



# Arizona Branch AALAS Newsletter

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Arizona Branch of the American Association for Laboratory Animal Science

## Watch Your Mail for Raffle Tickets & Help Us Support Our Worthy Children's Charities - Due Nov 26th!

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### President's Message

Hello! After a long and hot Summer, Fall has arrived here in the high country which means that there are some upcoming events to remind everyone about.

If you have been looking to become more active in the Arizona AALAS, now is the time to get your nominations in for our 2013 board members. We are looking for a regional board member from each area (Northern, Central and Southern) as well as Treasurer, Secretary and President-Elect. You can nominate yourself or your coworkers, so get nominating today. This year, in order to entice more members to nominate, we are also having a prize drawing - each time to nominate you will be entered, so get busy nominating.

While you're thinking about nominating someone great, be sure to nominate someone for our prestigious Technician or Member of the Year. Emails are going out to remind you to nominate so take advantage of this opportunity to nominate those coworkers who are great workers; those who are inspiring and strives to improve themselves, their work and their workplaces. Turning in a nomination form will also get you an extra entry in our prize drawing!

The National AALAS Meeting is coming up November 4-6 at the Minneapolis Convention Center in Minneapolis, MN. For more information [check out the website](#). If you're waiting for it to be closer to home, the National meeting

### Important Dates

Award and Officer Nominations  
Due Oct 31st

Louise Brooks Memorial Raffle  
sales have begun and will be  
announced at the Installation  
event in December

Holiday Installation - Dec 1 in  
Chandler - *check the website  
for more information*

will be in Phoenix in 2015.

Keep an eye out for your Louise Brooks Memorial Raffle tickets coming in the mail soon. We have begun gathering prizes and will be posting them on the [website](#). Remember, all proceeds go to our deserving local charities. Please remember to sell your tickets and return stubs and money by November 26 or bring them to the installation with you.

Speaking of our Installation Event, this year we will be in Chandler at incoming president Wendy Sparkman's home. We are looking forward to getting everyone together for another great party, winning all those great prizes, hearing who our new officers will be and of course awarding our new Member and Technician of the Year. Hope to see you all there!

[Feel free to contact me](#) if you have any additional suggestions and/or concerns. - Chrystal Redding, 2012 AALAS President

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**Member Profiles** by Sandra Schenone

**Dr. Naomi M. Gades, Director and Attending Veterinarian - Mayo Clinic Arizona**

Dr. Gades received her DVM from the University of Minnesota, and a MS in Epidemiology from the University of Tennessee, Memphis. While at Memphis she completed a residency in Laboratory Animal Medicine. She spent a few years at St. Jude Children's Research Hospital and came to the Mayo Clinic Arizona in 2003, where she is the Director and Attending Veterinarian. Most of her work involves rodents and swine, and she has experience working with various animal housing and equipment.

Dr. Gades has wanted to be a veterinarian since she was young, and is currently both a national and chapter AALAS member. She is married and has two children, both 4 years old. Her hobbies include music.

**David Ricardo Lopez, Animal Technician - University of Arizona**

David moved to Arizona in September of 2010 from Buffalo, NY, where he was a research technician at the Buffalo VA for 3 years. In Arizona he works for the University of Arizona in Tucson as an Animal Technician, and is trained to work BSL III areas.

David wanted to be a veterinarian, and received an Associates of Veterinary Technology from Medaille College, and is currently enrolled as an undergrad at U of A, majoring in Veterinary Science. His greatest influence was Rebecca Benz at the Buffalo VA, and he is a member of both the national and Branch AALAS. He has never been married and has no children, but he does have a giant Maine Coon (Cat) named Mowgli.

David likes cooking, eating and traveling; and loves plants almost as much as he does animals. The most important part of animal science for him is Environmental Enrichment.

**Brooks Zapusek, Animal Technician - Arizona State University**

Brooks grew up in Pennsylvania (Wilkes-Barre) where he wanted to be a pilot. In school he spent many years as a swimmer, winning several competitions. Upon graduation he worked numerous construction jobs before moving to Arizona in 2009, where through a friend he heard about an Animal Technician job at Arizona State University. Previous work in a kennel came in handy. He has always liked animals, and currently has two dogs, a Border Collie and an Australian Shepard. He also has one daughter.

Brooks immediately sought AALAS certification, and is currently studying for his LATG, using the AALAS Learning Library as a resource. He has also been a member of both national and chapter AALAS. He works with many traditional and non-traditional species, and is currently training to work with venomous reptiles. This past year he attended the Rattlesnake Symposium in Tucson. Hobbies include cooking, weightlifting and construction projects, and likes to take sunset pictures.

**Past Meeting Minutes**

**Minutes of the 5/17/12 Board Meeting**

The meeting was held via conference call. Treasurer Grace Aranda called the meeting to order at 12:10pm.

The minutes of the March 22 meeting were presented.

Grace distributed the financial report. The branch has \$16,564.72 in various accounts.

Grace reported that we have received 26 sponsorships from 25 companies. The Guide is being worked up and will be sent to printers in August/September.

President-elect Wendy Sparkman discussed the Spring video conference. We had over 80 attendees at Kevin Donnelly's presentation in April. Great turnout! She would like to see if we can have another good one in October for the Fall Video Conference. We need ideas for speakers and if anyone has any ideas send them to Wendy.

As agreed the branch will be purchasing ALL access again this year. We purchased the same number as last year as past TBR Cindy Madura reported all memberships had been used. For the moment Grace is maintaining files and has developed notification emails for interested members.

Grace reported Northern Board representative Tom Greene and President Chrystal Redding have checked into Bearizona in Williams

for the Summer Fun Event. We can get a 50% group discount per person so \$10 for adults and \$5 for kids. Online page and registration will be completed and send to the listserv with a couple of follow up reminders. The event is set for Jun 23<sup>rd</sup>. Encourage your members to attend.

Branch newsletter is ready to go out in June. Presidents message, TBR report, and any news ideas are appreciated

Central Board Representative Barbara McNally reported she has been on medical leave and will be keeping in touch via email if anyone needs to reach her. Wendy mentioned she and TBR Tracey McNamara will be changing their emails too. Grace will get those updates on the listserv.

Meeting adjourned 12:24pm.

### You Can Now Access the ALL

The AALAS Learning Library (ALL) provides training that is essential for technicians, veterinarians, managers, IACUC members, and investigators working with animals in a research or education setting. Emphasizing the appropriate handling, care, and use of animals, the courses are designed to meet training mandates of regulatory agencies, improve knowledge in technical areas, and help technicians study for AALAS certification examinations. Launched in 2003, the ALL has grown from 60 courses in 2003 to 157 courses today, with more added every year. The Animal Care and Use Library has courses on certification, regulatory mandates, bioethics, biomethodologies, biosafety, and management. The JAALAS CEU Test Library offers you the opportunity to earn continuing education units (CEUs) by taking the self-administered test based on the scientific articles in *Journal of the American Association of Laboratory Animal Science* (JAALAS) online.

Why use the ALL? You can access the training courses on your own schedule and set your own learning pace. It is available 24 hours a day and

can be accessed from any computer with internet access, whether it is at work or at home (or at Starbuck's). You can also review courses as often as needed - repetition is a great learning tool! It also provides easy documentation of your learning on a transcript, either to meet work training requirements, for professional growth, or to document CEUs for the AALAS Technician Certification Registry.

It is up to you to decide what your career goals are and how you will meet those goals. The AALAS Learning Library can be one tool to help you meet those goals. Contact [azaalas@ahsc.arizona.edu](mailto:azaalas@ahsc.arizona.edu) for access to the ALL through the Arizona Branch.

### AALAS Foundation Offers Online Learning Resources

While book-filled backpacks are still a common sight outside of American schools, today's students are increasingly learning via the Internet. The AALAS Foundation is adapting to shifting student preferences by continually adding to our collection of online learning resources.

**School Resources Library** - The School Resources Library on the AALAS Learning Library (ALL) houses free educational materials tailored for middle and high school students.

The library currently features *Careers for Laboratory Animal Veterinarians*, *Careers for Laboratory Animal Technicians*, and *Working with Frogs*, a series of two courses that teach high school students about the biology, physiological adaptations, anatomy, evolution, and ecology of frog and toad species in the United States.

Future additions to the School Resources Library include *Introduction to the Field of Laboratory Animal Science* and *Caring for Animals: A Guide to Animals in the Classroom*.

**Whyville**- The AALAS Foundation joined forces with the award-winning Whyville website to develop the Community Animal Research Environment (CARE), a series of games in a virtual laboratory that teaches young people how animals help scientists in research — and how research, in turn, benefits animals.

In our most popular game, Critter Care, Whyville citizens take on the role of

### Bronze Membership Scholarships Available in the TBR Corner by Tracey McNamara

AZAALAS is awarding bronze National AALAS memberships to technicians who are financially unable to pay for membership themselves and interested in becoming AALAS certified. Two scholarships per region will be awarded until May 5<sup>th</sup>; after which, any unused regional scholarships will then be open state-wide.

To apply, you must be an Arizona branch member and preparing to take your AALAS certification exam. Interested applicants should email the scholarship committee at: [azaalas@ahsc.arizona.edu](mailto:azaalas@ahsc.arizona.edu) stating why they wish to be granted the award.

**Not sure what to write?** A few things you can include in your letter are: when you plan to take the exam, why you would like the scholarship and your future goals.

Feel free to contact me with any comments, questions, etc. at [mctracey@netzero.net](mailto:mctracey@netzero.net).

a laboratory animal technician and earn "clams" for keeping animals healthy.

**Kids4Research**- The Kids 4 Research website provides information to students, teachers, and parents on responsible laboratory animal care and use in biomedical research, testing, and education.

The website includes age-appropriate information on topics ranging from: animal welfare, the biomedical research process, careers in laboratory animal science, animals in research, and the benefits of biomedical research.

The site, sponsored by Charles River, also includes a series of puzzles, games, and posters for students in elementary school and middle school.

**Our Future** - The Foundation educates the public about the essential role of animals in research

### SwAEBR Needs Your Help!

Free and Easy Ways to Support [SwAEBR](#) - Southwest Association for Education in Biomedical Research Every Day

We have registered SwAEBR with [GoodSearch.com](#), a company that helps non-profits like ours raise funds through the everyday actions of our supporters.

Here is how you can help:

\* Use [GoodSearch](#) when you search the internet – they will donate a penny to us every time you surf the net with them.

\* Use [GoodShop.com](#) when you shop online – they work with more than 2,500 major brands, have over 100,000 coupons and donate a percentage of every purchase you make to us

\* Enroll in the [GoodDining.com](#) they will donate up to 6% of every dollar you spend when you eat at one of 10,000 participating restaurants

Please join our community on [GoodSearch.com](#) and help us raise money for our mission. Get started by clicking the "Become a Supporter" button on our profile page [here!](#)

by providing students and teachers with a variety of resources to enhance classroom learning experiences.

You can help advance our mission by volunteering your time or making a donation to the Foundation. With your help, we can continue to develop new avenues to encourage today's students to become tomorrow's laboratory animal professionals.

Visit [www.aalasfoundation.org](#) for more information about how you can help bolster the AALAS Foundation's arsenal of online learning resources. - *Ray Butler, AALAS Foundation Board of Directors*

### 2013 District 8 AALAS Meeting Update

Remember to mark your calendars for **April 3-5** next spring, for the **2013 District 8 AALAS Meeting** at the [Red Lion Hotel on the River at Jantzen](#)

[Beach](#), in Portland, OR! The Meeting Planning and Program Committees have been hard at work these past few months, and we're proud to present the following updates:



**Look at our Theme and Logo!** - Our logo, created by Amber Carte, Past President of Washington Branch AALAS and Publicity Committee Chair for the 2013 D8 Meeting, features the meeting theme, **"People Are Animals, Too! The human side of lab animal medicine."**

This meeting will focus on you, the people of lab animal medicine, and include such topics as occupational health and safety, compassion fatigue, training and outreach, and much more. There will be workshops, platform presentations, posters, and an exhibit hall. Add to that the welcome reception, raffle prizes, Technician Fun Fair, and Voodoo Doughnuts, and the 2013 District 8 Meeting is an event you can't miss!

**Check out our Website!**- The D8 2013 Meeting Microsite is up and running, courtesy of District 8 Trustee Gene R u k a v i n a . V i s i t <http://www.oaalas.org/D82013/> to check it out! The site is being updated regularly with new content, so be sure to check it often.

Northwest Association for Biomedical Research (NWABR) will also be presenting a pre-conference IACUC training on April 3. For information about this training, click [here](#).

### Take the Workshop Survey! -

We want to hear from you! Tell us what kind of workshops you'd like to see at this meeting. [Take the Survey](#).

### Mouse Virus Not to Blame for Chronic Fatigue Syndrome

Contrary to previous findings, new research finds no link between chronic fatigue syndrome and the viruses XMRV (xenotropic murine leukemia virus-related virus) and pMLV (polytropic murine leukemia virus). A study in *mBio*, the online

open-access journal of the American Society for Microbiology, reveals that research that reported patients with chronic fatigue syndrome carried these two viruses was wrong and that there is still no evidence for an infectious cause behind chronic fatigue syndrome.

"The bottom line is we found no evidence of infection with XMRV and pMLV. These results refute any correlation between these agents and disease," says Ian Lipkin of Columbia Univ., a co-author on the study.

Chronic fatigue syndrome (CFS), also known as myalgic encephalomyelitis (ME), is a disabling condition in which sufferers experience persistent and unexplained fatigue as well as any of a host of associated problems, including muscle weakness, pain, impaired memory, and disordered sleep. Medical treatment for CFS/ME costs as much as \$7 billion every year in the U.S. alone.

The possible causes of CFS/ME have been argued and researched for years with no success. Results from separate studies in 2009 and 2010 that reported finding retroviruses in the blood of patients with CFS/ME created a sensation among patients and the medical community and offered hope that a tractable cause for this disease had finally been found. Since then, other investigators have been unable to replicate the results of those studies, casting doubt on the idea that these viruses, XMRV and pMLV, could be behind CFS/ME.

Lipkin says the National Institutes of Health wanted conclusive answers about the possible link. "We went ahead and set up a study to test this thing once and for all and determine whether we could find footprints of these viruses in people with chronic fatigue syndrome or in healthy controls," says Lipkin. The study in *mBio*® puts the speculation to rest, he says. Scientists were wrong about a potential link between chronic fatigue syndrome and these viruses.

The study authors recruited almost 300 people, 147 patients with CFS/ME and 146 people without the syndrome, to participate. Researchers tested blood drawn from these

subjects for the presence of genes specific to the viruses XMRV and pMLV, much in the way the earlier studies had done. But in this study, researchers took extraordinary care to eliminate contamination in the enzyme mixtures and chemicals used for testing, which may have been the source of viruses and genes detected in the earlier studies. XMRV and pMLV are commonly found in mice but there has never been a confirmed case of human infection with these viruses.

The authors of this study include many of the authors of the original papers that reported finding XMRV and pMLV in the blood of CFS/ME patients. This is an important point, says Lipkin, as their participation should lend credibility to the pre-eminence of these newer results over the flawed earlier studies, which offered a certain amount of false hope to the CFS/ME community.

Research on the causes of CFS/ME will continue, says Lipkin. "We've tested the XMRV/pMLV hypothesis and found it wanting," he says. But, he says, "we are not abandoning the patients. We are not abandoning the science. The controversy brought a new focus that will drive efforts to understand CFS/ME and lead to improvements in diagnosis, prevention and treatment of this syndrome." - [ALN Daily](#)

### Lab Animals Lose Transportation

People for the Ethical Treatment of Animals (PETA) announced last week that two major carriers in the United States, FedEx and UPS, confirmed that they will not ship mammals for laboratory use, and restrict the shipment of some non-mammalian organisms. Neither UPS nor FedEx are major players the lab-animal shipping business, but the move does restrict the options for researchers and could limit the operations of small companies, such as Florida-based Xenopus Express, which relies on UPS to ship its laboratory-grade frogs.

The carriers' decision adds to the growing difficulty of shipping research animals. A number of airlines have already refused to carry live animals for research in response to pressure from

PETA. "Although the FedEx and UPS declarations may be largely symbolic, they suggest that research advocates are failing to make the case for the use of lab animals, and they mark another success for groups such as PETA, *Nature* reported.

Charles Hewett, the executive vice-president and chief operating officer at the Jackson Laboratory, voiced his concern that such decisions are short-sighted. [It's] troubling that the corporate leaderships of UPS, FedEx, and others yield to the pressure of a small minority who overlook the importance of what [animal research does] for preventing, curing and treating human disease," he told *Nature* - [The Scientist](#)

### Check Out What's New at LAWTE

There are those who are compassionate, those who have passion, and those who are truly committed to their beliefs. That is what I have encountered as a member of LAWTE.

The Laboratory Animal Welfare Training Exchange (LAWTE) stands by its acronym. Active communication e-mails and a list serve are exchanged nearly every day. Each communication offers information for its members as well as outreach to our community to lean on and tap into the knowledge and experience of others. The focus of these exchanges is simple – our priority is the well-being and care for research animals. Training is key to advance the 3Rs for all members of the research community.

LAWTE receives financial support from AMGEN through grants. This support in return allows LAWTE to contribute to other training and welfare efforts.

One of LAWTE's most recent contributions was to Dr. Paul Flecknell in Newcastle, England. LAWTE was able to send a generous donation in the amount of \$2,500 to Paul. This donation is earmarked to rebuild the current website and server. The donation will also be used for video material for aseptic surgery, and tutorials on rodent and rabbit pain alleviation. LAWTE believes in Paul's efforts and couldn't think of a better recipient to work with the objectives of LAWTE.

My reaction to this announcement was overwhelming. This donation is a great example to see how LAWTE continues the promise and dedication to our

work. Training and education are the international keys to advancing laboratory animal care, and Paul's contributions are essential.

I first became a member of LAWTE in 2008. I considered myself a latecomer since I have been in this field for 30 years. I volunteered to sit at their booth at a TriBranch meeting as well as a National AALAS meeting. This allowed me to see firsthand the benefits of the LAWTE mission, and how other members were interacting with each other. They had excitement, they had eagerness to tell others about LAWTE, and they were dedicated to our mission. That word "exchange" in "LAWTE" was present and I saw that their focus on animal welfare was real.

I often think of those on the "outside" of laboratory animal science, who have no idea that those of us working with animals in research truly love what we do and we want to be sure the animals have proper care. We do this with the 3Rs as our focus, and training as our mission. - *Denise DiFrancesco CMAR, RLATg, District 2 Trustee, AALAS*

### 5 Step Solution to Correcting Poor Work Habits

In dealing with employee work habits it is especially important to focus on observable behavior. A supervisors descriptions of employee behavior should be clear and specific, and quantifiable whenever possible. Select a private place to talk to the employee to avoid embarrassment. Try to make sure you will not be interrupted.

Here are the five specific steps to follow when attempting to correct poor work habits:

- State the problem clearly and specifically.
- Ask the employee the reasons for the problem.
- Ask the employee for a solution.
- Agree on a plan and get strong commitment to the plan.
- Set up a review date.

Here is an example of using this method:

- “I’m concerned that you’re not getting to work on time. Last Thursday you were fifteen minutes late, and the week before you were twenty minutes late on Wednesday.”
- Then ask, “How come?” Listen attentively to the employee’s answer. Careful, active listening is the easiest way to discover the facts, and lets the employee know you are willing to consider seriously what he/she has to say. It will also encourage the worker to accept responsibility for solving his/her own problems. In this example, the employee might tell you that some days he/she gets stuck in traffic. Listen carefully and then summarize the feeling or ideas communicated, to show your understanding.
- Together with the employee, develop a plan to correct the poor work behavior. First, ask the employee for his/her own solutions to the problem: people are more motivated to implement self-generated ideas than ones imposed from on high. The employee who has been late might suggest leaving home twenty minutes earlier every day to allow for occasional traffic jams.
- Accept any reasonable solution, but make sure some definite action is planned. Once a plan for improvement is agreed on, get a definite time commitment to that plan, e.g., ask the employee to agree to leave home twenty minutes earlier every day for the next three weeks. Asking for and receiving a commitment to follow through stimulates a surprising amount of performance improvement.
- Arrange to meet with the employee at the end of the three weeks to review his/her progress. This shows your willingness to offer friendly support and suggests confidence in his/her ability to improve. At the end of the time period, review the employee’s performance. If the employee is on time for the next three weeks, thank him/her. If the employee should still be coming in late, you need to negotiate a new plan or consider disciplinary action.

By following these steps a successful supervisor will save the organization from possible losses, help turn a

potential problem employee into a valued team member, gain the respect of his employees and demonstrate his own leadership skills. - [ALN Daily](#)

### What Makes an Organization Successful?

Today’s workforce is not what it was years ago, but management practices have not always changed with the times. We now know that the strength of any organization depends on how effectively its people are treated and how much good will is created with employees.

Managing people with respect, from the time they are being interviewed for possible hire, to the time of their leaving the organization, is the hallmark of modern, successful organizations. Managers should be constantly striving to build good relationships and strong esprit within their organizations.

Companies need to consider, what does an employee have the right to expect in today’s workplace? What is a new member of an organization entitled to? What are the kinds of policies and procedures that will maximize growth, harmony, and progress in our organization?

Here are a few examples of policies and procedures that, when implemented, help build strong, up-to-date organizations:

- When being interviewed for a position, questions of a personal nature are avoided.
- When hired, a meaningful job description is supplied.
- New employees are given a reasonable period for orientation.
- Employees receive equitable benefits, such as health and unemployment insurance, vacation and sick leave.
- Policies and procedures are simple to read and understand and readily available so that the employee clearly knows what constitutes acceptable—or unacceptable—behavior.
- Employees receive regular performance assessments by their supervisors, to identify areas of growth, and areas where improvement might be needed.
- Employees receive support and recognition from their supervisors for good performance.
- Fair, competitive wages and regular merit increases are provided.

- All employees have a clear chain of command in which they answer to their direct supervisors, without interference from higher level management.
- Employees have easy access to a human resources specialist or higher level manager, for disputes or other problems that cannot be easily resolved.
- Rules are in place for fair treatment and complete review and documentation of employee performance, before disciplinary action is taken. Employees expect, and in fairness are entitled to, adequate opportunity to address issues and have access to mediation when needed. - [ALN Daily](#)

### The Power is Out, Now What?

Power failure, by definition, is a total loss of utility power. Utility power losses are caused by numerous events including lightning strikes, downed power lines, transformer malfunctions, over demands on the grid, accidents, weather anomalies, and natural disasters.

**Power Sag:** Power sag is a short-term, low voltage supply, from the utility. The duration of a power sag can be extremely short or may last for a few seconds. A power sag can be triggered by various load and utility switching mechanisms. Utility equipment failure, utility switching, lightning, large load start-up, and demand that is greater than the power service can handle can all be contributing factors to power sags. Power sags can cause crashes to equipment and hardware damage. Typically, the hardware damage may entail memory loss, data errors, flickering lights, equipment shut-off or malfunction with automatic shut-off.

**Power Surge:** This is the opposite of a power sag. In this case, the short-term high voltage can be 110% above the nominal supply voltage. Power surges can be caused by lightning strikes sending line voltages above 6,000 volts. Power surges, also known as “power spikes,” invariably result in both data

loss and hardware damage. The resulting damage could entail problems similar to power sag. Undervoltage: Undervoltage, also known as “brownout”, is a condition that may be intentionally induced by the utility. The definition of undervoltage is when line voltage is reduced for an extended period of time—from a few minutes to as long as a few days. The utility may enact a “brownout” during peak demand periods to conserve power. The effect of the “brownout” can predicate premature hardware failure, data loss and corruption.

**Overvoltage:** Overvoltage is the opposite state from undervoltage or increased voltage for a duration of time. Overvoltage is a fairly infrequent occurrence but occurs in instances of rapid reduction in power loads, shut-off of heavy equipment, or by utility switching. Overvoltage can incur extensive hardware damage including burned-out circuit boards, component stress or loss, memory loss, data loss and data errors.

**Electrical Line Noise:** Electrical line noise is a high frequency waveform caused by radio frequency interference (RFI) or electromagnetic interference (EMI). Equipment such as transmitters, welding devices, SCR driven printers, lightning, and electrical equipment, etc. can generate RFI and EMI conditions. Varying degrees of damage can occur from simple keyboard lock-ups to program failures, data crashes and data corruption.

**Switching Transients:** By definition, this is an instantaneous undervoltage. Normal duration of this anomaly is less than a “voltage spike,” typically in the range of nanoseconds. Damage may be incurred in both hardware and software resulting in burned circuitry, component stress or failure, memory and data losses.

**Harmonic Distortion:** Harmonic distortion is the distortion of the normal line waveform. Harmonic distortion is, generally, transmitted by nonlinear loads. Switch mode power supplies, variable speed motors and drives, copiers, fax machines, variable speed pumps are examples of non-linear loads. Harmonic distortions can cause communication errors, overheating, and hardware damage. Common maladies and failures are CPU clock errors, overheating, and premature failure of electrical

components.

From: [“Power: The Unregulated Utility in Pharmaceutical Environment”](#)

### **Avoiding Expensive Mistakes: Small-Scale Testing to Engage Staff and Facilitate Change**

Improving operations can be a lonely job. In general people balk at the prospect of change—and many recall costly failed schemes that ended up right back at square one. Fortunately you can make operational improvements a productive, interesting engagement for yourself and for members of staff and, at the same time, save yourself from expensive mistakes. Start by running small scale tests before committing resources to solutions.

Consider this example. Let’s say gowning takes too long, and too often people are slipshod. Should you send out a reminder? Retrain? Post new instructions? What else, why, how and at what cost? Possibilities can seem endless and decision criteria hard to find, but you can take control by running small scale experiments. This type of informal testing, often referred to as Action Research, is largely qualitative, so you may use a control group—or not.

**Clearly State the Problem You Want to Solve** Let’s continue with gowning. What is the problem? Is it time wasted, lack of attention or the containment consequences of gowning up incompletely? Where does the problem originate? Garb design? Staff attitude? Lack of attention? Hiring? The nature or placement of the instructions? Is the problem mostly with visitors or is it a problem across the board?

**Tip:** Everything follows from what you define as the problem, but you don’t have to arrive at it alone. This is an excellent opportunity for team work. Start with brainstorming but park your assumptions at the door or they will show.

**Develop Some Hypotheses** - Each hypothesis is a guess about the cause of the problem and a likely fix. To get started, consider the elements of—and conditions likely to foster—excellent performance. Create some if/then hypotheses and make a guess about the resource requirement for each.

Say you define the gowning problem as posted instructions. Here are some example hypotheses.

- If I re-design the visual instructions—to be larger, in colour, in several languages?—more people will pay attention and also follow the instructions exactly.
- If I create a video and post it on our intranet, the addition of live action and auditory learning to posted instructions will improve overall performance.
- If we train a member of staff to guide visitors through gowning, we will solve the problem.
- If I offer a one-hour training module to reinforce the gowning process and the consequences of sloppy gowning up—and members of staff themselves design the training and run it—everyone will improve performance.

**Tip:** Trust your intuition. You may not have data to support your hunches yet you do have knowledge and experience to inform your judgment, which counts for a great deal.

**Write Down Your Prototype Experimental Method** - Continuing with the need to improve gowning...

Let’s say you decide to test your hypothesis that redesigned visual instructions will improve performance. What will you change? Size? Colour? Language? Images? Before paying a professional to redesign the visuals, test a couple of changes one at a time. For example, create one set by hand in two or three languages, or one set with larger letters, or make a home-movie video of people gowning while you speak instructions. Measure response to each and decide whether to move from here to a full-scale test.

If you have two locations and resources available, test in one location and leave the other as is; then measure outcomes in both.

**Tip:** Keep to small, stepwise changes rather than comprehensive ones.

List The Steps You'll Follow - The rest is straightforward.

- Design the steps and resource requirements.
- Decide who will participate.
- Decide how you will monitor results.
- Run the tests.
- Analyse results.
- Tweak the design, test again and assess results.
- Plan implementation.
- Roll out the implementation.
- Keep tweaking until the problem is solved
- Informal testing is successful even with complex questions such as this one. Say waste management needs improving and there are a number of possibilities but all are too expensive so you need to progress stepwise. What are the possible solutions? Which lends itself to a stepwise approach? Where should you start? Should you start with a pilot? What plan is likely to help you benchmark and correct the course as you go along? It is difficult to subject strategic questions—for examples, should we expand to incorporate primate research, or should we move to an electronic alert system—to a stepwise test.

If you are new to Action Research, you may find it useful to set up tiny tests yourself about managing people or time, about communicating or other elements of your job that you'd like to improve. Along these lines hold regular conversations with your team and other managers about the results. The process of bringing people on board is itself an opportunity for a series of small-scale tests. - [ALN Daily](#)

### 50 years of Caring: ULAM and U-M's Lab Animals

We love animals, and we love people, and that's why we do the job we do." - That short and simple sentiment says it all about the men and women responsible for the care of most of U-M's laboratory animals.

They do what they do, says head U-M veterinarian Robert Dysko, DVM, because they know that responsible animal research can improve both human health, and animal health, and animal health, worldwide.

This September marks the 50th anniversary of the Unit for Laboratory Animal Medicine, the division of the Medical School that provides animal care and research expertise to more than 500 scientific teams from all over U-M. This Saturday, ULAM is holding a symposium to mark the occasion.

More than 250,000 animals, from mice and rats to sheep and pigs, are in the care of the 190 veterinarians, veterinary technicians, animal care technicians and support staff who make up ULAM.

Without them, U-M researchers would have a much harder time making discoveries in animals that may someday improve the health of human patients.

That's what drove U-M to develop one of the nation's first laboratory animal medicine programs in 1962. Bennett Cohen, DVM, considered a pioneer of the field, founded the unit and led it for 23 years.

Today, ULAM is one of the nation's most highly regarded programs both for animal care, and for the postdoctoral training of veterinarians who specialize in laboratory animals.

Dysko was once one of those young trainees himself, and the 100th trainee entered the program this summer. Also this summer, Dysko took the reins of the unit, succeeding Howard Rush, DVM, M.S., who returned to his faculty post in 2011 after 10 years as director. Rush had succeeded Dan Ringle, DVM, who directed the unit from 1985 to 2000 after Cohen stepped down.

Fifty years ago, animal use in research was important, but not yet seen as a field of its own. Cohen helped change that at U-M and around the country. He co-founded the field's first professional society, the American Association of Laboratory Animal Science, and the American College of Laboratory Animal Medicine.

He also chaired the National Academy of Science committee that wrote the first edition of the Guide for the Care and Use of Laboratory Animals, and helped found the American Association for Accreditation of Laboratory Animal Care, which performs

accreditation checks of animal research facilities worldwide.

Over time, Dysko says, the field grew as medical research grew – and then exploded with the development of the first transgenic mice in the 1980s. Being able to study specific genetic mutations in specially bred mice helped bring about many of the medical discoveries and innovations of the past three decades. U-M has even helped develop many of these transgenic mouse strains in the Transgenic Animal Model Core, one of the biomedical research core facilities that works closely with ULAM.

Today, says Dysko, the drive to speed up the pace of translating laboratory bench research into human diagnostics and treatments means an increasing demand for lab animal care.

At the same time, ULAM is always working to help researchers keep the number of animals they use to a minimum. New technologies help, such as bioluminescence-based imaging techniques that enable researchers to see what is happening inside an animal without having to euthanize it. The University even has small CT scanners, MRI machines and PET scanners just for animals.

By balancing the need for medical research with a respectful, caring attitude toward animals, ULAM's team helps researchers make new discoveries every day. Those discoveries can also help animals: A "one health" concept that ties human and animal medicine together, especially in the area of infectious diseases, is gaining steam worldwide.

All of U-M's animal research activity takes place under the watch of the University Committee on the Use and Care of Animals, or UCUCA, a division of the Vice President for Research's office that oversees the responsible and humane care, and justified use, of animals in all areas of U-M. The UCUCA staff reports to Brian Fowlkes, Ph.D., U-M's Executive Director of Animal Use and Care and a professor of both radiology and biomedical engineering.

Together, ULAM and UCUCA make sure U-M's research community



can continue to produce important research results, and treat animals respectfully — as partners in discovery. "We're looking forward to the next 50 years," says Dysko.

(Inside View, September 2012)

### **Animal Research is Brave, Not Cruel, Science**

Eight years ago I wrote a piece for the Observer entitled "It's Time to Stand up and Be Counted", referring to the failure of the scientific community to speak on the issue of animal research. Looking back at the piece now it is clear I was in despair, describing the scarcity of scientists' voices as "the biggest collective failure of nerve in our society".

The familiar, solitary face of Professor Colin Blakemore staring out of the page illustrated my complaint: two years earlier the Science Media Centre (SMC) had been set up to encourage more scientists to face the media on controversial science stories such as GM crops, MMR and animal experiments, and yet Blakemore remained one of only a handful of scientists prepared to say anything in public – on the latter topic especially.

While I was busy raging at scientists for being silenced by animal rights extremists, researchers were reeling from a now infamous series of violent attacks on science. These were the days when the managing director of Huntingdon Life Sciences was beaten with a baseball bat, Cambridge University abandoned plans to build a new animal research facility and extremists dug up the grave of a relative of a family breeding guinea pigs for research. The combined effects sent a chill wind through the scientific community, which retreated further into its various ivory towers than ever.

On Friday, however, we woke up to the news that Leicester University had thrown open the doors of its new animal research facility to the media to coincide with its grand opening. So what has changed since 2004?

Seeing the threat to UK bioscience, the then science minister, David Sainsbury, took action, setting up units inside government and the police force

and ordering a successful crackdown on the extremists. A wave of arrests emboldened scientists to speak out.

The animal research story started to change. Instead of pictures of activists in blood-spattered lab coats wielding "animal abuser" placards, the media filmed thousands of scientists taking to the streets in support of building a lab in Oxford, and reported on a new petition in support of animal research.

Not everyone has embraced the new climate as an opportunity to open up. Those companies and universities that were forced to fight back in the glare of the cameras were left exhausted and keen to return to talking about science in general rather than their animal work. Others conclude wrongly that keeping their heads below the parapet is the best way to escape a similar fate. And there are other hurdles.

Earlier this year we learned that all ferry companies and the UK's airlines have stopped transporting animals for research after campaigning by animal rights groups. Defending their actions, the companies cited the lack of public support for animal research. In fact, repeated surveys show that the majority in the UK do accept that, as long as there is no other alternative and the research is heavily regulated, we still have to use animals in the pursuit of better treatments and cures for devastating diseases. But the perception of public opposition reminds the scientific community that we cannot take public support for granted.

Nonetheless I am certainly less pessimistic than I was eight years ago. The fact that Leicester University put the "A word" at the heart of its media strategy is one sign of a warmer breeze. As the SMC reaches its 10th anniversary we now have a library of case studies showing that those who are proactive and brave reap the rewards.

I know many scientists who work on animals. They are not motivated by cruelty but by a powerful desire to push the frontiers of medical research and develop therapies for debilitating diseases. Each one of these scientists is proud of the work they do and, like Leicester University, they are starting to show that pride to the world.  
- Fiona Fox

(The Guardian, Sept 28, 2012)

### **Implant in Pigs Regrows Muscle in Humans**

A new clinical trial is testing pieces of pig tissue that, when implanted in soldiers' wounds, helps re-grow torn-out muscle. One study participant the New York Times interviewed, Sgt. Ron Strang, gained the ability to run after losing a large chunk of his left thigh to a roadside bomb in Afghanistan.

"It was amazing," Strang told the Times. "Right off the bat I could do a full stride, I could bend my knee, kick it out a little bit, just enough to get that initial spring where gravity would take it the rest of the way." Before the treatment, Strang had undergone conventional surgery that left him the ability to move his left leg backward, but not forward. He walked awkwardly and fell frequently, but now is able to run on a treadmill.

The treatment implants what's known as "extracellular matrix," a biological structure that's the foundation of all tissues in animals and people. (Strang got a piece of matrix harvested from a pig's bladder, a common source for biomedical studies.) Scientists previously thought the structure only provided scaffolding for living cells to grow on, like a trellis for a climbing vine. More recently, researchers have learned that extracellular matrix also actively helps muscles and other tissues re-grow by calling over stem cells and giving the cells instructions to turn into muscle cells or other types of tissue cells.

The study that Strang is part of will eventually test extracellular matrix in 80 patients who need new muscles in their arms or legs, the New York Times reported. It's being conducted by surgeons at the University of Pittsburgh and funded by the U.S. Department of Defense's Office of Technology Transition. It will include civilians as well as soldiers.

(Innovation Daily News, 9/17/12)

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