



Chemical processing room draft chamber

Our Measuring Facility “HaHa Monitoring Station”

Measurements on Milk Teeth Start Soon

With the help of more than 600 people across Japan and from overseas we were finally able to establish our Sr-90 measuring laboratory, “Haha Monitoring Station”. We are very grateful to everybody for their invaluable support and encouragement!

Strontium-90 (Sr-90) behaves very much like calcium when it is inhaled or ingested; it is absorbed into bones and teeth where it accumulates and is retained for decades. Sr-90 can cause leukemia, myeloma and solid tumors such as pancreatic cancer. The central and local governments continue to ignore these risks.

That is why we set ourselves the objective of investigating the Sr-90 exposure of the population, particularly of the children, who are at a significantly higher risk of becoming diseased than adults. We began collecting shed milk teeth from children in Japan shortly after the Fukushima Daiichi Nuclear Power Plant accident. In September 2015 we founded the “Preserving Deciduous Teeth Network” and began our campaign to appeal to the Japanese people to support our efforts to preserve milk teeth. Now that our own measuring laboratory, HaHa Monitoring Station, has been established, we are about to commence our investigation to determine the contamination level of the milk teeth we have collected.

Nuclear weapons tests performed in the 1950 to the 1960s caused the release of radioactive materials, including Strontium-90. In 1959 American scientists initiated the Baby Tooth Survey, in which deciduous teeth from children living in the St. Louis, Missouri area, who were born in the 1950s and 1960s, were collected and analyzed over a period of 12 years. The results of the survey showed that children born after 1963 had levels of Sr-90 in their teeth that were 50 times higher than those found in children before the advent of widespread nuclear weapons testing. The findings helped convince US President John F Kennedy to sign the Partial Nuclear Test Ban Treaty which ended all nuclear tests in the atmosphere, in outer space, and under water.

The Health Department of the State Laboratory Basel-City in Switzerland is well versed in methodology of Strontium detection; since 1950 they have been measuring Sr-90 contamination in objects, such as deciduous teeth, milk, soil and fresh water fish. We sought their international expertise, and our scientists participated in training programmes organised by the State Lab, in 2017 and 2018.

The detection of Strontium is technically complex and very work-intensive, since the decay chain of Sr-90 and the daughter nucleus Y-90 emit only beta rays. This requires complicated chemical processing facilities as well as technical skills.

Thanks to your generous contributions which amounted 22,979,236 yen, we were able to purchase all necessary equipment, such as the electric furnace, the precipitation/filtering apparatus, the Multi-Detector Low Background Alpha/Beta Counting System(LB4200) and the measuring equipment, and set up our laboratory. Prior to our milk teeth investigation, we are trialling measurements of Sr-90 levels in adults’ teeth, powder milk and fish from contaminated areas.

Your continued generous support of our efforts is greatly appreciated.



LB4200



milk teeth



Slime flounder and hard-shelled mussel
(caught in the Ibaraki area)

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