OUTREACH

A Publication for Members of the Select Benefit Services Association • 2024

Pet Dogs to the Rescue! Furry Friends Can Help Human Health

Dogs share our homes and environments. They grow up with us and grow old with us. And as they age, dogs tend to get many of the same health problems that we do—conditions like obesity, heart problems, cancer, and mental decline. Most of the genes found in dogs are also found in humans.

Because we share so much, it's not surprising that health-related discoveries in people can lead to better medical care for dogs. Likewise, studies of dog biology can lead to better understanding and treatments for people.

That's why NIH supports large-scale projects that aim to learn how aging, genes, and other factors affect the health and biology of dogs. Scientists partner with dog owners who share detailed information about their pets. The researchers analyze the massive amount of data they've gathered. Then they share their data and findings with other scientists to enable even more discoveries.

"Working with the general public has been one of our most productive and fruitful collaborations," says NIH's Dr. Elaine Ostrander, who led the launch

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SBSA Select Benefit Services Association

of NIH's Dog Genome Project more than 20 years ago. The project aims to learn how small changes in genes can lead to the many behaviors, body shapes, and diseases seen in different types of dogs.

Her team has collected DNA samples from tens of thousands of dogs. They've identified dog genes that helped to shed light on many human disorders. A recent study found genetic factors that raise the risk for an aggressive blood cancer that's common in a certain dog breed. The findings might lead to improved treatments for both dogs and people with the disease.

Ostrander's studies often focus on purebred dogs. Since the dogs' parents and ancestry are well-known, it's easier to tease out the activities and functions of specific genes.

Another large study—called the Dog Aging Project(link is external)—seeks to enroll all types of dogs. These include mixed breed and purebred pets of every age.

"The more dogs we have, the better," says project co-director Dr. Daniel Promislow of the University of Washington. "More dogs will give us more data and more power to ask more questions."

The Dog Aging Project aims to follow pet dogs over 10 years or more. It will track how genes, diet, exercise, and the environment affect health and aging. "If we can understand what affects health in dogs, that will be good for the dogs and good for the owners who love their dogs," Promislow says.

One recent study found that active older dogs are less likely to have dementia than inactive dogs. Another found that dogs living in environments with less opportunities to socialize with people and other animals often had worse health outcomes. "These are interesting relationships, but it's important to note that we don't yet know what is causing what," Promislow says.

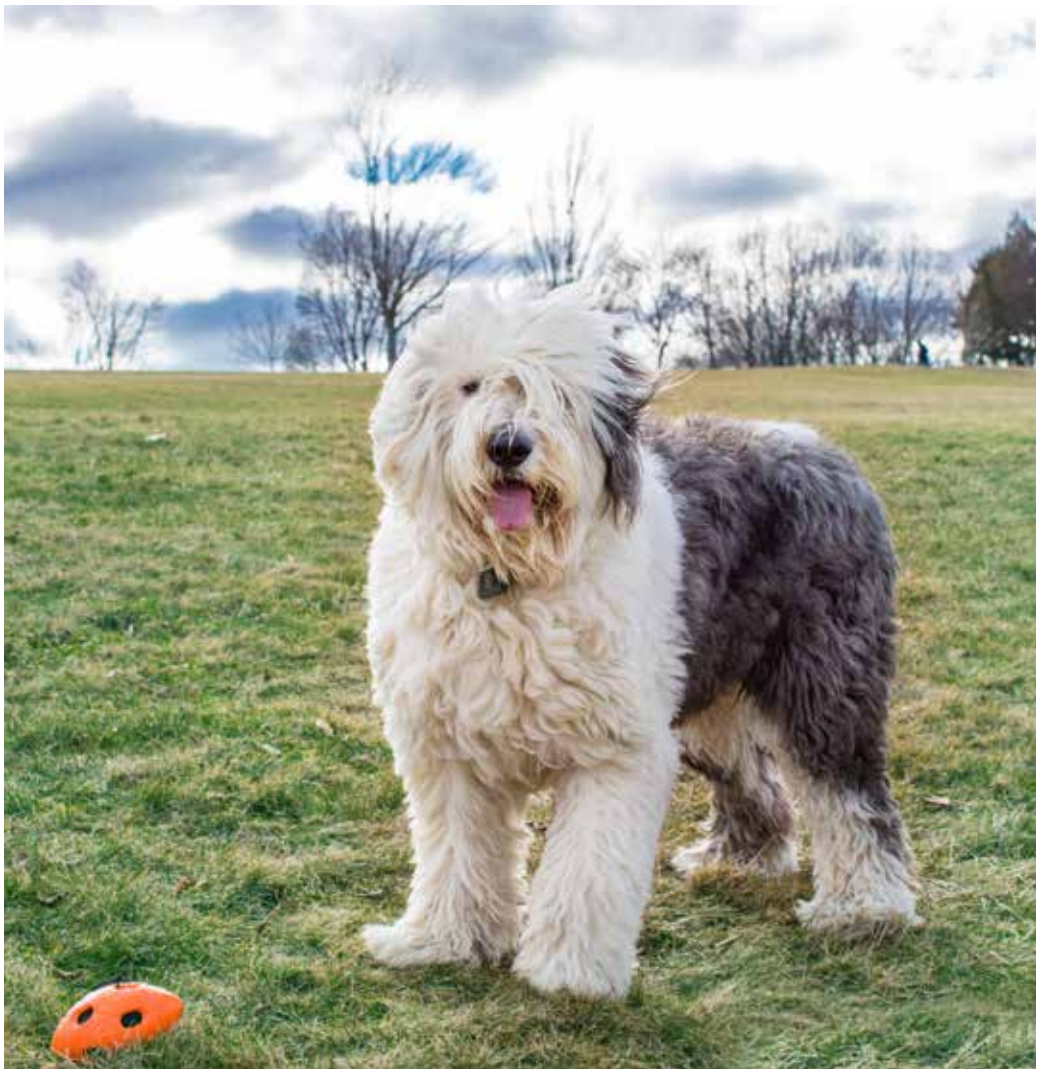
Studying dogs over time could help to pinpoint potential causes. This may lead to a better understanding of why activity and social relationships can also affect human health.

"The dog research community as a whole is really committed to collaboration. And we openly share our data," Ostrander adds. In the long run, this type of cooperative approach will help to improve both dog and human health.

NIH's Dog Genome Project

NIH-supported Dog Aging Project

Article reprinted from NIH-News In Health



Testing an mRNA Vaccine to Treat Pancreatic Cancer

Pancreatic cancer is one of the deadliest types of cancer. Only about 12% of people with this cancer will be alive five years after treatment. Scientists have been testing ways to get the body's disease defense system, called the immune system, to fight pancreatic cancer. One research team created personalized vaccines. To do this, they used mRNA—the same approach used to make vaccines for COVID-19.

The researchers took tumor samples from 19 volunteers who had their pancreatic tumors removed. Scientists at BioNTech, a company that made one of the COVID-19 mRNA vaccines, made mRNA cancer vaccines customized for each patient. Each included genetic instructions for up to 20 proteins unique to the person's pancreatic tumors. The researchers hoped these would trigger the immune system to recognize and attack the cancer cells.

The team was able to make customized vaccines for 18 of the 19 study participants. Each participant received nine vaccine doses over several months. After eight doses, they also received standard chemotherapy.

One and a half years after treatment, eight people remained cancer free. These were the patients who had the strongest immune responses to their vaccine. The researchers now want to learn why half the people did not have a strong response. The approach will also be tested soon in a larger clinical trial.

"It's exciting to see that a personalized vaccine could enlist the immune system to fight pancreatic cancer—which urgently needs better treatments," says study lead Dr. Vinod Balachandran of Memorial Sloan Kettering Cancer Center.

Article reprinted from NIH-News In Health

Donate Blood. Save a Life

Every two seconds, someone in the U.S. needs blood. It could be because of surgery or cancer treatments. Or maybe they have a blood disorder or have lost a lot of blood. Whatever the reason, there's always a need for donated blood. Even a single donation can save lives.

Blood gives us energy by bringing oxygen and nutrients to the body's cells. It also carries waste products to the liver and kidneys for removal.

Blood contains different types of cells and other components. Just two drops of blood can include millions of red blood cells, which carry oxygen and carbon dioxide. Blood also includes white blood cells (which fight disease), platelets (which help form blood clots), and plasma (the liquid portion of blood).

Blood has a short shelf life, so blood donations are always needed. Platelets can only be stored for five to seven days, and red blood cells for up to 42 days.

Blood donation is safe and simple. It usually takes only about an hour of your time. But only 3% of Americans give blood each year.

You can donate blood if you're in good health and are at least 16 or 17 years old (depending on where you live). Learn more about blood donations.

Article reprinted from NIH-News In Health

Membership Benefits

- **Car Rental**
  - Up to 15% savings
  - Includes USA and Canada
- **Theme Parks**
  - Theme Park tickets
  - Universal Parks®, Legoland®, Six Flags® Nationwide and more
- **Flower and Gift Baskets**
  - Up to 20% savings
  - Includes flowers, gourmet baskets, sweet treats, collectibles and more!
- **Movie Tickets**
  - Up to 40% on movie tickets
  - Includes many major movie theater chains in the U.S.
- **Hotel/Motel**
  - Up to 60% savings
  - Hotel, motel and resort chains nationwide
- **Phone and Tablets**
  - Earn cash back at stores you're shopping at today
  - Safe, simple, free
- **Fitness Health**
  - Up to 50% off membership dues at over 600 locations nationwide
  - Includes discounts on sporting goods, magazines, gourmet foods and more!

Visit www.selectbenefitservicesassociation.com to find more information on product benefits available with your association membership.

NOTICE OF ANNUAL MEETING OF MEMBERS

The Annual Meeting of the Members of Select Benefit Services Association will be held at 12444 Powerscourt Drive, Suite 500A, St. Louis, MO 63131, on Thursday, April 11, 2024 at 11:00 a.m. (CST) for election of Directors and for the transaction of such other business as may properly come before the meeting and any adjournment thereof.

The above notice is given pursuant to the By-Laws of the Association.

PROXY
Select Benefit Services Association
April 11, 2024 Annual Meeting of Members
THIS PROXY IS SOLICITED ON BEHALF OF SELECT BENEFIT SERVICES ASSOCIATION

The undersigned member of Select Benefit Services Association does hereby constitute and appoint the President of Select Benefit Services Association, the true and lawful attorney(s) of the undersigned with full power of substitution, to appear and act as the proxy or proxies of the undersigned at the Annual Meeting of the Members of Select Benefit Services Association and at any and all adjournments thereof, and to vote for and in the name, place and stead of the undersigned, as fully as the undersigned might or could do if personally present, as set forth below:

1. FOR [ ], or to [ ] WITHHOLD AUTHORITY to vote for, the following nominees for Board of Directors:
   John Stratman, Tom Ebner, and Kim Darling

2. In their discretion, the proxies are authorized to vote upon such other business as may properly come before the Meeting.

This proxy, when properly executed, will be voted in the manner directed by the undersigned member. If no direction is made, this proxy will be voted for the election of directors and officers.

DATED: _____ , 2024

Signature _____

Name (please print) _____

Please date and sign and return promptly to 12444 Powerscourt Drive, Suite 500A, St. Louis, MO 63131 whether or not you expect to attend this meeting. The Proxy is revocable and will not affect your right to vote in person in the event that you attend the meeting.

St. Louis, Missouri
March 4, 2024
Date

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Outreach is published by:
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