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# Outbreak of African Swine Fever in Catalonia: the view from IRTA-CReSA

February 16, 2026



# IRTA

The Agri-food Research and Technology Institute (IRTA) is made up of over one thousand professionals from a wide variety of countries and professional backgrounds, who carry out research and innovation to tackle the main challenges involved in food production.

We work at around twenty locations around Catalonia with links to the rest of the world.

Our purpose is **to help transform food systems for a future of sustainable wellbeing.**

We were founded in 1985 as the result of a law passed by the Catalan parliament, we are registered as a state-owned enterprise, and we are members of the Catalan CERCA system of centres of excellence.

Over half of IRTA's staff are women and one quarter comes from abroad.

# IRTA-CReSA

Animal Health Research Center (CReSA), located in Bellaterra (Barcelona) is the IRTA centre where around 150 professionals carry out research and innovation within the organisation's Animal Health programme.

One of the internationally recognised research areas in that programme concerns African Swine Fever.

**+1.000**

Professionals with 39 nationalities

**+1.000**

National and international partnerships

**+370**

Active competitive projects (figure from 2024)

**+600**

Information events a year for the sector

**17**

Research programmes, including Animal Health

**+150**

Professionals with 16 nationalities

**1**

Research programme: Animal Health

**1**

Specific research area on African Swine Fever (ASF)

**+1.000**

Samples analysed in the current ASF outbreak

**40**

Professionals working on surveillance and containment activities for the current ASF outbreak

International reference centre for swine, poultry and ruminant diseases



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# Introduction

At the end of November 2025, thirty years after Spain was declared an ASF-free country, an outbreak of the disease was detected in wild boars in an area of Bellaterra, in the municipality of Cerdanyola del Vallès (Barcelona).

The Animal Health Research Centre of the Agri-food Research and Technology Institute (IRTA-CReSA), an international reference centre for research into the disease, **was involved from the start in monitoring, detecting and controlling the outbreak.**

In fact, IRTA-CReSA is responsible for receiving all samples from wild boars found in Catalonia and suspected to have died of an infectious disease, to determine whether their death could have been caused by an infectious disease such as ASF. In the event of a positive diagnosis, we send the samples to the National Reference Laboratory of the Ministry for Agriculture, Fisheries and Food in Madrid.

Since the beginning of the outbreak, we have analysed close to a thousand samples, of which 155 were positive. The work was carried out relentlessly, Monday to Sunday except for public holidays (Christmas, New Year's Day, Epiphany), and involved around forty professionals from our centre.



Researcher Joaquim Segalés, head of the Endemic Swine Virus research area, speaking on *Els Matins* on TV3.

These included:

- Technical and management staff, in charge of samples and animal remains.
- Pathologists, who carry out necropsies, assess lesions and take samples.
- Technical staff who carry out analysis and acquiring laboratory results.
- Lastly, epidemiologists, who process and analyse data and share it on a daily basis with the Department of Agriculture, thereby contributing to their decision-making.

In our capacity as a public entity, **several IRTA-CReSA professionals made themselves available to speak** to the sector, to society and to the media from the beginning, **to give their rigorous expert view on the virus and the outbreak.** Over the course of one week, our professionals, including Joaquim Segalés, Francesc Accensi and Carles Vilalta, responded to around 80 media requests relating to the ASF outbreak.

On 5 December, the Ministry announced that the European ASF reference laboratory, also located in Madrid, had sequenced the virus that caused the outbreak and had reached the conclusion that it was a previously unknown strain: a new genetic cluster.

**The Ministry's statement, along with the outbreak's proximity to the IRTA-CReSA facilities, paved the way for an investigation into the possibility that the virus at the origin of the ASF outbreak could have come from the biosafety facilities of our research centre.**

Thus, four workstreams were begun to shed light on the matter. Three were undertaken by committees of experts put forward by the various administrations: the EU Veterinary Emergency Team ([EUVET Team](#)); the [Catalan government's Audit Committee](#) and the [Ministry's Scientific Committee](#). The fourth

workstream was the joint investigation by the Spanish and Catalan police forces.

From that moment on, and in agreement with the competent authorities, IRTA-CReSA **decided to no longer speak out publicly, until the investigations could confirm that our centre was not the source of the outbreak.** The Catalan government took over as the central coordinator of all information relating to ASF.

**Finally, on Monday 9th February, [the official report](#) from the Ministry ruled out any possibility that the virus had come from our facilities, as IRTA-CReSA professionals had stated from the start. This was achieved by comparing the genetic sequences of the virus causing the outbreak with those of the strains we work with in our biosafety facilities. The conclusion was that they were not the same.**

We have therefore drafted this document to take stock of the situation from a scientifically rigorous and transparent standpoint, and to restore our availability to the media, the sector, the academic community and to society at large, as had always been the case until recently.

In the words of Josep Usall, IRTA's Director General, **“we are pleased that this suspicion has been lifted, and that we can continue our work to contain the outbreak and establish its source. At the same time, we would like to highlight the integrity, the commitment and the excellence of IRTA-CReSA's staff, who over the course of a difficult few weeks for our organisation continued to do their jobs impeccably.”**

With this statement **we would like to thank the media for their understanding and the Catalan government for their support;** the European

institutions, agri-food organisations, the members of the audit committees and all the experts that expressed their trust in IRTA-CReSA.

In the coming months, IRTA-CReSA will begin **a study to examine the key characteristics of the virus in depth**, such as its level of virulence and its transmissibility.

During the last quarter of this year, we will host an event on ASF with internationally recognised experts, at which the preliminary results of this study will be presented.

At IRTA we are convinced that **in a world where disinformation spreads quickly, science is more necessary than ever.**



The Catalan Councillor for Agriculture, Òscar Ordeig, speaking to the media outside IRTA-CReSA.

# Key information about the ASF outbreak



Wild boars.

African Swine Fever (ASF) is responsible for a disease that affects the swine family of mammals, whose best-known species are domestic pigs and wild boars.

**It is a haemorrhagic disease that is highly infectious through direct contact and does not affect humans.** It usually causes fever, anorexia and haemorrhages on the skin and internal organs, which can lead to death. Depending on the strain of the virus, the disease can be more or less virulent.

The main transmission routes for the ASF virus are via:

- 1 Contact between infected and healthy animals, especially through excretions such as blood, saliva, eye and nose secretions, faeces, urine or semen.
- 2 Ticks of the genus *Ornithodoros* infected by the virus (not present in Catalonia).
- 3 Ingestion of food infected with the virus.
- 4 Contaminated surfaces of animal transport vehicles, when they have transported infected animals and not been correctly disinfected.
- 5 Or objects such as clothes, footwear or veterinary equipment that have been contaminated by a high viral load.

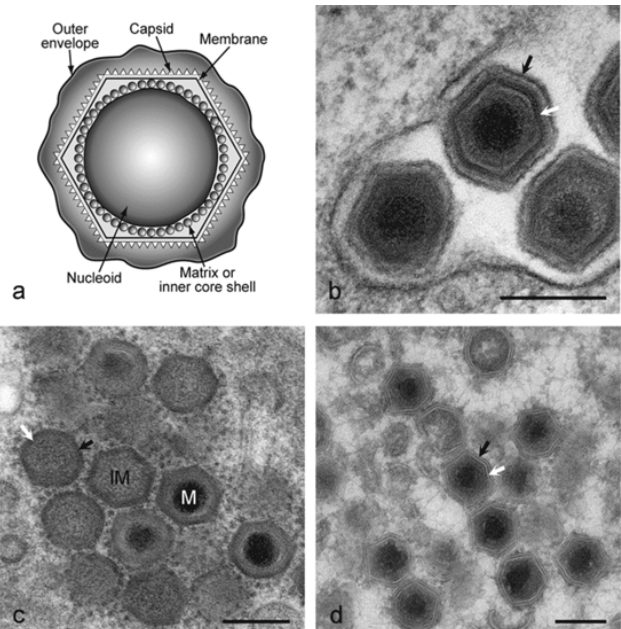
The first three routes are more common than the fourth or fifth.

ASF is on the WOA (World Organisation for Animal Health) notifiable diseases list and the European Union (EU) notifiable diseases list. **If an outbreak is detected, immediate measures must be taken to eliminate it**, along with prevention and surveillance measures.

There is no effective vaccine nor antivirals for ASF. To date, three vaccines have been authorised, in Vietnam, and they have not left the country.

Therefore, **the measures available to control the disease are through containment**, which we know to be effective based on experiences in Belgium and Sweden, where the spread of the virus was halted with no effect on domestic pig farms, even though the source was never identified.

## What is the virus and why was it so important to sequence its various strains?



Images of the ASF virus. Source: [International Committee on Taxonomy of Viruses](https://www.ictvonline.org/Taxonomy-of-Viruses)

The ASF virus **is a very large virus**: it contains over 150 genes. That means it is about ten times larger than the virus that causes COVID-19, for example.

Its size increases its complexity and means that sequencing it, i.e. discovering all its genetic characteristics, takes weeks of work.

It is a **DNA virus**, which mutates more slowly than an RNA virus, such as the one that caused COVID-19 or bird flu.

In Africa there are ASF viruses with many different genotypes. In Europe and Asia, genotype II is predominant, after appearing for the first time in Georgia in 2007.

Over the years, as ASF virus genotype II **has circulated and infected animals, it has mutated naturally and created different generations with their own characteristics**, known as genetic clusters: they are part of genotype II, but each genetic cluster has its own particular features.

“ **The ASF virus that was detected and sequenced in 2007 in Georgia is known as genotype II, genetic cluster I, and is frequently used in high biosafety laboratory research.**

Since 2007, 27 new genetic clusters of genotype 2 have been detected and sequenced, numbered from 2 to 28. Some are circulating throughout Europe, in countries fairly close to us such as Italy or Germany.

On 5 December 2025, the European ASF Reference Laboratory, located at the Animal Health Research Centre in Madrid, prepared an analysis of the **virus isolated in the wild boars that died in the outbreak initiated in Cerdanyola del Vallès (hereafter, the Cerdanyola outbreak)**. They observed that it showed genetic markers that differentiate it from strains known and sequenced up to then, including the original Georgia 2007 strain (genetic cluster 1).

**For this reason**, the virus causing the Cerdanyola outbreak was considered a new genetic cluster (29) and was named **Spain 2025 Strain**.

Bear in mind that there are very few differences between the genetic clusters of genotype II. In other words, it is a very stable virus that mutates very little, compared to other viruses. So, to distinguish its genetic clusters we must focus on small genetic changes, genetic markers, as, if we were to analyse the entire genome we would find that all genetic clusters share over 99% of identical DNA.

“ **Due to its genetic markers, which differ from all ASF virus genotypes known until now, the virus that caused the Cerdanyola outbreak is called genotype II, genetic cluster 29.**

### History of the virus

ASF was first detected in Kenya at the beginning of the 20th century and since then has been endemic in some areas of the African continent.

In the 1960s, the virus appeared on the Iberian Peninsula and since then has spread to some European and American countries. After a significant effort, it was eradicated: the Iberian Peninsula was declared officially free from the disease in 1995.

Since then, ASF cases have been confined to Africa and Sardinia, where the disease became endemic after eradication efforts failed.

In 2007 the ASF virus reappeared on the European continent, in Georgia. Until then, the virus causing the disease in Europe had been genotype I (remember that in Sardinia, cases were still occurring), whereas the virus that appeared in Georgia was genotype II.

Since 2007, the genotype II virus has spread through the Caucasus, Russia, Western Europe, Asia, Oceania and the Caribbean.

\*[More information](#) about the current situation in EU countries.

**It was important to fully sequence this new virus to understand its genetic markers and compare them with the strains that have been sequenced until now:** both those notified after circulating around the world, infecting domestic pigs and wild boars, and those used for laboratory experimentation.

The reports produced by the European and Catalan expert committees, analysing the biocontainment measures and the biosafety procedures at IRTA-

CReSA already suggested that there was no indication that the virus had originated in the centre's facilities. **Now, the full sequences of the different viruses confirm that the virus stored in IRTA-CReSA and used for experiments there, and the virus of the current outbreak do not match. Therefore, the research centre has been ruled out as a source.**

## Which strains of the virus does IRTA-CReSA work with?

IRTA-CReSA researches the virology and immunology of ASF as part of national and European research projects, as well as developing vaccines against the ASF virus.

As part of that activity, more than a dozen professionals regularly carry out research into the ASF virus in the centre's laboratories. **They work both with different strains of the ASF virus and with genetically modified viruses in the laboratory.** In the latter case, they request the authorisation of the [National Biosafety Committee](#), and part of that information is publicly available.

## What results did sequencing provide?

Following the European Reference Laboratory's initial results, which stated that the ASF virus behind the Cerdanyola outbreak was from a new genetic cluster, the Ministry commissioned an investigation into its origin.

Additionally, in agreement with the EU Emergency Veterinary Team ([EUVET Team](#)), it commissioned the sequencing of 81 samples of the strains being researched at IRTA-CReSA, to rule out any link between the centre and the outbreak.

This sequencing was carried out at the Central Veterinary Laboratory (LCV).

In parallel, the Catalan government asked the Biomedical Research Institute (IRB) to sequence the strain of the outbreak as well, along with 41 representative samples of the ASF viruses recently used at IRTA.

This task was entrusted to the [IRB's Comparative Genomics team](#), under Toni Gabaldón, internationally recognised for its work in sequencing.

The IRTA-CReSA samples analysed by both teams were of two types:

1

**Samples from laboratory virus stocks:** viruses isolated and grown in the laboratory, whether in use (a virus frequently used in research) or from the archives (viruses that have not been used for some time).

2

**Samples from animals infected during the experiments:** when *in vivo* experiments are carried out, in other words when a stock virus is injected into an animal a tissue sample is taken from every animal at the end of the experiment.

Once injected, it is possible that the virus could mutate as it reproduces inside the animal.

As such, **"having sequenced samples both of the viruses that we use before infecting the animals and infected animal tissues, we have fully ruled out that the virus could have originated in our biosafety facilities"** said [Jordi Argilagué](#), a researcher in the IRTA Animal Health programme and lead researcher on the African Swine Fever area.

**"Given everything we have seen, the main conclusion from the sequencing commissioned by the Ministry and the Catalan government is that none of the IRTA-CReSA strains is a genetic match with the strain responsible for the current outbreak. The differences observed are too significant to allow any direct link to be drawn and therefore we can permanently exclude that hypothesis on the origin of the outbreak.**

Specifically, the ASF virus of genotype II, genetic cluster 29 has **an unusual genetic fingerprint that includes:**

- 1 **1 large deletion** (loss of a DNA fragment) not described in the other 28 genetic clusters.
- 2 **27 mutations that are different from those in genetic cluster 1**, of which 14 had not been described previously.

In fact, this genetic pattern has more in common with some isolated cases described in some Eastern European and Asian countries, such as Russia, China and Thailand, and indicates that we are dealing with a new or not yet documented variant.

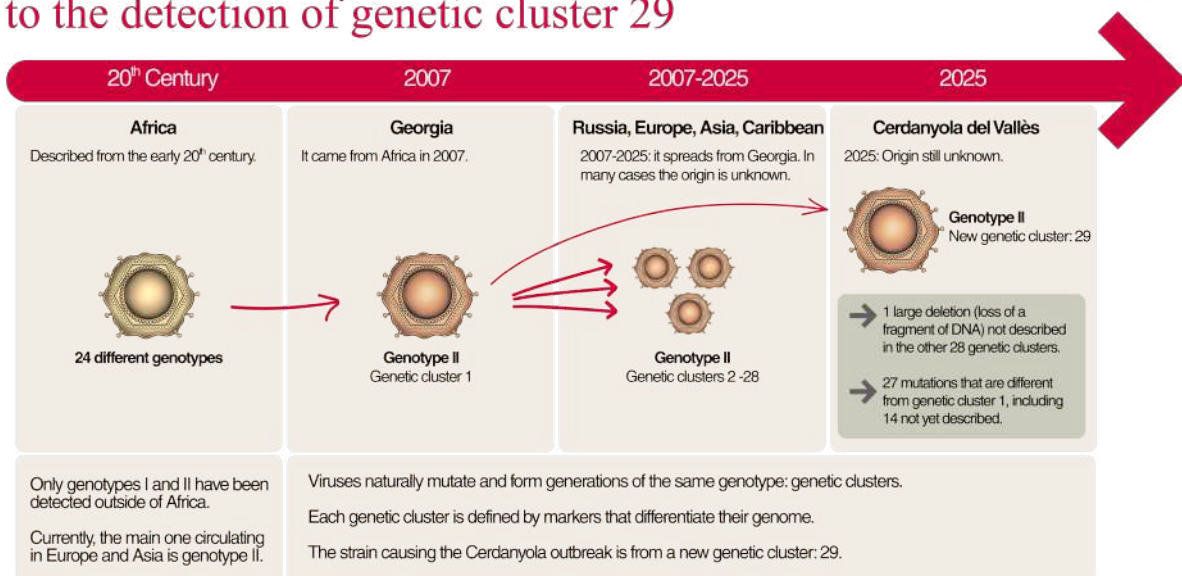
## What are the conclusions and what questions still need to be answered?

The conclusions, at present, are:

- 1 **The virus that caused the ASF outbreak initiated in Cerdanyola did not originate in the IRTA-CReSA facilities.**
- 2 In natural conditions, the 27 mutations accumulated by the virus that caused the outbreak are the result of several years of evolution of the parent strain Georgia 2007, of genotype II and genetic cluster 1.
- 3 Investigations into the origin of the outbreak should probably return to focusing on contaminated food entering the country. More research is also needed into genetic ancestors, which will enable a link to be established between genetic cluster 29 and previously reported clusters.

**“If the result of the sequencing had been that the strain causing the outbreak is very similar to another in another part of the world, we could speculate that it had come from that geographical area, but as that is not the case, it’s very hard to discover”** commented [Joaquim Segalés](#), lead researcher in Endemic swine viruses within IRTA-CReSA’s Animal Health programme and professor at the Autonomous University of Barcelona.

## Visual representation of the evolution of the ASF virus leading to the detection of genetic cluster 29





# IRTA-CReSA: one of its kind in Catalonia



Dozens of professionals from IRTA-CReSA in December, in front of the building's façade.

The IRTA-CReSA facilities are **Biosafety Level 3**. That means that they are permitted to research pathogens that, when they infect animals or people, can have serious or very serious effects on health.

Some of these pathogens are emerging (new) and others are reemerging (old, known). They may or may not be zoonotic, in other words transmissible from animals to humans. Some have treatments and vaccines, others do not.

There is only one higher biosafety level, 4, which refers to even more dangerous pathogens or to those that have no treatment or prophylactic methods. An example is Ebola, or the Crimea-Congo fever virus.

**There are different types of Biosafety Level 3 facilities.** Some are set up for research into pathogens that can be transmitted through blood or bodily fluids.

Others, like IRTA-CReSA, also allow research and experimentation into pathogens that can be transmitted **through aerosols or vectors** such as mosquitos or ticks.

**The main measures that apply to the biosafety 3 facilities of IRTA-CReSA are:**

### **For air**

All the rooms within the facility have a negative pressure gradient that means that air always flows from the outside in. Further, HEPA filters placed in a series double filter all air leaving the facility, which ensures it reaches the atmosphere clean.

### **For the laboratory's waste**

All waste is sterilised using an autoclave system. The sterilisation is validated once completed, and the sterile material is held in watertight containers that are collected by an authorised external contractor.

### **For the animal enclosure**

The building has several boxes (experimentation chambers) for animals, which enter through a system of hermetic, alternating doors, which avoids a direct connection between the outside and the inside of the facilities. Once they have been slaughtered, the animals are incinerated (inside watertight containers, which are also burned) at 850 degrees, or through a process of alkaline digestion with water and potash at a temperature of 150°C. Their completely inert remains (meaning with no trace of live pathogens) are collected by an authorised external contractor.

### **For liquid waste**

Animal slurry, water from showers, from laboratories or from cleaning is collected and the solid waste is immediately separated from the liquid. The solid material is incinerated and follows the same procedures as for animal remains. The liquid material runs into a decontamination tank where it is chemically treated with caustic soda for at least 12 hours; this guarantees that no trace of live or infectious pathogens remains. After that, chlorohydric acid neutralises its pH before it is released into the sewer.

### **For people**

People enter the changing rooms, undress fully, then immediately put on clothes from the centre – which goes through an internal laundry circuit:

it is washed and sterilised inside the biosafety facilities. In the laboratories there are biological safety booths, an initial physical barrier that many other laboratories have, to avoid people becoming infected by the material they work with. When they finish work, they undress, store the clothes or put them in the laundry, shower again with soap and water, blow their noses, spit, then get dressed again. In the animal enclosures there are also showers in every working animal box. Before entering the experimentation chambers, researchers shower and change clothes and do the same when leaving.



An IRTA-CReSA professional handling mosquitos



Researcher from the Vector Viruses area, infecting mosquitos with the Rift Valley Fever virus

**In Spain, the Ministry of the Interior** considers IRTA-CReSA **a critical operator and an essential service**. That means that its functioning is essential and that if it did not function it would have a significant impact on basic services, safety and the wellbeing of the population.

“Around 150 professionals work at IRTA-CReSA, half of which regularly work in the Biosafety Level 3 facilities.

## Why is it important that IRTA-CReSA exist?

Due to its characteristics, IRTA-CReSA is a one of its kind centre in Catalonia, without which, for example:

1

We could not research nor develop control tools for classical swine fever.

2

We could not conduct research nor improve the surveillance and control programmes for diseases transmitted by exotic mosquitos, such as the *Aedes aegypti*, which can spread imported viruses such as dengue or chikungunya, or by native mosquitos that are vectors for the West Nile virus, which is already present on our territory.

3

We could not experiment on the highly dangerous bird flu virus.

4

Not could we research or develop control tools for zoonotic coronaviruses such as COVID-19.

In fact, at national level, IRTA-CReSA is the **second largest Biosafety Level 3** facility after the Animal Health Research Centre ([INIA-CISA](#)) in Madrid.

The two centres make up the Spanish Network of Laboratories of High Biological Safety ([RLASB](#)).

The RLASB itself is one of five Singular Scientific and Technical Infrastructures ([LCTS](#)) in the field of health sciences and biotechnology in Spain. These are unique, exceptional facilities conducting high-quality, pioneering research, and where knowledge, technological transfer and innovation are imparted, exchanged and preserved.

## Recognised for its good laboratory practice

IRTA-CReSA is **one of the few Biosafety Level 3 centres in Europe to hold a European certificate for Good Laboratory Practice (GLP)**, which it was awarded in 2009 and is renewed annually following an external audit.

It also holds [ISO9001](#) certification, for quality management, and is accredited with the [ISO17025](#) standard for some diagnostic techniques, including PCR to detect the ASF virus. That accreditation, which is also renewed annually following an external audit, certifies the technical competence of the laboratories and their ability to produce trustworthy results.

The use of animals for experimental purposes complies with [the highest European animal welfare standards](#), carefully assessed by a designated, qualified veterinarian, supervised by an in-house animal experimentation and ethics committee.



A member of staff working in one of IRTA-CReSA's laboratories.

## Internationally recognised research into ASF for over two decades



The team of researchers from the ASF research line of the Animal Health Program at IRTA-CReSA.

The ASF research area at IRTA-CReSA is internationally recognised, has over two decades of experience and is part of IRTA's [Animal Health programme](#).

Indeed, **IRTA-CReSA is one of the European centres with the longest experience in ASF.** Apart from being part of the Department for Agriculture, Livestock, Fisheries and Food's surveillance system, it offers support and advice in health emergencies, and researches ASF virology and immunology in national and European research projects. It also works on developing vaccines for the ASF virus.

Currently, more than ten professionals at IRTA-CReSA regularly work on the ASF virus research area.

Since 2017, IRTA-CReSA has collaborated with the World Organisation for Animal Health ([WOAH](#)) on researching and controlling emerging and reemerging swine diseases in Europe. Researcher Joaquim Segalés is the point of contact.



An IRTA-CReSA professional carries out a PCR test on blood samples from some of the wild boars found dead in December.

## A key part of the ASF surveillance system

IRTA-CReSA is part of the [Catalan swine health programme](#) and the [wildlife health surveillance programme](#). These programmes function 24 hours a day, 365 days a year. It was due to this that the ASF outbreak could be confirmed in under 48 hours.

**IRTA-CReSA's role in these surveillance systems consists of receiving samples from dead wild boars found in Catalonia and suspected of infection, to determine whether they had diseases such as ASF or classical swine fever.**

To get a diagnosis, scientists [evaluate the lesions](#) on the wild boar's organs, as well as conducting a PCR test on a blood sample and/or tissue.

The PCR test shows whether the animal was infected with the ASF virus by identifying a gene of the virus.

If the PCR gives a positive result, samples are sent to the [Central Veterinary Laboratory](#) of the Ministry for Agriculture, Fisheries and Food for final confirmation.

**Since the start of the current ASF outbreak, around a thousand samples have been analysed, of which 155 gave positive results.** Furthermore, the data obtained from all samples are continuously analysed and processed, and shared with the Department of Agriculture on a daily basis to help with their decision-making.

According to [Carles Vilalta](#), the coordinator of the Epidemiology and Risk Analysis area of IRTA-CReSA:

“ In IRTA-CReSA's Epidemiology area, we integrate all available data from different sources, with the aim of providing knowledge on the evolution of the outbreak, simulate possible future scenarios and assess which interventions worked on the ground.

## How did IRTA-CReSA begin and how has it changed over time?



Researchers working on a tuberculosis diagnosis cultivating mycobacteria, as part of disease surveillance and eradication programmes.

CReSA was founded over 25 years ago to respond to the challenges of the agri-food sector. **Initially, the centre's activity was mostly focused on the health of livestock animals.**

In 2015, CReSA became a part of IRTA and took the name IRTA-CReSA.

Thanks to the excellent research and innovation carried out by its staff, IRTA-CReSA has become a [WOAH](#) collaborating centre on emerging and reemerging swine diseases, and a WOA reference laboratory for classical swine fever.

It is also a part of the European [ISIDORe](#) network, which covers all European research centres looking into human and animal infectious diseases.

In 2017 the Ministry classified IRTA-CReSA as a Singular Scientific and Technical Infrastructure ([ICTS](#)), as the centre is a member of the Spanish High Biosafety Laboratories Network (RLASB).



Staff at IRTA-CReSA using the digester, which disposes of the tissue samples and solid waste, ensuring that any microorganisms are totally deactivated.

Today, IRTA-CReSA has expanded its original activity, tackling **new challenges in public health and global health**. In the 21st century, both food and health have become global, crosscutting issues that demand a coordinated response and generous collaboration, wherein human health must be understood in conjunction with the health of animals and ecosystems. This was the origin of the [One Health](#) concept.

**“ 75% of the thirty or so new pathogens that have affected humans over the past three decades originated in animals.**

Currently, IRTA-CReSA's research areas cover high-profile animal health issues such as ASF, classical swine fever, bird flu and animal tuberculosis, as well as zoonotic pathogens such as SARS-CoV-2, and viruses spread by mosquitos, such as the West Nile Virus.

### Main research and innovation areas at IRTA-CReSA as part of IRTA's Animal Health programme.

- African swine fever
- Pestiviruses, including classical swine fever
- Endemic swine viruses
- Viruses transmitted by vectors
- Avian viruses
- Tuberculosis
- Epidemiology and risk analysis
- Prions
- Zoonotic coronaviruses
- Endemic digestive bacteria and antimicrobial resistance
- Endemic respiratory bacteria and antimicrobial resistance

The centre also carries out **clinical and pre-clinical studies** to test medicines and vaccines.

It also has the **following scientific-technical services:**

- Bioimaging
- Cytometry
- Pathological anatomy
- Organoid biobank

The centre combines studies in pathogenesis, transmission, vaccines, treatment and diagnosis, both *in vitro* and *in vivo*.

**One of the biggest challenges of our time is reducing the use of animals in experiments**, to which end IRTA-CReSA is developing an organoid biobank; replicas of organs created from stem cells, to be used as experimental models *in vitro* to test new medicines or to check how vulnerable different species of animals are to new pathogens.

**“IRTA’s Animal Health programme is and will be a key factor in Catalonia addressing current challenges in biosafety and global health with confidence”** according to [Natàlia Majó](#), head of the Animal Health programme, the Bird Viruses research area and UAB professor.

## An expansion that responds to major global health challenges



Rendered image of the IRTA-CReSA building extension. Work began on the site in the third quarter of 2025 and is still at an initial stage.

After COVID, and due to the spread of mosquitos caused by globalisation and climate change, **we saw an increased demand for experiments in high biosafety facilities.**

For that reason, IRTA-CReSA is undertaking a **project to extend its facilities, through the construction of a new unit adjacent to the current building**, which will be connected at two points at the end of the building work in 2028.

This means that we will have more space and new facilities so **that both IRTA-CReSA staff and researchers from Catalonia**, Spain and overseas can experiment safely with pathogens that require Biosafety Level 3.

Construction began in the third quarter of 2025 and preliminary work is currently underway to prepare the land and surrounding area. There is currently no construction work taking place at the biocontainment building or at any of the operational facilities of IRTA-CReSA.

The extension **will include five high-biocontainment Biosafety Level 3 (BSL-3) laboratories, two of which will share an insectarium that will be unique to Catalonia**: four boxes for animal experimentation, necropsy areas and decontamination areas, among other features.

Just in Catalonia, it is estimated that around 80 biomedical research groups could need the new equipment, where they will be able to carry out:

- 1 **Studies *in vitro*** with Biosafety Level 3 bacteria, fungi, viruses or parasites.
- 2 **Studies with insects** that transmit some of those pathogens in the new insectarium, which will have two walk-in climatic chambers and will be practically unique in Spain.
- 3 **Studies *in vivo***, in other words, with animals. Experiments in the new unit will be done with small laboratory animals; mice, hamsters or ferrets.

IRTA-CReSA has already signed agreements with IrsiCaixa and with CaixaResearch Institute to foster joint research into infectious diseases requiring this level of biocontainment.

It has also been collaborating for years with other Catalan research institutions, such as the Barcelona Global Health Institute (ISGlobal), the Bellvitge Biomedical Research Institute (IDIBELL), the Vall d’Hebron Research Institute (VHIR), the Germans Trias I Pujol Research Institute (IGTP) and the Hospital del Mar Research Institute (IMIM), as well as research groups from the University of Barcelona (UB), the University Pompeu Fabra (UPF) and the Autonomous University of Barcelona (UAB), among others.

Of IRTA’s current major strategic goals, two are directly related to IRTA-CReSA: to guarantee animal health and wellbeing given the need to reduce antibiotic use, and to strengthen resilience to emerging biological risks.

**“With its building extension, IRTA-CReSA will reinforce its role as a reference point for global health in Catalonia. It is infrastructure that is much needed to deal with the major global challenges that affect the agri-food sector directly, and by extension, the health and wellbeing of society as a whole”**, according to [Josep Usall](#), IRTA’s Director General.

# Timeline

2025

25 and 26 November

[Two wild boars are found dead](#) in Cerdanyola del Vallès and are recovered by the Rural Officers Service, part of the Ministry of Home Affairs and Public Safety. They transfer the remains to IRTA-CReSA, where PCR tests are carried out to determine whether the deaths were caused by the ASF virus.

27 November

IRTA-CReSA announces that the two wild boars are infected with ASF.

Blood samples from the two animals are sent to the Central Veterinary Laboratory (LCV) of the Ministry for Agriculture, Fisheries and Food, and that night it [is confirmed that both were positive for ASF](#).

After that official confirmation, the Catalan Department for Agriculture, Livestock, Fisheries and Food (DARPA) activates the [ASF Contingency Plan](#).

This is the first time the disease had been detected in Spain since the country was declared disease free in 1995.

As established by the protocol, IRTA-CReSA will continue to send all samples of ASF-positive dead wild boars to the LCV for validation and official confirmation.

28 November

The [Catalan government](#) and the [Ministry](#) publish the detection of the two positive cases and the resulting [actions](#): notifying the World Organisation for Animal Health (WOAH) and the European Union (EU), establishing a high-risk radius of 6km and a low-risk radius of 20km to search for dead animals and prevent any possible escape of infected wild boars.

The Ministry begins investigations into the possible origin of the disease.

1 December

The Ministry [deploys the Military Emergency Unit](#) (UME) and 117 military personnel are sent to the outbreak area, adding to the 250 members of the Catalan law enforcement bodies already on the ground: Mossos d'Esquadra, Rural Officers, Civil Protection and local police, as well as staff from the Forest Defense Clusters (ADF), the Catalan Hunting Federation, the Collserola Natural Park and veterinarians, among others.

2 December

Seven new cases of ASF [are confirmed](#) in wild boars within the high-risk radius. Emergency funds are announced for the pig breeding sector as well as plans to control the wild boar population throughout the region of Catalonia.

[EUVET](#) (EU Veterinary Emergency Team), the European Commission's emergency veterinary team, [travels](#) to the outbreak area to reinforce the disease control measures.

#### 4 December

Four new cases of ASF [are confirmed](#) in wild boars from inside the high-risk radius. The total number is now thirteen. There are now one thousand personnel working in the high-risk and low-risk radii.

Pursuant to a European Commission decision, the number of municipalities included in the ASF-affected radius is increased from 76 to 91.

The Catalan Department for Agriculture, Livestock, Fisheries and Food meets with the technical group on game animals, with the participation of IRTA-CReSA, set up to contain the ASF outbreak and to coordinate control measures for wild boars.

The Catalan government announces a campaign to encourage the consumption of pork.

#### 5 December

The [Catalan government extends its ASF containment measures](#) and bans activities in the countryside within the infected area.

The Ministry [announces the creation of a Scientific Committee](#) for the ASF outbreak, that will monitor the disease's progress in Spain and analyse possible control and eradication measures. Five days later it [announces the members](#) of the committee.

Later, it [announces](#) that an additional investigation has been opened into the origin of the outbreak, after the ASF European Reference Laboratory, at the Animal Health Research Centre (INIA-CISA) in Madrid published the results of sequencing the strain of the virus, which did not match other strains sequenced up to that point and had some similarities with the Georgia 2007 strain.

In the Ministry's interpretation of those results, they consider the possibility that the virus could have leaked from a laboratory. For that reason, the Ministry communicated the need for an investigation into the matter to the Nature Protection Service (SEPRONA) of the Civil Guard, the competent authority for investigating possible environmental misdemeanours or crimes. The investigation would be led jointly with the Mossos d'Esquadra, the Catalan police force.

#### 6 December

Following the sequencing results of the European Reference Laboratory, the President of the Catalan government, Salvador Illa, [announced](#) that an ASF Audit Committee would be created, made up of six European biocontainment experts, to carry out an audit on the facilities and review the protocols of all centres working with ASF within a 20km perimeter.

The investigation, coordinated by IRTA, is conducted in collaboration with the European Union and the Spanish government, and will be available to the Civil Guard and the Mossos d'Esquadra.



**9 December**

The Catalan government's ASF Audit Committee meets for the first time. Over two days it analyses IRTA-CReSA's biocontainment facilities and biosafety procedures.

The Catalan government [presents](#) its plan for financial aid to the sector and declares a state of emergency to manage the outbreak with greater agility.

A court in Cerdanyola [investigates](#) the outbreak as an alleged environmental crime, based on information received from the Civil Guard and the Mossos d'Esquadra.

**10 December**

The Catalan Councillor for Agriculture, Livestock, Fisheries and Food, Oscar Ordeig, [announces](#) that more than 50 farms inside the ASF surveillance area, which had been extended on the advice of the European Commission on 4 December, had tested negative for the virus.

He also announces the creation of a Catalan Wild Boar Panel, a new strategic tool to tackle the overpopulation of wild boar in the region.

**11 December**

[EUVET](#) visits IRTA-CReSA to continue its investigation into the origin of the outbreak.

At this point there are four workstreams open: the Audit Committee created by the Catalan government, the Scientific Committee created by the Ministry, the joint investigation conducted by the Civil Guard and the Mossos d'Esquadra and the EUVET investigation.

**12 December**

The Ministry [confirms](#) the deaths due to ASF of three more wild boars within the high-risk area. The total number is now sixteen.

The Ministry's scientific committee holds a meeting and sets itself a six-week deadline to publish its initial report into the possible causes of the outbreak, its progression and the containment measures adopted.

**15 December**

Councillor Ordeig [explains](#) that some restrictions on the population will no longer apply, mainly in the low-risk radius, in other words the area from 6 to 20km.

**16 December**

The Ministry [confirms](#) the deaths due to ASF of 10 more wild boars within the 6km high-risk radius. The total number now stands at 26.

**17 December**

The President of the Catalan government, Salvador Illa, [states](#) in the Catalan parliament that “nothing would suggest that the virus has come from the facilities of any of the laboratories or centres that work with the virus.”

He also explains that the Catalan government has commissioned the Biomedical Research Institute (IRB) to begin sequencing the strains of the virus that IRTA-CReSA had been using in experiments, to compare them with the virus that infected the animals. This becomes the fifth workstream opened by authorities in relation to the ASF outbreak.

**18 December**

The Civil Guard and the Mossos d'Esquadra [search](#) the IRTA-CReSA premises, as part of their joint investigation and on the orders of Investigating Court 2 in Cerdanyola del Vallès.

**19 December**

The [preliminary report](#) published by EUVET sees no evidence that the virus could have leaked from the IRTA-CReSA laboratory.

Councillor Ordeig visits IRTA-CReSA, calls for caution, and [declares](#) that there is no evidence that the outbreak is related to a failure of the laboratory, nor that the virus could have come from IRTA-CReSA.

The Ministry [confirms](#) the death of another wild boar within the high-risk area, bringing the total number of cases to 27.

**20 December**

The positive case announced by the Ministry the previous day, which was found in Sant Cugat del Vallès, means that [low-risk restrictions are broadened](#) to include four municipalities: Subirats, Olesa de Bonesvalls, Begues and Gavà.

**22 December**

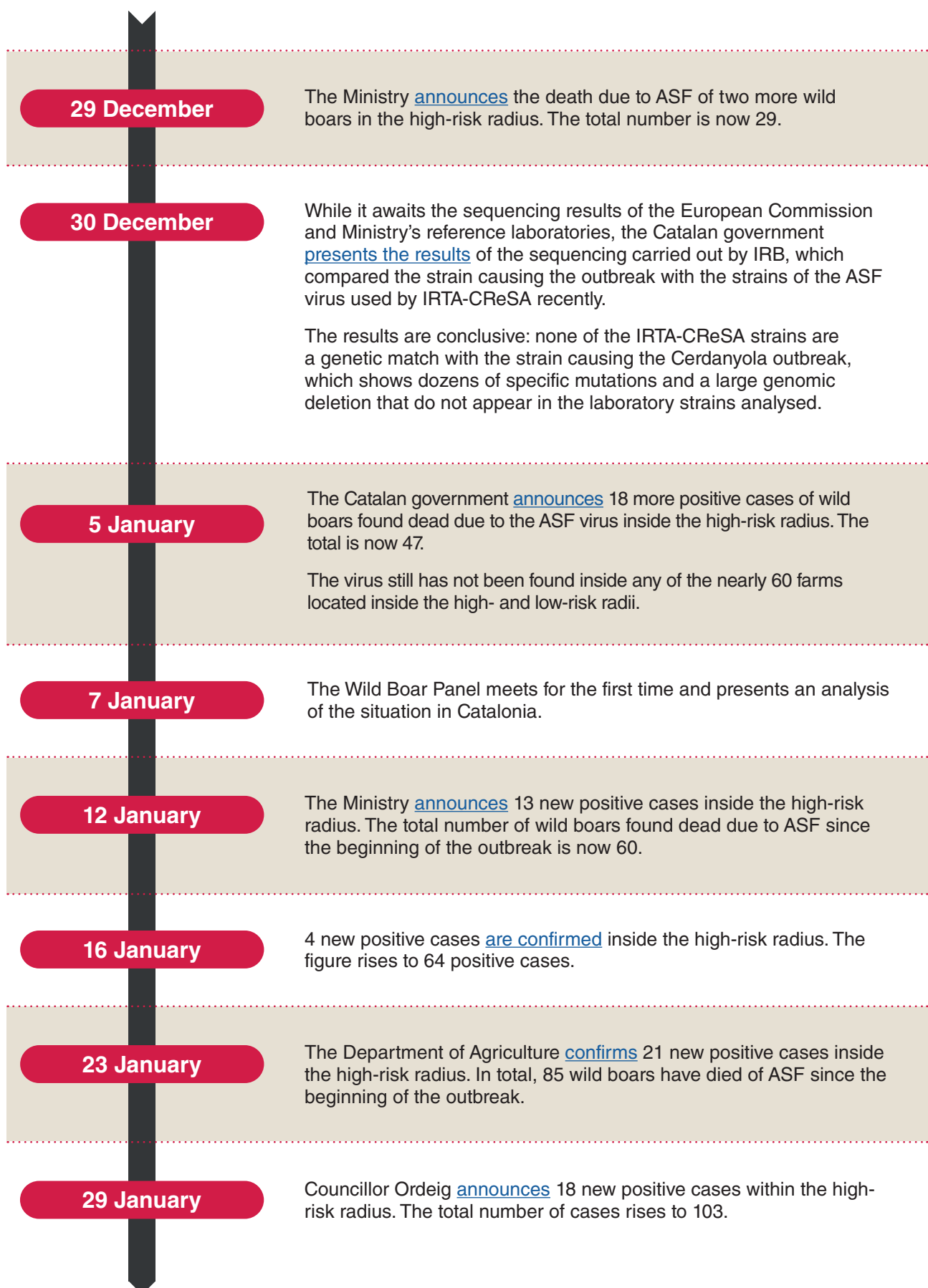
Councillor Ordeig [announces](#) that the results of the Audit Committee investigation conclude that IRTA-CReSA's facilities are adequate for Biosafety Level 3, and therefore safe to work with the ASF virus.

Ordeig insists that sequencing the virus will be key to ruling out hypotheses.

The Councillor for Agriculture also presents the 360° Biosafety Plan, a new strategy to boost animal health, protect public health and ensure the competitiveness and economic viability of the Catalan pork sector.



2026



29 December

The Ministry [announces](#) the death due to ASF of two more wild boars in the high-risk radius. The total number is now 29.



30 December

While it awaits the sequencing results of the European Commission and Ministry's reference laboratories, the Catalan government [presents the results](#) of the sequencing carried out by IRB, which compared the strain causing the outbreak with the strains of the ASF virus used by IRTA-CReSA recently.

The results are conclusive: none of the IRTA-CReSA strains are a genetic match with the strain causing the Cerdanyola outbreak, which shows dozens of specific mutations and a large genomic deletion that do not appear in the laboratory strains analysed.

5 January

The Catalan government [announces](#) 18 more positive cases of wild boars found dead due to the ASF virus inside the high-risk radius. The total is now 47.

The virus still has not been found inside any of the nearly 60 farms located inside the high- and low-risk radii.



7 January

The Wild Boar Panel meets for the first time and presents an analysis of the situation in Catalonia.

12 January

The Ministry [announces](#) 13 new positive cases inside the high-risk radius. The total number of wild boars found dead due to ASF since the beginning of the outbreak is now 60.



16 January

4 new positive cases [are confirmed](#) inside the high-risk radius. The figure rises to 64 positive cases.



23 January

The Department of Agriculture [confirms](#) 21 new positive cases inside the high-risk radius. In total, 85 wild boars have died of ASF since the beginning of the outbreak.



29 January

Councillor Ordeig [announces](#) 18 new positive cases within the high-risk radius. The total number of cases rises to 103.



**6 February**

The Ministry [confirms](#) 39 new positive cases within the high-risk radius, bringing the total number of cases to 142.

**9 February**

The Ministry publishes the [official report](#) that confirms that the virus causing the ASF outbreak has a genetic sequence that is different to that of the viruses used in IRTA-CReSA. The research centre is therefore ruled out as the source of the outbreak.

**13 February**

The Department of Agriculture [confirms](#) 13 new positive cases, two of which came from outside of the high-risk radius, bringing the total number of cases to 155.









**Images from IRTA-CReSA.**  
Source: IRTA-CReSA.

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