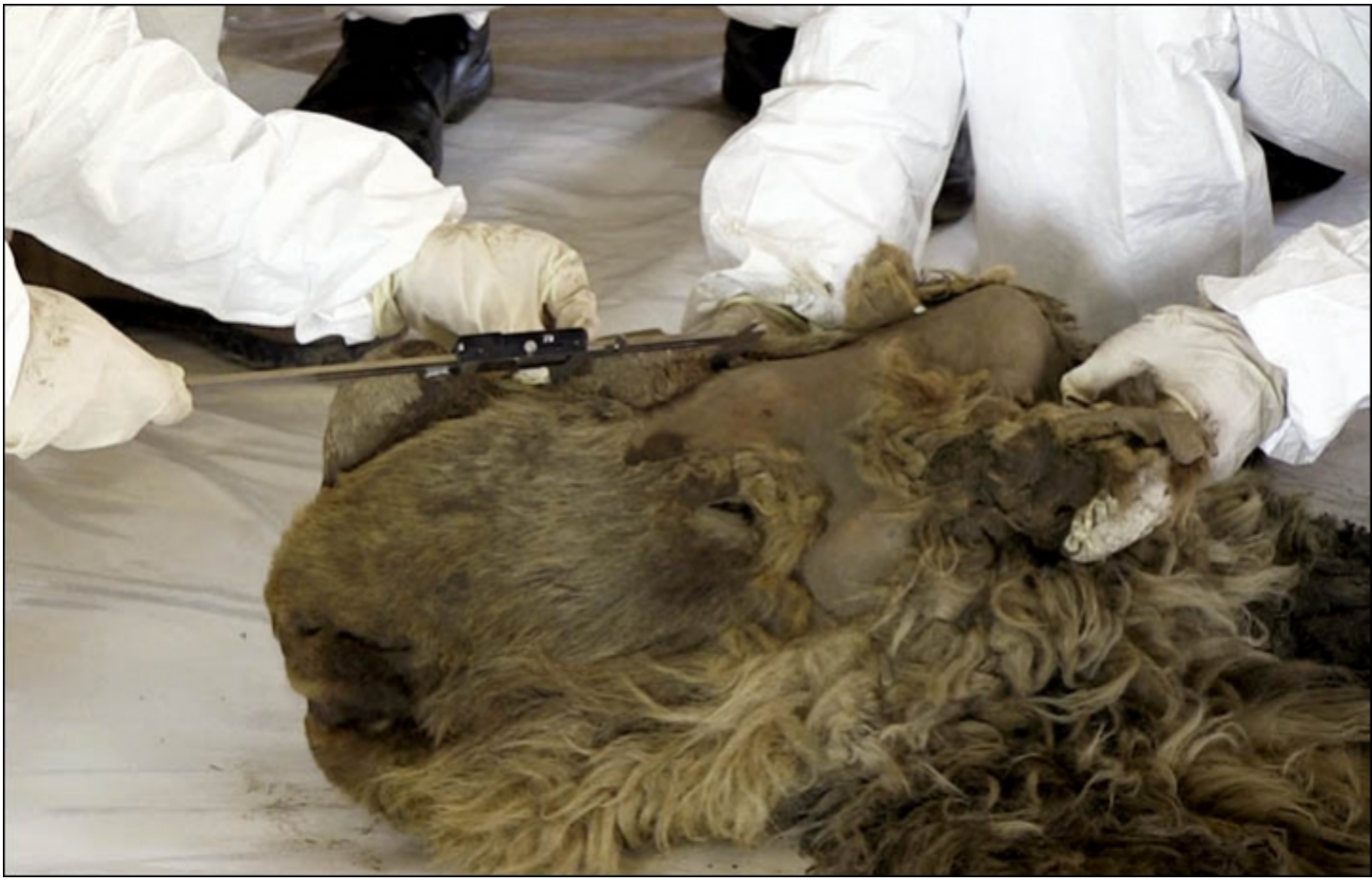
Sasha, the world's only baby woolly rhino, is 34,000 years old, say scientists

The Siberian Times By Anna Liesowska 08 September 2015

Video and pictures show experts conducting initial autopsy on the extinct creature preserved by permafrost.



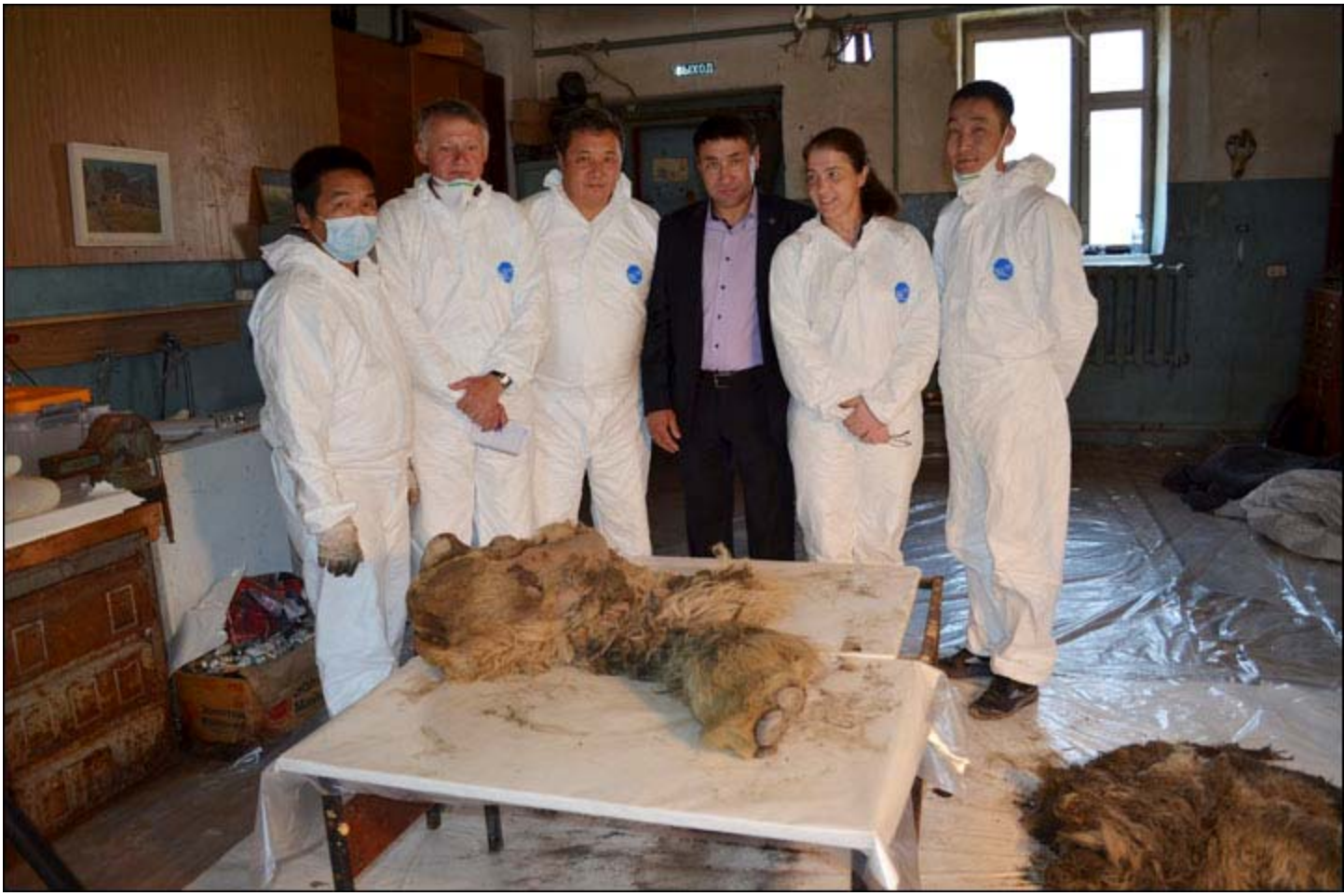
Tests have discovered that woolly rhio Sasha is 24,000 years older, than it was thought before. Picture: Academy of Sciences Republic of Sakha

Scientists knew that Sasha - estimated age one-and-a-half years - was at least 10,000 years old, because this is when the woolly rhinoceros died out.

In fact, tests have discovered that this unique specimen is 24,000 years older, living in the 'Karginsk interglacial period' when temperatures were much warmer than in the modern day Yakutia - or Sakha Republic - where the remains were discovered.

This is the first-ever infant woolly rhinoceros found, and Russian scientists are sharing the research of Sasha with leading experts from around the world.

For example, DNA analysis is to be undertaken at the University of California, Santa Cruz. The aim is to sequence the extinct creature's DNA, to compare it with the modern rhinoceros and understand its evolution.

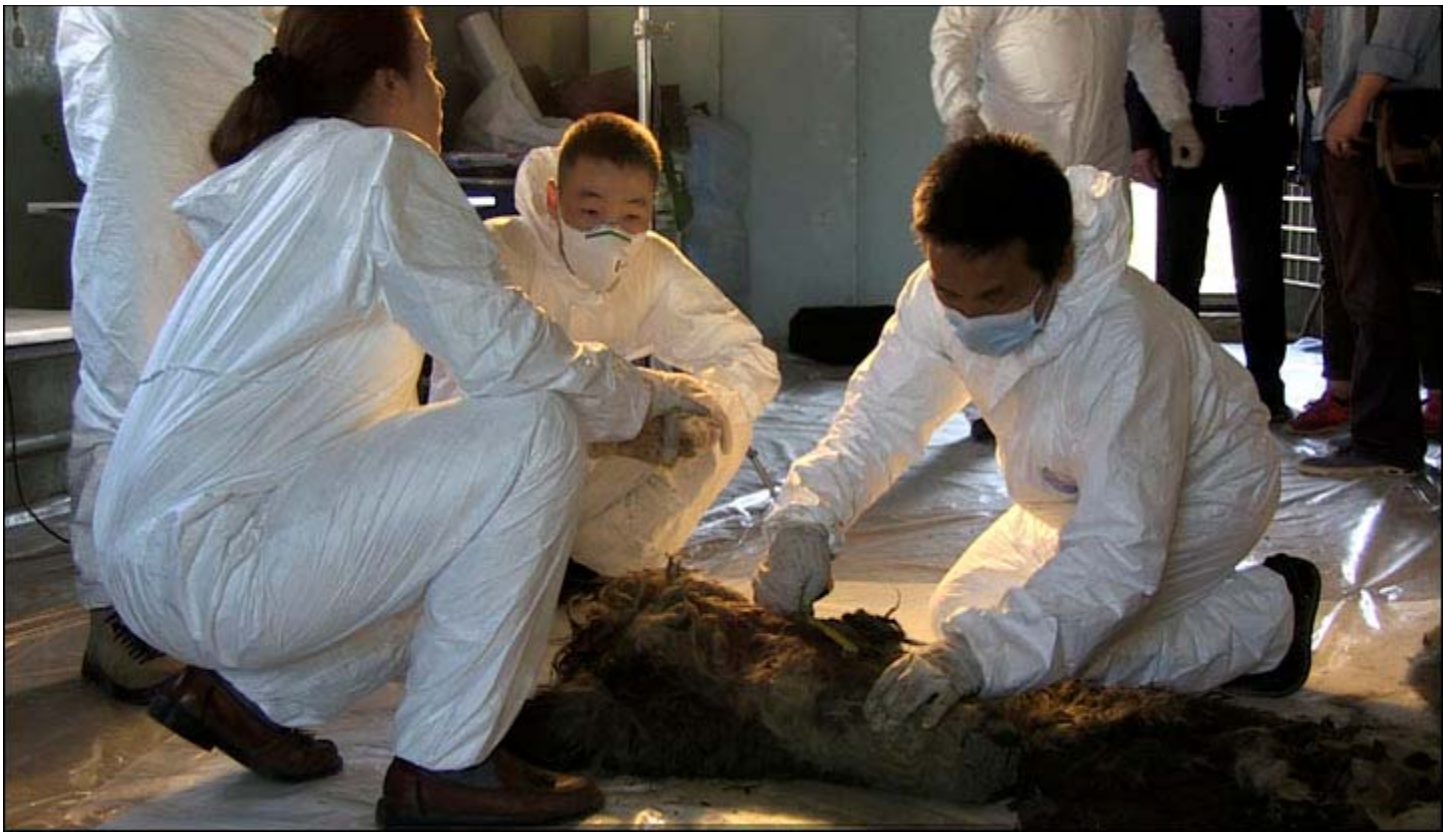


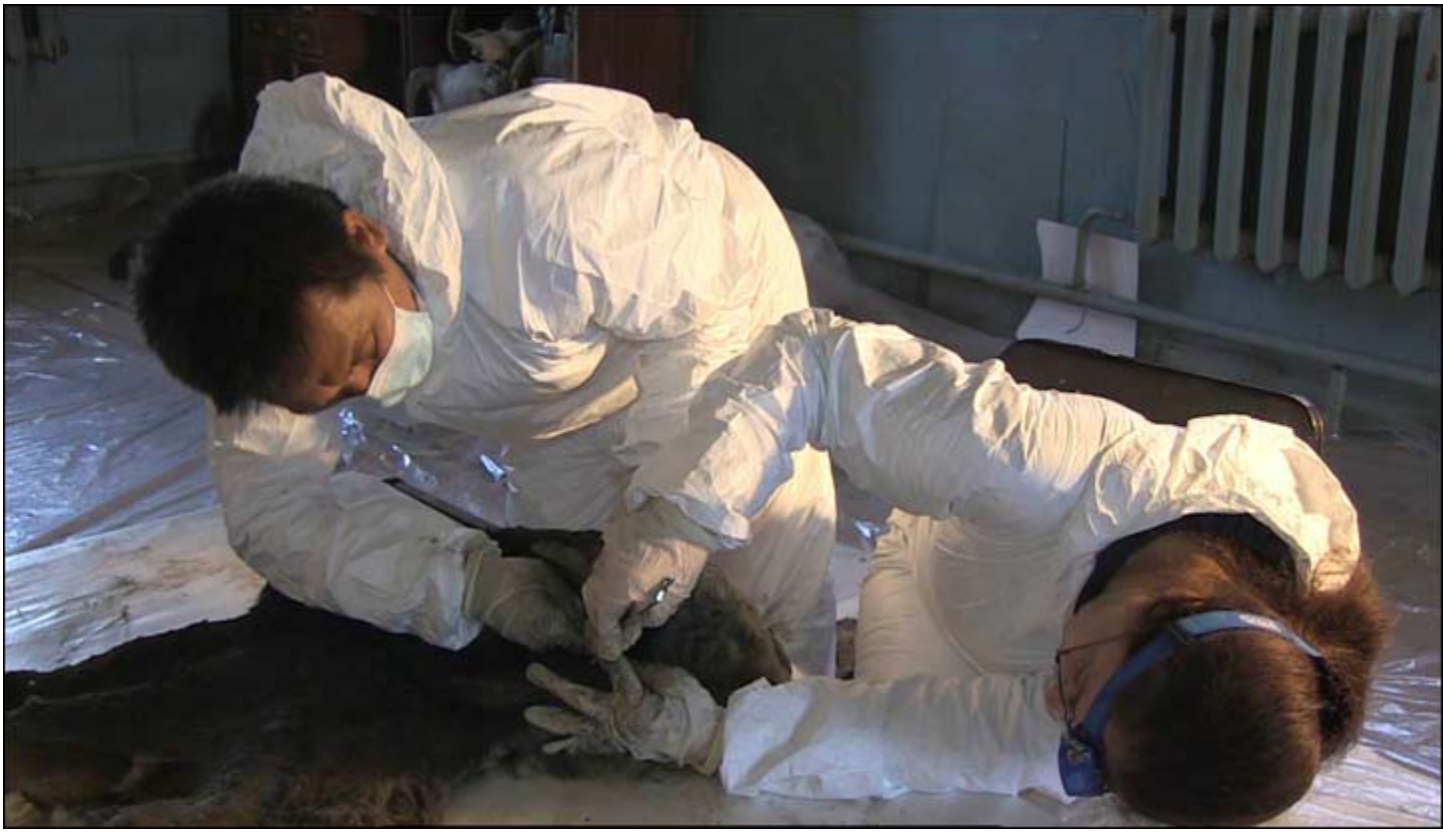
The research team (from left to right): Inokenty Pavlov (Academy of Sciences of Yakutia, Yakutsk), Yevgeny Mashchenko (Paleontology Institute RAS, Moscow), Albert Protopopov (Academy of Sciences of Yakutia, Yakutsk), Aleksander Benderov (hunter, who found Sasha), Olga Potapova Zoological Institute RAS, St Petersburg), Stanislav Kolesov (Academy of Sciences of Yakutia, Yakutsk). Picture: Academy of Sciences Republic of Sakha

So far, scientists suspect the calf died of drowning, but will research further its likely cause of death.

Dr Albert Protopopov, head of the Department of Mammoth Fauna Studies, in Yakutsk, said: 'The nasal passages of the rhinoceros were clogged with mud, so that we can say that most likely it drowned.' He explained: 'Paleontologists believe that the mortality rate in babies of such large animals was very low. We will try to find out in the course of this research what killed this very rhino calf.'

'The DNA of woolly rhino is poorly studied indeed. This find gives us the opportunity to compare the woolly rhino with the modern rhinos and find out how far they are from each other on the evolutionary path.'



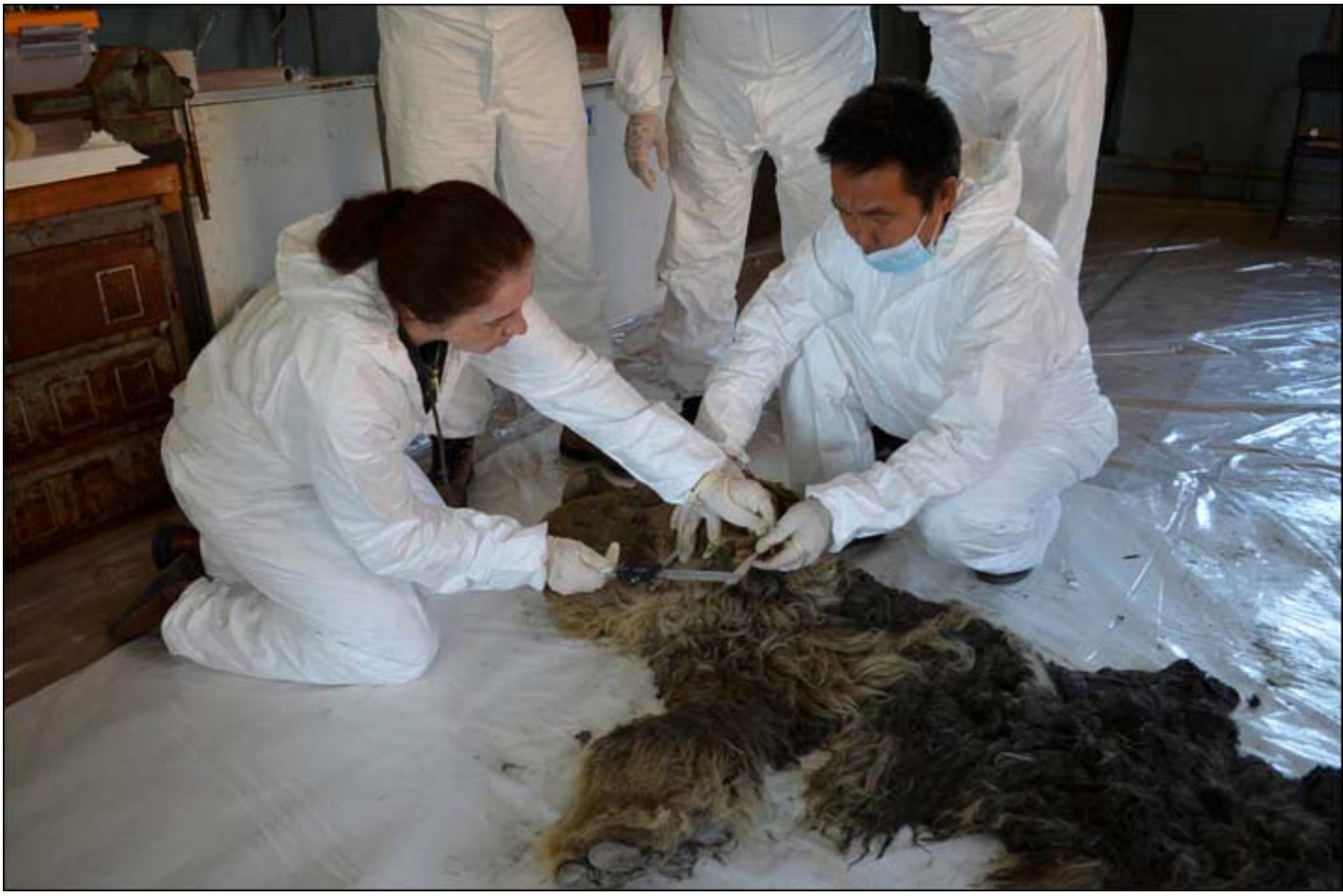


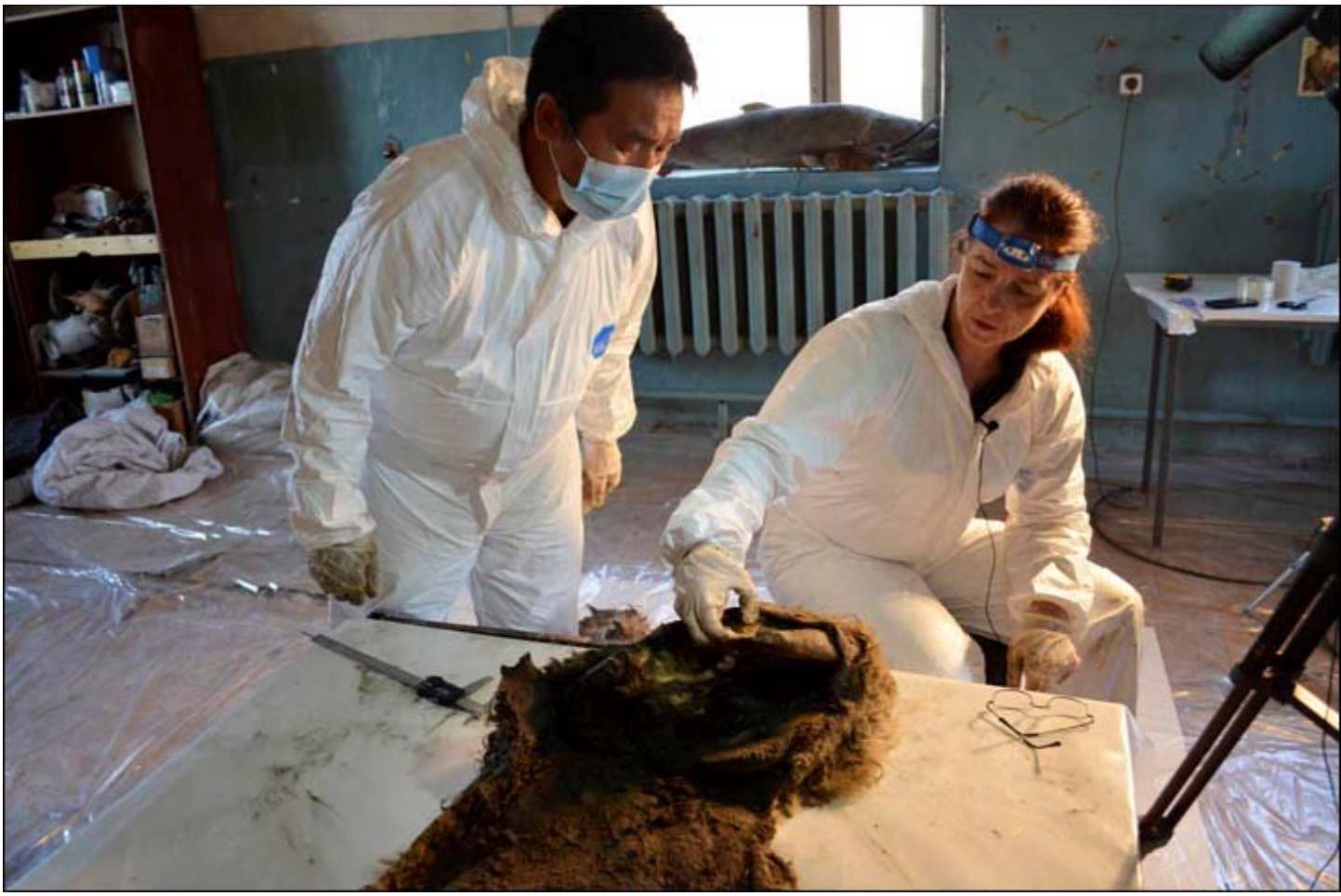
'The nasal passages of the rhinoceros were clogged with mud, so that we can say that most likely it drowned.' Pictures: Academy of Sciences Republic of Sakha

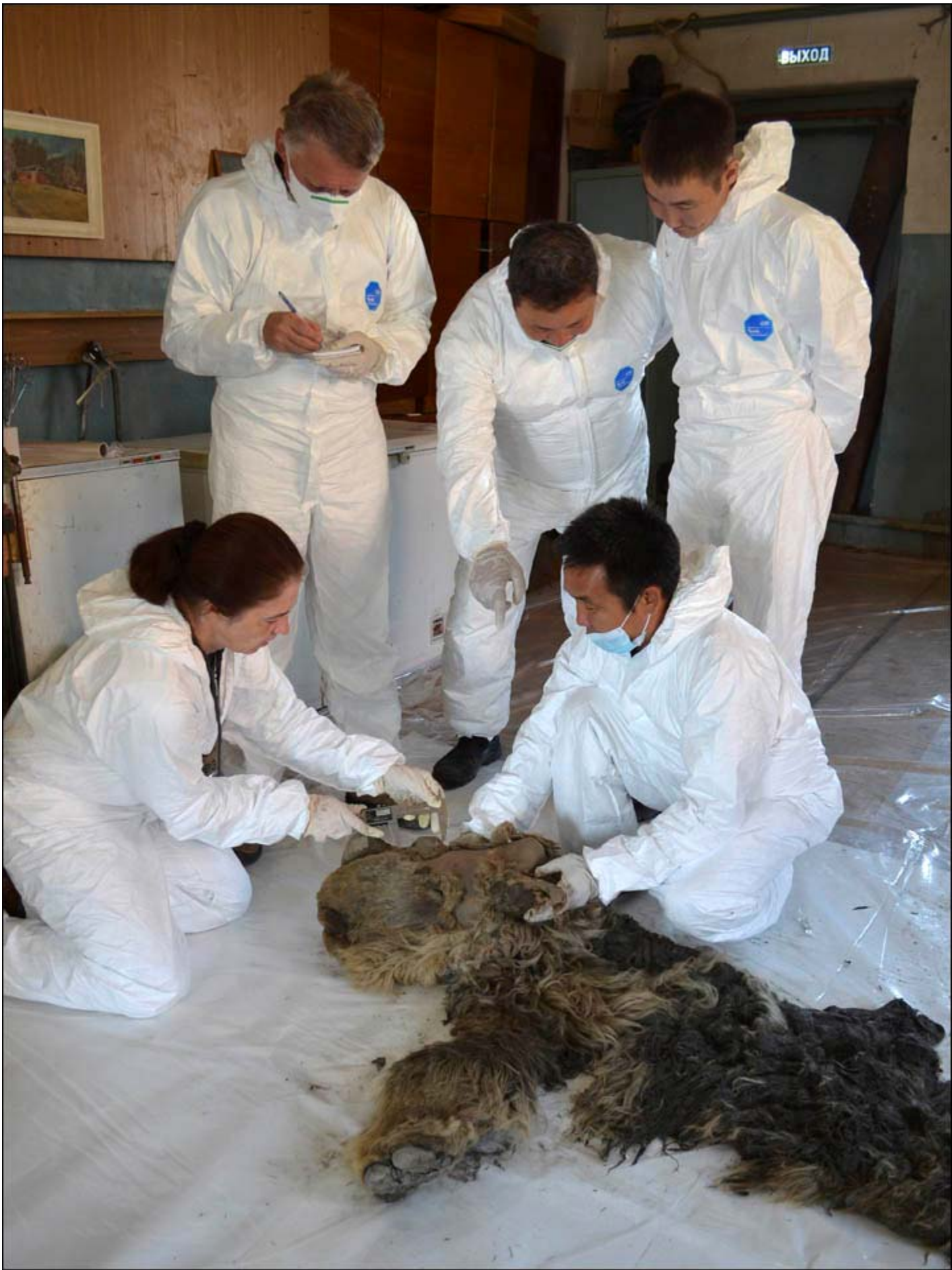
Not only is Sasha the only infant woolly rhino ever found, it is considered the best-preserved in the world with front and rear legs, and almost entire skin, intact. 'As can be seen, the hair is light grey. The head is in good condition - with the ears, eyes, and tongue all preserved'.

Olga Potapova, a research fellow of the Zoological Institute in St Petersburg, said: 'According to the preliminary scan of the skull, we have already determined that the rhino was very young. It corresponds to about an 18-month calf of a white rhinoceros.

'During the autopsy, we conducted an initial description of the external morphological characters of the find. Our challenge now is to make accurate measurements of the teeth (which can help pinpoint the age). This can be done from scanned images, but we prefer to work directly with the material. Since the preservation of the rhino is pretty good, we can count on the results of DNA tests.'



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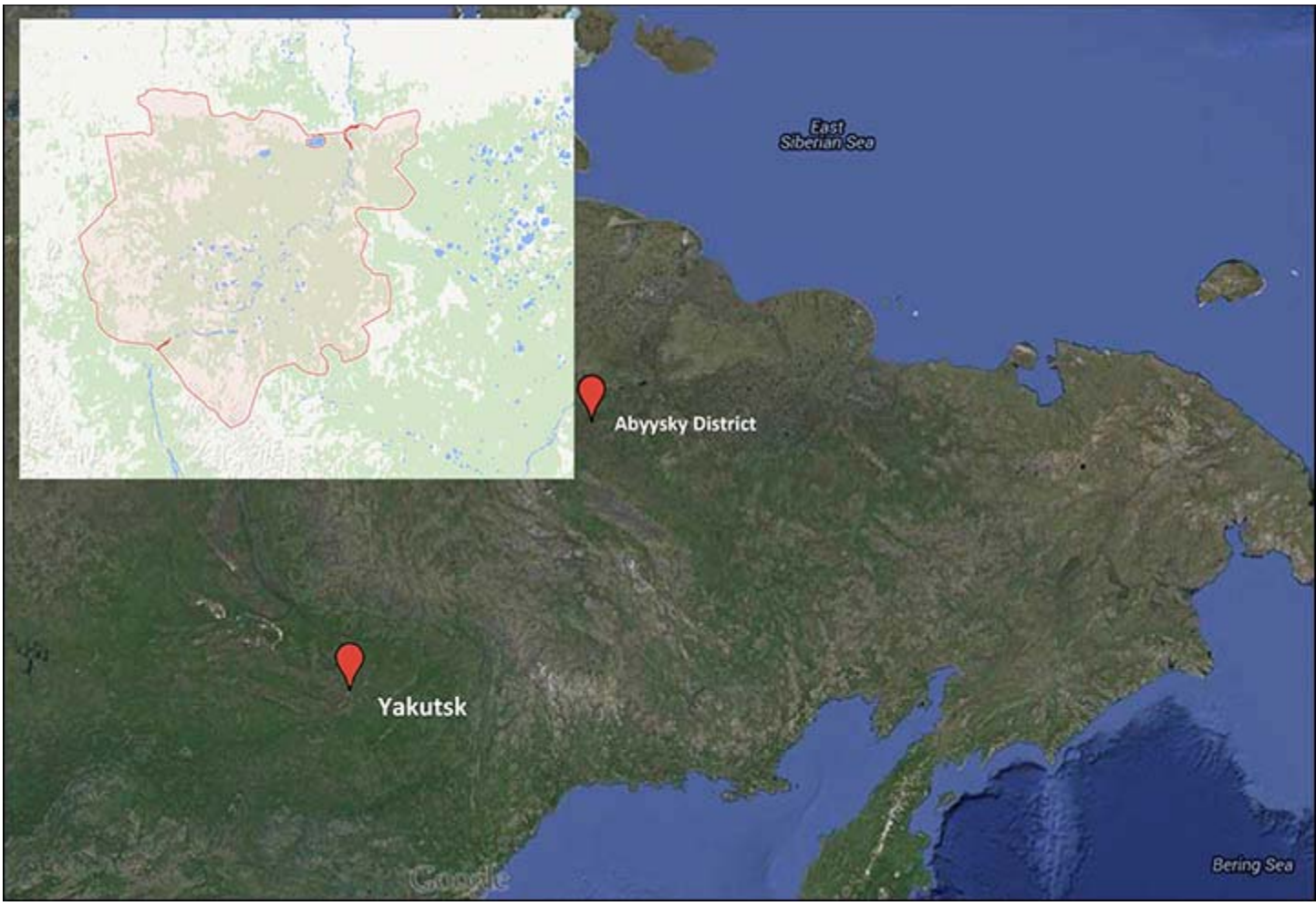
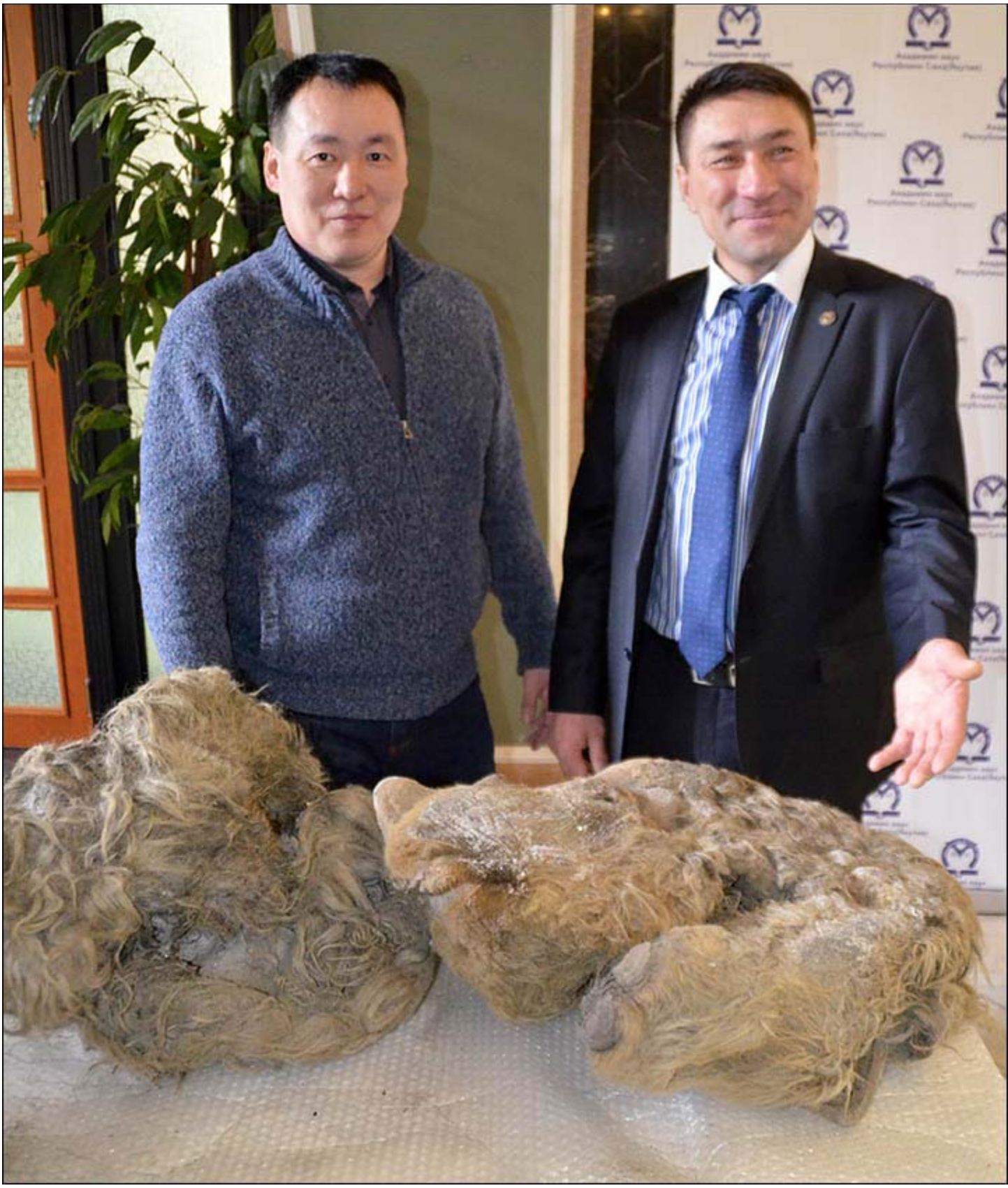
'Since the preservation of the rhino is pretty good, we can count on the results of DNA tests.' Pictures: Academy of Sciences Republic of Sakha

The young rhino was found in the Abyysky district last year. Remnants of two horns were found on the carcass. Currently, the world scientific community knows only five carcasses of the species. Of these, two excluding Sasha were found in the Sakha Republic in the 18th and 19th centuries. But these have a very low degree of preservation.

The Academy of Sciences of Yakutia keeps a mummified carcass of the rhino, which was found in 2007 on the banks of the Kolyma River. The baby rhino was named in honor of Alexander 'Sasha' Banderov, the hunter who found the remains. Initially, he thought it was a reindeer. In Russia, the name Sasha can be male or female: scientists are uncertain of the animal's sex.



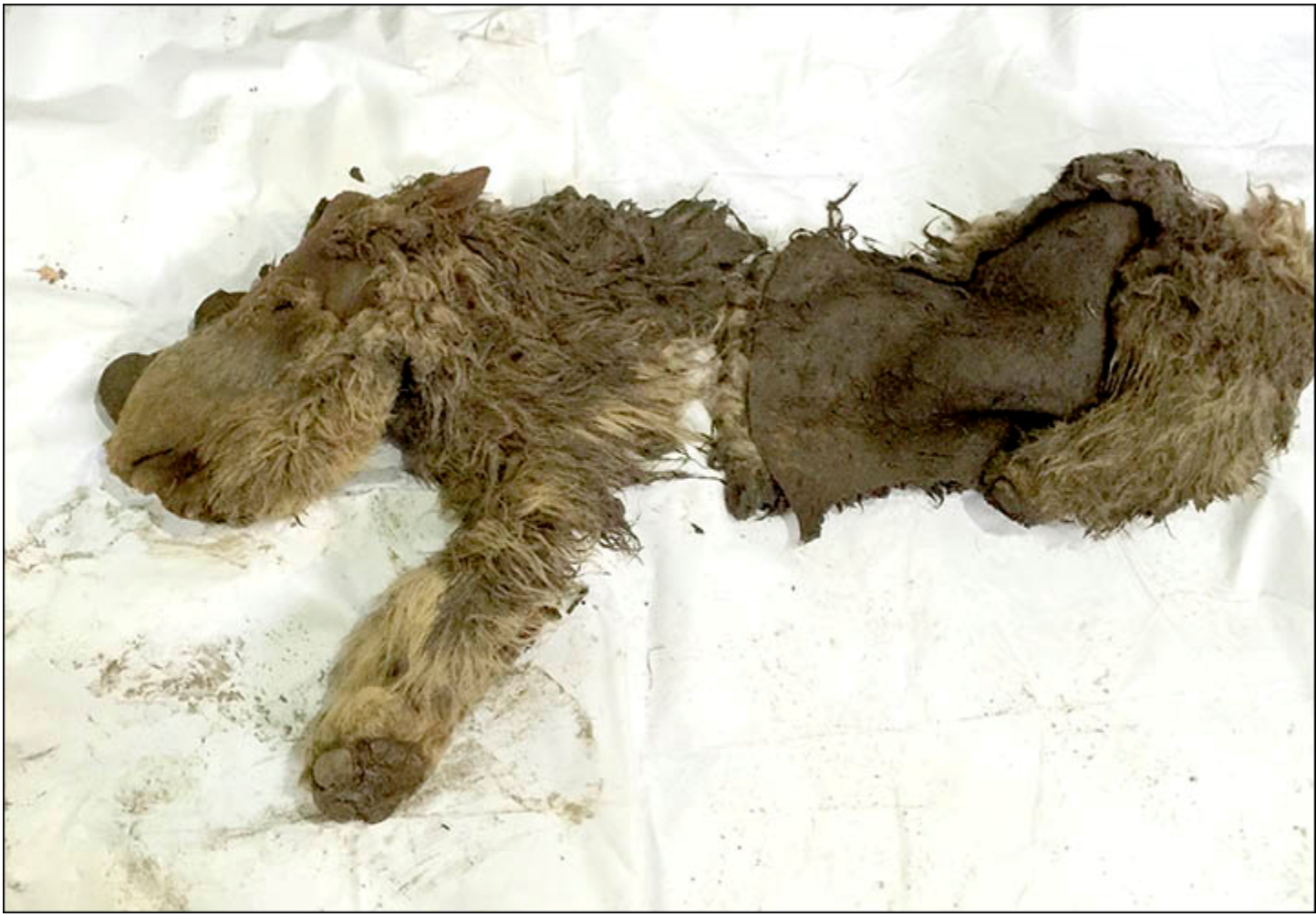


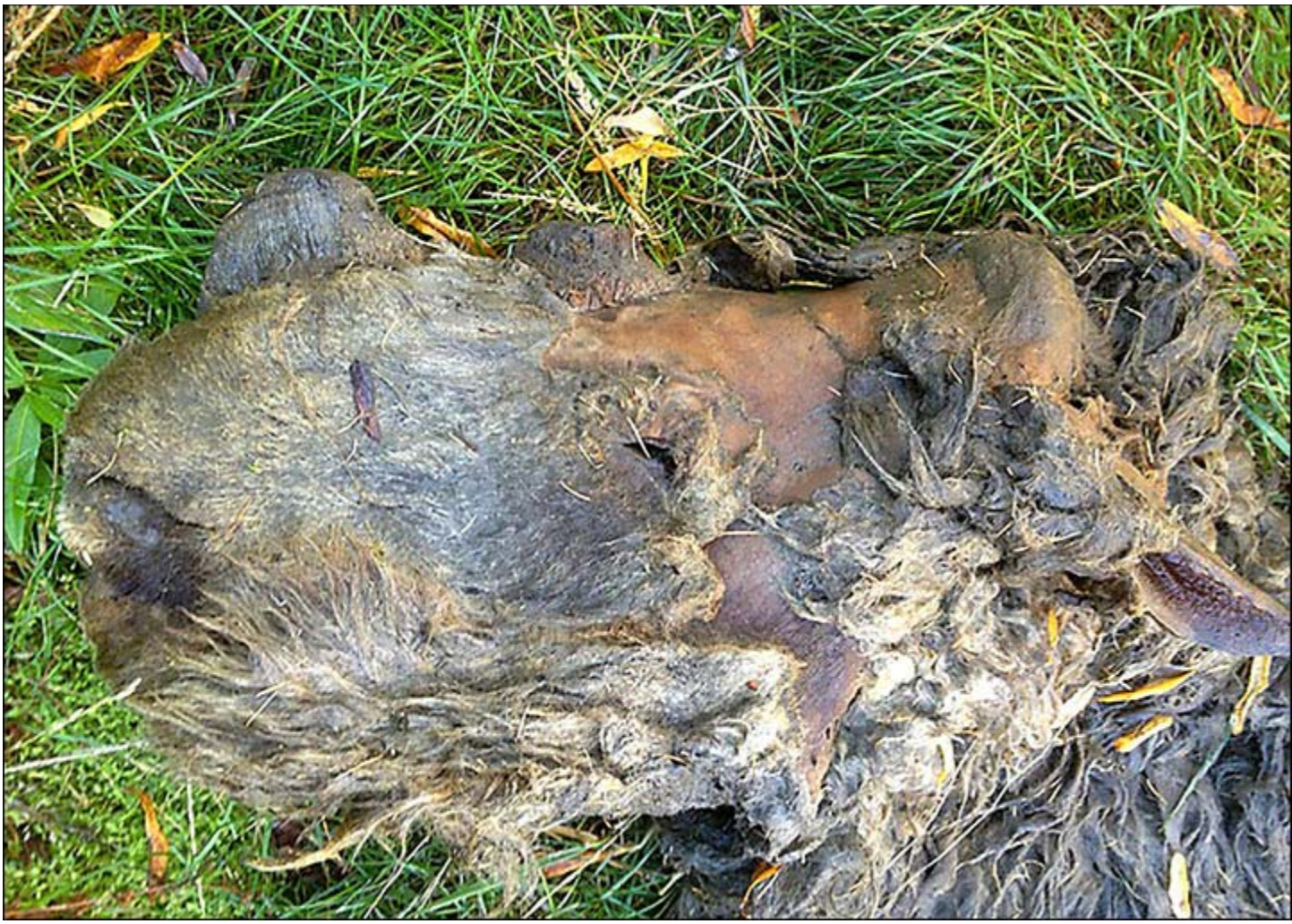
The young rhino was found in the Abyysky district last year by the hunter Alexander 'Sasha' Banderov. Pictures: The Siberian Times, Academy of Sciences Republic of Sakha

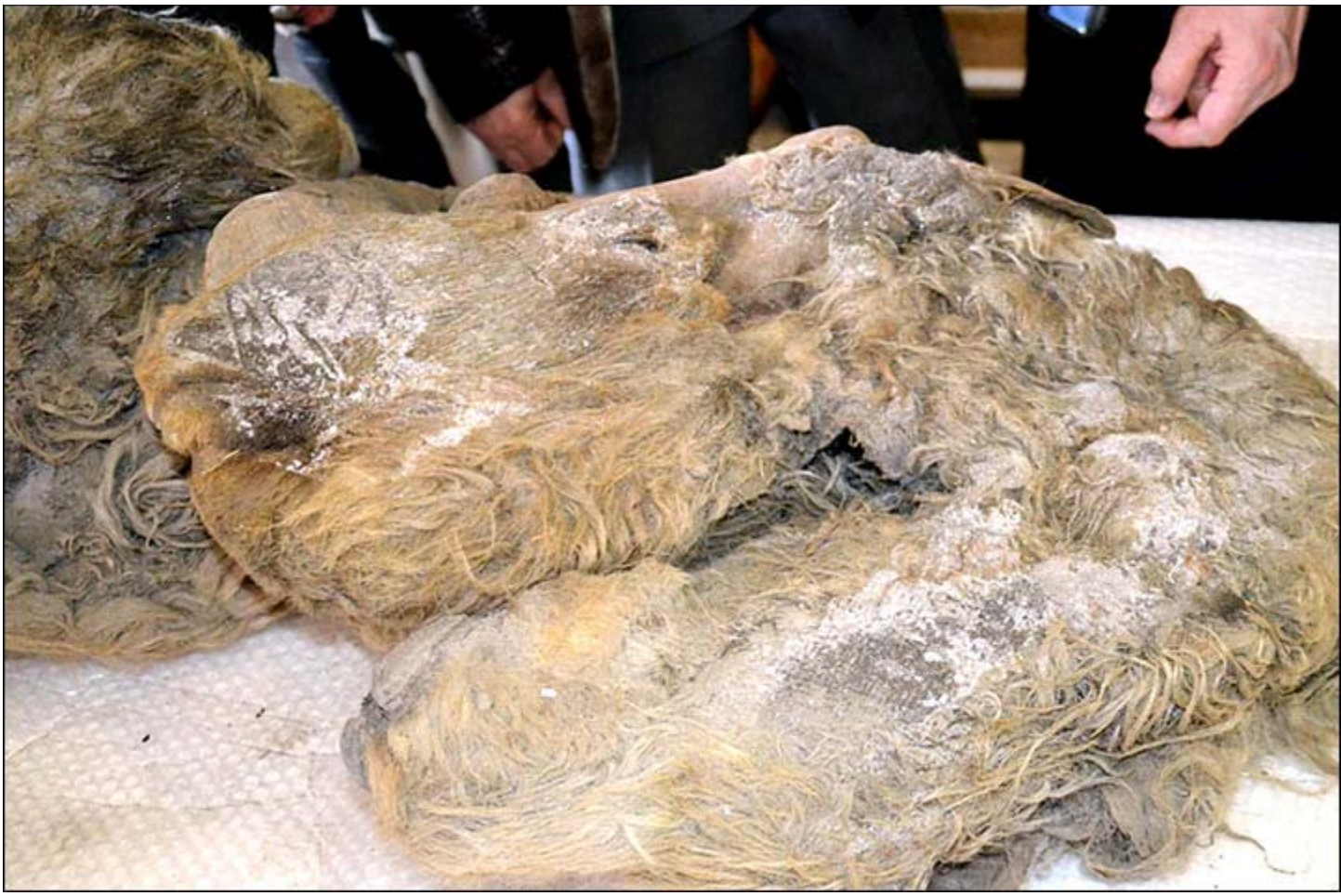
In February, after the find was made, Dr Protopopov said: 'To find a skull of a baby rhino is very lucky indeed. The possible explanation to it is that rhinos bred very slowly. Mothers protected baby rhinos really well, so that cases of successful attacks on them were extremely rare and the mortality rate was very low.

'Woolly rhinos are less studied than mammoths. We are hoping Sasha the rhino will give us a lot of answers to questions of how they grew and developed, what conditions they lived in, and which of the modern day animals is the closest to them.

'We know nothing about baby rhinos, while the morphology of adults is better known. So far we didn't have a chance to work even with a tooth of a baby rhino, and now we have the whole skull, the head, soft tissues, and well preserved teeth. First of all we will concentrate on the DNA, because the carcass was kept frozen and chances are high we will get a better preserved DNA.







'So far we didn't have a chance to work even with a tooth of a baby rhino, and now we have the whole skull, the head, soft tissues, and well preserved teeth.' Pictures: Academy of Sciences Republic of Sakha

In addition to the Academy of Sciences of the Republic Sahha (Yakutia), other leading Russian research centers taking part in analyzing Sasha are the Paleontological Institute of the Russian Academy of Sciences (RAS), the Institute of Human Morphology (RAS), the Institute of Biochemistry and Physiology of Microorganisms (RAS), the Geological Institute (RAS), and the Institute of Geology of Diamonds and Precious Metals (Siberian Branch of the Russian Academy of Sciences) and the Institute of Animal Morphology and Ecology (RAS).

Foreign researchers are taking part from the University of Amsterdam (Netherlands), University of Leeds (UK), University of Bristol (UK), the Center of Mammoth Hot Springs (USA), University of California (USA), University of Groningen (Netherlands).