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Like most of you, I have always dreamed of becoming a veterinarian. But, unlike most of you, I rarely saw veterinarians that looked like me.

When I was in high school, I participated in the USDA AgDiscovery Program. Through this program, I had the opportunity to work with African American veterinary students and veterinarians. This was then that I knew becoming a veterinarian could be my reality, despite the color of my skin.

After the program ended, I met Dr. Jerold Boone, an African American veterinarian and practice owner who became my first veterinary mentor. I worked alongside him at his practice for several years. His support and mentorship helped guide my career path. In fact, when it came time to go to college, I chose his alma mater, Tuskegee University, one of two veterinary colleges in Alabama; this one being responsible for almost 70% of the African American veterinarians in the country.

My path to becoming a veterinarian has not been easy, it has been filled with microaggressions and acts of racism. There have been quite a few times where I have considered giving up my dream. If it wasn’t for Dr. Boone’s encouragement, I just might have.

That is why, as the guest editor of this issue, I wanted to highlight the importance of Diversity, Equity, and Inclusion (DEI.)

That brings me to my choice for our cover model, which is the incredible Dr. Courtney Campbell. Dr. Courtney is one of the few African American Board Certified Veterinary Surgeons on the planet and a bonafide media star. He is also a strong advocate for diversity and sits on several DEI committees. He is on a mission to make the veterinary profession a better place and I hope you will join me cheering as I cheer him on.

We also have some other great information for you in this issue, including how to be more inclusive at work, how diversity makes us stronger, and how to embrace your individuality. I hope it helps you understand even more why it is time for a change.
Success doesn’t happen overnight. It takes months (often years) for a person to grow from an animal loving kid into the professional and thriving veterinarian they were always meant to be. But nobody gets a behind the scenes look at this process. We don’t see the hours of study, the heartbreak of a rejection letter, or the joy of finding out you were accepted into the program of your dreams. We don’t talk nearly enough about issues facing veterinary medicine today – such as the need for diversity, equity, and inclusion.

In fact, we tend to ignore the backstory and challenges, and instead only focus on the “good.”

However, every so often a kind-hearted and sincere person comes along who is willing to share their story of getting from point A to point B in this highly competitive veterinary world of ours, plus offer insights into critical issues like DEI. In our May issue, that person is none other than the amazing Dr. Courtney Campbell!

Maya Sullivan, Vet Candy Intern, had the opportunity to interview this infamous and wonderful veterinary surgeon.
The Honest Truth About Choosing a Veterinary School

The acceptance rate for veterinary college is typically between 10% - 15%. If that sounds low...it's because it is. Thousands of hopeful students apply to schools across the country each year, with the average number of schools they submit an application to being three. For Dr. Courtney Campbell, these odds prompted him to act differently. “I think I applied to every veterinary school in the nation,” he says. Ultimately, he decided to attend Tuskegee University College of Veterinary Medicine (TUCVM). When asked why he chose TUCVM, Campbell explains, “Plain and simple. When I applied to veterinary medical school, my focus was on going to veterinary school. I obviously had some desires and interests. I had 1st choice, 2nd choice, and 3rd choice. But because I had heard so many stories, depressing stories, scary stories about the application process from my peers, I basically knew that to get into veterinary medical school was going to require a ton of luck, hard work, and diligence.” He continues, “I didn’t know if I would have the luxury to pick what veterinary school I wanted to go to. I was coming from a place of ‘Okay Courtney, you would be lucky to get into vet school. If you have the privilege of going to veterinary school, you should take it even though it may not be the vet school you originally wanted.”

Summer Programs as Gateways

Luckily, Dr. Campbell recognized the value of summer programs, ancillary educational programs, and mentorship guidance. After being waitlisted at several schools, Tuskegee sent him a letter indicating that he was accepted to a program called a ‘Summer Enrichment Reinforcement Program, called SERP. Initially disappointed, this actually turned out to be a phenomenal opportunity! He explains, “I went into that summer enrichment program with a completely different mindset than I had before. I almost looked at it as a second chance - a second opportunity. You know that song by Eminem, ‘You got one shot.’ That’s kind of how I looked at it. I was like, ‘Oh man, I literally have one shot.’ That’s how I picked veterinary school.” This intensive academic environment is essentially a veterinary bootcamp, after which the best and brightest are taken. Of 25 students, only 5 go on further. Not surprisingly, Dr. Courtney Campbell was picked to be one of them!

Microaggressions in the Workplace: What They Look Like, Who They Come From, and What to do About It

Dr. Campbell’s career after leaving TUCVM has blossomed. He’s a pet talk host, speaker, and prominent figure in the veterinary media landscape.
Despite the exciting number of different experiences, Dr. Campbell has unfortunately experienced some microaggressions regarding his race, especially in a field that is not diverse.

What was amazing was the advice that he gave regarding how to handle microaggressions. His tip? Do not immediately react. Courtney says, “I would argue to resist that instinct. To move away - try to resist that instinct to shy away, and to alienate and to block and prohibit them or ban them from your life or from your inner circle. Instead, I would ask that you try to be courageous enough to do the opposite. Instead of distancing yourself - bring them closer in proximity. Because as we increase our proximity when we get close to something, it can fundamentally change us as people.”

And Dr. Courtney isn’t just talking theoretically. He has experienced racially motivated microaggressions himself firsthand.

In the past, Campbell enjoyed attending monthly veterinarian chapter meetings. One day, after getting off work and entering the building where the meeting was to be held, he shared a story of being mistaken for catering service staff by a representative who was sponsoring the meeting. He arrived at the same time as fellow veterinarian colleagues. In addition, he was dressed exactly the same as everybody else.

Understandably, Campbell was caught off guard. How to react to such a blatant microaggression? “I chose to increase the proximity and get her to know me,” he recalls. “So, I just said, ‘Oh good evening. My name is Doctor Courtney Campbell. I’m a veterinary surgeon in the area.’ Of course, she immediately felt embarrassed. But we had a chance to talk, both before, during and after the conference. I got a chance to meet her and explain to her why that microaggression or why that experience is so traumatizing to me, particularly because I was the only African American in the entire conference.”

Currently, veterinary medicine is one of the least diverse medical professions in existence. It begs the question: why?

As the United States (and indeed, many parts of the globe) undergo a racial reckoning that really came under the magnifying glass 2 ½ years ago, it is time to embrace diversity, equity, and inclusion across all spaces – including veterinary medicine. Dr. Campbell mentions the changes that he has seen in the field. This includes the creation of affinity groups (e.g., National Association of Black Veterinarians, Pawsabilities, Vetmed, the Veterinary Medicine Coalition, among others). In addition, he and other African American veterinarians are now members of AVMA and the American College of Veterinary Surgeons boards.

Still, there is more progress to be made. Campbell wisely offers this final insight, “The key is to understand that the next step is reconciliation or change, in which we now have all of these groups really working hard so that the profession in general feels more inclusive, more open and more diverse.”

Want more Dr. Courtney?

Check out his new podcast, Mysteries with Dr. Courtney on a podcast platform of your choice.

This season it is all about the craziest cat cases and is sponsored by Elanco Animal Health, makers of Credelio for Cats!
Dealing with microaggressions in the workplace can be difficult. They can be subtle and easy to ignore, but they can also have a big impact on your work life. In this blog post, we will discuss seven ways to deal with microaggressions in the workplace.

Microaggressions are subtle, often unintentional slights or insults that can have a big impact. They can be based on race, gender, sexual orientation, religion, or other aspects of identity. Microaggressions can be verbal (e.g., “You’re so articulate!”) or nonverbal (e.g., a coworker avoiding eye contact with you). Microaggressions can be difficult to deal with because they are often unintentional and hard to prove. However, microaggressions can have a big impact on your work life. They can make you feel isolated, unsupported, and unwelcome in your workplace.

Here are some tips for how to deal with microaggressions at work:

1. **Acknowledge the microaggression.**
   
   This can be difficult, but it is important to acknowledge that the microaggression happened. Ignoring it will not make it go away and may make you feel worse.

2. **Identify the microaggression.**
   
   Try to identify what type of microaggression it was (e.g., race-based, gender-based, etc.). This can help you understand why it made you feel the way it did.
If you don’t feel comfortable speaking up about the microaggression, you can report it to a supervisor or HR. This is especially important if the microaggression is based on a protected characteristic (e.g., race, gender, etc.).

Keep a record of the microaggression, including when it happened and who was involved. This can be helpful if you decide to report it to a supervisor or HR.

Talking to someone you trust about the microaggression can help you process what happened and make a plan for how to deal with it.

Microaggressions can be stressful and take a toll on your mental and emotional health. Make sure to take care of yourself by doing things that make you feel good.

By acknowledging the microaggression, identifying what type of microaggression it was, speaking up if you feel comfortable, reporting it to a supervisor or HR, and documenting it, you can take steps to address the situation. You can also take care of yourself by talking to someone you trust and taking time for self-care.
New research indicates that the veterinary profession responded well during the COVID-19 pandemic despite many dog owners feeling concerned about the availability of veterinary care during this time due to service restrictions. In the study published in Vet Record, investigators at Dogs Trust, a British animal welfare charity and humane society, analyzed surveys completed by dog owners in the UK in May (during the first nationwide lockdown) and October 2020. The team also examined diaries completed by dog owners in the UK or the Republic of Ireland in April–November 2020.

During the first stage of the nationwide lockdown, UK government advice about limiting service provision resulted in the Royal College of Veterinary Surgeons and British Veterinary Association jointly issuing guidance to the profession regarding restricting non-emergency veterinary healthcare.

Alongside this, in the initial months of the pandemic, veterinary healthcare availability worried 32.4% (1431/4922) of respondents. However, between late March and November, 99.5% (1,794/1,843) of those needing to contact a veterinarian managed to do so. Over one-fifth of respondents (22.2%) experienced remote consultations during the early stages of the pandemic. Delays and cancellations of procedures affected 28.0% (82/293) of dogs that owners planned to neuter and 34.2% (460/1346) of dogs that owners intended to vaccinate.

“The majority of the respondents thought that remote consultations were convenient. This method also enabled those who were shielding or unable to travel to the practice to access veterinary care,” said co–first author Sara C. Owczarzak-Garstecka, PhD. “It’s reassuring that despite owners’ fears about service restrictions, veterinary practices appear to have adapted well to unprecedented circumstances and responded to owners’ urgent care needs,” added co–first author Katrina E. Holland, PhD.
Dr. Cherice Roth, veterinarian and children's author, has announced the release of her second children’s book, “What Does a Real Doctor Look Like?” In Dr. Roth’s Real Doctor series, this book continues to dispel rumors about what a real doctor is and looks like. In Dr. Roth’s first book, readers learned from characters Tristan, Cooper, and Clara what a real doctor is. This second release allows readers through the eyes and discoveries of characters Kylee and Kaylon, that doctors look like everyone, including them. Dr. Roth’s goal is to show young people that all doctors can look different and can even look like them.

What Does a Real Doctor Look Like is narrated by Kylee and Kaylon (Dr. Roth’s nieces) as they discuss what real doctor’s look like. This book helps to break the stereotypes that all doctors look the same and confirms that doctors can be any race, gender, and ethnicity. Kylee and Kaylon discover that doctors can look different but all care for the health of their patients. The girls are told in the book, "moms, dads, sisters, brothers, daughters, sons, aunts, and uncles. We are all colors, orientation, differing abilities, shapes, and sizes! No two doctors are alike, but we are all hard workers, good students, and caring!"

Dr. Roth’s work is perfect for young children under the age of 6 who have an interest in animals or enjoy learning about new things. What Does a Real Doctor Look Like? is an excellent way to continue the importance of schooling and finding their passions as they enter an elementary environment for the first time.

Dr. Roth has decided to donate some of the proceeds from this book to the Multicultural Veterinary Medical Association, an organization with a goal to create diversity in the veterinary medical field.

What Does a Real Doctor Look Like? can be purchased from Amazon and Barnes & Noble. The book is available in print and e-book formats.
Do you ever feel like you're not being judged fairly? That's because implicit bias is a real thing. It's an unconscious prejudice that we all have, and it can lead to us making unfair judgments about other people. In this blog post, we'll discuss what implicit bias is, how it affects our lives, and how we can overcome it. We'll also provide some tips for handling implicit bias in everyday life.

What is implicit bias?

Implicit bias is a type of unconscious prejudice that we all have. It's based on our own personal experiences, beliefs, and stereotypes. Because implicit bias is unconscious, we're not even aware that we have it. It can lead us to make judgments about other people that are unfair and inaccurate.

How does implicit bias affect our lives?

Implicit bias can affect our lives in a number of ways. It can influence the way we treat other people, the way we judge their abilities, and even the way we interact with them. Implicit bias can also lead to discrimination and unequal treatment in the workplace, in education, and in other areas of life.

How can we overcome implicit bias?

Fortunately, there are a few things we can do to overcome implicit bias. One is to become aware of our own personal biases. We can also try to be more open-minded and accepting of others, even if they're different from us. Finally, we can take steps to ensure that our implicit biases don't lead to discriminatory or unfair treatment of others.

Tips for handling implicit bias in everyday life

Here are a few tips for handling implicit bias in every-day life:

• Be aware of your own personal biases.

• Try to be more open-minded and accepting of others.

• Take steps to ensure that your implicit biases don’t lead to discriminatory or unfair treatment of others.

• If you witness someone being treated unfairly, speak up and take action.

Implicit bias is a real problem that we all need to be aware of. By taking steps to overcome our own implicit biases and speaking up against discrimination when we see it, we can make a real difference.
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A 2017 report from the U.S. Bureau of Labor and Statistics indicates that approximately 2% of the U.S. veterinary workforce is made up of Black veterinarians. That is very disappointing since around 14% of our country’s population is Black.

Let’s face it, we have a diversity problem in the profession and that’s why I decided to survey some Black veterinarians about their inspiration for becoming a veterinarian. Fifty-two Black veterinarians were surveyed and here is what I learned:

What inspired you to become a veterinarian?

The survey indicates that most of participants (56%) were inspired mainly through their love and passion for animals, stemming from their youth. As interesting was that their inspiration was generated from a tragedy (12%) experienced with an animal (e.g., unable to save a dying pet). Several of the veterinarians (17%) listed very specific stories that inspired them to enter the veterinary medicine field.

Dr. Bishop Curry III mentioned, “My father was a vocational agriculture teacher. Seeing him interact with farmers and advising them on immunizations and rations, stimulated my initial interest in becoming a veterinarian.”

Dr. Curry later visited the practice of a black veterinarian in Oklahoma. That cemented his desire to become a veterinarian.
Dr. Irving McConnell, world renowned veterinarian and survey participant noted, “Every veterinarian I met at Tuskegee University inspired me to pursue my dream and when I learned about research while in college, several faculty members offered me jobs to gain experience and today I own a Research & Development Support Company.”

Equally important, family support (23%) provided the support to encourage these participants to become veterinarians. Most remarkable is the support provided by mothers (19%).

Dr. Niccole Bruno said, “My mother inspired me to become a vet because she believed in me from the moment I made the choice to pursue Veterinary medicine. She exposed me to opportunities to gain exposure or meet those who looked like me in the profession. She also encouraged me to attend Tuskegee for undergrad which changed everything for me.”

Black veterinarians, globally, continue to be inspired by their lifelong passion for animals, their families, and TUCVM alumni. This network continues to be vital to supporting the future of Black veterinarians in the field of veterinary medicine.

My hope is that this data could be used to integrate to increase the number of Black veterinarians in our field.
Researchers find dog coronavirus jumps to humans, with a protein shift

Cornell University researchers have identified a shift that occurs in canine coronavirus that may provide clues as to how it transmits from animals to humans.

A new canine coronavirus was first identified in two Malaysian human patients who developed pneumonia in 2017-18. A group of other scientists isolated the canine coronavirus, sequenced it, and published their findings in 2021.

Now, a team led by researchers from Cornell and Temple University has identified a pattern that occurs in a terminus of the canine coronavirus spike protein – the area of the virus that facilitates entry into a host cell. This pattern shows the virus shifts from infecting both the intestines and respiratory system of the animal host to infecting only the respiratory system in a human host.

The researchers identified a change in the terminus – known as the N terminus – a region of the molecule with alterations also detected in another coronavirus, which jumped from bats to humans, where it causes a common cold.

“This study identifies some of the molecular mechanisms underlying a host shift from dog coronavirus to a new human host, that may also be important in the circulation of a new human coronavirus that we previously didn’t know about,” said Dr. Michael Stanhope, professor of public and ecosystem health at the Cornell University College of Veterinary Medicine. First author, Jordan Zehr, is a doctoral student at Temple University. The paper was published in the journal Viruses.

In the study, the researchers used state-of-the-art molecular evolution tools to assess how pressures from natural selection may have influenced the canine coronavirus’ evolution.

The same variant of canine coronavirus found in Malaysia was also reported in 2021 in a few people in Haiti, who also had respiratory illness.

Stanhope believes more study is needed to understand if the viral shifts and jumps to humans occurred spontaneously in different parts of the world or if this coronavirus has been circulating for perhaps many decades in the human population without detection.
How to be More Inclusive at Work: Tips for Making Your Office a Welcoming Place for All

By Cherene Francis

In today’s society, more and more people are speaking out about the importance of inclusion. We want to live in a world where everyone feels welcome and accepted, regardless of their race, gender, sexual orientation, or religion. This is why it is so important for businesses to be inclusive in their workplaces. If you’re not sure how to make your office a more welcoming place for all, don’t worry! We’ve got you covered. In this blog post, we will discuss some tips for making your workplace more inclusive.

One way to make your workplace more inclusive is to have open and honest conversations about diversity and inclusion. It’s important to create a safe space where employees can feel comfortable discussing these topics. You can also provide training on diversity and inclusion for your employees. This will help them to better understand the importance of these issues and how they can play a role in creating a more inclusive environment.

Another way to make your workplace more inclusive is to create policies and procedures that are welcoming to all. This could include things like having gender-neutral bathrooms or offering flexible work hours. By making these changes, you will send the message that everyone is welcome in your workplace.

Finally, one of the most important things you can do to make your workplace more inclusive is to simply be yourself. Be open and honest about who you are, and don’t be afraid to stand up for what you believe in. When employees see that they can be themselves at work, it creates a more inclusive environment for everyone.

Remember, it’s important to create a safe and welcoming environment for all employees. By doing so, you will not only foster a more inclusive workplace, but you will also create a more productive and successful business.
In Canadian broiler chicken production, removal of litter, washing, and disinfection have typically taken place to prepare barns for new flocks. More recently, new regulations have allowed for water washing between flocks, without disinfection. University of Alberta researchers have found that water wash by itself reduced the numbers of the pathogen, Campylobacter jejuni, in birds and in the barn environment, with no negative effect on birds’ growth and health, as compared to those grown in barns that had been fully disinfected.

The research is published in Applied and Environmental Microbiology, a journal of the American Society for Microbiology.

The findings are “immediately applicable to the poultry industry,” said Doug Korver, PhD, professor of Poultry Nutrition, University of Alberta, Edmonton, Canada.

“Broiler chicken producers had been looking for ways to reduce costs while maintaining or increasing food safety and bird growth,” said Korver. The complete removal of litter, followed by disinfection “had been intended to remove environmental microbial pathogens, but an unintended consequence is that potentially beneficial bacteria are also removed.” That, he said, may have reduced the rate at which a normal, stable, healthy gut microflora is achieved in the subsequent flock, possibly slowing the birds’ growth and/or reducing their health.

In the study, the investigators worked with a commercial broiler producer that had seven broiler barns, each housing approximately 28,000 broiler chickens. During 4 production cycles, the barns were either water washed, or fully disinfected. When the chickens reached 30 days old, the investigators sampled the ceca (the first section of the large intestine) to assess the presence and abundance of specific pathogens, notably Salmonella and C. jejuni.

“Cecal concentrations of short-chain fatty acids were increased in the water wash group,” said coauthor Ben Willing, PhD, associate professor and Canada Research Chair in the Microbiology of Nutrigenomics, University of Alberta.

Overall, by itself, water washing between flocks reduced the presence of C. jejuni, with no deficits in growth and microbiome health. That, in addition to reduced disinfectant and labor costs, make water washing between flocks an attractive option for broiler chicken producers.

“An increase in short-chain fatty acids was associated with a decrease in campylobacter in our study,” said Willing. “In general, microbially produced short chain fatty acids in the gut increase acidity, creating an inhospitable environment for many pathogens, and also serving fuel for intestinal cells.” The short chain fatty acids also modulate immune responses.”
New life expectancy study suggests
Jack Russell Terriers live longest

Jack Russell Terriers and Yorkshire Terriers have the highest life expectancies of dog breeds in the UK, according to a new study published in the journal Scientific Reports. However, flat-faced breeds such as French Bulldogs and Pugs have some of the lowest life expectancies.

Kendy Tzu-yun Teng, Dan O’Neill and colleagues analysed 30,563 records of dog deaths from veterinary practices across the UK between 2016 and 2020 using the VetCompass database, categorized into 18 dog breeds recognized by the Kennel Club and also a group of crossbreed dogs. They created life tables which calculate life expectancy throughout the life cycle, starting at birth (0 years).

Jack Russell Terriers had the highest life expectancy at birth (12.72 years), followed by Yorkshire Terriers (12.54 years), Border Collies (12.10 years), and Springer Spaniels (11.92 years). In contrast, French Bulldogs had the lowest life expectancy at birth (4.53 years). This is approximately three years less than other flat-faced breeds that showed low life expectancies at birth including English Bulldogs (7.39 years) and Pugs (7.65 years). The authors propose that these short life expectancies could result from the high health risks known to occur in these flat-faced breeds.

Across all dog breeds, the average life expectancy at age 0 for male dogs was 11.1 years, four months shorter than the estimate for female dogs. Dogs that had been neutered had a higher life expectancy (11.98 years for females and 11.49 years for males) than those that were not neutered (10.50 years for females and 10.58 years for males). The authors discuss the potential benefits of neutering and associated increased life expectancy and whether neutering could possibly reflect more responsible dog owners and better care.

The authors conclude their work now enables dog life expectancies to be tracked at different ages, similarly to humans, and may improve predictions for different breeds in the UK. There could also be other practical benefits such as helping dog shelters to provide accurate estimates of a dog’s remaining life expectancy during rehoming.
The Benefits of a Diverse Workplace:

How Diversity Makes Us Stronger

By Cherene Francis

We’ve all heard the saying that diversity makes us stronger. But what does that mean, exactly? And why is it important? In this blog post, we will explore the benefits of a diverse workplace and discuss how it can make your company stronger. We’ll also look at some statistics that show why diversity is so important in today’s world.

When we talk about diversity in the workplace, we’re talking about more than just race or ethnicity. We’re also talking about gender, age, religion, sexual orientation, and a variety of other factors. A diverse workplace is one that includes employees from a wide range of backgrounds and experiences.

One of the benefits of a diverse workplace is that it can help your company to be more innovative. When you have employees from a variety of different backgrounds, they bring with them a wealth of knowledge and experience. This can help to create an environment where new and innovative ideas are generated.

Another benefit of a diverse workplace is that it can help to improve your company’s bottom line. Studies have shown that companies with a diverse workforce are more likely to be profitable than those without. This is likely due to the fact that diverse teams are better able to solve complex problems.

Finally, a diverse workplace can help to create a more positive working environment. When employees feel like they are respected and valued, they are more likely to be engaged and productive. A diverse workplace can help to foster a sense of inclusion and belonging, which can lead to a more positive working environment for everyone.

These are just a few of the many benefits of a diverse workplace. When you create an environment that is inclusive of all types of people, you are not only doing good for your employees, but you’re also doing good for your business. So if you’re not already thinking about diversity in your workplace, now is the time to start. Your company will be stronger for it.
An international research team led by scientists at Georgetown University has found that city wildlife might pose less of a threat for future pandemics than once thought.

In a study published on May 2nd in Nature Ecology and Evolution (“Urban-adapted mammal species have more known pathogens”), researchers set out to understand whether animals adapted to living in cities tend to have different viruses. The study was led by Greg Albery, Ph.D., a postdoctoral fellow in the Department of Biology at Georgetown University College of Arts and Sciences.

The COVID-19 pandemic has sparked substantial interest in where future outbreaks are at the highest risk of emerging. Scientists have long suspected that cities might be a hotspot for outbreak risk, thanks to species like rats that make their home alongside us. For Washington, D.C., those problems are now close to home: in March 2022, the U.S. Centers for Disease Control and Prevention announced that the growing rat problem allowed a respiratory virus called Seoul hantavirus to infect two people in 2018.

Albery set out to study whether species like rats might play host to a greater number of these pathogens. In the study, Albery and colleagues examined the pathogens hosted by nearly 3,000 mammal species, and found that urban-adapted animals could host roughly ten times as many kinds of disease. However, they found that pattern was partly a problem of sampling bias: the same species were nearly 100 times better studied in the scientific literature.

"There are plenty of reasons to expect urban animals to host more diseases, ranging from their food to their immune systems to their close proximity to humans," said Albery. "We found that urban species do indeed host more diseases than non-urban species, but the reasons for this appear to be largely associated with the way we study the ecology of disease. We've looked more at animals in our cities, so we've found more of their parasites—and we've started to hit diminishing returns."
To Albery’s surprise, after adjusting for sampling bias, the team found that city-living species don’t seem to host more human-infective viruses more often than their rural counterparts. “Stunningly, although urban-adapted species have 10 times as many parasites, more than 100 times as many studies have been published on them. When you correct for this bias, they don’t have more human pathogens than expected—meaning that our perception of their novel disease risk has been overinflated by our sampling process.”

The study’s findings might exonerate city wildlife from being “hyper-reservoirs” of infectious disease. However, Albery cautions, that doesn’t mean cities are disease-free.

“This probably means that urban animals aren’t hiding as many important novel pathogens as we might think—those pathogens that might cause the next ‘Disease X,’” said Albery. “But they are still incredibly important carriers of many pathogens that we do know about. Rats, raccoons, and rabbits are still good at coexisting alongside us, and they still spread a lot of diseases to humans living in urban areas.”

Colin Carlson, Ph.D., an author on the study and an assistant research professor at the Center for Global Health Science and Security at George-town University Medical Center, said that the study highlights the value of scientific data. The researchers used a database called The Global Virome in One Network, created by the Verena Consortium (viralemergence.org), an open science network founded by Carlson and Albery. "If we take the time to build better datasets, and look more closely at the patterns in them, we might keep overturning long-standing assumptions about who's at risk from emerging diseases and why," said Carlson.

The study concludes that future research should go beyond how many pathogens any given animal has, and start to explore how city living shapes the prevalence and transmission of those diseases. Understanding those phenomena may require researchers to collect much more data, particularly from new places; almost all of the disease data in the study came from the United States and Europe.

“What this really accentuates is that we need to design more evenly distributed, more equitable sampling regimes if we want to find novel pathogens of humans; sampling needs to be more focused in wild areas of the world, but also in urban areas in less well-studied places,” said Albery. "Not only will this help us to find the new ones, but will improve surveillance of the old ones, and will ultimately help to address ages-old geographic biases in ecology."
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There's no one way to be a woman. We all have our own quirks, passions, and personalities that make us unique. Embracing your individuality is one of the most important things you can do for yourself. In this blog post, we will discuss four ways that every woman can embrace her uniqueness and be proud to be herself!

1. Wear clothes that make you feel good.

Whether that means a killer outfit for a night out or your comfiest pair of sweats for a lazy day in, wearing clothes that make you feel confident and comfortable is key.

The way you dress should be an expression of who you are, not what someone else wants you to be. Confidence is one of the most attractive qualities in a person, so don’t be afraid to show it off.

Wearing clothes that make you feel good will not only boost your mood and self-esteem, it will also make those around you take notice. And who knows, you might just inspire someone else to be bold and express themselves in a new way.
2 Embrace the things that make you different.

We all have things that make us unique and special, so embrace them! Whether it’s your quirky sense of humor, your love for animals, or the way you dress. Embrace what makes you different and use it to your advantage.

Different is good! Being unique allows you to stand out from the rest and be remembered. So don’t be afraid to be yourself because you’re amazing just the way you are.

3 Be confident in your appearance.

One of the best ways to embrace your individuality is to be confident in your appearance. Accepting yourself the way you are is a huge step in the right direction.

And remember, confidence is always attractive. So own it!

What are some other ways you can show confidence? Here are a few ideas:

• Stand up straight with your shoulders back.
• Make eye contact.
• Smile!
• Walk with purpose.

By exuding confidence, you’ll not only feel better about yourself, but you’ll also inspire those around you to do the same. So go out there and show the world what you’re made of!

4 Don’t be afraid to speak up for what you believe in or ask questions when necessary

Your voice is powerful, so use it! Whether you’re speaking up for what you believe in or asking questions to get the information you need, don’t be afraid to use your voice.

Using your voice shows that you’re confident and not afraid to stand up for yourself. It also allows you to share your opinions and ideas with the world, which is a great way to express your individuality.

So don’t be afraid to speak up and be heard!

Conclusion

Embrace your individuality as a woman by embracing the things that make you different. Whether it’s wearing clothes that make you feel good, being confident in your appearance, or speaking up for what you believe in. These are ways to tap into how we all think and express ourselves differently. Expressing yourself allows others around us to understand who you really are and, in turn, makes the world a more interesting place. So be proud of who you are, and don’t be afraid to show it off!
The domestic cat is one of our most popular pets. In Norway alone, 5.4 million people own approximately 770,000 cats. But where do our four-legged friends go? The cat wants to go outside, you open the door, it leaves and disappears. After a while it returns, but where was it in the meantime?

Researchers and master’s students at NMBU, the Norwegian University of Life Sciences, are shedding some light on the feline mystery. They GPS-marked almost 100 pet cats in a small town in Eastern Norway and tracked the cats when they were outside.

“The goal was to map the movements of an entire population of pet cats within the same area,” says NMBU-professor Richard Bischof.

The cat owners all lived within about one square kilometer, which gave the researchers a very detailed insight into many cats’ activities within a limited area. The high number of cats within such a small area makes this cat tracking study unique.
The results from this small Norwegian town correspond with similar research from other European countries: the answer to the cat mystery lies significantly closer to home than the owners probably expected. The cats spent an average of 79% of their time outdoors within 50 meters of the owner’s home. The average maximum distance for all cats was 352 meters.

“Some individuals traveled relatively far, sometimes several kilometers, but those were the exceptions,” says Bischof.

Most cats are literally just around the corner when they are outside.

The "catscape"

“As far as we know, no one has ever tracked that many cats in one small area. This made it possible for us to show what a domestic cat population looks like in time and space,” Bischof says. “We tend to think of animal populations as a collection of individuals or a single number,” Bischof continues. “Instead, I prefer to see them as surfaces that envelop and interact with the landscape.” Bischof also points out that most cat owners probably do not think of their cat as a member of a larger animal population. But they are clearly part of what the researchers called the “catscape” in their article.

“The catscape is the combined intensity with which an area is used by all cats living there, and we were able to create a map of it using GPS data,” Bischof says.

Large differences between individuals

The results showed that there was great variation between the individual cats in how they used the landscape.

“This is quite typical,” says Bjarne O. Braastad, professor emeritus of ethology at NMBU. “Cats have different personalities, and research results reflect this: there is often great variation.” He goes on to explain that the cats probably spend a lot of time near the home in their own garden to rest. “It is also worth noting that almost all the cats were neutered,” he adds. “It will of course play an important role. Neutered cats are less likely to roam.”

Popular project

Although the study has so far been focused on eastern Norway, rumors spread, and the project received inquiries to join from across the country.

“People are obviously very curious about what their cat does when it is out and about. Interest has been really high,” says Haugaasen. After the data collection and data analysis was complete, the cat owners gained access to digital maps where they could see where their pet had been. The researchers conclude by pointing out how important the cat owners’ help has been. “We could not have done this without them.”

“As an added bonus, we had the opportunity to include many families with children in our research. Maybe we have inspired some budding scientists?”
A genetic study involving more than 2,000 dogs, paired with 200,000 answers from dog owners on related surveys, suggests that breed alone is a poor predictor of behavior.

The findings challenge current assumptions surrounding dog breed stereotypes – notions used to explain why some breeds are more aggressive, obedient, or affectionate than others.

Despite being one of humans’ oldest animal companions, almost all modern dog breeds were only invented about 200 years ago. Before this time – beginning more than 2,000 years ago – dogs were primarily selected for traits central to their functional roles, like hunting, guarding, or herding. It wasn’t until the 1800s that humans began selecting dogs for their breed-defining physical and aesthetic traits.

Today, most modern dog breeds are ascribed characteristic temperaments associated with their ancestral function. As such, the breed ancestry of individual dogs is assumed to be predictive of temperament and behavior. This has led to, among other outcomes, a variety of breed-specific legislation, which can include insurance restrictions or the outright ban on owning some dog breeds.

Despite these widely held assumptions, there is a stark lack of genetic research illustrating a link between breed and behavior. To address this, Kathleen Morrill and colleagues used genome-wide association studies to search for common genetic variations that could predict specific behavioral traits in 2,155 purebred and mixed-breed dogs. They combined this data with 18,385 pet-owner surveys from Darwin’s Ark, an open-source database of owner-reported canine traits and behaviors. Behavioral data was analyzed across owner-reported breeds and genetically detected breed ancestries. The results of these tests, which included data from 78 breeds, identified 11 genetic loci strongly associated with behavior, though none of these were specific to breed. (Among the behaviors most strongly predicted by genetics was dog biddability – how well dogs respond to human direction.)

However, this varied significantly among individual dogs.) According to the findings, breed only explains 9% of the behavioral variation in individual dogs; for certain behavioral traits and survey items, age or dog sex were the best predictors of behavior. Investigators failed to find behaviors that were exclusive to any one breed.

“The majority of behaviors that we think of as characteristics of specific modern dog breeds have most likely come about from thousands of years of evolution from wolf to wild canine to domesticated dog, and finally to modern breeds,” said author Elinor Karlsson. “These heritable traits predate our concept of modern dog breeds by thousands of years.”