided by the Federal Bureau of Investigations (FBI) that will give you a general overview of cyber threats and the best types of cyber security practices.

Sample research project description

Research Goals

We want to understand the development of the human visual system. This knowledge will help in the prevention and treatment of certain vision problems in children. Further, the rules that guide development in the visual system can be applied to other systems within the brain. Our work, therefore, has wide application to other developmental disorders affecting the nervous system.

We do not rely solely on animal experiments. We can obtain answers to some of the questions we pose from computer models designed to simulate various aspects of visual development. In addition, information about some of the mechanisms and molecules that might be operating in development comes from experiments on brain cells cultured in a dish. We utilize this knowledge in planning our experiments to yield the greatest amount of new information, and most importantly, we only use animals when it is the *only* way to gather critical information. When we do use animals in our research, our focus is to gather all the information we can, while safeguarding the welfare of our research subjects. We are continually striving to 1) reduce our use of animals, 2) refine our experimental approaches to minimize animal numbers, use the least sentient species possible, and maximize animal welfare, and 3) replace animals with computer models, donor tissues, or cell studies whenever possible.

A major focus of our work is the pathway that leads from the eyes to the visual centers of the brain, including the cerebral cortex. Another area of study is the pathway that links visual areas located in the two sides of the brain. In each case, our initial work is performed using normal adult animals, usually rats. Data we obtain from these adult animals are then compared with data from young, developing animals or from older animals that had abnormal visual experience early in life.

Our goal is first to understand the normal arrangement of neural connections and then to assess how genetic and environmental factors guide the formation of these connections during development. The more we learn about development of the visual system, the more we realize the importance of events that occur at the very earliest stages in the formation of the central nervous system. For this reason, much of our work involves studies of animals at, or even before, the time of birth.

The Value of Our Research

Our experiments result in a better understanding of the biological rules that govern basic aspects of brain development in all mammals, including humans. One of our most important discoveries is that a brief critical period exists shortly after birth when visual experience permanently modifies the properties of the visual system. We could not have predicted this finding from computer models or from experiments on nerve cells cultured in a dish. This discovery helps us to understand some disorders of the human visual system such as amblyopia, also called lazy eye, a very common cause of loss of vision in one eye. Amblyopia occurs when humans are exposed to abnormal visual experience early in life, during the critical period, because of disruption of any one of the delicate systems that control the focus or the movement of our eyes. Conditions that commonly produce these disruptions include an uncorrected refractive error, as in myopia or nearsightedness; a cloudy lens or cataract that is not removed; a misalignment of the eyes, such as a squint or cross-eye, that is not corrected; and irregular eye movements or nystagmus. These clinical disorders are found in over 10 percent of all children. A clearer understanding of normal brain development is a necessary step toward preventing problems like amblyopia and toward rehabilitating children who are already afflicted.

Animals Used in Experiments

Prior to the use of any animal, all of our proposed procedures are reviewed by a committee of scientists, veterinarians, animal care technicians, and members of the local community to ensure that they conform to all institutional, local, state, and federal animal welfare laws, regulations and policies. This committee has the power to ask us to modify our procedures or to halt our work if there are unresolved problems. After our use of animals has been approved, our proposed experiments are reviewed for

scientific merit by a national committee of experts in this field, in competition with proposals from other investigators. For the past 15 years, our experiments have been judged to be excellent and have received funding from various agencies, including the National Institutes of Health.

Our experiments are performed on fully anesthetized animals so that the experiments do not cause pain or distress. Veterinary staff members examine our animals daily to monitor their health and welfare. Staff members have the authority to remove from experimental use any unhealthy animal. The animal care facility in which our animals are housed is fully accredited and subject to inspection by the accrediting agency. All our technical staff and research trainees have received formal instruction in our approved techniques.

In some of our experiments we use rats that we either breed ourselves or obtain from licensed commercial suppliers. We use rats because of their short gestation period, the relatively immature state of their brain at birth and the rapid rate at which they mature after birth. They are ideal studies of mammalian brain development.

In addition, we use various mutant strains of rodents, such as those naturally born without eyes or with abnormal brain pathways, to study the effects of prenatal problems in one part of the visual pathway on the development of visual connections elsewhere. None of these mutants shows any signs of pain or distress as a result of their developmental abnormalities.

We conduct some of our experiments using mixed-breed domestic cats purchased from licensed commercial suppliers. We use cats because, like humans, they have forward-facing eyes and keen visual acuity. Indeed, there are no significant differences between the visual pathways of cats and humans. Thus, our findings on the mechanisms of brain development in cats will also apply to humans.

For assessments of our research, please contact the following:

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