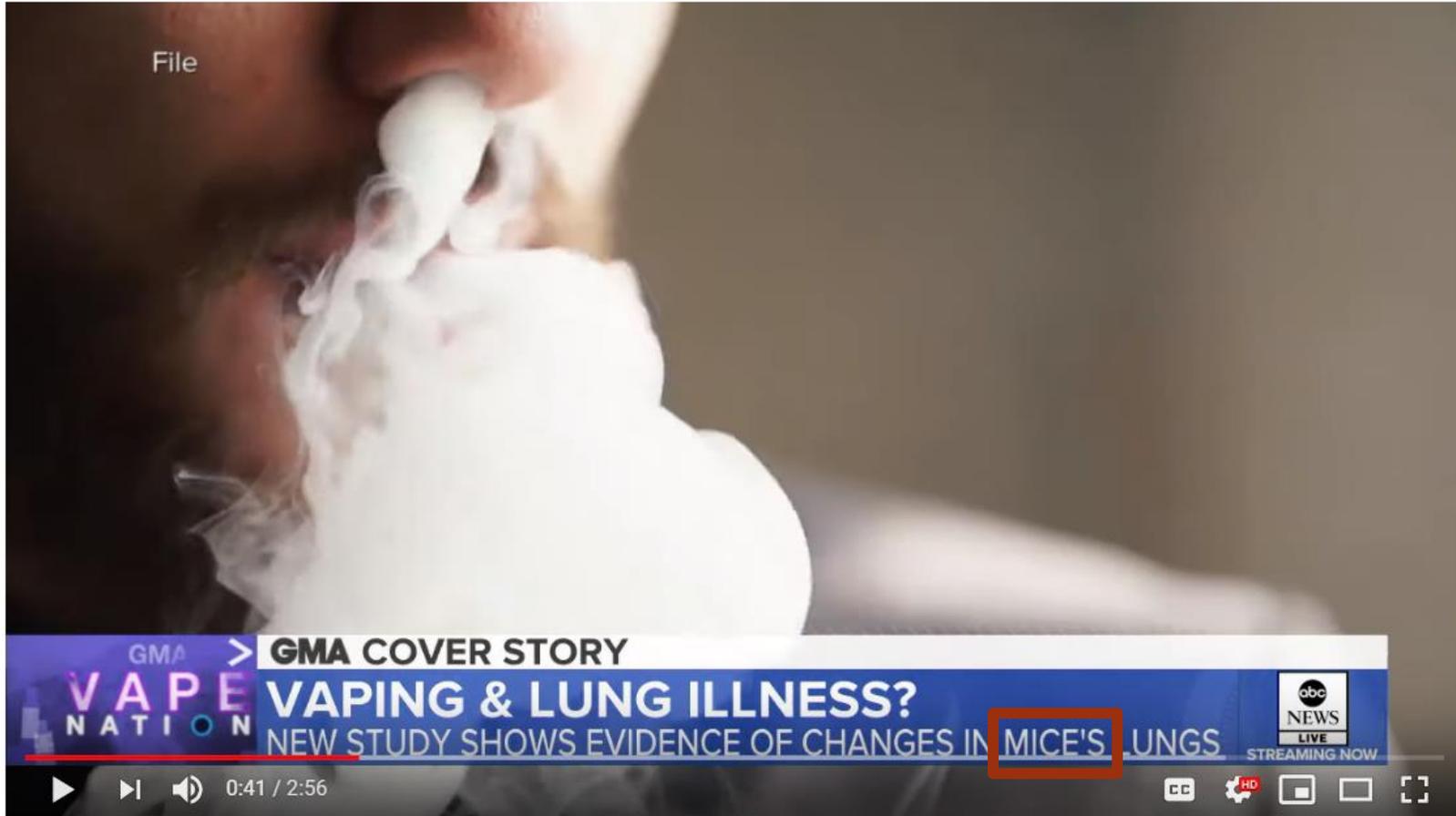


*"I could never do your job.  
I love animals too much."*

**I think you meant to say:  
~ Thank you for **YOUR** service ~**

*~ Keeping me and my  
loved ones healthy.  
~Ensuring that  
Laboratory Animals  
are well cared for.  
~ Supporting  
development of new  
discoveries.*





#GMA #Vaping #LungDisease

New developments add to concerns about vaping | GMA

1,805 views • Sep 5, 2019

46 4 SHARE SAVE ...

<https://www.youtube.com/watch?v=XOM9KcKwp8Y>



# ONE HEALTH APPROACH FOR THE ANIMAL CAREGIVER –

## OCCUPATIONAL HEALTH, HUMAN-ANIMAL BOND AND COMPASSION FATIGUE

Co-Leaders:

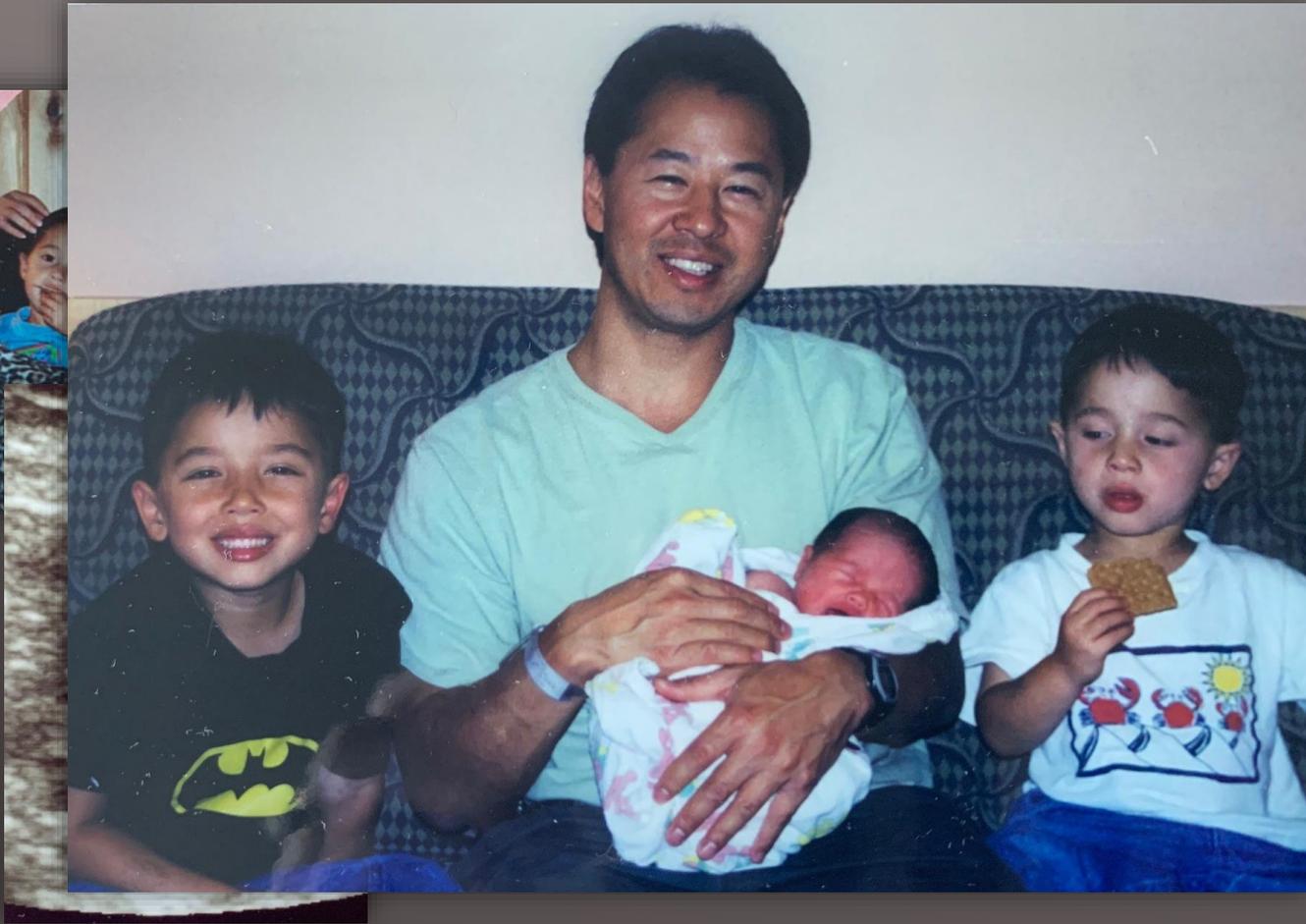
Sally Thompson-Iritani, DVM/PhD, CPIA, CCFP, CHABP, CFE

Preston Van Hooser, Chair - D2C



*Photo Credits:  
Randy K. yes*





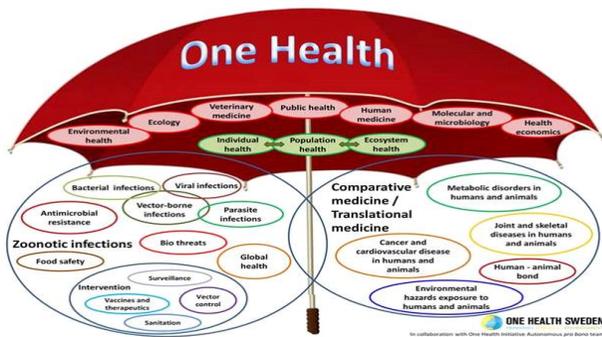
The zoo  
seek out and bring  
variety of fields to he

Far left: Obstetrician Dr.  
her first (and Jumoke's fi  
visits with newborn Nadi  
Julia Stinebaugh. She oft  
5-year-old gorilla's progr

ONE HEALTH??



## One Health/EcoHealth/Planetary Health



**RECOGNISING THAT ANIMAL WELFARE, BIODIVERSITY & THE ENVIRONMENT ARE CONNECTED TO HUMAN WELLBEING**

## One Health, One Welfare Dra Rebecca Pirillos, Spain 2018



<https://www.onewelfareworld.org/>



What does our umbrella look like?



## Old School: Myth of Objectivity

Hippocrates (460 BC-c.37 BC) established objectivity and stoicism as a central component of “**professional**” medicine.

**Ineffective** method for developing and maintaining resiliency.

Produces **shame, isolation, fear**, and exile among practitioners who do become symptomatic.

## New Paradigm

### Caregiving Hurts!

**Impossible** to avoid the pain associated with professional or volunteer caregiving;

A **professional does not have to suffer** if s/he is willing to evolve and mature personal and professional skills.

It is possible  
to be healthy  
while  
working in a  
caregiving  
environment

# COMPASSION FATIGUE RESILIENCY



A large, layered red rock formation, possibly a mesa or butte, dominates the left side of the image. The rock is a warm, reddish-orange color with distinct horizontal strata. The top of the formation is jagged and has some sparse green vegetation. The sky is a clear, bright blue. A small, pale moon is visible in the sky to the right of the rock formation. The overall scene is a natural landscape with a clear sky and a prominent rock formation.

Every individual has their own way of coping

Emotionally charged topic

Be respectful

Listen

Time at the end for Q&A

**GROUND RULES**



Lesley Sharp

- Creative Compassion in Human-Animal Care—An Outsider Looks In on Lab Life



Bruce W. Kennedy

- Human-Animal Bond: Upcoming ILAR Roundtable



Anneke Keizer

- Needs Assessments: Common Themes and Suggestions for Consideration



Christina Pettan-Brewer

- One Health Approach: Incorporating Prevention into your Occupational Health Program



Preston Van Hooser

- Discussion
- Q&A
- Self-care strategies

# SCHEDULE FOR TODAY

~ SPECIAL GUEST: CAROLINE WARREN, PHD CANDIDATE

[CAROLINE.WARREN@EMORY.EDU](mailto:CAROLINE.WARREN@EMORY.EDU); 1.845.344.7307



# Creative Compassion in Human-Animal Care: An Outsider Looks in on Laboratory Life

October 16, 2019

AALAS National Meeting, Denver, CO

Symposium on “One Health Approach for the Animal Caregiver”

**Lesley A. Sharp**

B.C & H.C. Josefsberg '30 Chair in Anthropology, Barnard College

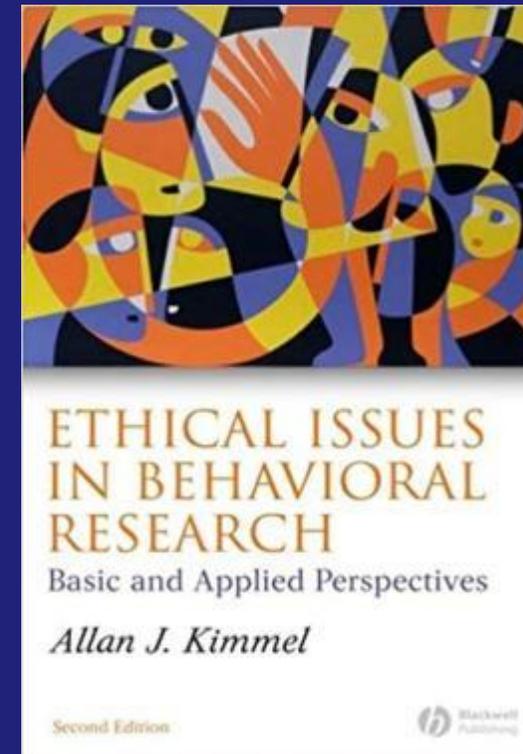
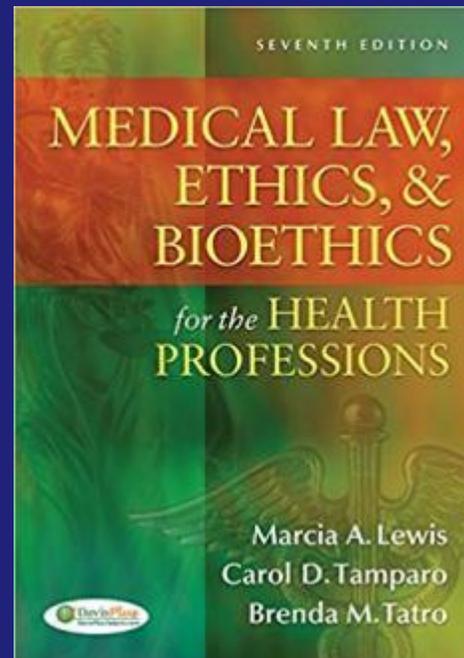
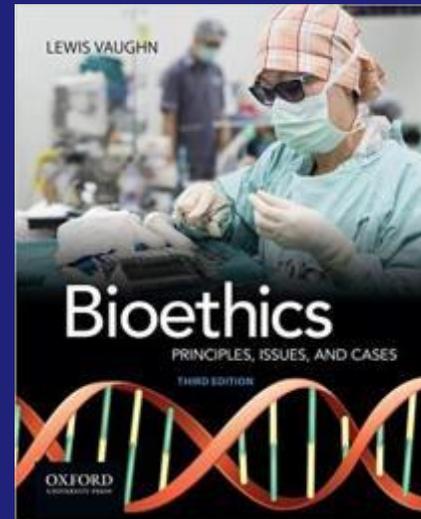
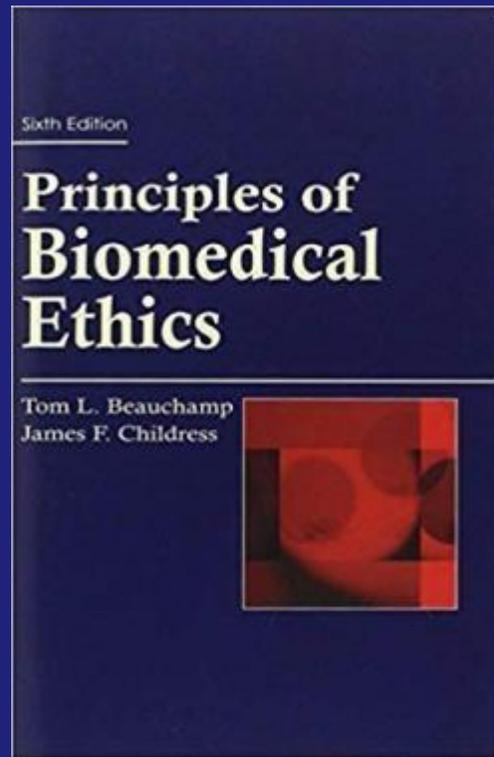
Senior Research Scientist in Sociomedical Sciences, Columbia University

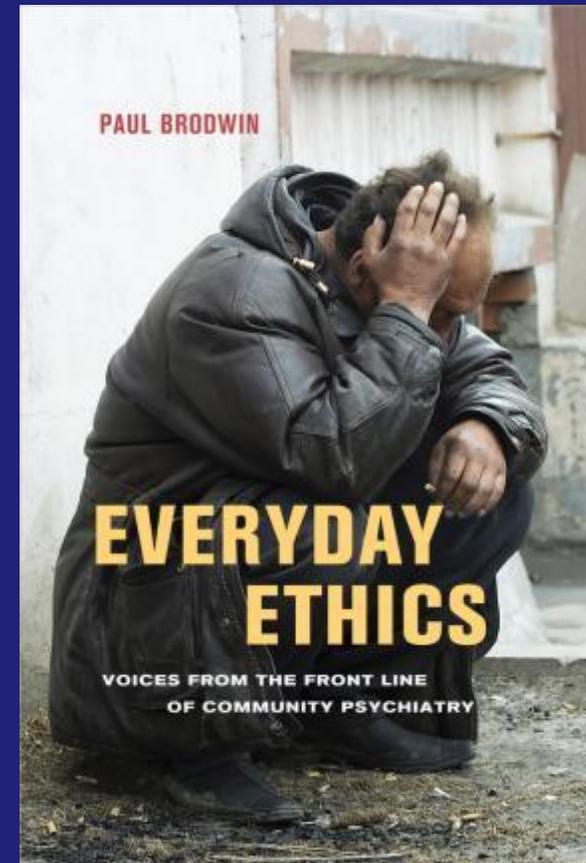
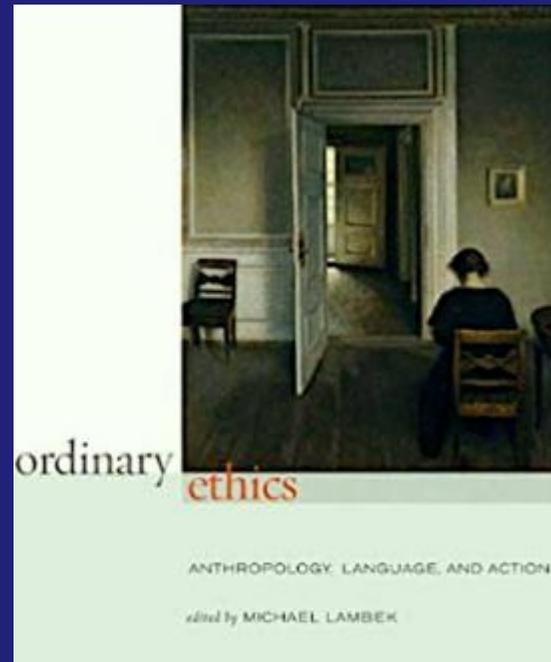
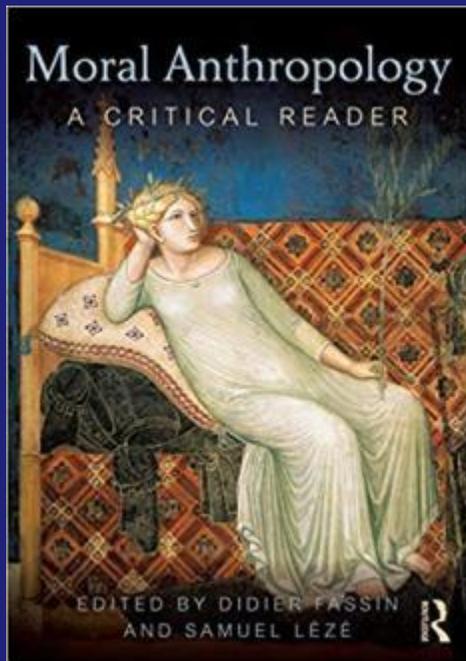
Fellow, Center for Animals and Public Policy, Tufts Cummings School of Veterinary Medicine

*LSharp@barnard.edu*









## BIOETHICS

## “EVERYDAY” or “ORDINARY” ETHICS (The “MORAL” Realm)

Codified, regulated

situational, creative, innovative

What we *should* or *must* do

What we *could* or *might* do

may correspond to law

part of the “moral imaginary”

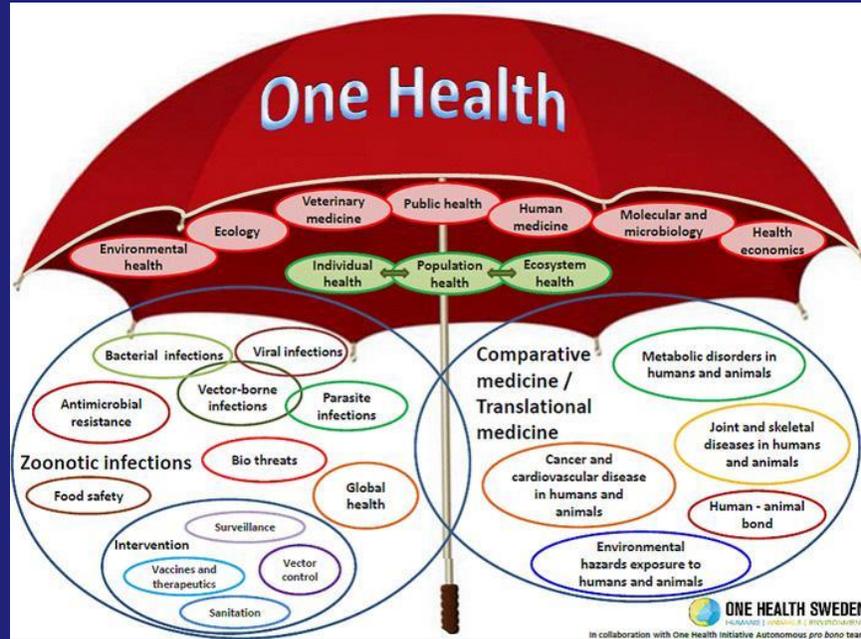
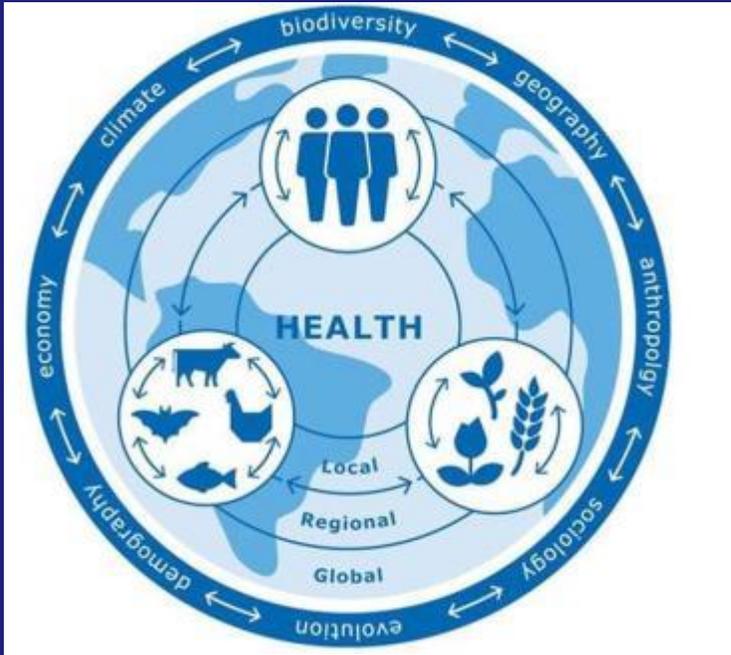
a baseline of ethical behavior  
that applies to all parties

private, personal, often unstated;  
involves thinking “outside the box”



### The “call and response” relationship between the two:

- \* “Everyday” ethics is inspired by the challenges, contradictions, and paradoxes of codified behavior and thought.
- \* Because it is innovative, an “everyday” ethics might loop back and expand or shift bioethical boundaries.
- \* Although often personal and private, it can also transform group behavior, thought, and action.



# OneHealth

Human health, animal health and ecosystems are **inextricably linked**

**Human health**  
At least 80% of all human diseases have their origin in animals

**Animal health**  
Diseases in food producing animals globally account to a loss of 20% in production

**Ecosystem**  
Any emerging disease in the last 30 or 40 years results from accelerated rates wild lands and changes in demography  
Shen Dehai, EcoHealth Alliance

**Disease knows no boundaries**

**Rabies exposure risk**

- Low risk
- Medium and high risk

**Avian influenza**

- Avian influenza exposure

**Stakeholders need to work together**

Pet owners

Health sciences Professionals

Farmers

Doctors

Environmental professionals

Veterinarians

## Foundational Sources on “Compassion Fatigue”

Joinson, Carla. 1992. Coping with Compassion Fatigue. *Nursing*, 22(4), 116, 118-120.

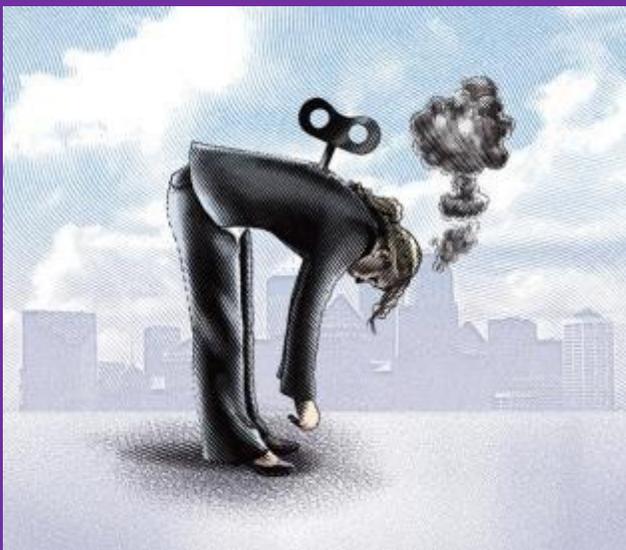
--The loss of “ability to nurture” in a study focused on Emergency Room nurses.

Figley, C. R. 1995. Epilogue: The Transmission of Trauma. IN C. R. Figley, ed. *Compassion Fatigue: Coping with Secondary Traumatic Stress Disorder in Those Who Treat the Traumatized*. Pp. 248-254. New York: Brunner/Mazel.

--rephrased as “secondary traumatic stress reaction” as experienced by therapists working with traumatized clients.

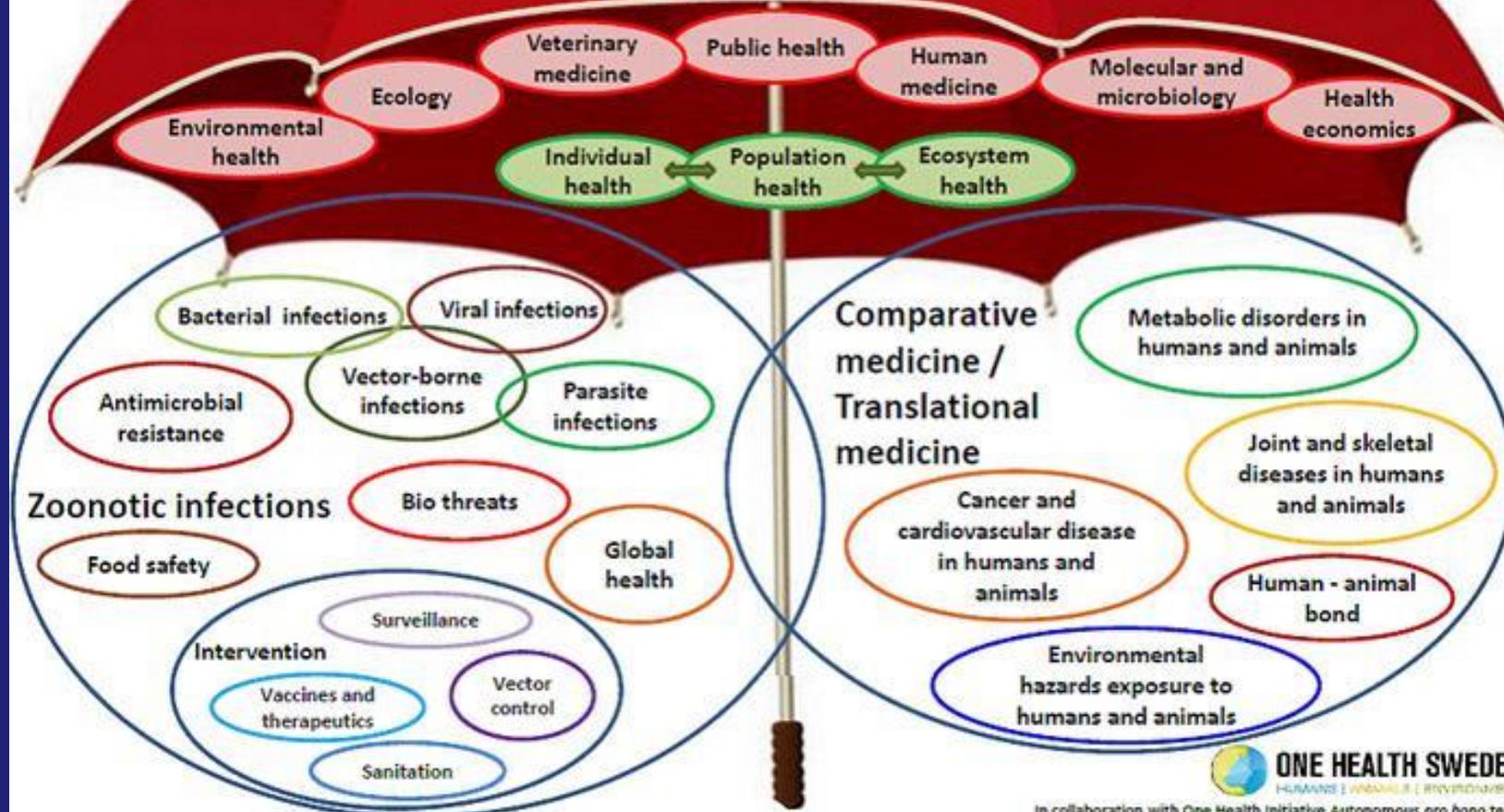
McCann, I. Lisa, and Pearlman, Laurie A. 1990. Vicarious Traumatization: A Framework for Understanding the Psychological Effects of Working with Victims. *Journal of Traumatic Stress*, 3(1), 131-149.

-- renamed “vicarious trauma”; again, therapists are the focus.



The imagery of compassion fatigue

# One Health







We Take Care of Our Animals...

So They are Protected to Explore the World Together

Stockholm

*Animal Research makes it possible!*

Logos: BCM, tsbr, af

By using more animals, a person in a laboratory setting is able to conduct research that would otherwise be impossible.



## Scientific problem

## Animal model

Action potential generation



### Squid

Squids were used to study the mechanisms underlying action potential generation because of their giant axons, which allow the insertion of voltage-clamp electrodes (5).

Synaptic transmission



### Frog

Frogs were used to study the mechanisms of synaptic transmission because of the simple behavior and large size of the synapses involved (43).

Retinal physiology and lateral inhibition



### Horseshoe crab

Horseshoe crabs were used to study mechanisms of retinal physiology, including lateral inhibition, because of the accessibility of individual nerve cells and convenient structure of the compound eye (44).

Learning and memory



### Aplysia

Aplysia was used to study the neurobiology of learning and memory because of its capacity for simple forms of learning and the easily identifiable and accessible neurons that mediate these behaviors (45).

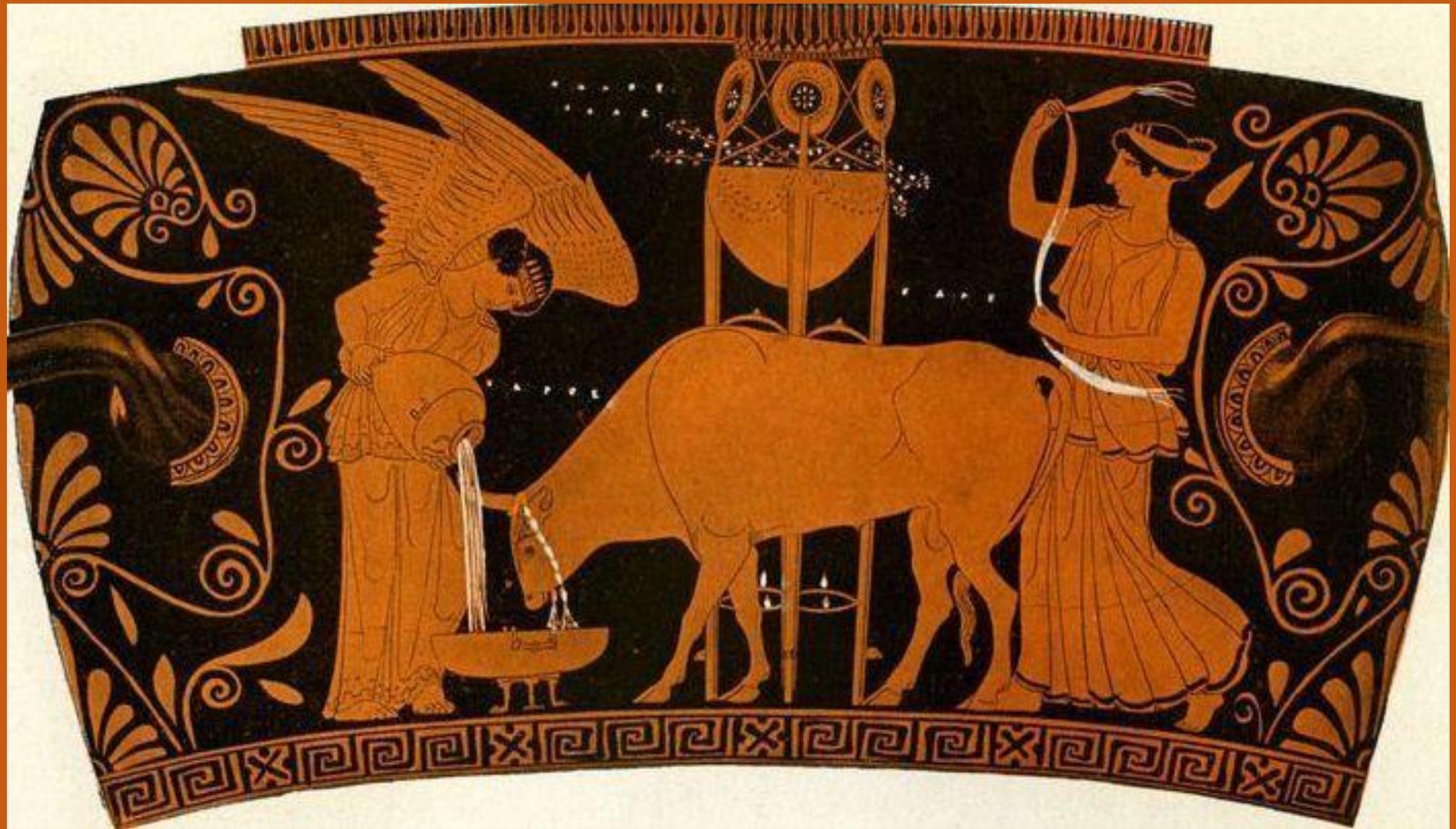
Spatial representation



### Rat

Rats were used to study the neural components of spatial representation (46, 47) because of their exploration behavior and size, which enables neural recordings during free behavior. The neuroethological approach taken in these studies is described by O'Keefe and Nadel [section 4.7.1 of (46)].







*"Never, ever, think outside the box."*

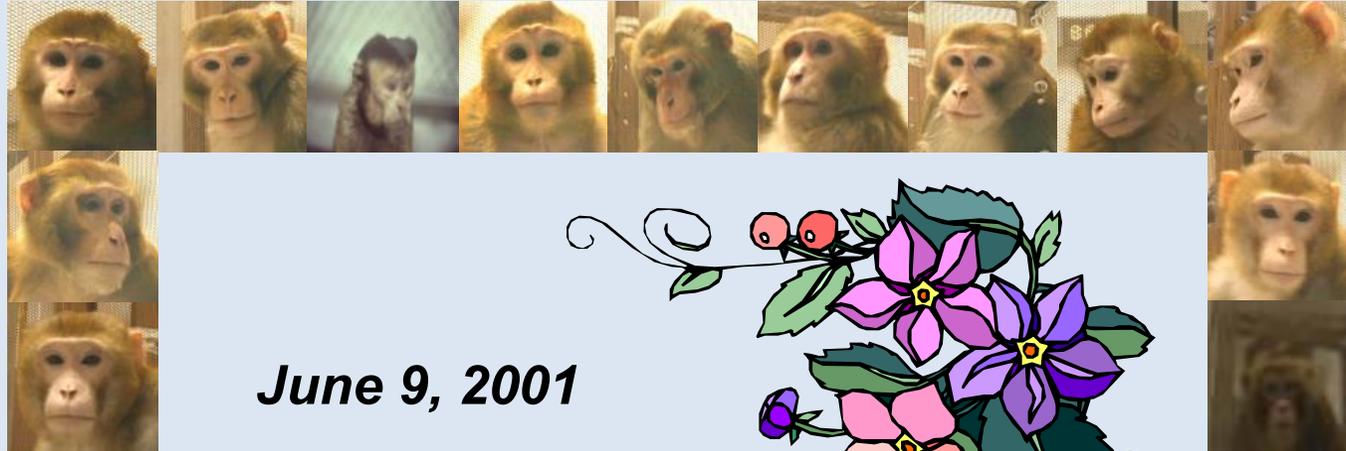


Strategies of creative, compassionate care that take the animal, the environment, *and the human* into account. Note, for instance, presence of research staff during play time in the images of the macaques and ferrets. The dogs featured in the image in the upper right have been trained to enter, lie down, and lie still, unrestrained, for a sustained period of time in a very noisy MRI machine.





The Animals in War Memorial, Hyde Park, London



***June 9, 2001***

***May we never forget  
the contributions they  
made and how much  
we loved and cared  
for them.***

***Dedicated to all the  
animals lost in  
tropical storm Allison.***



# Caring for Animals—

it's not just my job...



...it's my passion

Laboratory animal care professionals share a love for animals and a quest for medical discovery.

Our work provides hope to millions suffering from medical conditions—hope for new and better treatments, hope for a better life, and hope for a cure.

Visit [care.aiaa.org](http://care.aiaa.org) to learn how we're advancing human and animal medicine.





Lab macaques picking herbs in an outdoor enclosure



*Thank you*





# One Health Approach for the Animal Caregiver - Occupational Health, Human-Animal Bond, and Compassion Fatigue



Human-Animal Bond:  
Summary of the ILAR Roundtable



Bruce W. Kennedy MS RLATG CMAR CPIA EdD  
IACUC administrator  
member of the ILAR Roundtable



*Mattie, a rescued dog  
then, in Fall 2015, a tri-pawed*



Everyone here today ...

Has a pet or two

Has been attached to an animal

Has recognized what we do in lab animal

Has discussed the 3Rs

Has justified the use of non-human animals in research, testing, and teaching

Has “now” been introduced to the **One Health** concept, that is interdisciplinary collaborations in aspects of health care for humans, animals, and the environment.

Still, many of us haven't taken opportunities to talk about other context in lab animal.

Until recently!

ILAR Roundtable



# Upcoming Roundtable

INSTITUTE FOR LABORATORY ANIMAL RESEARCH

**ILAR**  
AN *OIE* COLLABORATING CENTRE



NATIONAL ACADEMY  
OF SCIENCES

Premise:

Human-animal interactions have major significance for the animal sciences and veterinary medical sciences.

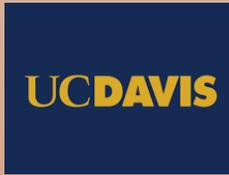
## Human-Animal Interactions in the Research Environment: A Workshop





# Coturnism

"how I got started"



There is an example protocol related to this study on BB

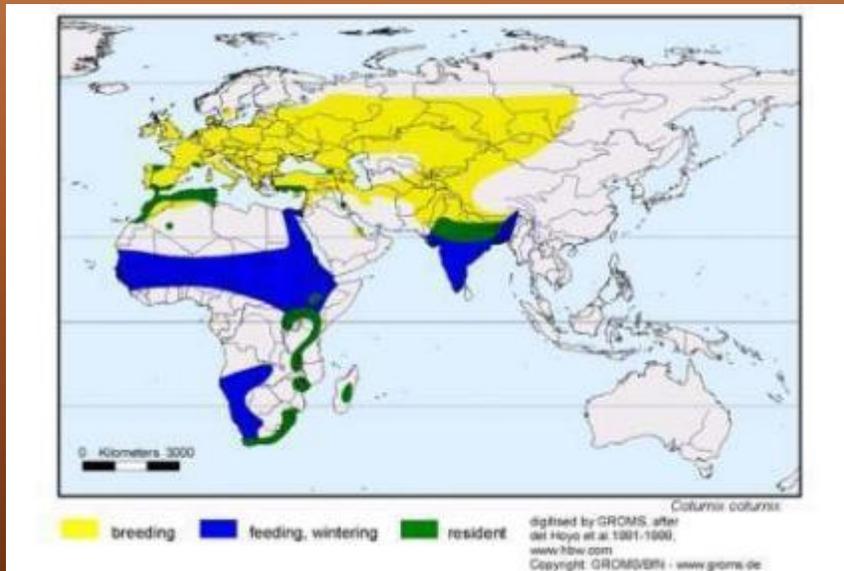


*Coturnix coturnix*  
- coturnix  
- japonica

my introduction to lab animal science, including conducting an LD50 study, which gave me goose bumps

term given to the poisoning from eating *Coturnix* quail around the Mediterranean Sea, which has occurred for centuries; the poison can be purged from the birds

hypothesis: the quail are toxic because they retain and tolerate the poison from hemlock



*Conium maculatum*  
poison hemlock  
coniine





Then ...  
entering the world  
of Tg mouse technology ...



NIH and Caltech

educating ...



**Compassion Fatigue: The Cost of Caring**  
Human emotions in the care of laboratory animals

The human-animal bond exists in many forms. Kindness and concern for animals are desirable characteristics in animal care and research workers. Practices of gentle handling, observation, and judicious restraint to build the bond between humans and animals. The development of the human-animal bond can improve animal welfare by minimizing stress, enhancing a sense of safety and security, and fostering trust. Close contact with animals can create feelings of satisfaction and affection in those who care for the animals.

Therefore, to the best extent possible, a goal is to minimize the death of animals used for research or teaching and to support, acknowledge, and encourage those having who voluntarily support the workplace as a sign of affection. The bond between caregiver and animal is the foundation of a human-animal bond that is strong in the animal.

Compassion fatigue, also known as secondary traumatic stress (STS), is an emotional state that can be recognized in the early 2000s in highly sensitive workers who worked with nursing, health care, and emergency services that workers. This condition is the result of self-compassion and empathy, and it is often linked to chronic, repetitive, or traumatic events. Over time, compassion fatigue can manifest in other ways, such as a decrease in interest, loss of focus, insomnia, and psychological health. In the past decade, there has been increased awareness of the condition in various health professions, but only very recently have we made the connection with biology. The idea of a human-animal bond in the laboratory animal care community. Compassion fatigue can ultimately result in a physical and cognitive exhaustion that can cause a great deal of stress and personal life that affects our well-being. However, it is a self-inflicted condition that can be avoided. One way to avoid it is to be self-aware and take steps to ensure our own health and well-being. In the end, the research community can reap the benefits of these essential relationships. This brochure is designed to assist all children of the research in understanding the human-animal bond and provide suggestions and resources for managing human emotions in the care of laboratory animals.

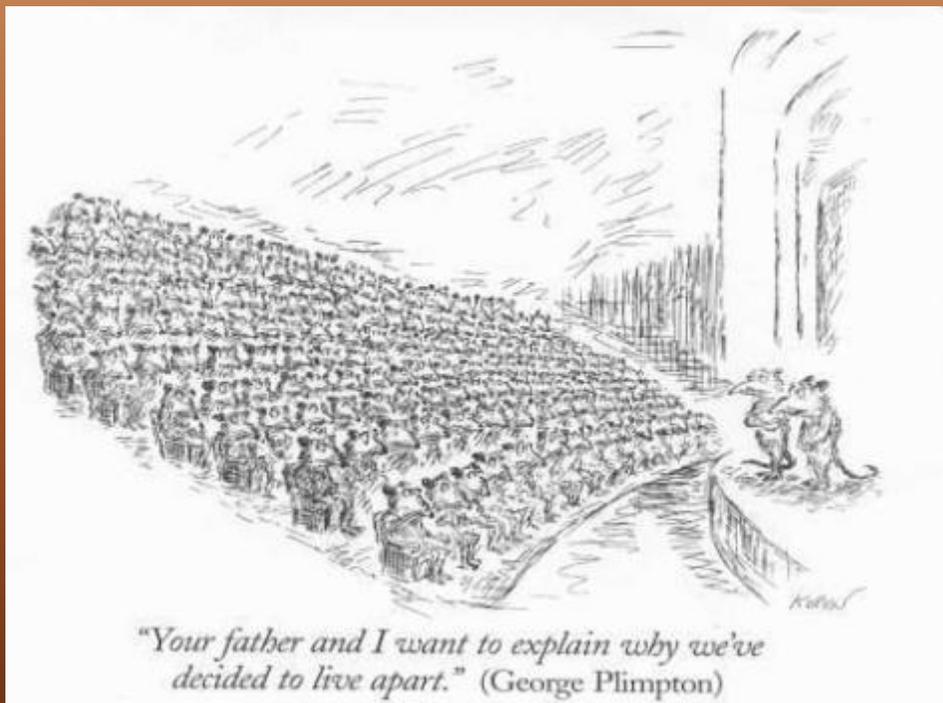


**COST OF CARING: RECOGNIZING HUMAN EMOTIONS IN THE CARE OF LABORATORY ANIMALS**

The human-animal bond in the field of animal care and research is a complex and multifaceted relationship. It is a bond that is built through the daily interactions between humans and animals. This bond is a source of strength and support for both parties. It is a bond that is built through the daily interactions between humans and animals. This bond is a source of strength and support for both parties.

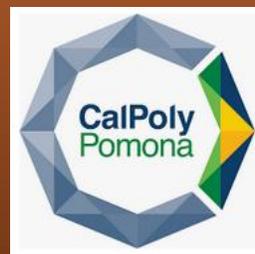



**Cost of Caring**

training ...

Animal Health Science 3369 -  
Laboratory Animal Management





and now ...

an appointment to  
and  
involvement with  
the ILAR roundtable.

*What is ILAR?*



# Institute for Laboratory Animal Research (ILAR)

## Guide for the Care and Use of Laboratory Animals

- Current is the 8<sup>th</sup> edition, from 2011
- First guide was published in 1963
- Influential document widely used by research institutions
- Impact on federal government; document of reference for *PHS Policy on Humane Care and Use of Animals*



Thanks  
Monte Matthews



Organized in July, 1953, within the NAS

- 66<sup>th</sup> anniversary this year
- For the history of ILAR, see Tom Wolfle's 2003 ILAR Journal paper
- Focus is broadly laboratory animal research





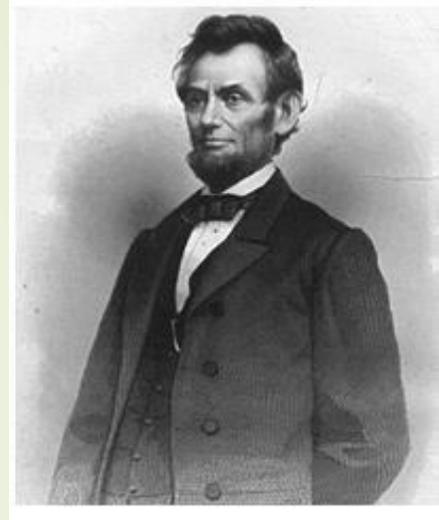
NATIONAL ACADEMY  
OF SCIENCES

# National Academy of Sciences

**Established to honor the nation's top scientists  
and advise the government on issues of  
science and technology**

“...The Academy shall, whenever called upon by any department of the Government, investigate, examine, experiment, and report upon any subject of science...”

- 1863 Congressional Charter of the National Academy of Sciences



**Advising the Nation. Advancing the Discussion. Connecting New Frontiers.**





# Overview of the NAS



Two locations in Washington, DC



## Three honorary societies:

- National Academy of Sciences (1863)
- National Academy of Engineering (1964)
- National Academy of Medicine (1970)

## An operating arm:

- The National Research Council, consisting of the National Academies of Sciences, Engineering, and Medicine) (1916)

## Objectives:

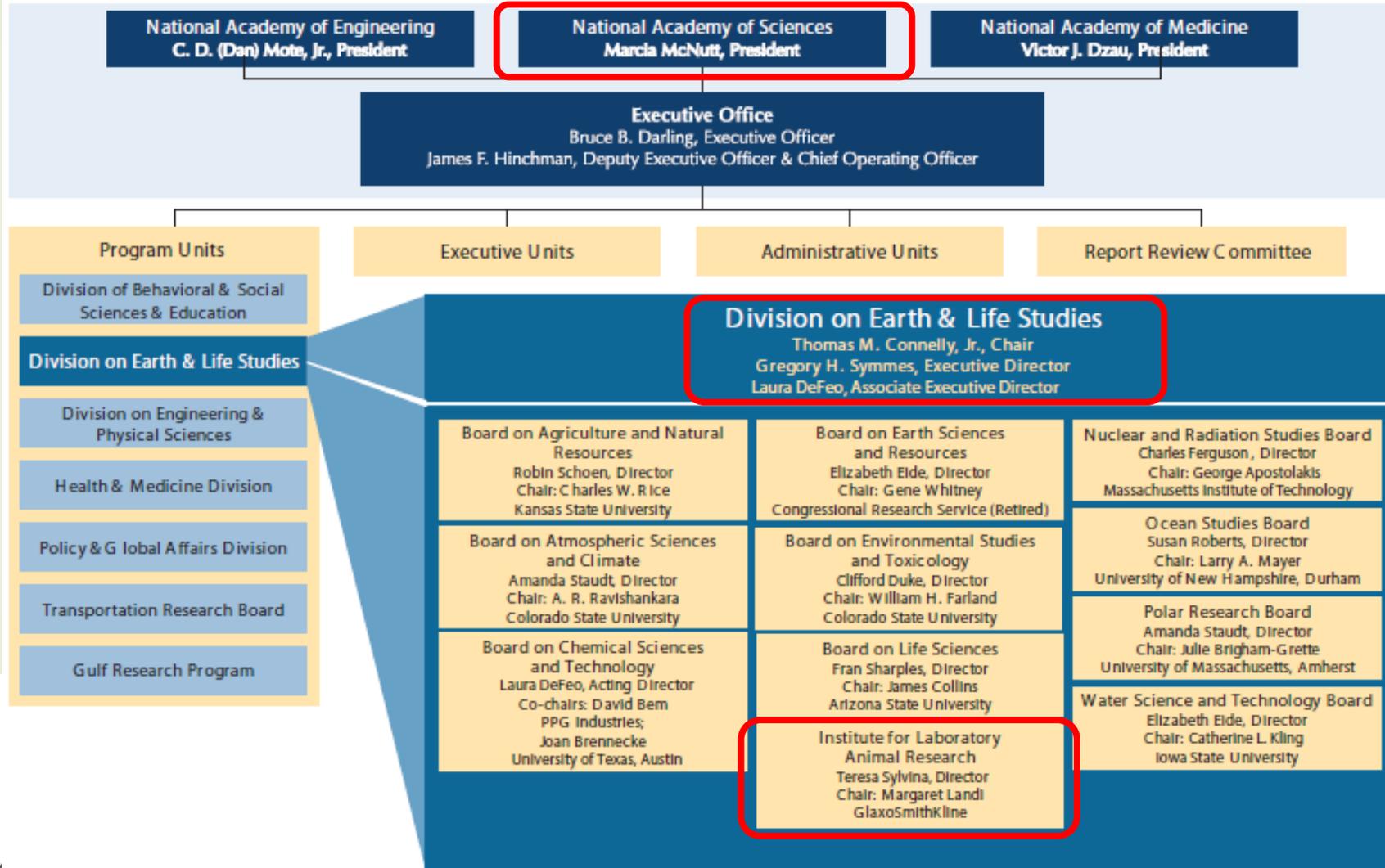
- Provides independent scientific and technical advice
- Draws together volunteer experts to advise federal government from states, non-governmental organizations (NGOs), foundations, academic community, private sector, and the public
- Does not lobby or advocate; non-profit 501(c)(3)
- Supports activities and operations from federal agencies, foundations, state & local governments, private sources, universities, and NGOs





# DELS Organization

## Division on Earth & Life Studies at the National Academies of Sciences, Engineering, and Medicine





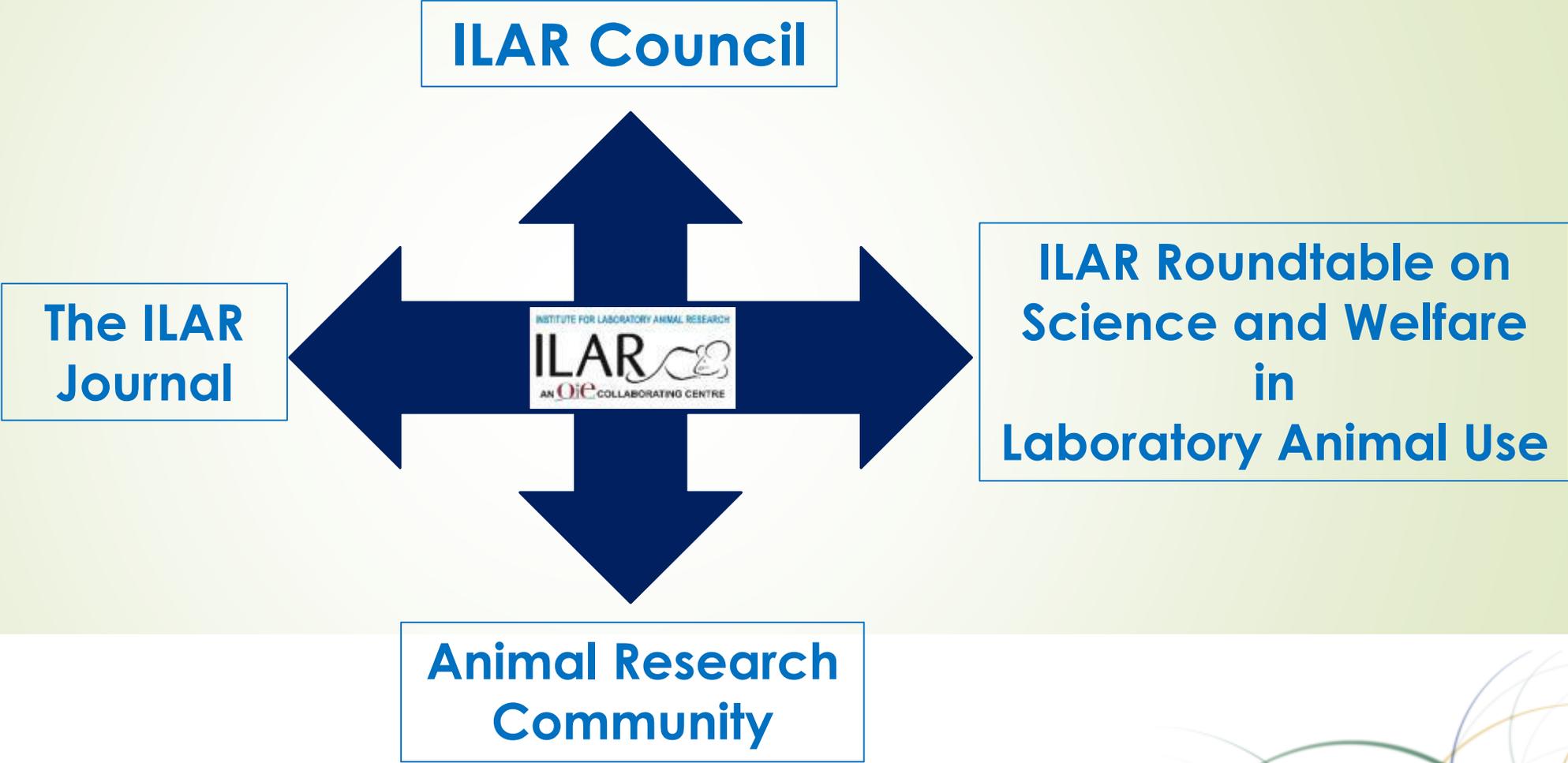
# Division on Earth and Life Studies (DELS)

## What They Do

- Guiding federal agencies and programs
- Weighing in on issues of the day
- Helping solve regional dilemmas
- Using science and technology to innovate
- Managing and protecting natural resources
- Shaping the direction of research and practice
- Answering focused technical questions
- Taking initiative
- Facilitating timely discussions
- Communicating and reaching out



# The Structure of ILAR





# The Structure of ILAR

## Expanded Scope/New Council Members

(February 2019)

- Biomedical (laboratory animal medicine, pathology, pre-clinical translatability of animal research and natural animal model development to advance translational science)
- Wildlife Conservation, Wildlife Research, and Biodiversity Loss
- One Health (includes animals in captive and natural settings)
- Zoological and Aquatic Animal Research
- Infectious Diseases

## New Director

Teresa Sylvina VMD MPH DACLAM  
(October 2018)

## Greater Coordination/New Opportunities

- ILAR Council – oversight and guidance
- ILAR Roundtable - workshops
- ILAR Journal – theme-based issues
- ILAR collaborates with other units of the National Academies





# The Structure of ILAR

## ILAR Council

### 2019 Members



**Margaret Landi**, *Chair*, GlaxoSmithKline

**Cory Brayton**, *Editor-In-Chief ILAR Journal*, Johns Hopkins School of Medicine

**Joe DeGeorge**, Bianca Holdings, LLC

**Michael Duvall**, Janssen Pharmaceuticals (subsidiary of J&J)

**Bob Dysko**, *ILAR Roundtable Chair*, University of Michigan

**Paul Locke**, *ILAR Roundtable Liaison*, Johns Hopkins School of Public Health

**Anne Maglia**, University of Massachusetts Lowell

**Suzan Murray**, Smithsonian Conservation Biology Institute

**Barbara Natterson Horowitz**, University of California at Los Angeles

**Guy Palmer**, *Member Natl. Acad. Medicine*, Washington State University

**Roz Rolland**, New England Aquarium

**Larry Schook**, University of Illinois at Urbana-Champaign

**Carolyn Zeiss**, Yale University





# The Structure of ILAR



**The ILAR  
Journal**

Editorial  
Board

## Vol 59 (2018)

- Pathology for Translational Research
- Contemporary Safety Topics in Animal Research
- Immune Relevant Models: Opportunities and Challenges

## Vol 60 (2019, in production)

- Responsible Science
- Bioethics in Translational Research
- External Environmental Factors in Animal Research

- Editor-In-Chief: Cory Brayton, Johns Hopkins University School of Medicine
- Co-Editor-In-Chief: Lew Kinter, GLP Scientific Consulting
- Brian Berridge, National Institute of Environmental Health Sciences
- Jim Roth, Iowa State University College of Veterinary Medicine
- Larry Schook, University of Illinois at Urbana-Champaign
- Caroline Zeiss, Yale School of Medicine

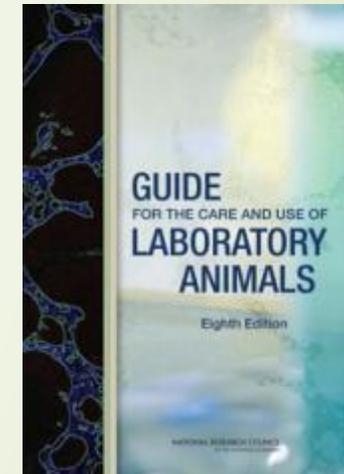
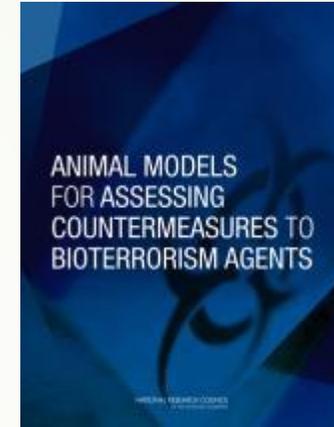


# The Structure of ILAR

## Public products and events

- Reports-in-brief
- Congressional testimony
- Videos
- Social media
- Booklets
- Colloquia
- Workshops, like the ILAR Roundtables

## Consensus advice



**Animal Research  
Community**



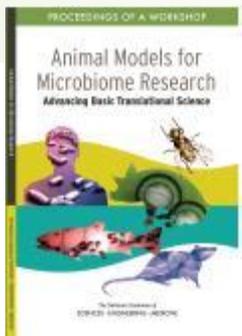
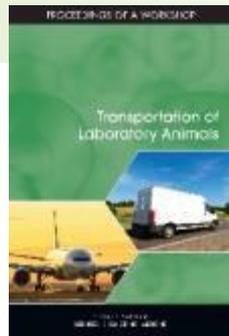


# ILAR Roundtable



<http://nas-sites.org/ilar-roundtable/>

- ▶ Started in 2014, the Roundtable on Science and Welfare in Laboratory Animal Use
- ▶ Paid membership with elected 7-member Executive Committee
- ▶ Current members: 30 (academia, professional organizations; US government; industry)
- ▶ Members choose topics and activities
- ▶ Workshops: so far, 8 public, webcasted, free, with published summaries  
 Reproducibility; Lab Animal Transportation; Ethical Issues in Gene Editing; Animal Models in Precision Medicine; Future of Animal Law; Performance Standards; Animal Models For Microbiome Research; Care, Use And Welfare of Marmosets
- ▶ **Next workshop, October 2019: Human Animal Interactions in the Research Environment: A Workshop**





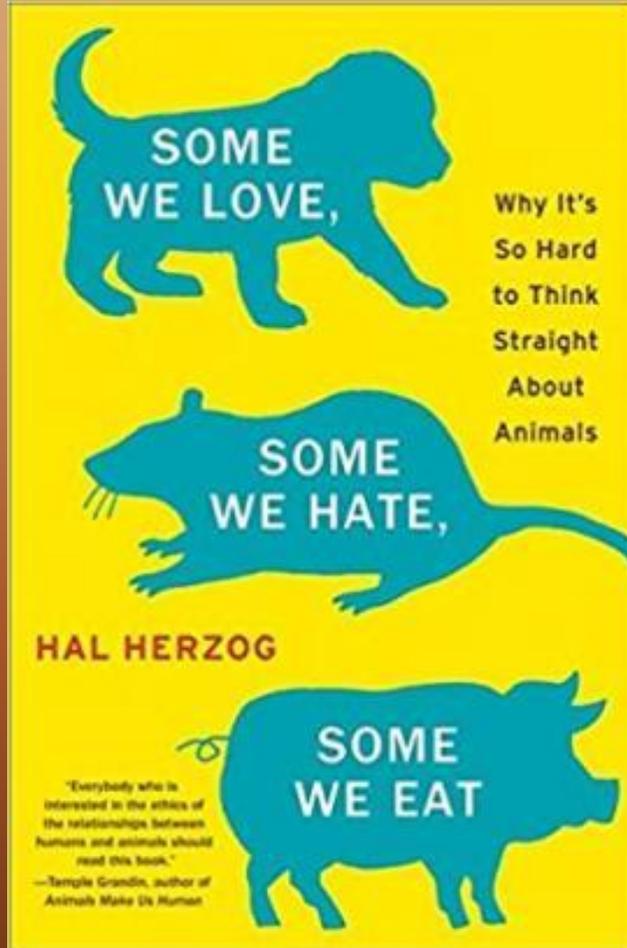
In preparing for the Roundtable ...

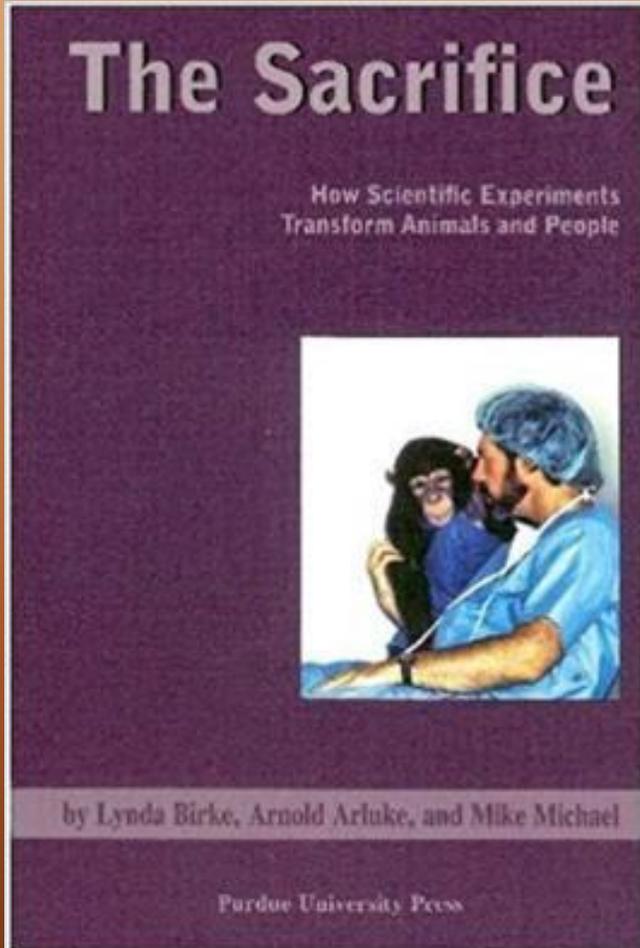
**Human-Animal Interactions  
in the Research Environment:  
A Workshop**

I read books

I learned phrases:  
compassion fatigue/satisfaction  
anthrozoologist  
coping  
resilience

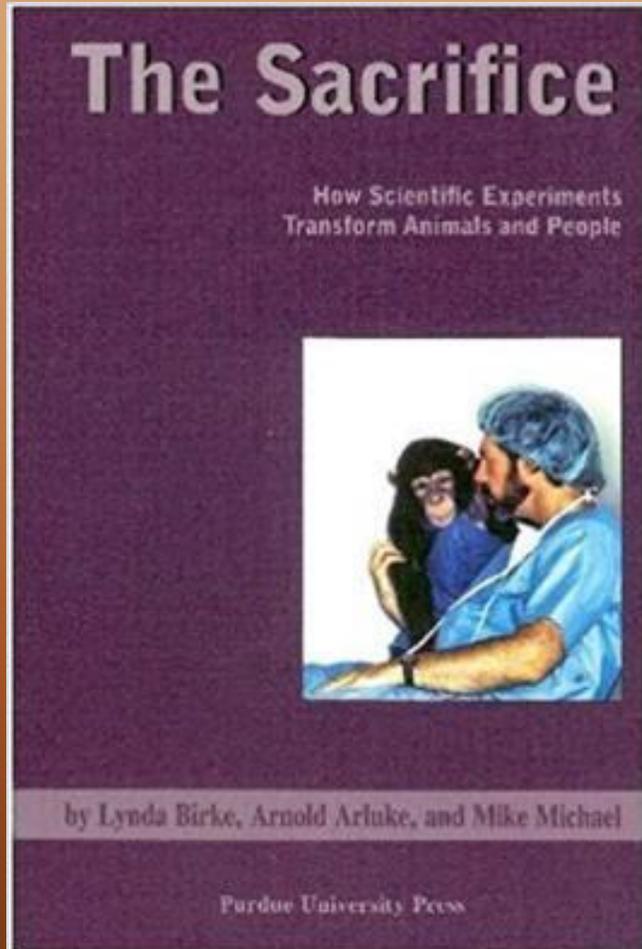
I thought about One Health  
and the human-animal bond.





“... the laboratory rodent: as tool and as naturalistic animal. It is that ambiguity that facilitates the **unease many lab workers voice about using animals**; for all that standardization and control underlie scientific experiments, variability creeps in and brings with it an animal much closer to the naturalistic.”

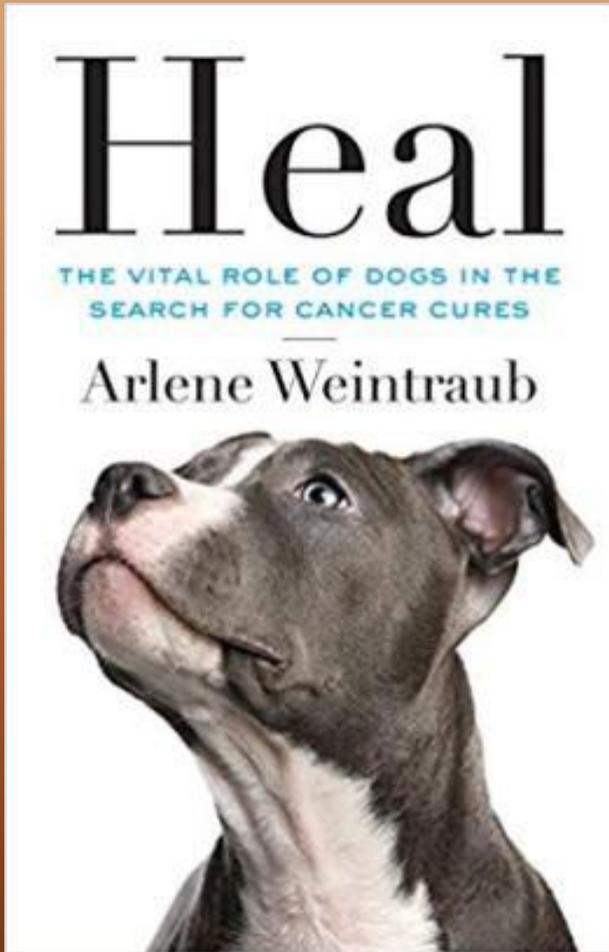
p. 54



“[I]f scientists comment that ‘that was a good animal,’ they are not necessarily referring to the behaviors of the animal when it was alive, but to the ways that, say its brain tissue has tuned out once it has been sliced and preserved. ‘The animal’ here refers to the product of a series of experimental procedures.

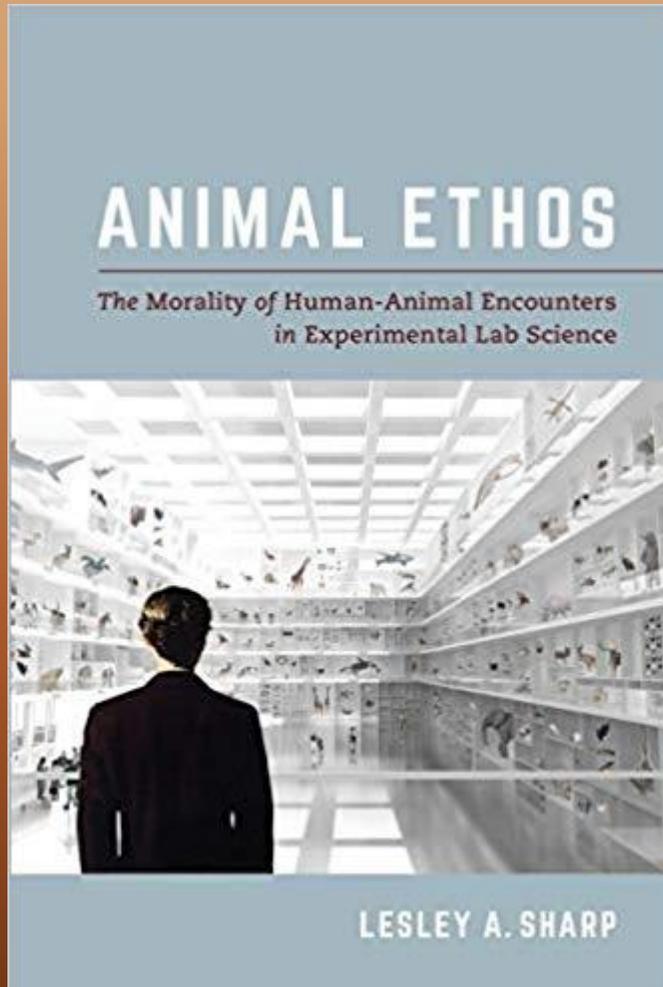
“This transition to thinking about animals as data or things in turn reinforced how scientists thought about scientific generality, suggests Logan, in her study of the history of standard animals in physiology.

“By the middle of the twentieth century, uniformity was the ideal within a [rodent] strain, to make the laboratory animals more like a ‘chemical reagent,’ just another piece of laboratory equipment ...”



The notion of using our dogs - and other companion animals – to solve our mutual health issues.

**One Health**



“Animal technicians, however, spend nearly all of their working day in the company of animals – cleaning their cages, restocking food and water; administering basic medical care, ... [W]hen animals are killed, animal technicians may well engage in specialized forms of memory work far more elaborate than that of lab researchers, erecting temporary or permanent memorials to favorite creatures.”

p. 140



Talking: Gordon Roble    Zoom: 36%    Screenshot

Compassion Fatigue

<https://today.veterinarypractices.com/compassion-fatigue-and-the-veterinarian/>

The image shows a Zoom meeting interface. At the top, it says 'Talking: Gordon Roble', 'Zoom: 36%', and 'Screenshot'. The main content area features a photograph of a woman in blue scrubs sitting on a white bench, covering her face with her hands in a gesture of distress or exhaustion. To the right of the woman is a yellow vertical banner with a white paw print icon containing a cross, and the word 'ESSENTIALS' below it. At the bottom of the image, the text 'Compassion Fatigue' is displayed in white on a dark background, with a thin vertical line to its right. Below this, a URL is visible: 'https://today.veterinarypractices.com/compassion-fatigue-and-the-veterinarian/'.

SUBR's webinar, Emergency Preparedness for Research Institutions, October 11, 2019, Gordon Roble DVM DACLAM, Director of Comparative Medicine, Hutchinson Cancer Center

ILAR Roundtable



# Upcoming Roundtable



Premise: Human-animal interactions have major significance for the animal sciences and veterinary medical sciences.

## Human-Animal Interactions in the Research Environment: A Workshop

October 28 and 29, 2019

NIH Bethesda Campus

Balcony A of Building 45 (the Natcher Building)

[URL to register – in person or for on-line](https://www.eventbrite.com/e/human-animal-interactions-in-the-research-environment-a-workshop-registration-71370831077)

<https://www.eventbrite.com/e/human-animal-interactions-in-the-research-environment-a-workshop-registration-71370831077>

*a summary proceedings will follow*



# Roundtable on “Human-Animal Interactions in the Research Environment: A Workshop”

This workshop will explore and characterize aspects of the complex scientific, ethical, and occupational health issues associated with human animal interactions in the biomedical research environment. The workshop will consider the full range of people who are involved in animal care and use in biomedical research settings, including research scientists, their staff and students, laboratory animal facilities managers, animal care staff, veterinarians and members IACUCs. This workshop will also consider possible metrics that, in combination with other contextual information, could shed light on potential workplace impacts (e.g., worker attendance, disability claims, injuries, complaints, and compliance records). Relevant tools, processes, and lessons learned from existing programs that are focused on the impacts of human-animal interactions in the biomedical research environment also will be explored. These discussions can help to inform a framework that could guide development of programs at other institutions.





# Roundtable on “Human-Animal Interactions in the Research Environment: A Workshop”



## Monday's Sessions

Human Animal Bond

Compassion in Biomedical Research

Workplace Impact

Challenges with Openness/Transparency  
about Care for Research Animals

## Tuesday's Sessions

Changing the Human-Animal  
Dynamic in Research

Current Programs and Practices

Tools, Processes, and  
Lessons Learned





# NAS - ILAR Roundtable



## Presenters

Bonnie Beaver, Texas A&M  
Melanie Graham, U Minnesota  
Brianna Skinner, FDA  
Anneke Keizer, CopePLUS  
Tracy Parker, Intuitive Surgical & AALAS  
Mary Ann Vasbinder, GlaxoSmithKline  
Elizabeth Clemmons, Texas Biomed Research Institute  
Cindy Pekow, VA Puget Sound  
Sabrina Brando, AnimalConcepts & U Stirling  
Bruce W. Kennedy, Chapman University  
Sally Thompson-Iritani, WA National Primate Research Center  
J. Preston Van Hooser, U Washington

Taylor Bennett, National Assoc Biomed Research  
Paul Locke, Johns Hopkins  
Paula Clifford, Americans for Medical Progress  
Ken Gordon, Northwestern Assoc Biomed Research  
Patricia Turner, Charles River Laboratories  
Cathy Schuppli, U British Columbia  
Freddy de la Garza, BD  
Holly Nguyen, U Washington  
Vanessa Lee, Emory  
Ann Turner, AALAS  
Julie Mattison, NIH/NIA  
Angela Alfonso, NIH/OD/ORS





# NAS - ILAR Roundtable

## Human-Animal Interactions in the Research Environment

October 28 and 29, 2019, NIH Bethesda Campus

[Go to the ILAR website to register](#)

### Thanks and Acknowledgements

Teresa Sylvina and Amanda Purcell, ILAR

Bob Dysko, RT chair

Members of the RT over the years

ILAR Council

The speakers

Most importantly the animals and the animal care providers!





# Needs Assessments: Common Themes and Suggestions for Consideration

Anneke Keizer

CopePlus

Lebanon, New Jersey/Lucerne, Switzerland

- ▶ People using and caring for animals actually “care about the animals”
- ▶ They care about how they are treated and what happens to them.



# What is a Needs Assessment

- A **needs assessment** is a systematic process for determining and addressing **needs**, or "gaps" between current conditions and desired conditions or "wants". The discrepancy between the current condition and wanted condition must be measured to appropriately identify the need.



# What is a Needs Assessment

- ▶ “**Need**” refers to the gap or discrepancy between a present state (**what is**) and a desired state (**what should be**).
- ▶ The need is neither the present nor the future state; it is the gap between them.



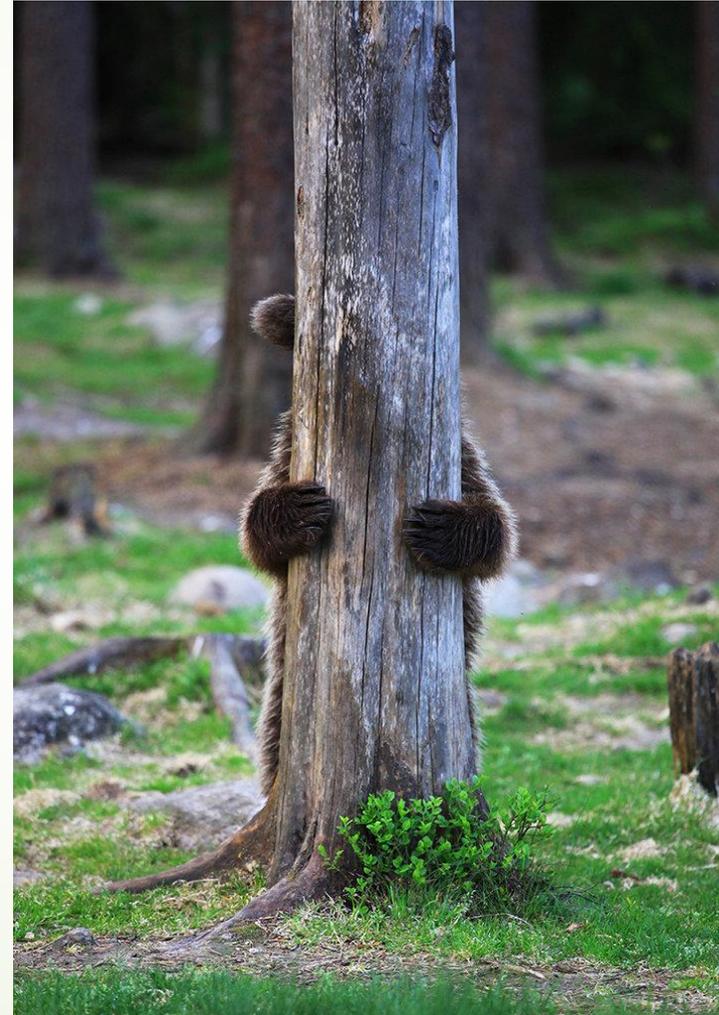
# In My Travels – I Have

- **Interviewed 551 people (Research Team)**
- Facility Directors
- Veterinarians
- Necropsy Teams
- Animal Care Staff
- Veterinarian Associates
- Cage Wash Personnel
- Study Directors/Principal Investigators
- IACUC Members
- Supervisors



# Needs Assessment

- ▶ On day one
- ▶ I give a talk about Compassion Fatigue
- ▶ Explanation about the Needs Assessment
- ▶ How does it work
- ▶ What can you expect
- ▶ Taking notes
- ▶ 100% confidential



- ▶ “I had no clue what was wrong with me until I attended your talk. I am grumpy all the time. This is like a revelation. I just did not recognize at first that I suffer from compassion fatigue until now. It helps to put a name on it. Now it all makes sense. I am emotionally exhausted. This program will be very beneficial for many people”  
  
(Research Technician)



# Needs Assessment

- ▶ Meeting with people from all area's of the animal facilities
- ▶ One on One
- ▶ Animal Care staff often prefers to meet in a small group



# Needs Assessment

- ▶ No supervisor or managers present
- ▶ 100% confidential – After final report is submitted all notes are shredded
- ▶ Will become the basis for your Compassion Fatigue Support program



“Now I understand and realize why I am sitting home and do nothing for hours. I suffer from compassion fatigue”

(Veterinary Associate)





# Protocol Review and Building Relationships with Research Staff

Create by Anneke Keizer

- “Pre-study meetings would be something that we really want: read the protocol with all people involved, what is the target, what is the drug doing, what can we expect that will be hard to deal with. We want to know”

(Veterinarian)



# Protocol Review

- ▶ People who are conducting and supporting research want to know what is expected to happen during the study. No surprises
- ▶ The animal care staff see the animals more than anyone else
- ▶ Involving them by telling them what to look for can benefit them and the study
- ▶ They may not know why something is happening but they can notify the research staff when they see anything unusual or unexpected



# Building Relationships with Research Staff

- ▶ People want to know the results of the study
- ▶ They also would like to know who benefits
- ▶ Keep staff informed during the course of the study (continue education)



# Building Relationships with Research Staff

- ▶ Invite the Research Staff to give a talk about their research (part of continue education)
- ▶ When there is an educational afternoon, invite the Research Staff as well
- ▶ When you have a commemoration make sure to invite the Research Staff also





Yes, I definitely experience compassion fatigue. Over the years it does not have changed. I work with chickens and the euthanasia is very difficult. I build up a shield to protect myself, but deep in my heart it is always there. I really try to take good care of myself.

(Study Director)



# Building on Relationships.....

- ▶ Add to the IACUC Website a page dedicated to Compassion Fatigue
- ▶ Have a chapter on that page that explains the importance of informing people:
  - ▶ When is the end point of the study so that the animal caregivers can say goodbye to the animals



# End Point Notification

- ▶ When a study ends it is very important that all people who have been involved know when the animals will be euthanized.



- ▶ “If the animal care giver wants to hold the animal’s hand/paw when we put the animal down, we strongly encourage them to do so. It calms the animal down to be with a familiar face”  
(Necropsy Team Member)



# End Point Notification

- ▶ Develop a system that will notify people about the endpoint
- ▶ Keep in mind animal care staff does not always have access to email



- ▶ “We need to know when our animals are euthanized. Once I came back after the weekend and found one of my rooms empty, I was very, very upset. It took me weeks to get over it. It totally changed me”

“Thinking about it still makes me  
upset”

(Animal Care Taker)



# End Point Notification

- ▶ Give people the opportunity to say goodbye
- ▶ Give them some time.... an hour, or let them go home earlier



- “Every animal I put down I apologize to and say a little prayer. I say thank you for all you have done for us”  
(Necropsy Team Member)



# Awareness at all Levels is an Important Factor for the Success of your Compassion Fatigue Support Program



Create by Anneke Keizer

# Awareness at all Levels

- Management and Research Staff must understand that Compassion Fatigue is a real issue
- In the past, nobody talked about it
- Instituting a Compassion Fatigue Support Program requires a culture change at all levels. This is a must



# Awareness at all Levels

- ▶ Only if management makes self-care a priority it will be taken seriously
- ▶ New Employee Guide/Orientation



# Keep a Close Eye on Your People

- ▶ For their well being
- ▶ Spend time in the animal facility
- ▶ Give people time to take a break
- ▶ They need time to reflect
- ▶ Understand that no news is not always good news
- ▶ People should not be afraid to talk



- ▶ “When I ask my supervisor can I have a hug, she will always say of course you can”

(Animal Care Supervisor)



# Break and Lunch Times

- ▶ People should never feel guilty when they take a break
- ▶ They need their peers
- ▶ They need your support



# Break Rooms

- Break Rooms are tremendously important
- Give them their privacy
- The Break Room should NOT be public
- Let them decorate the room
- Jigsaw puzzles and Adult Coloring Books
- Soft Colors and Dim lights



- Older animals, who are no longer on studies, can help us and be an emotional support. We go and visit them and be with them when we just want to find some peace and need to talk to them

(Behavior Manager)



# When a Study is Hard to Deal with

- ▶ Make sure your staff understands the study
- ▶ Show that you understand them
- ▶ Keep a close eye on your staff
  - ▶ Calling in sick
  - ▶ Staying over night at the facility
  - ▶ Not taking breaks



- ▶ “I want someone who checks on me during the study: ‘How are you doing?’ Getting the right support will help a lot.”

(Research Technician)



# Someone to talk to

- ▶ Find someone at work who you can talk to
- ▶ Someone you feel comfortable with
- ▶ Employee Assistance Program
  - ▶ Let them spend some time in the facility so they understand
  - ▶ Training in Lab. Animal Science



# Use of Language in the Facility

- ▶ Be sensitive on how you say something or express yourself about the animals, e.g., find a better terminology for “sacking” animals. Maybe say the animals are sent to necropsy
- ▶ Using proper language is showing respect to the animals



# When Things go Wrong

- ▶ Facility Malfunction
- ▶ Transportation Mishaps
- ▶ Accidents



# Guidance after an Incident

- ▶ Make sure there is a follow-up
- ▶ Prepare a meeting for the facility
- ▶ Give personnel time to grieve



# Focus on Self Care

- ▶ We are all Responsible
- ▶ Sustainable Self-Care is the only Answer to Healthy Caregiving



# The importance of Self Care

- ▶ Self-care – centering and balance
  - ▶ Physical – yoga, walking
  - ▶ Emotional – including love, laughter and forgiveness
  - ▶ Spiritual – meditation, church
  - ▶ Social – three healthy relations in your life
  - ▶ Intellectual – find something totally different to do, be flexible



# And most important Love Yourself



- Seeing people cry is so hard. I tell them take a walk, reflect, come to yourself. Everybody handles emotions differently  
(Facility Director)



# Peer support

- ▶ Expose ourselves to other's resilience
- ▶ Connect to colleagues – Someone to talk to
- ▶ Reduce isolation and stress
- ▶ Trusting your co-workers
- ▶ Understand **your role** and **limitations** and the strength and capacity of your coworkers



# Reaching out to troubled peers

- ▶ Sometimes we are so enmeshed in our own daily lives and attending to the demands of our work that we fail to see that a peer or colleague is struggling.



# Putting it all together

- The research team includes most of the people listed on Slide 6
- The best care and study results occur when that group functions as a team
- Things happen to the animals during the study that profoundly affects people on that team
- Be aware of those affected and give them support
- Communication among the team is very important



# Animal Care Taker

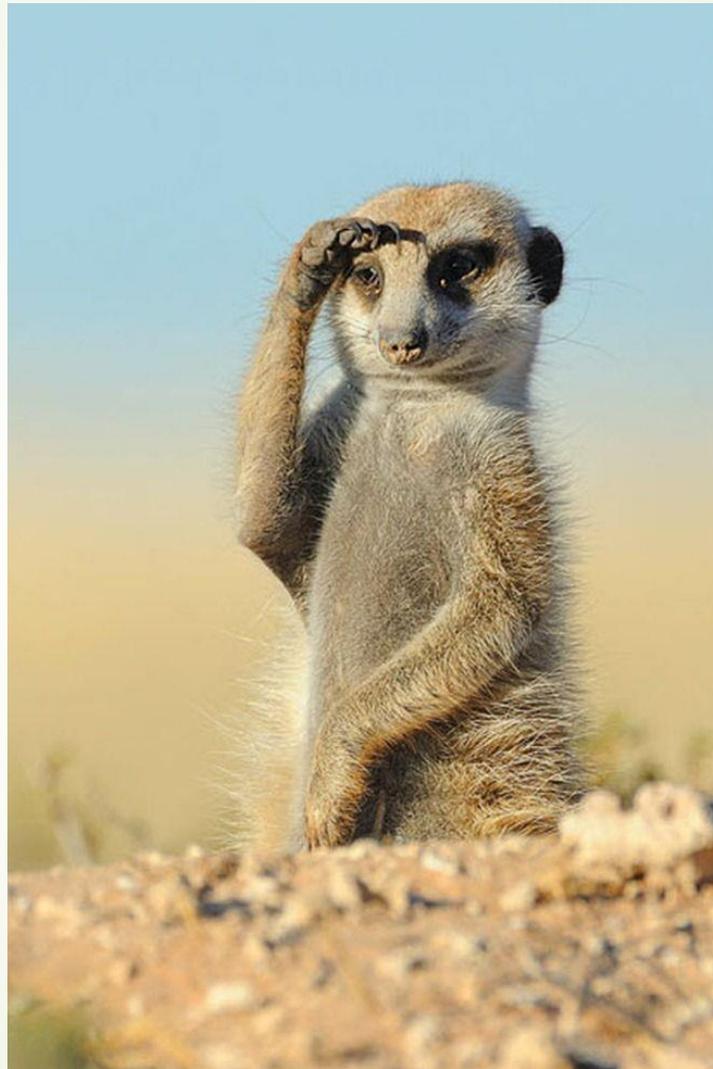
- ▶ Cleaning the room after the animals have left: One employee said: “It is so hard to enter the room and see all the animals gone. I can still smell them, see their hair, and waste. It is devastating. Can we take turns cleaning and sanitizing each other’s room after the animals are gone?”

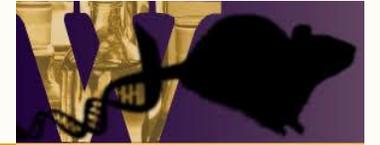


# Clinical Research Associate

- ▶ “Memorial for the animal outside: have a big rock where we write the names of the animals on to remember them by. We can use a sharpie and when the rain fades and washes away the names that is okay, they found their place and they made room for new names to be written down. We can have a pile of small stones available where people can write their favorite animals name on and place them on or around the stone”







# One Health Approach: Incorporating Prevention into Your Occupational Health Program

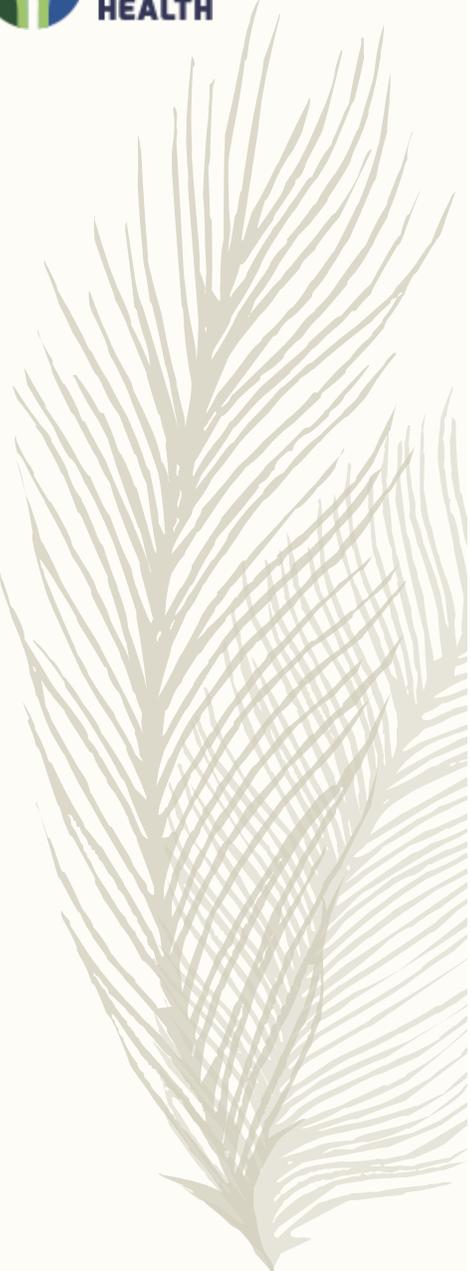
## ***Christina Pettan-Brewer \* (Presenter)***

Veterinarian, Lecturer and Co-Director  
UW Department of Comparative Medicine  
School of Medicine, University of Washington  
One Health Brazil Latin America (WVA Member) – President  
One Health Latin America – Founder Member  
One Health Colombia – Founder Member  
UW Dare 2 Care (D2C) Compassion Fatigue Committee Member

## ***Clovis Antonio de Amissis Amorin***

Psychologist and Professor  
Department of Psychology  
Pontificia Universidade Catolica do Parana  
Parana , Curitiba BRASIL  
One Health Brazil





*“I have come to believe that a great teacher is a great artist and that there are as few as there are any other great artists. Teaching might even be the greatest of the arts since the medium is the human mind and spirit.”*

*— John Steinbeck*



Photo courtesy of the University of California

A diplomate of the American College of Zoological Medicine, the American College of Veterinary Internal Medicine and the American Board of Veterinary Toxicology, Dr. Murray Fowler's career encompassed private practice, academia and 24 years as a veterinarian for the Sacramento Zoo, which named its veterinary hospital in his honor.

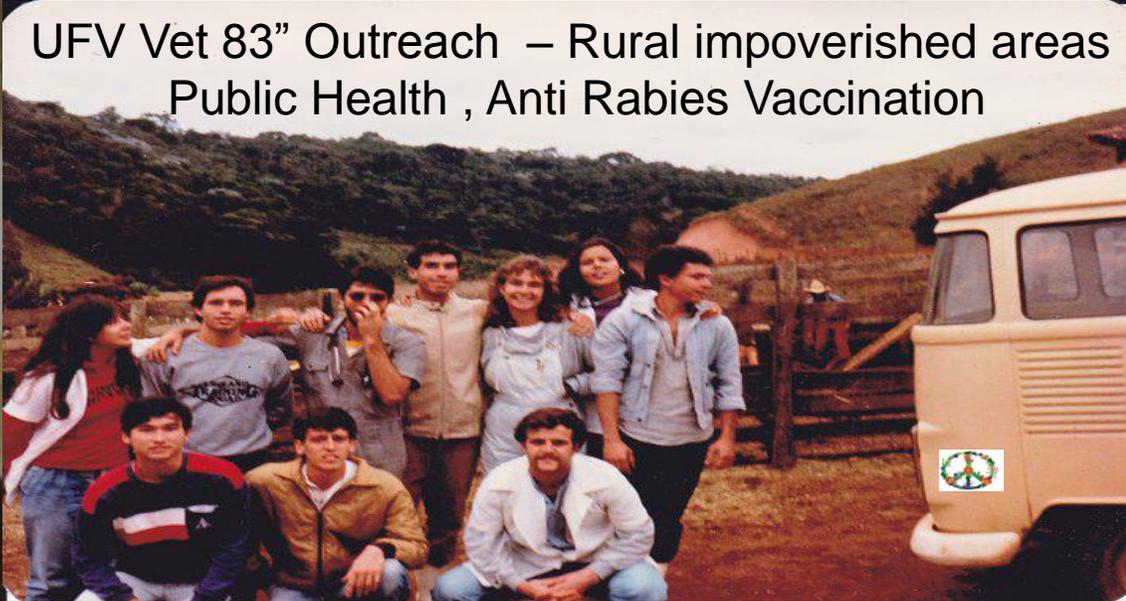
*Legacy, Mentor for 30 years  
and In Memoriam*

Prof Dr. Murray E Fowler (1928-2015)  
Professor Emeritus  
Zoological and Wildlife Medicine  
UC Davis



**Universidade Federal de Viçosa, Minas Gerais Brazil VET 1983-1988**

**UFV Vet 83" Outreach – Rural impoverished areas  
Public Health , Anti Rabies Vaccination**



**Human/Animal/Environmental Interface**

***UFV ZOO & WILDLIFE MEDICINE/ COMP PATHOLOGY 1983- 1988 – Los Angeles Zoo***

***1989-1996 UC Davis , 1996 CDC Emerging Infectious Disease (EID) Fellowship***

***2001 to Present – post doctoral clinical trainee in Medical Genetics (FIRST DVM\*\*)***

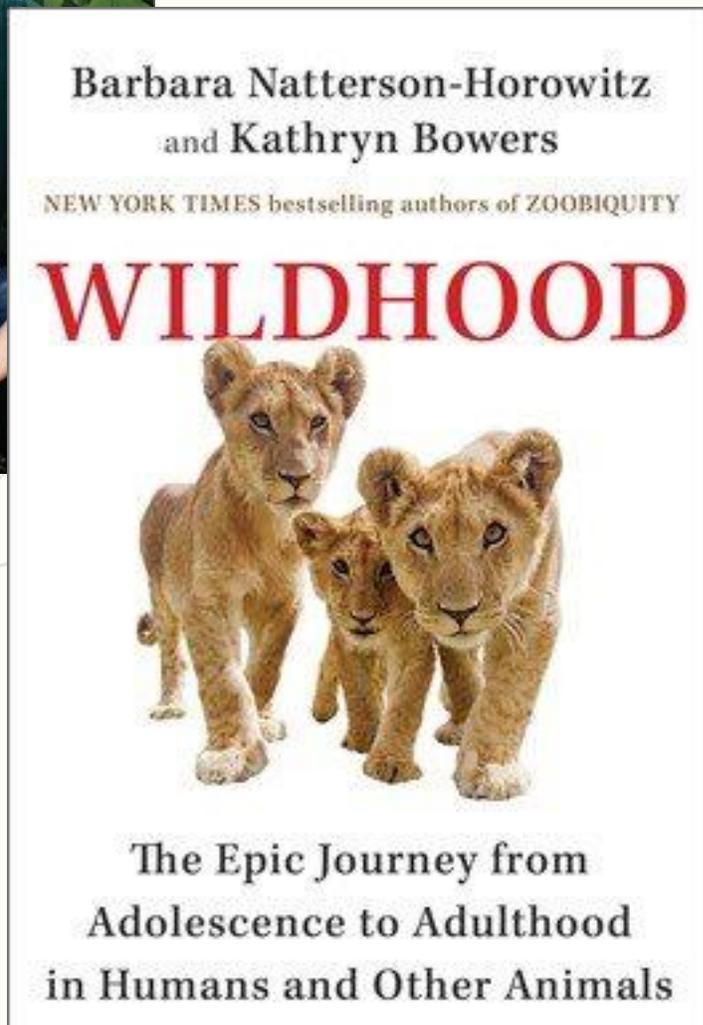
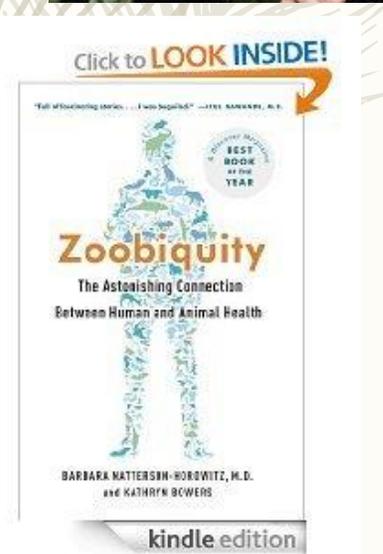
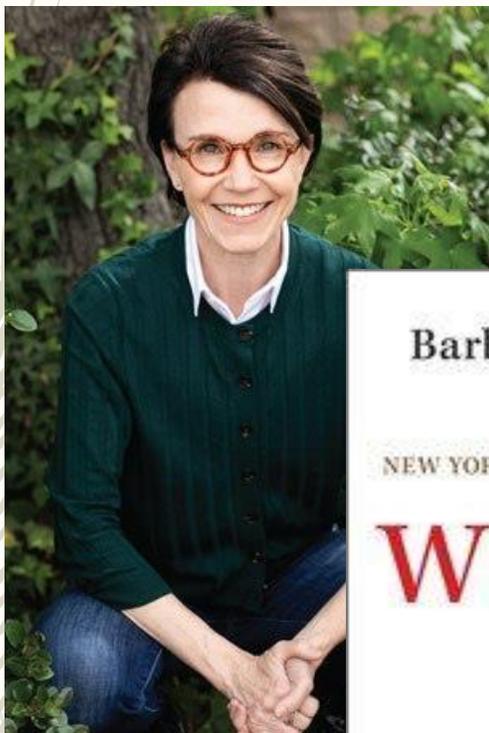
***and post doctoral research in Comparative Medicine University of Washington (UW) School of Medicine***

***The University of Washington, School of Medicine***

- ***2010 One Health BRAZIL LATIN AMERICA (WVA/WMA) in Brazil and Latin America – One Health Partnership Programme***
- ***Fulbright Scholar and One Health Ambassador***

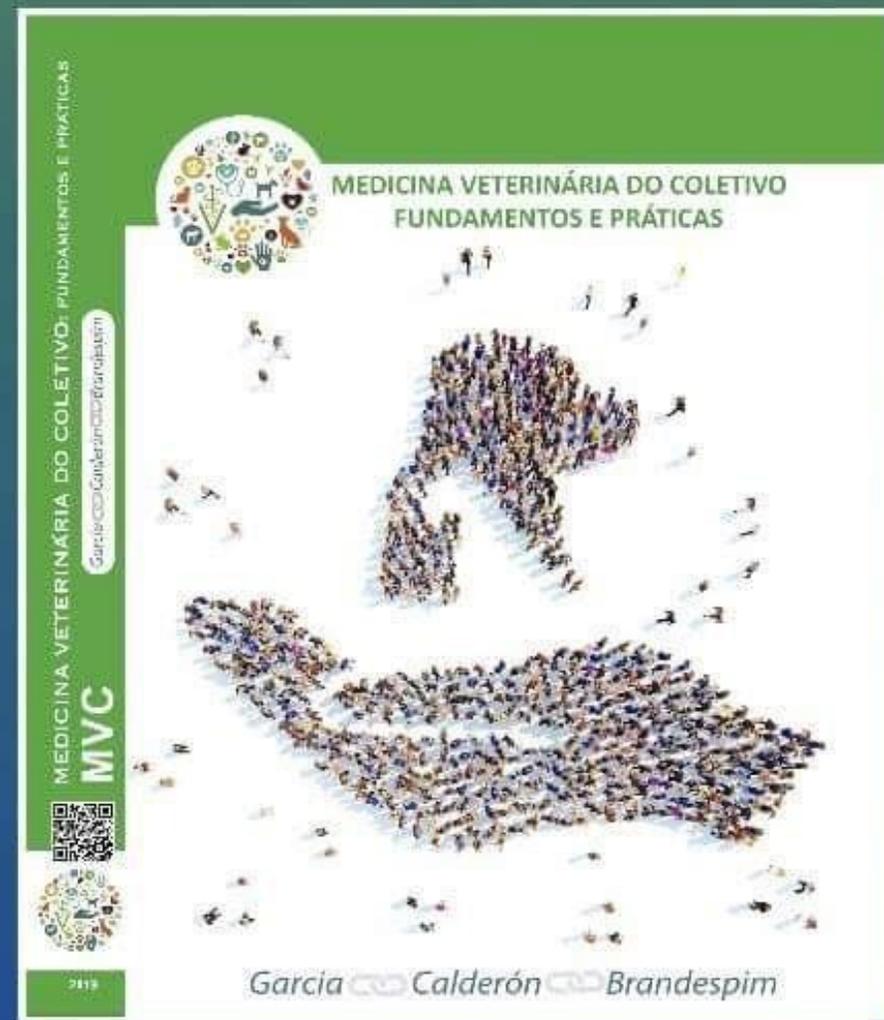


# ZOOBIQUITY



# LANÇAMENTO EM CURITIBA

## Saúde Única | One Health



[medicinavetdo coletivo.com.br](http://medicinavetdo coletivo.com.br)



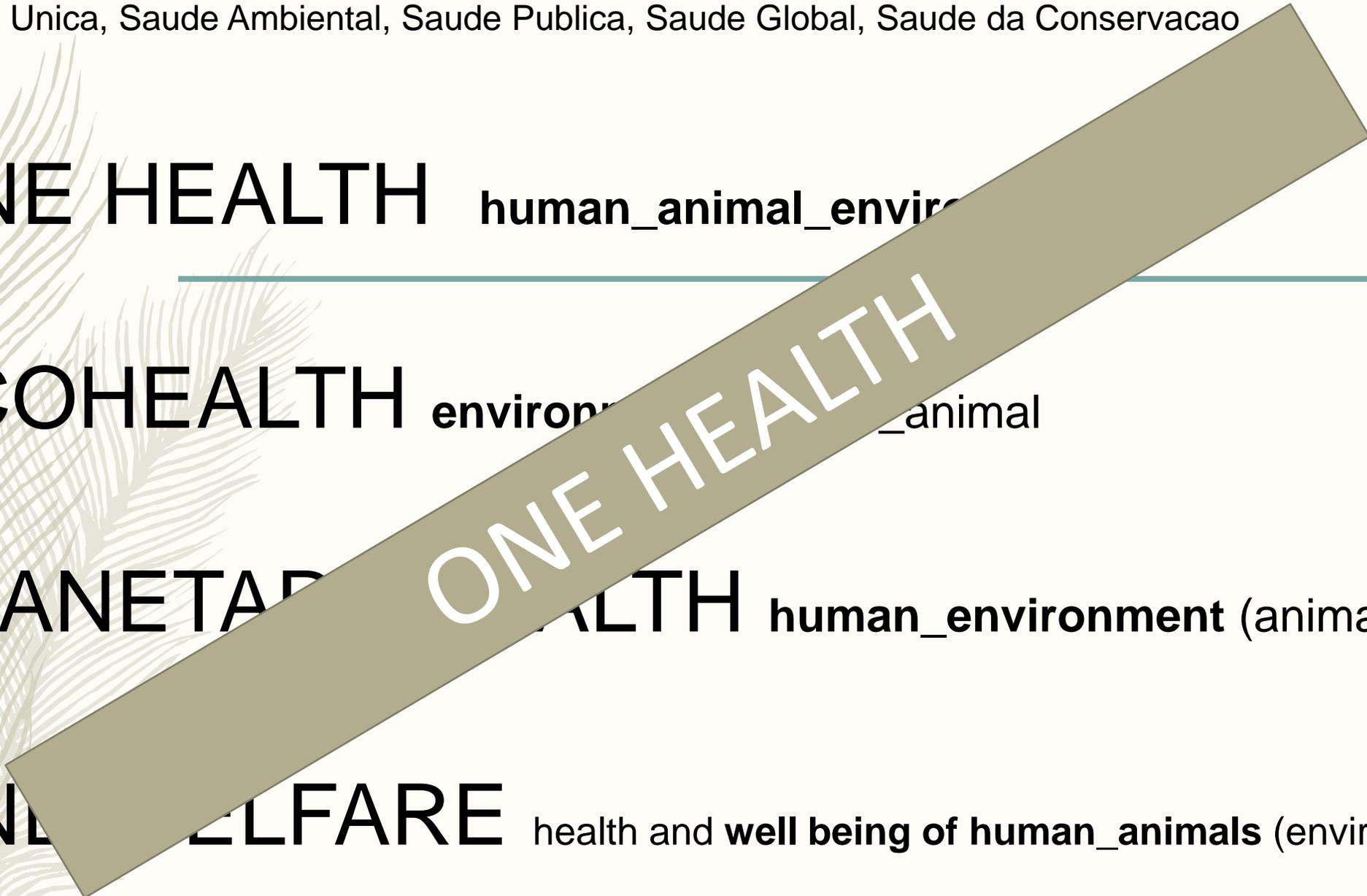
**ONE HEALTH** human\_animal\_environment

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**ECOHEALTH** environment\_animal

**PLANETARY HEALTH** human\_environment (animals)

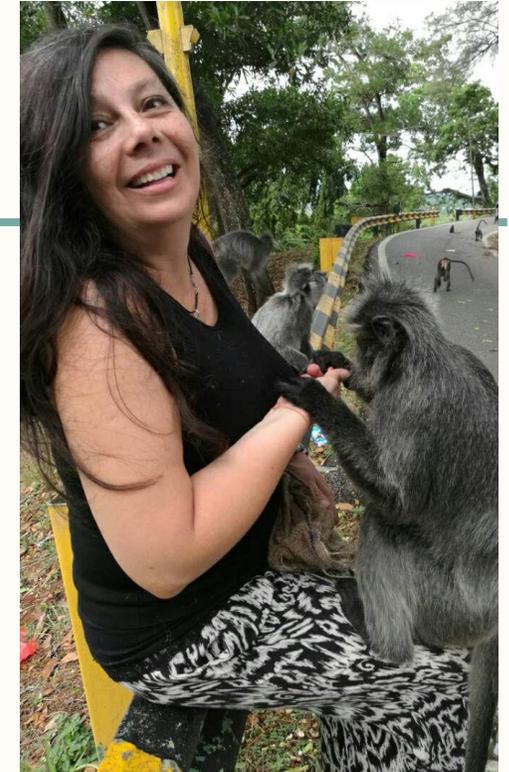
**ONE WELFARE** health and well being of human\_animals (environment)





# Session Objectives

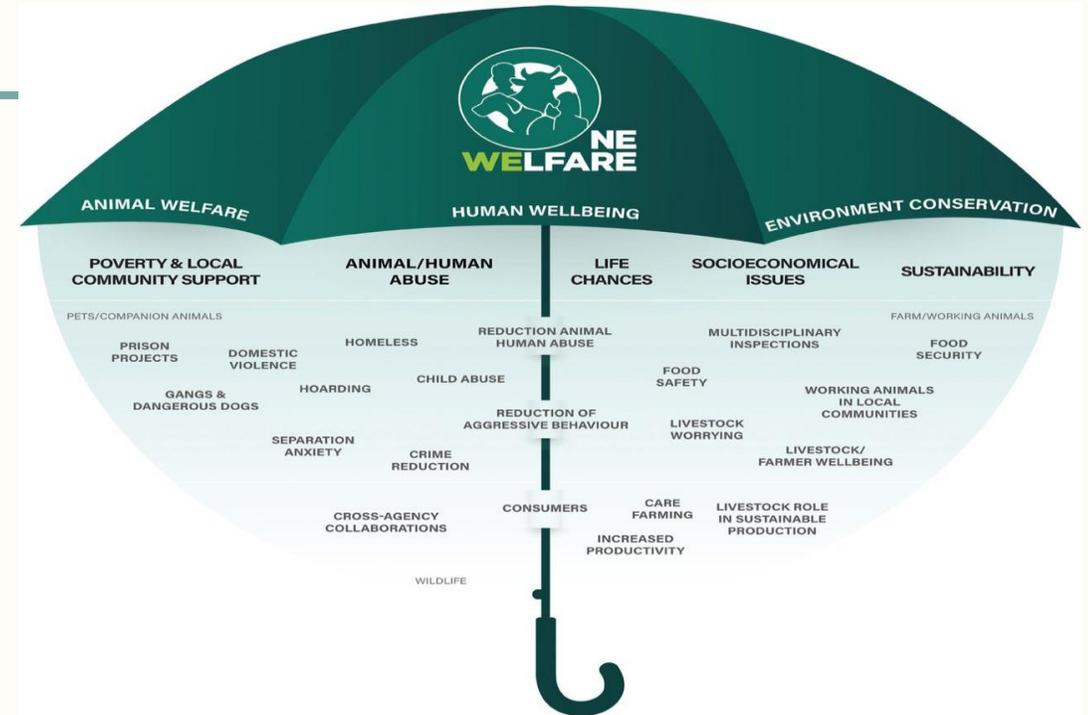
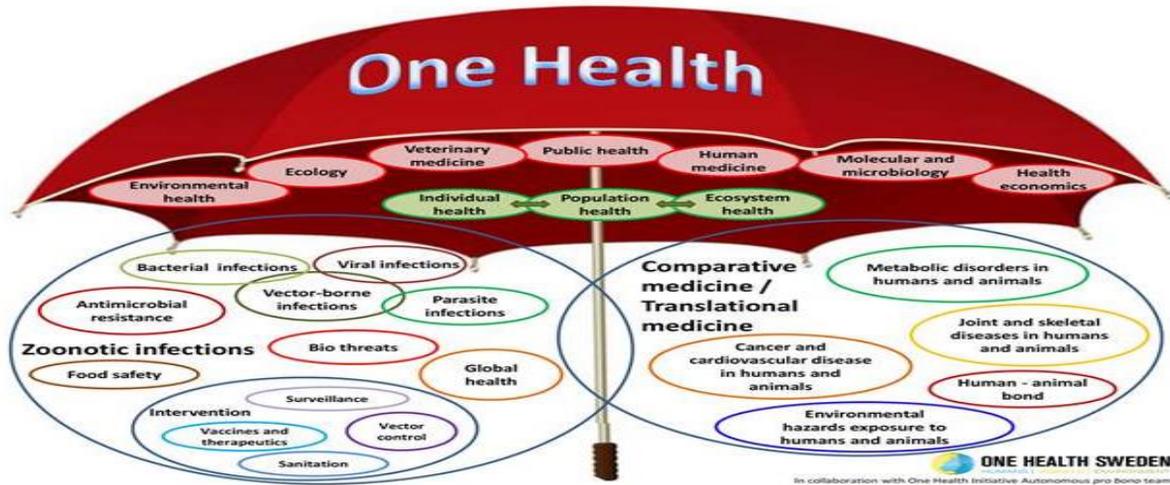
- What is Compassion and the One Health/ One Welfare approach ?
  - The Human-Animal Bond and Environmental Enrichment and Positive Support
- Examine compassion , burn out and its impacts as occupational health
  - Veterinarians, Animal Caregivers, Researchers, Faculty, IACUC members
- Provide examples of coping strategies and changes through
- Illustrate compassion in science program development
- Develop, implement and collaborate a sustainable compassion in science supportive program at a university, national, international and Global levels



# One Health/Eco Health/Planetary Health

# One Health, One Welfare 2018

Rebecca Pirillos DVM, PhD Animal Welfare, Spain



**RECOGNISING THAT ANIMAL WELFARE, BIODIVERSITY & THE ENVIRONMENT ARE CONNECTED TO HUMAN WELLBEING**

- Animal welfare
  - Human wellbeing
  - Environmental health and sustainability
- II International One Welfare Conference  
Australia, New Zealand - October 14-15 2019



COMPASSION IN SCIENCE

BURN OUT

LET'S TALK

EUTHANASIA

ABOUT IT

SUICIDE AND PREVENTION IN VETERINARY MEDICINE

## ANIMAL CONTACT HEALTH QUESTIONNAIRE

*Confidential* \_\_\_\_\_ *Initial* \_\_\_\_\_ *Periodic*

Name (Last, First, MI): Employee ID Number: Male Female  
Job Title: Box Number: Work Phone:  
Department: Supervisor/PI:  
Work location: How many years have you worked in this position:  
Email (required): Birthdate: Today's Date:

### STATEMENT OF DECLINATION

**IF YOU CHOOSE TO DECLINE THE MEDICAL SCREENING, SIGN BELOW AND DO NOT COMPLETE THE REST OF THE FORM.**

I, (Type or print name), decline to participate in the Occupational Health program for animal contact workers. I realize that declining could lead to unforeseen medical concerns. I also understand that I can change my mind about participating by contacting the Employee Health Center.

**SIGNATURE: DATE:**

**Send To: Employee Health Center, Box 354410, Office  
206-685-1026 Fax 206-221-5110**

### I. LABORATORY ANIMAL USE *Check all boxes that apply to your work situation.*

I am working with live animals.

I do husbandry (care of animals) and/or veterinary services.

I do not work with animals, but work in an animal area.

## VI. ADDITIONAL HEALTH CONCERNS

Yes  I have health or workplace concerns not covered by the questionnaire (e.g. Compassion Fatigue) that I feel may affect my occupational health and would like to discuss with the Employee Health provider.

Yes  I have reproductive concerns that I would like to discuss with the Employee Health Provider

Yes  I have answered the questions truthfully and to the best of my recollection.

**VII. SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_**



## DEFINE CLEARLY AND WORK COLLABORATIVELY WITH EXPERTS IN MENTAL HEALTH (ONE HEALTH)

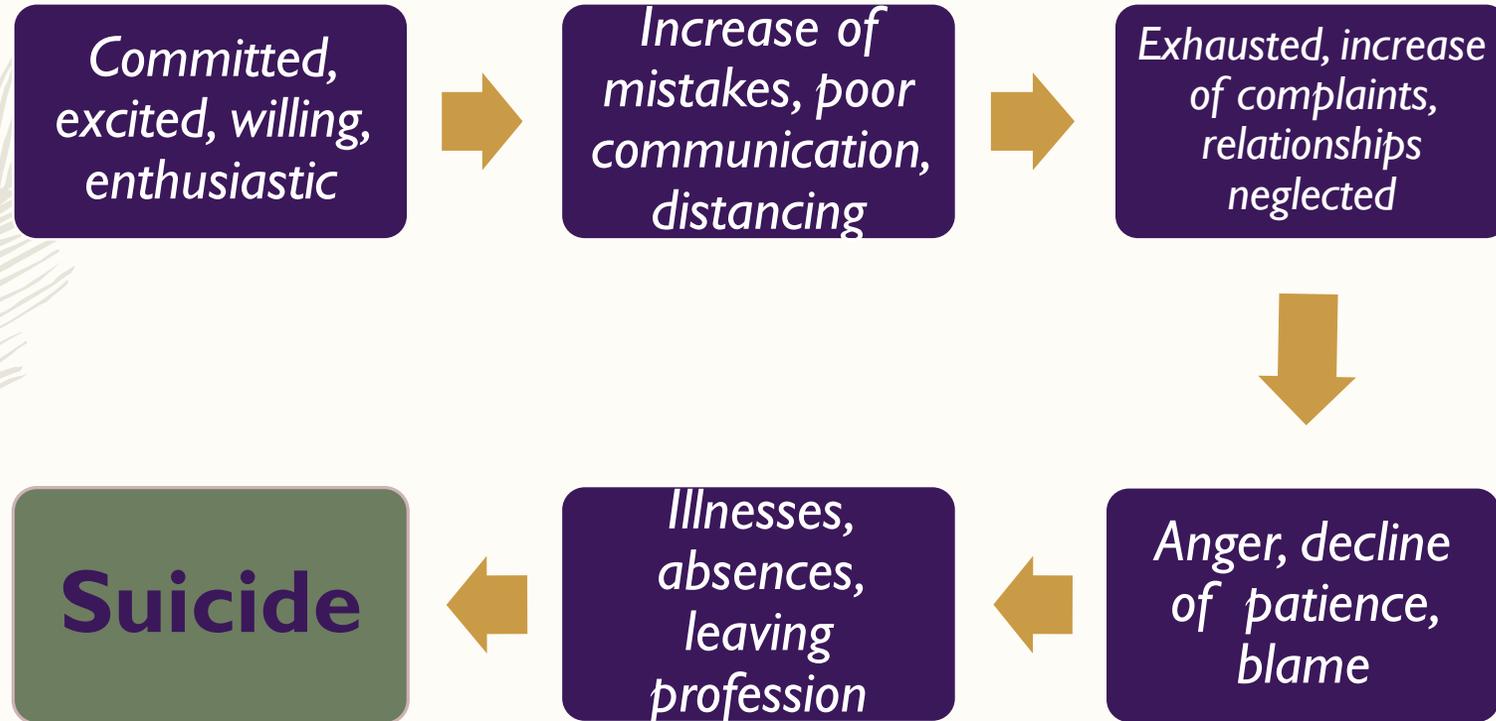
116

BRAZIL Medical System 2018  
Psychiatry considers CF  
as Occupational Health

- ◆ Chronic stress syndrome known as *Burnout*, according to Maslach and Jackson (Will et al, 2018), is composed of three aspects: emotional exhaustion (EE), depersonalization (DE) and decreased personal fulfillment at work (RP)
- ◆ Reinhold defines *Burn out* as the auto combustion (the action of auto consumption by flames) a deep feeling of frustration and exhaustion related to work
- ◆ **EPIDEMICS OF BURN OUT** : Unsatisfactory efforts – perhaps because the current programs are only focusing in individuals and not in the organization (environment)
- ◆ FATIGUE related to work
- ◆ Difference between burnout and depression : both has loss of interest; depression has lethargy and sense of guilty and failure; burn out is disappointment and sadness related to work



# The Trajectory of Compassion Fatigue



Witte, TK, Spitzer, EG, Edwards, N, Fowler, KA and Nett, RJ. Suicides and deaths of undetermined intent among veterinary professionals from 2003 through 2014. J Am Vet Med Assoc 2019;255:595-608.





# COMPASSION DOES NOT FATIGUE !



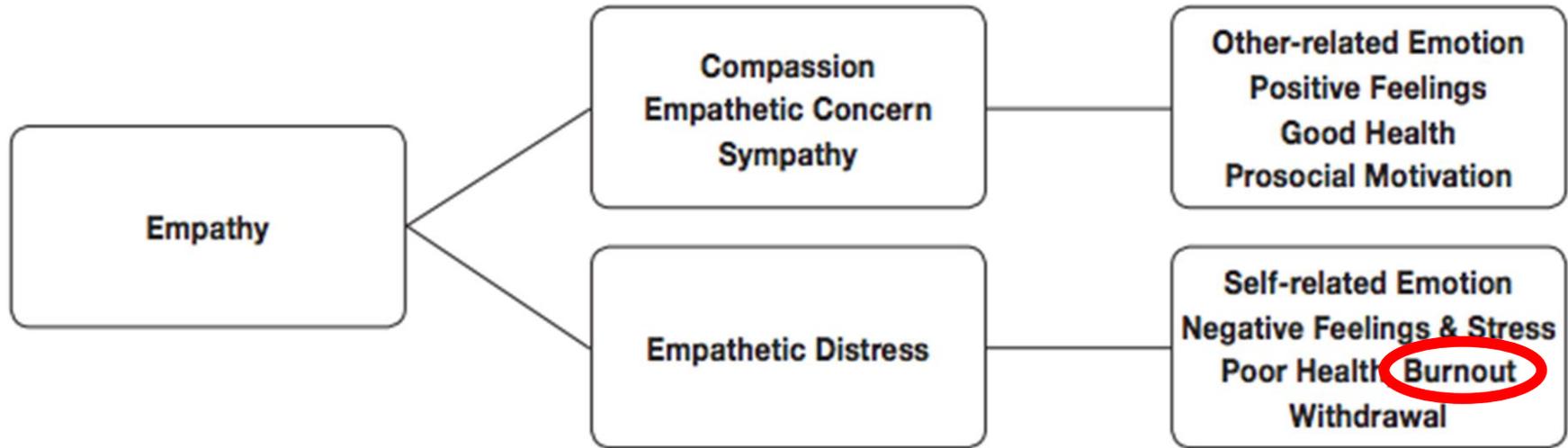
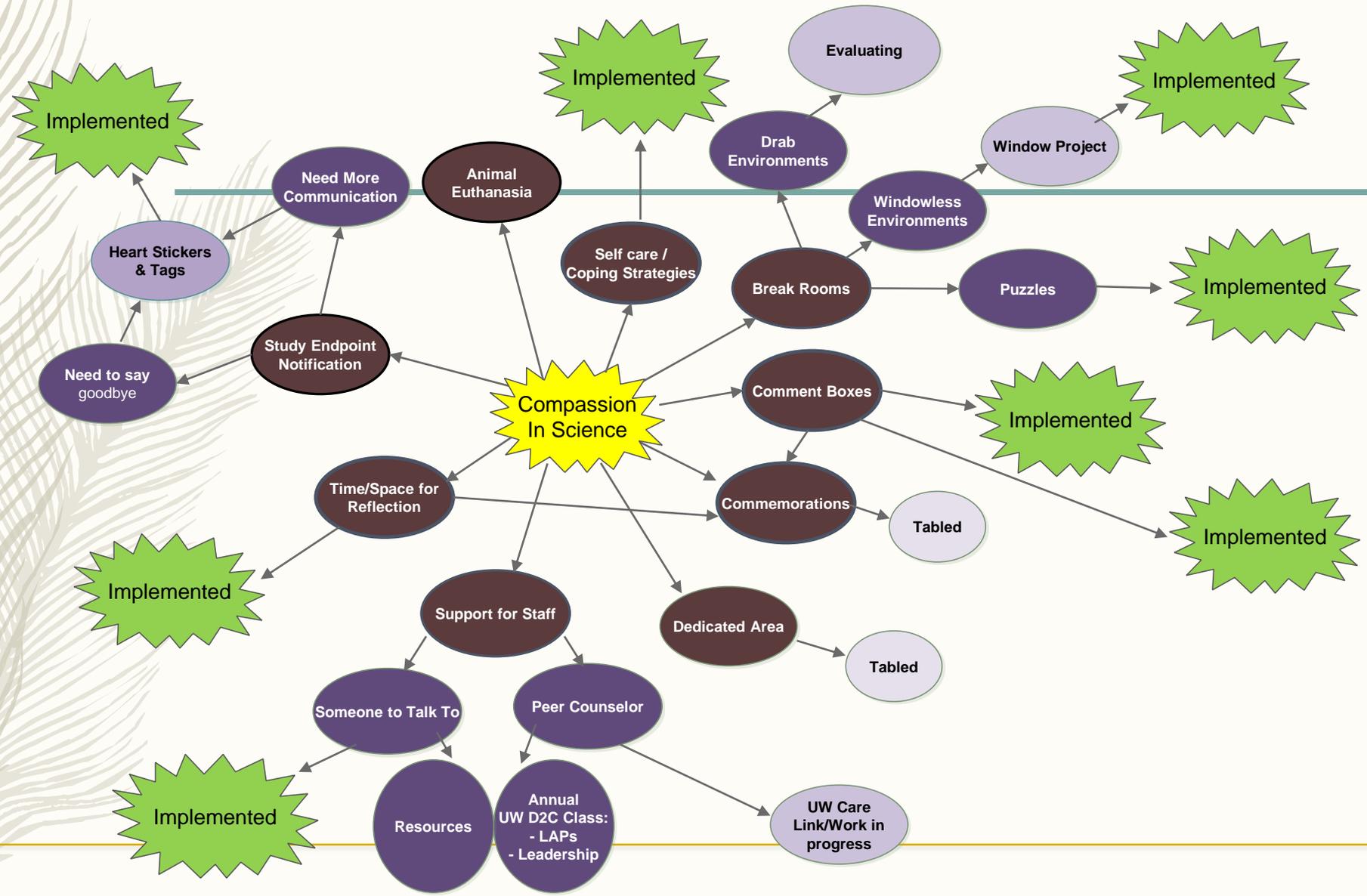


Figure 1. Hierarchy model of empathy and compassion.



# Sustainability : Compassion Fatigue at UW

In Science



# Time and Place for Reflection

- Purpose - provide an opportunity for individuals to come together in one place to pay tribute to our research animals and each other.



**Martin K. (Casey)  
Childers,  
DO, PhD**  
Professor  
Rehabilitation Medicine  
University of Washington



**Paul Frase**  
NFL Veteran  
Co-Founder, Joshua Frase  
Foundation

- Paul and Casey shared their stories and provided an explanation about how the use of their research animals help bring new treatment to patients Myotubular Myopathy (MTM), a form of muscular dystrophy.
- Open to all animal caregivers, research faculty, public and staff



**“REFLECTIONS”  
DARE 2 CARE**

**A World Without Biomedical Research?  
Why Transparency is Vitally Important!**

*presented by*

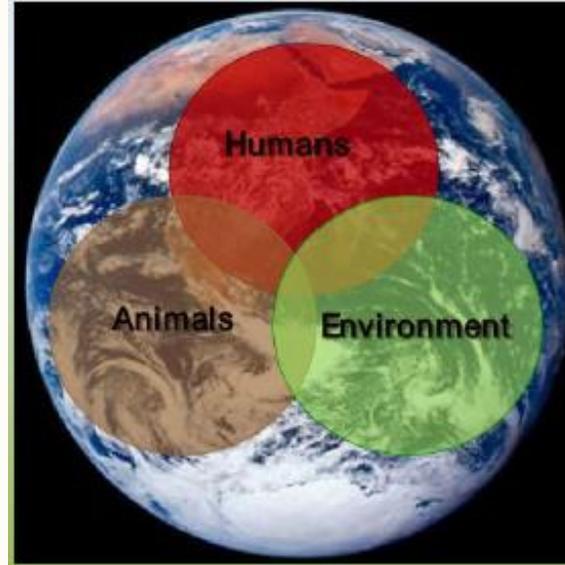
**Ken Gordon**  
Executive Director  
Northwest Association for  
Biomedical Research

**TIME:**  
1:30 - 3:00 PM

**LOCATION:**  
Turner Conference  
Room  
HSB E-202

**CONTACT:**  
(206) 616-2386

# Depression and Anxiety Disorders in Humans , Domestic and Wild Animals



Interdisciplinary

Psychology  
Population Studies  
Psychiatrists  
ETHOLOGY

Reported in the  
Wild as well

ENVIRONMENTAL HEALTH



*C Pettan Brewer*

COMPARATIVE MEDICINE AND ONE HEALTH





# Caring

**“It’s proper to make the distinction  
When explanations are given;  
Between those who care as a hobby  
And others who care for a livin’.”**

**Baxter Black, 1986**

**“Animal Lovers”, Coyote Cowboy Poetry**

Idea for quote borrowed from K. Bayne, ILAR Journal V43(1) 2002



# Acknowledgments

University of Washington D2C Compassion Fatigue Committee – J Preston Van Hooser

WaNPRC Leadership – Sally Thompson-Iritani

AALAS Executive and Organizing Committees

UW Department of Comparative Medicine (Thea Brabb and Sue Dowling)

UW Center for One Health Research

One Health Brasil and One Health Latin America

UW School of Medicine

CFMA (Committee for the Advancement of Minority Faculty Award)

One Health Brasil – Prof Clovis Amorin (PUC PARANA)

One Health Latin America



**Thank you ALL BEINGS for what you do.....  
you truly make a difference!**

One Health/EcoHealth/Planetary Health



RECOGNISING THAT ANIMAL WELFARE, BIODIVERSITY & THE ENVIRONMENT ARE CONNECTED TO HUMAN WELLBEING

One Health, One Welfare  
Eva Febrera Fierros, Spain 2019



<https://www.oneofwelfareworld.org/>



What does our umbrella look like?



SMILE AT THE RAIN  
WE SHARE AND WE CARE



Beth Hendrickson Logan, Beth Logan Artstuff Ltd., Seattle, WA



# UW D2C Website



## DARE 2 CARE (D2C)



One of the great challenges for laboratory animal professionals is acceptance and management of the demanding emotional effects from working with animals within the research field. The term that has been coined to describe this emotional toll is Compassion Fatigue (CF).

Compassion Fatigue is a manifestation of stress that presents as emotional, physical, and spiritual exhaustion associated with chronic exposure to stressful situations when working in the challenging environment of using animals in the research field. Laboratory animal professionals are at a high risk for CF due to the daily care they provide for research animals. Symptoms of CF range from depression, anxiety, cynicism and physical ailments to isolation, absenteeism, helplessness, substance abuse, and even suicide.

As Compassion Fatigue is a normal consequence of caring, this project of building the Dare 2 Care (D2C) Compassion in Science Program at the University of Washington has been designed to assist all members of the research team in understanding and coping with this common concern by managing the emotional challenges resulting from the care and use of laboratory animals.



## DARE 2 CARE

UNIVERSITY of WASHINGTON  
Compassion in Science

### NEWS AND UPDATES

- A. Preston Van Hooser will be at the MWASR Annual IACUC Conference on April 4th at 4:15 pm presenting D2C updates. Come visit DARE 2 CARE at Booth #5 for fun giveaways and to purchase our newest D2C 32 oz Nalgene bottles where 100% of proceeds are given right back to D2C!
- D2C Boxes for The Box Project are currently being placed in vivaria and other locations- all are welcome to utilize these.



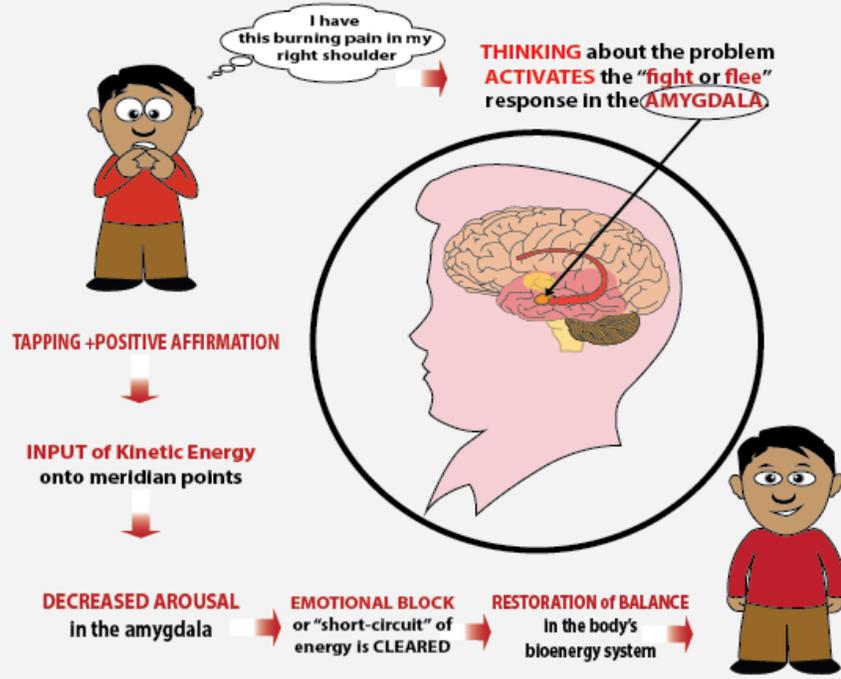
## Impact! September 2019

5,804 visitors | 35 countries | 405 cities

# <https://sites.uw.edu/d2c>



# How EFT Tapping Works



## EFT Tapping Chart for Pets and People

- TH - Top of the head
- IE - Inner Eyebrow
- OE - Outer Eye
- UE - Under Eye
- UN - Under Nose
- UL - Under Lip
- CB - Collarbone
- UA - Under Arm
- KC - Karate Chop



For more information on tapping for pets visit <http://ferrisjay.com/eft/eft-for-animals/>  
 To see demonstration videos please visit <http://ferrisjay.com/free-video-series>  
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# TIPS FOR DESTRESSING