May 9, 2023

HIROTSU BIO SCIENCE INC.

Cancer Test for Dogs "N-NOSE® plus Dogs" Service Launch from Tuesday, May 9

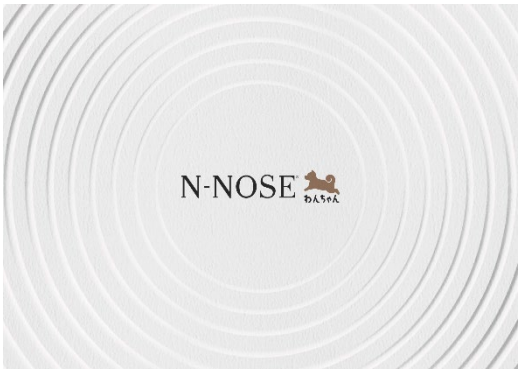
－Includes a cost-effective "Owner and Dog Pair Test"－

HIROTSU BIO SCIENCE INC. (Head Office: Chiyoda-ku, Tokyo; Representative; Takaaki Hirotsu (Hereinafter referred to as "HIROTSU")), is pleased to announce that the test kit shipments for the canine cancer test "N-NOSE plus Dogs" will begin on Tuesday, May 9, and we will provide the "Owner and Dog Pair Test."

The cancer incidence rate in dogs is said to be eight times higher than in humans, and cancer is the leading cause of death among dogs (*1). Since dogs cannot report pain or discomfort themselves, it is often the case that the illness has progressed by the time the owner notices something is wrong. In a landscape where convenient cancer screenings for dogs are almost non-existent, we have fully committed to developing a nematode-based cancer test for dogs, driven by our desire to protect canine health. After approximately five years of joint research with partner institutions, we are now ready to offer this service (*2).

"N-NOSE plus Dogs" is a primary screening test for assessing cancer risk in dogs, developed by applying the technology of the nematode cancer test "N-NOSE," which has surpassed a cumulative total of 400,000 users (*3). By simply submitting a urine sample, owners can check for risks of various cancers commonly found in dogs, such as lymphoma, mammary gland cancer, and skin cancer (*4). Following a reservation period starting on March 10, we will now begin shipping test kits and conducting tests. Additionally, we will offer the service of the "Owner and Dog Pair Test" to ensure a healthy future for both owners and their dogs, providing a cost-effective option. Should the test indicate a high risk, we will provide free aftercare services, including guidance from veterinarians on the next steps and information about partner animal hospitals, to support a process that leads to early detection.





■Overview of "N-NOSE plus Dogs"

Start Date: Tuesday, May 9, 2023

How to Apply for Service: Service website, and partner animal hospitals (starting from early June)

Test Fee:

Regular Testing: ¥16,800 (including tax) per test (choose from once a year, twice a year, or three times a year)

One-Time Test: ¥19,800 (including tax)

"Owner and Dog Pair Test" Discount (applicable for up to 5 family members of the owner and up to 5 dogs):

Regular Testing: ¥2,000 discount per kit

One-Time Test: ¥1,000 discount per kit

Service Website: https://lp.n-nose.com/dog/

(*1) Dog cancer incidence rate: Calculated from the figures in "Anicom Household Pet White Paper 2022" for dogs over 6 years old, cancer incidence rates in people over 40 from "National Cancer Registry" 2019 data and "Ministry of Health, Labour and Welfare Vital Statistics" 2019 data. Dog mortality data: "Anicom Household Pet White Paper 2021" for dogs over 10 years old.

(*2) Results of Collaborative Research:

[Paper]

- December 2022: "A new detection method for canine and feline cancer using the olfactory system of nematodes" (Biochemistry and Biophysics Reports)

[Conference Presentations]

- November 2021: "Evaluation of N-NOSE in Animals" (42nd Annual Meeting of the Animal Clinical Medicine Society)
- December 2021: "Evaluation of N-NOSE in Pets" (3rd Annual Meeting of the Japanese

Society of Biological Diagnostics)

- August 2022: "Consideration of expanding the use of N-NOSE for pets" (18th Global Biomarkers and Clinical Research Summit)
- September 2022: "Expansion of the application of the nematode cancer test N-NOSE to animals" (165th Meeting of the Japanese Veterinary Society)
- September 2022: "Application of N-NOSE to Dogs and Cats" (2022 Annual Meeting of the Japanese Society of Veterinary Clinical Pathology)
- November 2022: "New Cancer Detection Method for Dogs and Cats using Nematode Olfaction" (40th Annual Meeting of the Japan Veterinary Medical Association / 21st Asian Veterinary Medical Association Congress)
- December 2022: "A new early-stage cancer test using C. elegans for canines and felines" (International Conference of Health Evaluation and Promotion 2022)

(*3) As of the end of April 2023

(*4) Liver cancer, mammary gland cancer, lymphoma, thyroid cancer, multiple myeloma, sarcoma, bone tumor, urothelial cancer, brain tumor

■About HIROTSU BIO SCIENCE

We as HIROTSU aim to protect the health and future security of people through research, development, and practical application of unique technology that utilize the capabilities of living organisms. Established in 2016, N-NOSE was put into practical use thanks to our researchers` abundance of ideas and tireless efforts. Despite the importance of extending healthy life expectancy being emphasized, it is said that one in every two people will be diagnosed with cancer in this age of 100-year life expectancy. We strive to contribute to solving these social issues with our groundbreaking “bio-diagnoses” technology that utilizes the power of nematodes.

Company Name: HIROTSU BIO SCIENCE INC.
Headquarters: 22F New Otani Garden Court, 4-1 Kioi-cho, Chiyoda-ku, Tokyo
Representative: Takaaki Hirotsu, CEO
Date of Establishment: August 2016
Main Service: Research, development, and marketing of cancer screenings using nematodes and nematode olfactory sensors.
Official Website: https://hbio.jp/en/

■About “N-NOSE”

A primary screening test for cancer that utilizes the highly accurate detection of cancer-specific odors in human urine by the nematode *C. elegans*, which has a very good sense of smell. By simply submitting urine, the test is simple, inexpensive, highly accurate, and provides a whole-body comprehensive examination of early-stage cancer risk.
Official Service Website: https://lp.n-nose.com/

■About “N-NOSE Animals”

“N-NOSE Dogs” and “N-NOSE Cats” developed based on the N-NOSE technology. Up until now, there has not been an easily accessible cancer screening test for pets. Just like N-NOSE for humans, starting in 2023, an easy cancer risk screening only requiring urine for both cats and dogs has been made available due to this product.
Official Service Website: https://lp.n-nose.com/animal/

Press Contact
HIROTSU Bio Science PR
E-mail：press@hbio.jp