

## Century-old lung helps scientists trace measles back to now-eradicated cattle virus

For years, the lung sat in the basement of the Berlin Museum of Medical History along with hundreds of other lung specimens, all collected and preserved between the 1870s and 1930s. On a hunt for well-preserved respiratory pathogens, virologist Sébastien Calvignac-Spencer of the Robert Koch Institute and his research team descended into the basement and peered into each and every jar. “It’s a matter of serendipity” that the team found a lung belonging to a 2-year-old [measles](#) patient who died from the disease in 1912, Calvignac-Spencer said.

The team managed to extract samples of the virus from the 108-year-old lung tissue and used the genetic material — the oldest measles genome ever sequenced — to learn more about the origins of the pathogen. In a new study, published [June 18] in the journal [Science](#), they estimate that measles could have diverged from its closest known relative, a now eradicated cattle virus, as early as 528 B.C.

The new estimate suggests that the virus may be “more than a 1,000 years older than any previous estimate,” Calvignac-Spencer told Live Science.

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The authors noted that, around 2,000 to 2,500 years ago, humans began building settlements large enough to sustain a measles outbreak, offering the [virus](#) an opportunity to establish itself. Measles tends to peter out in communities of fewer than 250,000 individuals, as residents quickly become immune to, or die from, the disease.

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