

Contents

vet Candy Magazine • February | 2024



04 | Taylor Emery's Journey to Fulfillment





06 | What happens when cats get fat? Scientists weigh in

08 | Little things that say "I love you" to your other half



10 | Pickier dogs have pickier brains



11 | Go green for life!



12 | FDA Approves Pregabalin Oral Solution for Alleviating Anxiety Associated with Transportation and Veterinary Visits in Cats



13 | Do you have seasonal depression?

15 | What to know about anti-aging medication in development that could help dogs live longer



17 | 5 gifts that encourage self-care



19 | Clues to mysterious new sickness affecting dogs

21 | Exhausted and Overworked: Vet Students Face 100-Hour Weeks Amidst Rising Patient Care Concerns

22

22 | Veterinarian, Dr. Kwane Stewart, wins



the CNN Hero of the Year

23 | The shape of dogs' heads affects their sleep



25 | What do Gifted dogs have in common?

Emotional Burnout



28 | Pre-Specialty Purgatory: The Harsh Reality of Veterinary Residency Programs



vet candy MEDIA

Credits

- o Dr. Jill Lopez Editor in Chief
- Omar A. LopezCreative Director
- Shannon GregoireAssistant Editor
- Yagmur KaramanDesign Editor
- Eoin FinneganCopy and Research Editor
- A.M. KUSKAFeatures Editor
- Shayna ChapmanFood Editor
- Arlene TorresFitness Editor
- o Giselle Richardson

 Nature and Science Editor
- Published by Vet Candy Media
- Chief Executive Officer
 Dr. Jill Lopez





Vet Candy trademark and logo are owned by
Vet Candy, LLC
Copyright ®2023

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the publisher, except in the case of brief quotations embodied in crucial review s and certain other non-commercial uses permitted by copyright law. For permission requests write to hello@myvetcandy.com.





Editor's Note

Welcome to the world of | ETCANDY

Dr. Jill Lopez



Dear Vet Candy Community,

As we embrace the month of love, I am delighted to unveil Vet Candy's February Issue, in celebration of our fifth year anniversary. In these five years, we've experienced a journey filled with remarkable moments along the way, and it feels fitting to celebrate with a special issue focused on self-care mixed with a sprinkle of Valentine's charm.

Gracing our cover is a truly inspiring figure – a former WNBA professional basketball player who has gracefully pivoted into veterinary studies. Her commitment to animal care is as profound as her foray into fashion, where she's launched her own line of casual wear. It's the perfect fusion of comfort and chic, making it a splendid gift choice for your loved ones or even as a treat for yourself.

Reflecting on the past year, my heart is full of gratitude for each of you in our Vet Candy community. Your passion, support, and active participation are the lifeblood of Vet Candy, and we cherish your involvement in every step of this incredible journey.

I'd also like to highlight our website, myvetcandy.com, your go-to resource for fulfilling Continuing Education (CE) needs. Explore our extensive range of veterinary and veterinary technician RACE-approved CE courses that are not only of the highest quality and production, but also free for all! They're available to stream at your convenience, ensuring that your learning journey aligns seamlessly with your busy schedule.





I'm filled with excitement for what 2024 holds for Vet Candy – more captivating content, inspirational stories, and opportunities to deepen our connections. Here's to a year of growth, discovery, and cherished moments in our Vet Candy family.

Cheers to love, cheers to Valentine's Day, and cheers to an extraordinary 2024!

Warm regards,

Dr. Jill Lopez

Editor-in-chief,
Vet Candy



TAYLOR EMERY'S JOURNEY TO FULFILLMENT

What sets your soul on fire?

When you wake up in the morning, what gets you excitedly bouncing out of bed? For Taylor Emery, it's a combination of things. Originally born in Bremerton, Washington, Taylor has big dreams of becoming a veterinarian. The thought of serving others (particularly people experiencing homelessness and their pets) is the driving force behind her decision to pursue veterinary medicine as a career.

But before this, she lived a very different life...

In fact, this CEO & Founder of MerakiTay was once a "Former Pro Hooper." AKA, a professional basketball player!

Vet Candy is beyond thrilled to have had the opportunity to speak with sports legend Taylor Emery recently. Today, she explains why retiring from basketball was the hardest - but also best - career decision, explains some helpful advice she received, plus tells us about her goal of one day opening a MerakiTay Center for vulnerable families and their animals.

FROM BASKETBALL COURT TO VET CLINIC: SLAM DUNKING FOR PETS

Changing careers can be stressful even under ideal circumstances.

After all, you're letting go of an "old" version of yourself. Maybe one you have been comfortable with for years - even decades. Yet to grow emotionally, mentally, and spiritually, occasionally a job switch is necessary.

Taylor Emery can relate.

"Retiring from basketball was probably the hardest and best career decision I ever made," she admits. "I played ball since I was 5 years old. Retiring was scary because it felt like I was losing a piece of myself and even somewhat losing my own identity in a sense. I got annoyed with the politics and my journey with ball seemed as if it was a continuous uphill trek. So, I dove right into the deep end and retired at a time that nobody expected as I was in my prime skill wise."

Turns out, this was the right call.

Before long, Taylor started a business with the money she made overseas. Veterinary school was the next logical step.

Now Taylor says, "My soul has been fulfilled. I've been able to help so many people with the clothes I make and been able to help so many animals. It's been everything I've wanted and so much more."

Vet Candy loves to hear that!

Check out her "paw-some" clothing brand on Instagram @merakitay – the perfect gift for yourself and your loved ones!!

What Makes You Happy?

When asked about career advice, Taylor Emery didn't need to think long. And her answer was spot

"Not to chase the money," she says.

Indeed, research shows that money doesn't always equal happiness.

"When you chase money and how much you can make, your happiness dramatically declines because when do you decide you've made enough money?" Taylor explains. "Most times you don't. You just keep going until you die. I chase what makes me happy and feeds my soul instead. By doing that, I've made more money than I did when I was actually chasing money. After hearing this, my life changed along with my life path. I made decisions for me and my happiness. I have never felt this good in life."

Therefore, to any vet med professional feeling stuck or in a rut, just remember...

Money comes and goes but happiness is priceless!

Rethinking How We Address **Homelessness**

According to The Department of Housing and Urban Development (HUD), approximately 582,000 Americans are homeless.

To Taylor Emery, these aren't just numbers. During her senior year in college, Taylor's own sister and her six children became homeless themselves.

Taylor recalls:

"It was going to be extremely difficult for them to travel as a family to homeless shelters, so I took her 4 pre-teen boys for the summer so she could get back on her feet with only two babies to feed. I realized that these homeless shelters don't keep families together. Men and women can't stay together. A lot of people can't keep their pets either."

Thus, MerakiTay Centers were born.

The vision is this: a homeless shelter attached to an animal shelter.



Taylor sees it as apartment style living for families. Of course, people who come into the MerakiTay Center with pets have "fur family members" that would be welcome to stay too. By providing professional resources to obtain jobs and things needed to sustain life outside of a MerakiTay facility, Emery's hope is that she gets to positively impact as many lives as possible.

It's an incredible goal.

One that Vet Candy is sure will be a winning swish, if Taylor Emery is involved!



WHAT HAPPENS WHEN CATS GET FAT? SCIENTISTS WEIGH IN

Cat owners want Kitty to be happy, but providing an abundance of food and snacks can have unintended consequences. Feline obesity is on the rise, impacting the health, longevity, and wellbeing of cats. A new study from the University of Illinois Urbana-Champaign looks at what happens in the digestive system and gut microbiota when cats eat too much.

"About 60% of cats in the U.S. are overweight, which can lead to health problems such as diabetes and chronic inflammation. While many studies have investigated feline weight loss, there has been little focus on the opposite process, which is also important. In this study, we wanted to learn more about the metabolic and gastrointestinal changes that occur as a result of overeating and weight gain in cats," says study co-author Kelly Swanson, professor in the Department of Animal Sciences and interim director of the Division of Nutritional Sciences (DNS), part of the College of Agricultural, Consumer and Environmental Sciences (ACEŠ) at U. of I.

The study included 11 adult spayed female cats. They were fed a standard dry cat food and after two weeks of baseline measurements, they were allowed to eat as much as they wanted. The researchers collected blood and fecal samples at regular intervals and monitored physical activity.

Once the cats were able to overeat, they immediately increased their food intake substantially and started to gain weight. At the onset of the study, their average body condition score (BCS) was 5.41 on a 9-point scale. After 18 weeks of overfeeding, it had increased to 8.27, corresponding to being 30% overweight. BCS is equivalent to body mass index (BMI) for humans, and 6 or above is considered overweight, Swanson said.

The researchers analyzed changes in fecal output, gastrointestinal transit time, digestive efficiency (nutrient digestibility), and microbiota bacterial composition over the 20-week duration of the study.

"We found that as cats ate more and gained weight, gastrointestinal transit time was reduced, and so was digestive efficiency. When the body gets less food, it will be more efficient in extracting nutrients. But when the amount of food increases, it passes through the digestive system faster and fewer nutrients are extracted in the process," Swanson explained.

The researchers also found significant changes in gut microbial composition between the lean cats at baseline and after 18 weeks of weight gain. The relative abundance of Bifidobacterium, which has antimicrobial activity, inhibits pathogens, and stimulates the immune system, increased, while Collinsella, which degrades fiber and has been linked to pro-inflammatory diseases, decreased. These results are opposite to what has been measured in overweight humans and suggest that their association to weight gain is complex, Swanson noted.

"The change in the gastrointestinal transit time was a novel finding and a potential reason for the change in fecal microbiota. Future studies should consider measuring transit time to better explain modifications to the microbiome of pets," he added.

As the cats' food consumption grew, so did their fecal output. In other words, as they ate more, they also pooped more. At the same time, fecal pH decreased, meaning that the stool became more acidic.

"In humans, a low fecal pH indicates poor absorption of carbohydrates and fat. Our findings correlate with this, as reduced fecal pH aligned with higher food intake and reduced digestibility," Swanson said.

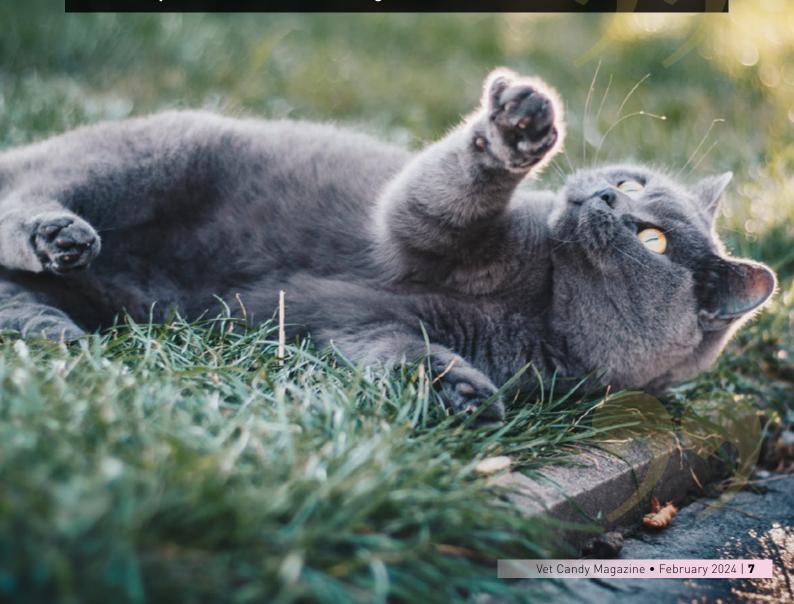
The researchers also measured the cats' activity level with a monitor attached to a collar. The cats were housed in a group setting where they were able to interact with each other and play with toys, except for the days when stool samples were collected.

"We expected that weight gain might lead to decreased physical activity, but we did not observe any consistent changes in activity level. However, this could vary with individual cats and their environment, and how much their owners interact with them," Swanson stated.

Understanding the metabolic and gastrointestinal changes that occur with weight gain and obesity in pets may help with future prevention and treatment plans, the researchers conclude.

Pet owners who want to help their cats lose weight can employ various strategies. In another new study, Swanson and his co-authors showed that restricted feeding can promote safe weight and fat loss in cats. The researchers also suggest pet parents encourage activity in their feline companions. For example, they can stimulate foraging by placing food around the home, or use food puzzles during mealtime to promote engagement and mental enrichment.

After the conclusion of the weight gain study, the 11 cats were put on a restricted-feeding diet that helped them return to normal weight.







* COMPLIMENTS

Complimenting your spouse can boost their confidence and let them know you still think they're pretty great. If you like how he looks, he put on your favorite cologne, or she cooked your favorite meal—let them know how much you love it.

When you compliment your spouse, make sure those compliments are from the heart. A genuine comment of appreciation can help boost their confidence and make them feel loved, false flattery definitely won't.

* LEAVE THEM NOTES

A quick note slipped in their lunch bag or placed on the seat of their car can remind them you love them throughout the day. Little notes are a wonderful way to keep showing that you care, even if you aren't physically there at that moment.

You can also try leaving them small gifts in their coat pocket, or leaving jerky or other treats for them so they have something on hand if they frequently skip or forget their lunches.



* MAKE THEM COFFEE

If your spouse needs a little help to get up in the morning, a cup of coffee made just the way they like it shares a powerful message of love. If your spouse isn't wild about coffee, it can also be their favorite tea or even breakfast. You know what they love the most.

Likewise, bringing a favorite coffee from a coffee stand if they beat you out the door for work can be a wonderful mid-morning pick-me-up for them.

CUDDLE UP

Snuggling is one of the best ways you can show that you care. Whether you're sharing a blanket while watching Netflix, spooning in bed, or just giving them a hug, you can make them feel more loved every day through the power of touch.

If you're not big on cuddles but your spouse craves touch, giving them a surprise back massage could give them the touch they crave without smothering

E LET THEM HAVE SOME BLANKET

If you're a notorious blanket hog (you know who you are), one of the greatest acts of love you can possibly show your significant other is to give them more blanket. At least, at the beginning of the night. As an added bonus, if they try and tell you they woke up shivering with a tiny corner of the blanket left to them, you can point out they had practically all the blanket just a few hours before.

It's always great to let your spouse know that you still care about them, that you still think they look good, and that they still make you happy. Little tokens of appreciation can help keep your bond strong long after the day you first met.





Similar to people, when it comes to food, some dogs are pickier, while others are more easygoing. However, even food that may not be the tastiest is still motivating. Through two experiments, this study tested the influence of food quality on dogs' motivation to solve a problem, as well as their corresponding brain representations.

In the first experiment, a cohort of twenty family dogs was trained to unwrap a box. Subsequently, these dogs were taught to associate specific tones with two distinct food types: smoked ham, a highly rewarding treat, and fiber cookies, a less rewarding option. Finally, dogs unwrapped a box while one of the sounds played, and we used the unwrapping time as a measure of their motivation to obtain the associated food. The results showed that the dogs unwrapped the box quicker when the sound associated with the higher quality food, the smoked ham, was played.

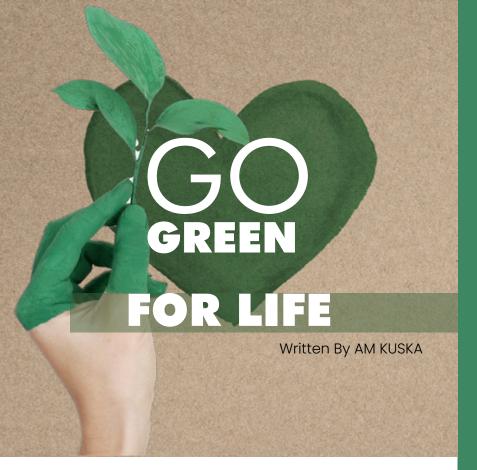


Click here for VIDEO ABSTRACT

The second experiment involved another group of twenty family dogs, which were trained to remain still in a brain scanner. Initially, a scanning session exposed the dogs to both sounds, which held no meaning at this stage. Following this, the dogs participated in the wrapped box experiment. Finally, the dogs underwent another scanning session during which they listened to the sounds again, but this time, each sound had an association with either smoked ham or fiber cookies.

The focus of the brain analysis centered on observing changes in the caudate nucleus, a brain region linked to reward processing across species. Compared to the first session, the caudate nucleus exhibited a heightened response in the second session, responding more strongly to both sounds. Remarkably, it displayed an even more pronounced response to the sound associated with the highly rewarding smoked ham. "While prior research has primarily focused on how the dog brain responds to rewards versus non-rewards, our study takes a step further, delving into the representation of two food rewards varying in quality. Our findings highlight that the caudate nuclei not merely process rewards, but also distinguish between rewards based on their quality." — explains Dorottya Ujfalussy, senior author of the study.

Of course, not all showed the same performance. The greater the discrepancy in the speed at which dogs unwrapped the two boxes, the more discernible their brain response patterns became for the two sounds in their right caudate nucleus. "It is exciting to be able to 'see' how dogs represent different foods in their brains and observe how the quality of the food influences their motivation. We were surprised to discover a distinct positive correlation between the behavior of the dogs and their brain representations. The direction of this relationship still intrigues us; based on our data, we cannot determine whether a more distinct brain representation of both sounds enables a better behavioral performance or if it operates in the reverse. It's likely that this process is not solely unidirectional." — says Laura V. Cuaya, first author of the study.



Be Green for Life, Not Just The New Year!

As we ring in the New Year, it's traditional to reflect on the past year while also looking forward to the new one. We make resolutions for the New Year and hope to make big changes in our life. Often, we fail at these aspirations because we dream just a little too big.

Trying to be more sustainable is a common New Years resolution. More and more people are aware of their impact to the planet. While it's unrealistic to believe we can completely erase our carbon footprint, reducing our impact is easy—and something you can do forever. Here are a few easy ways you can reduce your carbon footprint forever, without having to suffer.

/-Speak Up

One of the simplest things you can do for the planet is to talk about it. If your government representatives never hear from you about how you feel on climate change, litter, or endangered species—they're going to think what ever they're doing is fine.

Let them know, especially on a local level, what needs done for the planet. If you want a walkable city, ask for it. If you want a better recycling program, ask for it. The squeaky wheel gets the grease, so be that wheel!

This also goes for talking to others in your day-to-day conversations. Even if they don't agree, sharing what you believe can help others break out of the echo chamber caused by social media.

2-Invest in the Future

Many of the tips we focus on are small, easy changes you can make. As time goes on however, you'll have the opportunity to make bigger changes. When it's time to replace your washer, dryer, or other big appliances, take the time to research the greenest options.

By replacing our biggest sources of energy use, we can help reduce our impact on the planet daily.

You can also help in a big way by rethinking who you bank with, and what you invest in. Investing in renewables, carbon removal, and other green services can help them and help you too.

7-Think Before You Buy

Our world is glutted with stuff right now, and all the choices and options out there can be overwhelming. One of the best ways to help save you money, hours of cleaning and dusting, and space in your trash can is to hesitate before you buy.

If you think about a purchase before you buy it every time, you'll be less likely to make impulse purchases you regret. We all have those purchases we've made in the past that we intensely regret—and they have their own burden on the planet.



Many of these tips not only help the planet, they also help you. Appliances that save water and power save on your bills. Making sure you genuinely want an item before you buy it will help save you money and buyers remorse. Investing in yourself as well as the planet can help everyone's future be bright.



The U.S. Food and Drug Administration approved Bonqat (pregabalin oral solution) for the alleviation of acute anxiety and fear associated with transportation and veterinary visits in cats. The drug is administered orally approximately 1.5 hours before the start of the transportation or veterinary visit and can be given on two consecutive days. Bonqat is the first FDA-approved animal drug containing pregabalin.

The sponsor conducted a field study in client-owned cats with a history of anxiety and/or fear when transported by car and during veterinary visits. The study included two separate visits over the course of 5 to 10 days that included transportation and physical examinations for each cat. The first visit was a screening visit prior to treatment to enroll the cat in the study. The second visit was following treatment with Bonqat or placebo to evaluate the effectiveness of Bonqat. The cat owner assessed their cat's anxiety and/or fear when transported in a car, and the veterinarian assessed the cat's anxiety and/or fear during a physical examination at the veterinary clinic. A little over half of cats given Bongat had a good to excellent response during both transportation and the veterinary visit compared to about one-third of cats given placebo. In addition, 83 of 108 (77%) cats given Bongat showed improvement in levels of fear and anxiety over the course of the two physical examinations, compared to 46 of 101 (46%) cats given placebo. Adverse reactions related to Bongat included mild sedation, ataxia, and lethargy.

Bonqat is only available by prescription from a licensed veterinarian because it is a DEA Schedule Class V drug with a potential for human abuse. In addition, professional expertise is required to monitor the safe use of the product, including proper dosing and administration.

The labeling for Bonqat contains information about drug abuse, addiction, and diversion. In addition, appropriate precautions should be taken while handling Bonqat, including avoiding contact with a person's skin, eyes, and other mucus membranes. People exposed to pregabalin should seek medical advice and may experience dizziness, sleepiness, blurred vision, weakness, dry mouth, and difficulty with concentration or attention.

Each mL of Bonqat contains 50 mg pregabalin. Bonqat is packed in a clear glass bottle (containing 2 mL of dosing solution) with a child resistant closure and adapter. The bottle is further packed into a carton with a package insert, client information sheet, and an oral syringe (1 mL).

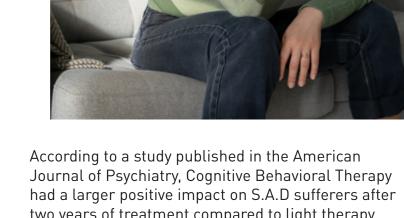
Bonqat is administered orally as a single dose of 5 mg/kg (0.1mL/kg) approximately 1.5 hours before the start of the transportation or veterinary visit.

Do you have seasonal depression?

Seasonal Affective Disorder (S.A.D.), also known as Seasonal Depression, is described in the Diagnostic and Statistical Manual as a form of depression with a seasonal pattern. While Seasonal Affective Disorder can affect people at different times of the year, it is most common in the fall and winter months when the days shorten. Exhibiting many of the same symptoms as major depression, it has been linked to a biochemical imbalance in the brain prompted by a change in one's circadian rhythm. Seasonal Affective Disorder is primarily characterized by mood changes due to the changing of the seasons. Symptoms include feelings of sadness, loss of interest in activities, changes in sleep, loss of appetite, and more.

While Seasonal Affective Disorder may seem like a less common iteration of depression, it affects approximately 10 million Americans each year and typically lasts about 40% of the year, making it a very real and serious illness for many people. With that in mind, it's important to know the risk factors, as well as the best strategies for treating Seasonal Affective Disorder.

Seasonal Affective Disorder is more common in women than in men. as well as those that live farther from the equator, due to a more drastic change in seasons and loss of sunlight in the colder months. Common treatments for the disorder include light therapy, talk therapy, and antidepressant medications like selective serotonin reuptake inhibitors (SSRIs).



two years of treatment compared to light therapy, although light therapy was proven to show improvements overall.

Light therapy, also known as phototherapy, essentially consists of exposure to an artificial light source that mimics natural sunlight, which is thought to increase serotonin in the brain. Both forms of therapy, as well as medication, can be effective treatments for Seasonal Affective Disorder.

For those living with Seasonal Affective Disorder, preventative measures are key to managing symptoms. Aside from the aforementioned treatments of Seasonal Affective Disorder, those with S.A.D. can mitigate symptoms by making sure to get outdoors during the day for small periods of time, as well as maintaining a healthy, balanced diet that supports optimal brain function. When it comes to any kind of depression, it's always important to take small steps to care for yourself, whether that be taking a shower or cleaning up your living space. Seasonal Affective Disorder is no exception. Most of all, it's important for those struggling to know when to ask for help from loved ones and professionals, as well as to accept help when offered.



What to know about anti-aging medication in development that could help dogs live longer

Loyal, a biotech company pioneering longevity drugs for dogs, announced today that the Food and Drug Administration (FDA) Center for Veterinary Medicine has approved the Reasonable Expectation of Effectiveness section of Loyal's conditional approval application for LOY-001, a drug the company is developing to extend the lifespan of large dogs and maintain their quality of life as they age.

With this milestone, Loyal leads a shift in the medical field's approach to treating age-associated diseases in animals. LOY-001 represents a new category of pharmaceutical, focused on targeting mechanisms of aging to prevent or delay the onset of age-associated diseases, rather than waiting for patients to get sick before treating them.

"Loyal was founded with the ambitious goal of developing the first drugs to extend healthy lifespan in dogs," said Loyal CEO Celine Halioua. "This milestone is the result of years of careful work by the team. We'll continue to work just as diligently to bring this and our other longevity programs through to FDA approval."

The Conditional Approval Pathway

The FDA's Expanded Conditional Approval is an accelerated pathway for animal drugs that aims to increase the availability of innovative therapies. It's designed for drugs that demonstrate a reasonable expectation of effectiveness in addressing an unmet medical need, but require complex and difficult studies to complete collection of definitive effectiveness data.

Today's milestone is a crucial part of Loyal's application for conditional approval. It means the FDA agrees LOY-001 has a reasonable expectation of effectiveness and, once the FDA approves Loyal's manufacturing and safety data packages, Loyal can market the drug for lifespan extension in the target canine population. Conditional approval lasts for up to five years, during which time Loyal will collect the remaining effectiveness data and apply for full approval.

A New Approach

The pharmaceutical industry has historically focused on developing drugs that treat specific diseases, including those associated with aging. Treatment typically begins only when those diseases are established and patients are symptomatic.

Loyal's approach represents a different paradigm: use our understanding of the underlying mechanisms of aging to reduce the risk of these diseases in the first place. Today's announcement shows the FDA believes Loyal's approach is valid.

The Center for Veterinary Medicine at the FDA has reviewed Loyal's data, results, and scientific arguments and determined they provide reasonable expectation of the drug's effectiveness to extend canine lifespan and healthspan. Pending successful completion of the Manufacturing and Safety sections, Loyal will receive conditional approval for LOY-001, allowing them to market the drug for large-dog lifespan extension.

Linda Rhodes, VMD, PhD, a well-known animal health industry expert with extensive experience developing animal drugs and working with the Center for Veterinary Medicine at the FDA, said: "Loyal's achievement is impressive. Developing a treatment that will increase longevity by reducing age-associated disease is a new indication. No drug has ever been approved with such a claim, and pioneering a new indication through regulatory agencies requires an enormous amount of rigor and persistence. Being the first to bring a treatment for such a challenging indication will be truly historic."

LOY-001

The drug, codenamed LOY-001, is intended to extend lifespan and maintain quality of life in large- and giant-breed dogs. These breeds may have as little as half the expected lifespan of small breeds.

Selectively breeding dogs for size is understood to cause elevated levels of the growth-promoting hormone IGF-1, and this is believed to reduce their lifespan. Large dogs have up to 28x the levels of IGF-1 as small dogs.

LOY-001 works by reducing IGF-1 in adult dogs to increase lifespan

Designed as a veterinarian-administered long-acting product given to dogs every three to six months, LOY-001 is anticipated to be available in 2026, subject to FDA approval of Loyal's manufacturing and safety data.

The basis for the FDA's decision today was the data submitted by Loyal, including studies showing LOY-001's ability to reduce levels of key biomarker IGF-1 and the beneficial impact on functional outcomes in dogs. This was further supported by a large observational study of the functional and biomarker impacts of canine aging. The study involved 452 companion dogs of 84 different breeds, aged two to 18. It validated the clinical relevance of the functional outcomes seen in Loyal's earlier studies.

The Short Life of Big Dogs

There's a well-established inverse relationship between a dog's size and their expected lifespan — bigger dogs live shorter lives than smaller dogs, by nearly half. Great Danes and Newfoundlands may live only seven to eight years, compared with the average lifespan of up to 20 years for Chihuahuas and Miniature Poodles.

"The extreme phenotypic variety found in dogs is not 'natural' — it's the result of intensive breeding by humans to create dogs that excelled at tasks such as herding, protection, and companionship," said Brennen McKenzie, Loyal's Director of Veterinary Medicine and previously President of the Evidence Based Veterinary Medicine Association and a practicing veterinarian. "At Loyal, we see the short lifespan of big dogs not as inevitable, but as a genetically-associated disease caused by historical artificial selection, and therefore amenable to targeting and treatment with a drug."

Historical selective breeding is one of the causes of genetically-associated diseases such as cancers in Golden Retrievers, hip dysplasia in German Shepherds, and canine brachycephalic syndrome in Bulldogs. In large and giant breed dogs, breeding for size causes these dogs to have elevated levels of IGF-1, a hormone that drives cell growth, and is believed to reduce their lifespan.

"Ever since we invested in Loyal in 2021, the team has made tremendous progress with the FDA, legitimizing an entirely new category of pharmaceuticals through their efforts," said Vinod Khosla, Founder, Khosla Ventures. "Today's announcement marks a first for any longevity drug, and is a big step towards accelerating the path for canines, and ultimately humans."



5 GIFTS THAT ENCOURAGE SELF-CARE

The concept of self-care has gained a considerable amount of attention and popularity in recent years. With so many products being marketed as self-care tools, it can be hard to know which ones are really worth it. Self-care is more than treating yourself with material items. Sometimes, it means putting in the work to create positive habits and taking the time to do things that are beneficial for you physically, mentally, and emotionally.

Here are 5 holiday gift ideas to help your loved ones on their journey towards real self-care.

1. Journal:

Who doesn't want a safe space to express themselves? Journaling can be helpful for expressing thoughts and feelings and analyzing them as well. It's the perfect gift to let someone know you think their thoughts and feelings are worthy of being expressed. Plus, you can pick out a journal that perfectly fits their style and will be aesthetically pleasing too!

2. Guided Meditation Subscription:

Meditation can be a great resource for those who struggle with stress and overthinking. It encourages mindfulness and attention to being present, which we could all use a little more of. With so many different resources for guided meditation, there is undoubtedly something to fit everyone's needs and schedules.

3.Meal Kit Subscription Service:

Eating healthy, home-cooked meals isn't always an easy or convenient option, but with a meal kit being delivered straight to your door, the process becomes so much easier. A healthy body facilitates a healthy mind, so this is a great gift for someone who wants to prioritize wellness but struggles to make healthy food at home.

4.Wellness Books or E-book Subscription:

What better way to help someone on their wellness journey than to give them the gift of knowledge? Wellness books are a great way to show someone that you care about their emotional wellbeing by gifting them something that will be meaningful to their growth. If you're unsure of the right book to gift someone, some great books to start with are Daring Greatly by Brené Brown, You Are a Badass by Jen Sincero, and How to Do the Work by Dr. Nicole LePera. If you struggle to find the right book, you can always go for the option of a subscription service or gift card, giving them endless options to choose from.

5. Online Therapy Gift Card/Membership:

Many well-known websites and apps that offer therapy also offer gift cards or gift subscriptions. This is a great gift for someone who has been thinking about starting therapy but is apprehensive based on the cost or other factors. Therapy can be an amazing tool for those looking for extra support and insight! Finding the right holiday gift can be a challenge, but it doesn't have to be. Instead of gifting monotonous material items that could end up sitting in the closet all year, give your loved ones something that will truly benefit their well-being and self-care.

This article has been republished from Renewed Awareness Magazine and courtesy of zant. a mental health services app connecting mental health providers to those in need.







LOVE WHAT YOU DO



- Gender neutral clothing
- · Adjusted lower body size chart to fit the butt to waist ratio
- · Modified boxer briefs for pad application







In recent months, a perplexing respiratory syndrome has been plaguing dogs across the country, with a focus on the New England region. Termed "Respiratory Syndrome of Unknown Etiology in Dogs" 2022-3," this enigmatic illness has veterinarians and researchers on high alert, as affected animals display upper respiratory symptoms resistant to conventional treatments, all while eluding identification through standard diagnostic tests for common respiratory pathogens.

The Challenge of the Unknown

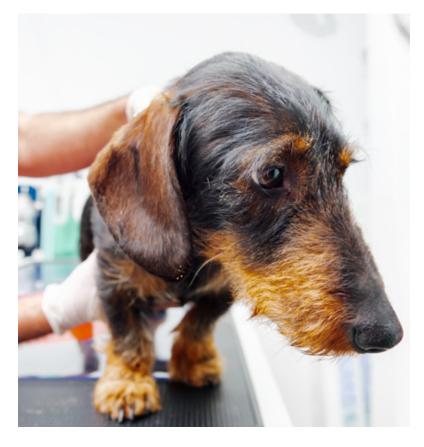
Veterinarians routinely encounter and address typical canine respiratory pathogens. However, the cases under scrutiny have tested negative for these standard pathogens, prompting a comprehensive investigation to explore the possibility of emerging pathogens previously unidentified as causes of respiratory disease. It is crucial to note that any findings at this stage are preliminary, and ongoing investigations are essential for conclusive determinations.

Clinical Presentation

Clinically, the affected dogs exhibit symptoms akin to other canine respiratory diseases like kennel cough. Strikingly, these cases prove refractory to standard medical treatments and often yield negative results on syndromic canine respiratory disease PCR testing. The duration of illness is prolonged, with some cases progressing to pneumonia. While anecdotal reports in New Hampshire suggest mortalities, submissions of carcasses or excised lung tissue have been minimal.

Timeline of Investigation

The investigative journey began in late summer and autumn of 2022 in New Hampshire. Prompted by anecdotal reports, the New Hampshire Veterinary Diagnostic Lab (NHVDL) and Hubbard Center for Genomic Studies (HCGS) at the University of New Hampshire initiated the analysis of respiratory specimens from NH cases using cutting-edge metagenomic techniques. In 2023, samples from southeastern Massachusetts and northern Rhode Island, reporting increased cases, were also included in the analysis. Preliminary findings were shared with veterinarians in New Hampshire and neighboring New England states, where similar reports of infection were emerging.



Widening the Scope

The investigation has since expanded its reach, with samples arriving from Oregon and anticipated arrivals from Colorado, Illinois, and other states. This broader scope aims to determine if the identified findings in the New England region are consistent across the nation.

Preliminary Findings

Initial metagenomic analysis did not identify known canine respiratory pathogens, RNA or DNA viruses of concern, or typical fungal or bacterial respiratory pathogens. Notably, a non-culturable, bacterial-like organism resembling Mycoplasma was detected in a subset of respiratory samples. However, caution is advised, as distinguishing between correlation and causation is challenging with the detection of DNA sequences.

To further validate these findings, canine respiratory tissues from the NHVDL necropsy biobank archive from 2018, presumed to be prior to the current outbreak, were tested as negative and temporal controls. These older negative control samples have, so far, tested negative for this newly identified organism.

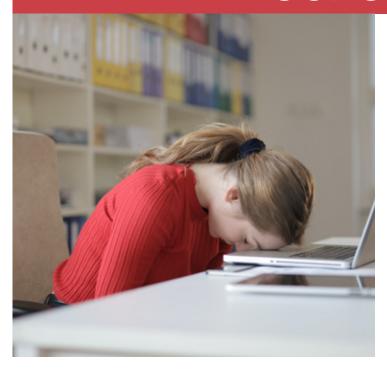
Investigations

It is imperative to emphasize that these findings are preliminary, and further testing and analysis are essential before conclusively connecting this syndrome to a specific cause. For additional information, refer to the frequently asked questions (FAQs) provided below.

As veterinarians, researchers, and pet owners anxiously await more answers, the collaboration and diligence of the scientific community remain paramount in unraveling the mystery behind this respiratory syndrome affecting our beloved canine companions

Exhausted and Overworked:

VET STUDENTS FACE **100-HOUR**WEEKS AMIDST RISING PATIENT CARE CONCERNS



Numerous students and alumni from the University of Pennsylvania's School of Veterinary Medicine are voicing their concerns over the demanding workload and its impact on patient care, as reported by the Philadelphia Inquirer. These individuals argue that the university primarily views them as an unpaid workforce rather than students who pay over \$60,000 annually for their education. A typical day for a fourth-year student involves lengthy shifts at the Ryan Veterinary Hospital, starting early in the morning and often extending past midnight, with responsibilities ranging from dog walking to administering medications and kennels. This intense schedule is common during their clinical year, a crucial phase of their education where they gain hands-on experience but receive no compensation.

A typical day for a fourth-year student involves starting at 6 a.m. at the Ryan Veterinary Hospital, followed by a brief break for personal errands and a meeting with administrators, then returning for a five-hour shift that includes tasks like walking dogs, administering medications, and cleaning kennels. This grueling schedule, common in their clinical year, has led to a perception among students that the institution values them more for labor than education.

During a virtual meeting with school administrators in October, students voiced their frustrations, highlighting the detrimental effect of such intensive workloads on their education and well-being.

Penn Vet, renowned as one of the world's leading veterinary schools and associated with an Ivy League university, faces criticism from current and former students over the unsustainable nature of clinical schedules. These schedules not only hinder educational outcomes but also affect the quality of patient care.

In an August letter, signed by 65 fourth-year students and recent graduates, it's stated that their work hours often exceed 100 per week, breaching the 80-hour limit recommended by the **Student American Veterinary Medical Association (SAVMA)**. The letter urges Penn Vet to emulate the work hour restrictions of Penn and Drexel medical schools to safeguard students and patients, and to address the issue of covering nursing shifts due to staff shortages.

Students also express concern over the impact of advocating for shorter shifts or reduced workloads, given their reliance on faculty and residents for recommendation letters.

In response, Penn Vet spokesperson Martin Hackett noted recent initiatives to lessen student workloads while maintaining educational quality, promising ongoing discussions and quarterly check-ins with students.

The broader context of the issue includes a nationwide veterinarian and veterinary technician shortage, as noted by Brady Beale, Ryan Veterinary Hospital's chief medical officer. This shortage is not unique to Penn Vet, with similar challenges reported at other top-tier veterinary schools like Iowa State University.

Despite these challenges, legal constraints prevent Penn Vet students from unionizing, as they are not considered employees. Their hope rests on administrative action in response to their concerns.



Veterinarian, Dr. Kwane Stewart, wins the CNN Hero of the Year

"Hero Vet Transforms Lives on the Streets with Free Pet Care! Dr. Kwane Stewart, a beacon of hope for the homeless, has been silently waging a war against animal suffering for over a decade. His weapon? Compassionate, judgment-free veterinary care through his brainchild, Project Street Vet.

Stewart's journey began in the shadows of a Northern California county shelter. Haunted by the rising tide of pet euthanasia during the recession, he almost abandoned his veterinary calling. "I was losing a part of my soul," Stewart recalls. "I dreamt of saving animals, but I was forced to end their lives."

A chance encounter outside a 7-11 with a homeless man and his ailing dog ignited Stewart's mission. Moved by the gratitude he received for treating the dog's skin condition, Stewart vowed to dedicate his skills to those in need. "It was more than medicine. It was about restoring dignity and hope," he says.

Stewart's outreach soon evolved into Project Street Vet. Armed with a portable medical kit, he and a growing team of volunteers, including his 'right-hand,' registered veterinary nurse Genesis Rendon, began treating pets on the streets. From drop-in clinics to homeless camps in Los Angeles, they've offered a range of treatments including vaccinations and flea control.

The impact of Stewart's work goes beyond physical healing. "It's about acknowledging the profound bond between these owners and their pets. These animals are their family, their world," Stewart explains.

With the help of his brother Ian, Stewart has also begun documenting these heartwarming stories, shattering stereotypes about homelessness and animal welfare. "These pet parents often sacrifice their last dollar for their furry companions," Stewart adds.

Project Street Vet, now a beacon of hope in multiple cities including Orlando and Atlanta, operates solely on volunteer effort and donations. Stewart's message is clear: "Every pet, every owner deserves care, regardless of their circumstances. We're here to offer that, unconditionally."

To support or get involved with Project Street Vet, visit their website or donate via their GoFundMe page.





Flat-faced dog breeds are popular all over the world. In the USA and in Hungary, the French Bulldog is currently the most common breed. However, their popularity comes at a high cost in terms of health: shortened skulls are associated with deteriorative brain morphology changes, breathing difficulties and sleep problems.

According to recent findings by Hungarian researchers, flat-faced dogs sleep more because their breed-specific sleep apnea increases daytime sleepiness, their REM sleep phase is longer than non-REM sleep, and their sleep EEG patterns show signs of white matter loss.

Despite being a health hazard, the large, round head may be an attractive dog feature for many people. Extremely flat-faced dogs, such as French and English bulldogs and pugs, live on average 3 to 4 years less than other dogs and often do not live to adulthood. Even in their short lives, they suffer from many ailments and undergo surgery to correct musculoskeletal, eye and respiratory problems. The abnormal shortening of the skull is also associated with a distorted, rounded brain, but it is not yet known how this affects neural functioning.

Hungarian researchers studied the sleep of 92 family dogs using EEG. "In the sleep lab, dogs spend about three hours with their owners. As nothing exciting happens, the dogs fall asleep quickly. Meanwhile, we conduct the electrical potential generated by the brain activity with electrodes glued to their scalps," says Anna Kis, a pioneer in the study of sleeping dogs and a researcher at the HUN-REN Institute of Cognitive Neuroscience and Psychology.

"We wanted to investigate whether flat-faced dogs sleep differently from other dogs, as they are known to suffer from oxygen deprivation due to respiratory problems and therefore have poorer quality sleep. We found that

flat-faced dogs slept more in the three hours given to them during the study. More daytime sleep is probably compensation for insufficient sleep at night.

But, when we studied the EEG patterns, we got more exciting results than that," continues Zsófia Bognár, a PhD student who has been researching breeds of dogs with shorter noses, scientifically known as brachycephalic dogs, for many years.

When studying cognitive functions, special attention is devoted to the REM phase during sleep, also known as paradoxical sleep, because of high frequency brain activity similar to wakefulness accompanied by muscle atonia. For example, it is known from previous research that the amplitude of beta and delta brain waves (measured via EEG) during REM sleep is associated with learning success in dogs and intelligence in humans.

"In the present study, we found that brachycephalic dogs had decreased beta waves and increased delta compared to dogs with longer noses. The frequency of sleep spindles increased. This pattern has previously been associated with poorer learning in dogs and loss of white matter in humans," says Ivaylo lotchev, first author of the study published in the journal Brain Structure and Function.

"There may be several reasons for our results. The most interesting of these is that it seems as if the flat-faced dogs have retained the sleep pattern of puppyhood, similarly to newborns who spend more time in REM sleep.

It is widely assumed that brachycephalic dogs are selected for infant-like traits.

They have large heads and eyes, high foreheads and small noses because we humans find these traits irresistibly attractive. That's how babies get us to care for them. It is possible that the selection of dogs to be infant-like in appearance has also infantilized their brain function," says Enikő Kubinyi, professor and head of the MTA-ELTE Lendület "Momentum" Companion Animal Research Group and ELTE NAP Canine Brain Research Group. "But this is a bold assumption for now. What is very likely, however, is that breeding for brachycephalic heads leads to potentially harmful changes in brain function."

Veterinarians Beware: The Silent Epidemic of Emotional Burnout

In the demanding world of veterinary medicine, a profession where the majority are women, there's an often unspoken struggle that goes beyond the day-to-day challenges of animal care. These dedicated professionals pour their compassion into every patient, striving for perfection in a highly competitive field. Yet, this drive for excellence often comes at a steep personal cost. Many veterinarians suffer in silence, grappling with the emotional toll of their work, their innate tendency to prioritize others over themselves, and a relentless pursuit of perfection that can lead to burnout and compassion fatigue.

It's a paradox that those who show boundless compassion for every living creature they encounter often extend very little of it to themselves. There's a pervasive culture in veterinary medicine that undervalues personal well-being, creating an environment where self-care is misconstrued as selfishness. However, the truth is that self-neglect is not a badge of honor; it's a barrier to professional excellence and personal happiness.

It's vital for veterinary professionals, especially women in the field, to recognize that caring for themselves isn't an act of indulgence but a necessity. True self-care goes beyond the occasional treats like manicures or hot baths. It's about making a conscious, ongoing commitment to one's mental and physical health. It's about being an advocate for one's own well-being, understanding that self-compassion is not only deserved but essential.

This is where "The Emotionally Exhausted Woman" by Nancy Colier can be a transformative resource. The book offers much-needed support and practical strategies to those in the veterinary field, and indeed any woman who finds herself depleted by the pressures of her caring role. Colier invites readers to embark on a journey of self-discovery and empowerment, helping them to carve out space for their needs and to cultivate a life that's fulfilling and sustainable.

In essence, "The Emotionally Exhausted Woman" is a guide to breaking free from the cycle of emotional exhaustion and to embracing a life where self-care is as routine as patient care. For veterinary professionals, it's an invitation to start a conversation about mental health, to shed the silence, and to take steps toward a healthier, more balanced life. Get a copy for yourself and your friends at a bookseller of your choice!





What do Gifted dogs have in common?

All dog owners think that their pup is special. Science now has documented that some rare dogs are...even more special! They have a talent for learning hundreds of names of dog toys. Due to the extreme rarity of this phenomenon, until recently, very little was known about these dogs, as most of the studies that documented this ability included only a small sample of one or two dogs. In a new study published in the Journal Scientific Reports, researchers from the Family Dog Project (ELTE Eötvös Loránd University, Budapest) shed new light on the characteristics of these exceptional dogs.

In a previous study, the scientists found that only very few dogs could learn the names of object, mostly dog toys. The researchers wanted to understand this phenomenon better and, so they needed to find more dogs with this ability. But finding dogs with this rare talent was a challenge! For five years, the researchers tirelessly searched across the world for these unique Gifted Word Learner (GWL) dogs. As part of this search, in 2020, they launched a social media campaign and broadcasted their experiments with GWL dogs, in the hope of finding more GWL dogs.

"This was a citizen science project" explains Dr. Claudia Fugazza, team leader. "When a dog owner told us they thought their dog knew toy names, we gave them instructions on how to self-test their dog and asked them to send us the video of the test". The researchers then held an online meeting with the owners to test the dog's vocabulary under controlled conditions and, if the dog showed he knew the names of his toys, the researchers asked the owners to fill out a questionnaire. "In the questionnaire, we asked the owners about their dog's life experience, their own experience in raising and training dogs, and about the process by which the dog came to learn the names of his/her toys" explains Dr. Andrea Sommese, co-author.

The researchers found 41 dogs from 9 different countries: the US, the UK, Brazil, Canada, Norway, Netherlands, Spain, Portugal and Hungary. Most of the previous studies on this topic included Border collies. So, while object label learning is very rare even in Border collies, it was not surprising that many of the dogs participating in the current study (56%) belonged to this breed. However, the study documented the ability to learn toy names in a few dogs from non-working breeds, such as two Pomeranians, one Pekingese, one Shih Tzu, a Corgi, a Poodle, and a few mixed breeds.

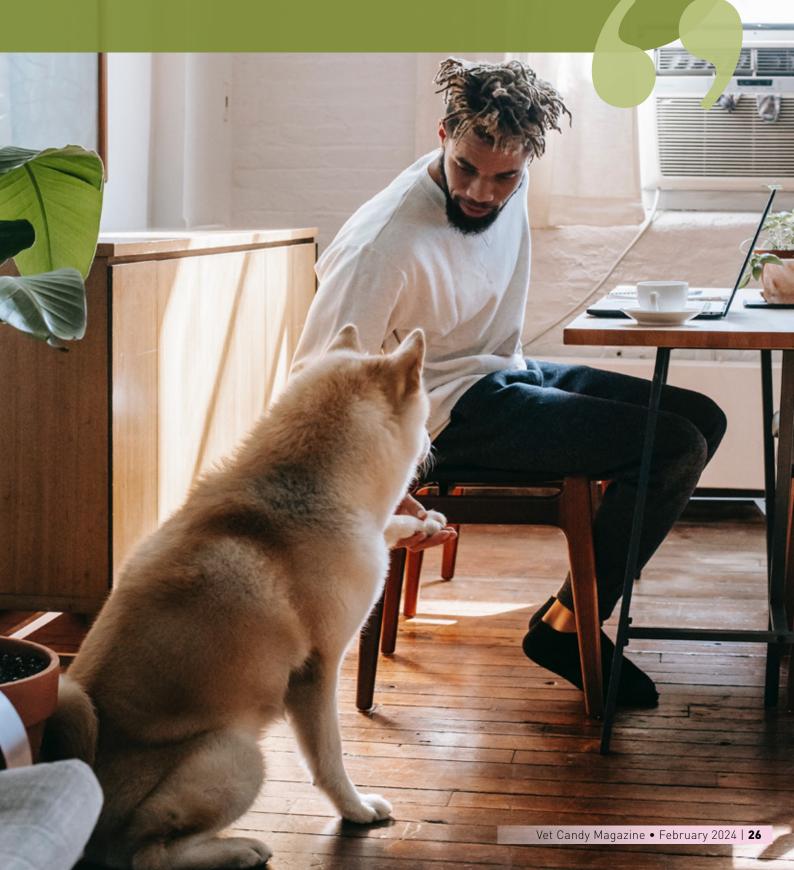
"Surprisingly, most owners reported that they did not intentionally teach their dogs toy names, but rather that the dogs just seemed to spontaneously pick up the toy names during unstructured play sessions," says Shany Dror, lead researcher. In addition, the vast majority of owners participating in the study had no professional background in dog training and the researchers found no correlations between the owners' level of experience in handling and training dogs, and the dogs' ability to select the correct toys when hearing its names.

"In our previous studies we have shown that GWL dogs learn new object names very fast" explains Dror. "So, it is not surprising that when we conducted the test with the dogs, the average number of toys known by the dogs was 29, but when we published the results, more than 50% of the owners reported that their dogs had already acquired a vocabulary of over 100 toy names".

"Because GWL dogs are so rare, until now there were only anecdotes about their background" explains Prof. Adam Miklósi, Head of the Ethology Department at ELTE and co-author. "The rare ability to learn object names is the first documented case of talent in a non-human species. The relatively large sample of dogs documented in this study, helps us to identify the common characteristics that are shared among these dogs, and brings us one step closer in the quest of understanding their unique ability".

This research is part of the Genius Dog Challenge research project which aims to

This research is part of the Genius Dog Challenge research project which aims to understand the unique talent that Gifted Word Learner dogs have. The researchers encourage dog owners who believe their dogs know multiple toy names, to contact them via the Genius Dog Challenge website.



EXCLUSIVE!

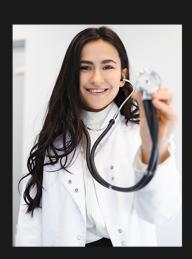












EARLY INTEL ON **EVENTS**, **FREEBIES**, NEW **PRODUCTS**, AND OTHER **PERKS!**

Join for free!

Head to myvetcandy.com/circle



Pre-Specialty Purgatory: The Harsh Reality of Veterinary Residency Programs



The journey to becoming a specialized veterinarian is more challenging than many realize. This period, often referred to as "pre-specialty purgatory," involves rigorous training through residencies and internships. However, it's not just the demanding work and low pay that burden these aspiring specialists; there are contractual obligations and penalties that add to the struggle.

Financial and Workload Struggles

Residents and interns in veterinary programs often face overwhelming work weeks, sometimes exceeding 60 hours, with salaries frequently under \$30,000 per year. This meager income barely covers living expenses, let alone the accumulating student loan debt. The Association of American Veterinary Medical Colleges (AAVMC) highlights the gravity of this situation, reporting an average salary of \$35,807 for resident trainees in the United States, with a slightly lower average of \$35,246 for those in academic institutions (Greenhill & Young, 2019). This salary is comparable for a Walmart greeter, who would be working only 38 hours a week, according to Indeed. These figures starkly contrast with the starting salaries of new graduates, which hover around \$150,000 per year. During the residency program, the residents are working on actual cases and the hospital is paid for all the services. With that said, a single veterinarian has the capability of bringing in up to one million dollars to a practice each year.

Contractual Obligations and Penalties

Adding to these financial and workload challenges are the often restrictive contractual terms of some residency programs. Notably, certain programs include clauses mandating that residents work for the institution for several years after completing their program. This requirement can significantly limit the professional autonomy and career advancement opportunities of these individuals. Moreover, some programs impose harsh penalties if a resident discontinues their program, regardless of the reason. These reasons could range from personal health issues, such as being involved in an accident or battling a serious illness like cancer, to life-changing events like pregnancy. The imposition of large financial penalties in such circumstances seems particularly unjust, further complicating the already difficult situation for many veterinary residents.

The Call for Action

This situation calls for urgent attention and action from the veterinary community. Veterinary professionals are encouraged to unite and advocate for those in specialty training. Writing to organizations like the American Veterinary Medical Association (AVMA) or the AAVMC to demand that they support change is a critical step. It is important to push for reforms that not only address financial compensation but also consider the unreasonable contractual obligations placed on residents.

"Veterinary medical residents often work long and demanding hours, including nights, weekends, and holidays. This can lead to fatigue and work-life imbalance. Emotional stress comes along with being a veterinary medical resident. Dealing with sick or injured animals, making critical decisions, and communicating with pet owners can be emotionally challenging. Residents often experience compassion fatigue or burnout" says Pennsylvania veterinary neurologist, Dr. Gaemia Tracy, "At the same time, residents have to navigate all of these challenges in the midst of financial constraints. Veterinary medical residents typically receive low pay, making it difficult to meet their financial needs, especially considering the high cost of living and student loan debts."

"Fortunately, I had a mentor that was supportive by providing me with food, guidance, and a place to celebrate holidays," Dr. Tracy continues, "Without this support, there is no way I could have survived the residency."

These challenges highlight the demanding nature of veterinary medical residency and the need for support and mentorship throughout the process. The path to veterinary specialization should not be laden with financial hardship, mental strain, and restrictive contractual obligations. The veterinary community needs to come together to support future specialists, advocating for a system that is both equitable and supportive of their professional and personal well-being. Change is necessary to ensure that the pursuit of veterinary specialization is a journey of growth and learning, not one of financial and personal struggle.

Level up your teams skills with the world's best instructors

Start your learning journey with our learning, development and mentorship platform!

