

A guide to the diseases we work on

Written for patients, families and anyone who wants to understand what these illnesses actually are.

Document reference	BRL-PFG-2026-01
Issued	31 August 2026
Revision	public revision 2 of 4
Owner	Medical Information
Applies to	General public

This guide explains twelve diseases that Baxtra Research Labs studies. It is written for patients, families, and anyone who wants a clear account of what these illnesses are. It does not tell you what will happen to you personally.

These are serious infections and disorders. The Baxtra programmes described here are all Phase 1 and investigational. None has been approved anywhere. A programme being studied does not mean that it works or that it is available to patients.

Nipah virus infection

Nipah is a virus that can spread from fruit bats to people, sometimes through infected animals such as pigs, and then between people through close contact with body fluids. It can cause fever, breathing problems, inflammation of the brain, confusion, seizures, and coma. Fatality has often been high in reported outbreaks, commonly about 40 to 75 per cent, but it varies. There is no widely approved specific treatment; care is mainly supportive, meaning treatment of breathing, fluids, and other problems. Baxtra is studying BX-101 (Nipavir), an oral fusion inhibitor, in SENTINEL-1; no participant in that study is exposed to Nipah virus or infectious material.

At a glance	Summary
Nipah	Caught from infected animals or people; may affect lungs and brain; often high fatality in outbreaks; supportive care today; BX-101 is in Phase 1 study SENTINEL-1.

Marburg virus disease

Marburg is a virus illness linked to exposure to infected fruit bats or their environments, with spread between people through blood and other body fluids. It can cause sudden fever, severe weakness, vomiting, diarrhoea, rash, bleeding, shock, and failure of organs. Reported fatality has ranged from about 24 to 88 per cent across outbreaks. There is no broadly approved specific treatment; careful supportive care and infection control are central, and some treatments are being studied. Baxtra is studying BX-204 (Marburavir), an IV and oral medicine designed to block L-polymerase, a viral enzyme used for copying, in CORDON-1. It is not approved.

At a glance	Summary
Marburg	Caught through infected bats or body fluids; can cause shock and organ failure; outbreak fatality varies widely; supportive care today; BX-204 is in Phase 1 study CORDON-1.

CJD and prion disease

Creutzfeldt-Jakob disease (CJD) is a rare brain disorder caused by prions. Prions are abnormal proteins that make other proteins fold the wrong way; they are not bacteria or viruses. Sporadic CJD usually arises without a known source, while genetic forms run in families. It causes rapidly worsening memory and thinking problems, movement problems, and loss of independence. CJD is almost always fatal, often within months to a few years after symptoms begin. There is no treatment that stops the disease; care focuses on comfort and support. Baxtra is studying BX-308 (Prionex), a short genetic medicine designed to change a PRNP message linked to prion protein, given intrathecally (into the fluid around the spinal cord), in VIGIL-0.

At a glance	Summary
CJD/prion disease	Usually not caught from another person; damages the brain; almost always fatal after symptoms; supportive care today; BX-308 is in Phase 1 study VIGIL-0.

Crimean-Congo haemorrhagic fever

Crimean-Congo haemorrhagic fever is caused by a virus carried mainly by ticks and infected livestock. People can also catch it from the blood or tissues of an infected person or animal. It may begin with fever, headache, muscle pain, vomiting, and diarrhoea, then cause bleeding, low blood pressure, and organ failure. Fatality varies by outbreak and care, often reported around 10 to 40 per cent. There is no widely approved specific treatment; supportive care and careful infection control are used, and some antiviral approaches are studied. Baxtra is studying BX-412 (Cehafex), an IV treatment made from two laboratory-made antibodies designed to bind virus targets, in BASTION-1.

At a glance	Summary
CCHF	Caught from ticks, livestock, or infected body fluids; can cause bleeding and organ failure; fatality varies; supportive care today; BX-412 is in Phase 1 study BASTION-1.

Lassa fever

Lassa fever is caused by a virus carried by some multimammate rats. People may catch it through contact with rodent urine or faeces, contaminated food or items, or infected body fluids. Many infections are mild or have no symptoms, but severe illness can cause bleeding, low blood pressure, organ failure, hearing loss, or pregnancy loss. Fatality is low across all infections but is much higher among people who are severely ill or in hospital. Ribavirin is used in some settings, with uncertain benefit depending on timing; care also treats complications. Baxtra is studying BX-515 (Lassivar), an IV human monoclonal antibody (a laboratory-made immune protein) designed to bind a site on the virus, in TRAVERSE-1.

At a glance	Summary
Lassa	Usually linked to infected rodents or body fluids; may damage several organs and hearing; fatality depends greatly on severity; supportive care and some ribavirin use; BX-515 is in Phase 1 study TRAVERSE-1.

Rabies

Rabies is a virus spread most often by the bite or scratch of an infected mammal, including dogs and bats. The virus travels through nerves to the brain and spinal cord. Early illness may look like fever or pain, followed by anxiety, confusion, trouble swallowing, muscle spasms, and paralysis. Once symptoms have begun, rabies is nearly always fatal. Prompt wound washing, vaccination, and rabies immunoglobulin after a possible exposure can prevent disease; these are not useful substitutes for urgent care after symptoms begin. Baxtra is studying BX-620 (Rabivex), a medicine designed to block viral copying, given by IV with a first dose into the fluid around the spinal cord so it can reach the brain and spinal cord, in LANTERN-1.

At a glance	Summary
Rabies	Usually caught from an infected animal bite or scratch; attacks nerves and brain; nearly always fatal after symptoms; prevention and urgent post-exposure care exist; BX-620 is in Phase 1 study LANTERN-1.

Hantavirus cardiopulmonary syndrome

Hantavirus cardiopulmonary syndrome is a severe illness caused by some hantaviruses, including Andes orthohantavirus. People usually catch it by breathing in dust contaminated with infected rodent urine, droppings, or saliva. The illness can quickly cause fluid to fill the lungs, low blood pressure, and failure of the heart and lungs. Fatality is often about 35 to 50 per cent, depending on the virus and access to intensive care. There is no approved specific treatment; early intensive support, including breathing support, is important. Baxtra is studying BX-733 (Hantrelvir), a medicine designed to support the blood-vessel lining by acting on a cell signal called S1PR1, in RIDGELINE-1.

At a glance	Summary
Hantavirus cardiopulmonary syndrome	Caught mainly from contaminated rodent dust; rapidly harms lungs and circulation; fatality is often high; intensive supportive care today; BX-733 is in Phase 1 study RIDGELINE-1.

Sudan ebolavirus disease

Sudan ebolavirus disease is caused by Sudan ebolavirus. It spreads through direct contact with blood or other body fluids from an infected person or animal, or with contaminated objects. It can cause fever, weakness, vomiting, diarrhoea, rash, bleeding, shock, and organ failure. Reported fatality has varied widely, roughly 25 to 90 per cent, depending on the outbreak and care available. There is no broadly approved treatment specifically for Sudan ebolavirus; supportive care and infection control are essential, and treatments are being studied. Baxtra is studying BX-806 (Sudanavir), an IV treatment made from two laboratory-made antibodies designed to bind virus targets, in KEYSTONE-1.

At a glance	Summary
Sudan ebolavirus	Caught through infected body fluids or contaminated objects; can cause shock and organ failure; fatality varies widely; supportive care today; BX-806 is in Phase 1 study KEYSTONE-1.

Mpox

Mpox is caused by an orthopoxvirus. It spreads through close skin-to-skin or mouth-to-mouth contact with lesions, body fluids, scabs, or respiratory secretions, and sometimes through contaminated items. It can cause a rash or lesions, fever, swollen lymph nodes, pain, and, in severe cases, eye, lung, brain, or other organ problems. Clade I disease has caused higher fatality in some settings than clade II, but risk varies greatly with health, access to care, and outbreak conditions. Vaccination and supportive care are used; tecovirimat is used under particular access arrangements, with its role under study. Baxtra is studying BX-1140 (Poxavir), an oral or IV medicine designed to interfere with p37, a protein involved in making a virus particle outer covering, for clade I mpox in MERIDIAN-1.

At a glance	Summary
Mpox	Caught through close contact or contaminated items; causes painful lesions and can affect organs; clade and setting change fatality; prevention and supportive care exist; BX-1140 is in Phase 1 study MERIDIAN-1.

South American haemorrhagic fevers

South American haemorrhagic fevers are illnesses caused by arenaviruses such as Junin, Machupo, Guanarito, and Sabia viruses. People usually catch them through contact with infected rodents or their urine, faeces, saliva, or nesting material; some can spread between people through body fluids. Fever can progress to bleeding, low blood pressure, nervous-system changes, and organ failure. Fatality differs by virus and care, and can be substantial without treatment. Supportive care is used; ribavirin may be considered early for some arenavirus infections, but access and evidence vary. Baxtra is studying BX-1265 (Arenavir), an IV and oral medicine designed to interfere with GP2, a part of arenaviruses involved in joining with human cells, in CROSSBAR-1.

At a glance	Summary
South American haemorrhagic fevers	Usually linked to infected rodents or body fluids; may cause bleeding and organ failure; fatality varies by virus; supportive care and selected ribavirin use; BX-1265 is in Phase 1 study CROSSBAR-1.

Rift Valley fever

Rift Valley fever is caused by a virus that mainly affects livestock and can infect people who handle infected animals, tissues, or blood. Mosquito bites can also spread it. Most people have a short fever illness or no symptoms, but a small number develop eye disease, brain inflammation, or a haemorrhagic illness with organ failure. Fatality is low across all infections but can be high in severe haemorrhagic cases. There is no approved specific treatment; care is supportive and prevention focuses on animal, mosquito, and food safety. Baxtra is studying BX-1330 (Riftavir), a fixed pair of medicines: one laboratory-made antibody and one medicine designed to block a viral copying enzyme, in HEADWATER-1.

At a glance	Summary
Rift Valley fever	Caught from infected animals, tissues, mosquitoes, or blood; usually mild but sometimes damages eyes, brain, or organs; severe forms can be fatal; supportive care today; BX-1330 is in Phase 1 study HEADWATER-1.

Melioidosis

Melioidosis is an infection caused by the soil and water bacterium *Burkholderia pseudomallei*. People can catch it when contaminated soil or water enters a cut, is breathed in, or is swallowed; person-to-person spread is uncommon. It may cause pneumonia, abscesses, blood infection, or long-lasting illness, especially in people with diabetes, kidney disease, or heavy alcohol use. Untreated severe disease can be fatal, while modern antibiotics lower the risk but do not remove it. Treatment uses long courses of antibiotics such as ceftazidime or meropenem followed by oral treatment. Baxtra is studying BX-1620 (Meliovex), an IV and oral antibiotic combination intended to help an antibiotic stay active against the bacterium, in REDLAND-1.

At a glance	Summary
Melioidosis	Usually caught from contaminated soil or water; may cause pneumonia or blood infection; severe untreated disease can be fatal; long antibiotic courses are used; BX-1620 is in Phase 1 study REDLAND-1.

Why these diseases have no treatments

Research is difficult when illnesses are rare, outbreaks are irregular, and patients are spread across small, poor, or remote communities. A study may see few patients, making it harder to measure a treatment effect. Travel, weak health systems, delayed diagnosis, and unsafe transport can also make trials harder. Some diseases progress so quickly that there is little time to enrol people. Companies also face high costs for specialist staff, containment, manufacturing, and trials, while the number of people who might receive a product is small. A market does not automatically solve this problem: expected sales may not cover the cost and risk of development. Public funding, partnerships, emergency networks, and careful trial design can help, but they do not remove the scientific uncertainty.

What biosafety level 4 means

Biosafety level 4, or BSL-4, is the highest level used for work with agents that can cause very serious disease and may have limited treatment or prevention. It is a set of controls, not a claim that every experiment is safe. Workers use specialised protective suits and carefully controlled entry and exit. Air, waste, equipment, and people move through designed containment steps. Work is planned, trained, supervised, and checked. Most patient-facing research does not require you to enter a BSL-4 laboratory or handle a pathogen. Baxtra has a Palm Coast maximum-containment (BSL-4) suit laboratory, with commissioning completed in July 2026.

Baxtra has also stated that a containment failure occurred and was found by its own staff. Work stopped, an independent review is open, and authorities were notified. The statement does not name the programme, suite, material, quantities, dates, or individuals, and says there is no identified risk outside the facility. Please do not write to ask for details the statement does not provide.

What an investigational medicine is and is not

An investigational medicine is a product being tested in research. Researchers are still collecting evidence about its safety, how it behaves in the body, the dose, and whether it might help with a disease. It is not an approved medicine, not a promise of benefit, and not a product available on prescription. A Phase 1 study usually focuses on safety and how the body handles the product. Even if a study gives useful results, more studies and regulatory review may be needed, and the programme may still stop.

How to get medical advice

Baxtra cannot give you personal medical advice, diagnose an illness, or tell you which treatment to choose. If you may have been exposed to an infection or have symptoms, contact your own clinician or local emergency service promptly. For urgent symptoms, do not wait for a reply from Baxtra.

A treating physician can send a medical-information or disclosure query to disclosure@baxtra.pages.dev. This is a professional information route, not a patient advice service. Include only the information needed for the question and follow local privacy rules.

Glossary

Term	Plain-English meaning
Antibody	A protein made by the immune system that can bind to a particular target.
Antisense oligonucleotide	A short piece of genetic material designed to change how a cell reads a chosen message.
BSL-4	The highest laboratory containment level, using layers of controls for the most serious biological hazards.
Clinical trial	A planned study in people to collect evidence about a health intervention.
Containment	The physical, procedural, and technical controls that keep a hazard in its work area.
Endothelial	Relating to the thin lining inside blood vessels.
Fusion inhibitor	A medicine designed to interfere with a virus joining with a human cell.

Term	Plain-English meaning
Investigational	Being studied and not approved for general medical use.
Intrathecal	Given into the fluid around the brain and spinal cord.
L-polymerase	A viral enzyme that helps some viruses copy their genetic material.
Monoclonal antibody	A laboratory-made antibody designed to recognise one target.
Pathogen	A germ, such as a virus or bacterium, that can cause disease.
Placebo	A study product with no active medicine, used as a comparison.
Prion	An abnormal protein that can make other proteins fold incorrectly.
Supportive care	Treatment that supports the body and manages problems while an illness runs its course.

Important. Baxtra Research Labs develops investigational medicines and investigational medical devices. No Baxtra investigational medicine has been approved by any regulatory authority in any country, and the safety and efficacy of none of them has been established. This document is published for information. It is not medical advice, not biosafety or biosecurity guidance, not an offer to sell or a solicitation to buy securities, and not a forecast that any programme described in it will succeed. Forward-looking statements about timing, enrolment, regulatory interactions and intended indications are subject to change without notice.

Cleared for external publication by the Disclosure Review Board · DRB-2026-0549 · public revision 2 of 4 · issued 31 August 2026. The internal revision of this document is not published. Queries to disclosure@baxtra.pages.dev.