

Project 2. Entitled: Aviator Group A Strep study. The Aviator research study which commenced in October 2023 has made significant progress which has inspired the investigators in the Spencer Dayman Meningitis Laboratories at the University of Bristol to successfully apply for another 2 years funding. The project will now continue until October 2027. Group A Strep is one of the biggest causes of sepsis in addition to a number of other life-threatening diseases including meningitis and heart disease. The aim of the project is to provide evidence towards the development and introduction of a Group A Streptococcal vaccine. This brings our total commitment to this project to over **£154,000**



Project 3. Entitled: Diagnostic Evaluation of Targeted PCR for Early Confirmation of Group A Streptococcus (DETECT). Current tests for invasive Group A Strep (iGAS) are slow and often miss cases. The DETECT project will develop a new blood test using advanced molecular technology to identify iGAS earlier and more reliably. Faster diagnosis will help doctors start the right treatment sooner, improve survival, optimise antibiotic use, and reduce complications. The study will also develop new ways to read the bacteria's genetic code directly from blood samples, enabling real-time tracking of outbreaks and how the bacteria is evolving. DETECT will employ a full-time clinical research fellow in paediatrics to deliver this work, strengthening child health research, improving patient outcomes and public health, and supporting better planning for future vaccines. Total cost **£253,000.**



Support for someone living with bereavement

The sudden or unexpected death of a loved one from Invasive Group A Strep (iGAS) or Sepsis, is a very traumatic time. One of the most deeply personal and distressing experience you will have to endure. Nothing can prepare you, especially in the initial days and weeks when you are completely in shock and overwhelmed.

Your grief will often present with many different emotions and may be quite different from other loved ones around you. It can be quite a lonely experience. You may feel anger and direct your feelings to other family members or perhaps the medical staff who were unable to save your loved one's life.

Spencer Dayman Meningitis Research is here to help you, for as long as you need it.

Steve Dayman our founder who lost his son suddenly from sepsis has been befriending families for over 40 years.

Meeting Steve with first-hand knowledge of how devastating these diseases are can be helpful to those who need support.

He will befriend and signpost you and your family through your early days of your grief.

If you or a family member are experiencing the trauma that invasive Group A Strep and/or sepsis can cause, you can call Steve Dayman at any time directly on **07903412144**

Or email: SteveDayman@SpencerDaymanmeningitisresearch.org



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 Spencer Dayman Meningitis Research is a registered charity in England & Wales Number 1202202& Scottish Charity Regulator Registered Number SC052732 and Scottish Charity Regulator Registered Number SC052732

What You Need to Know About Invasive Group A Strep (iGAS)

And Support For Families That Have Been Affected



Our Mission to find a vaccine



What you need to know

Group A Streptococcus (GAS), also known as “Strep A” is a common bacteria. Many of us carry it in our throat or on our skin, and it doesn’t always result in illness. However, GAS can cause infections, some of which are mild, and some very serious.

Milder infections caused by GAS include pharyngitis, (sore throat) impetigo, cellulitis and scarlet fever. These can be usually be easily treated with antibiotics.

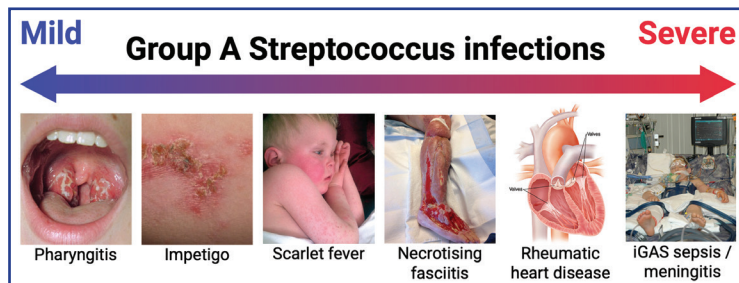
How is it spread. GAS is spread by close contact with a infected person who carries the bacteria and can be passed on through coughs, sneezes, or touching skin or an open wound. Some people can have the bacteria present on their body without feeling unwell or showing any symptoms. The risk of spread is much when a person is unwell.

Scarlet Fever. Is also caused by GAS and usually starts with a sore throat, headache, nausea and vomiting followed by a rash that feels like sandpaper to touch. It is usually a mild illness that clears up quickly after a course of antibiotics.



Group A Streptococcus (GAS)

Some of the most serious infections caused by GAS are called “Invasive Group A Strep” known as “iGAS”. These infections are caused by the bacteria getting into parts of the body where it is not normally found, such as the blood stream. Some of the most severe forms of iGAS are Sepsis, Meningitis, Pneumonia, and Necrotising fasciitis. In many cases, iGAS needs to be managed in intensive care and it can be fatal or lead to debilitating complications.



Contact NHS111 or your GP if you suspect your child has GAS infection, because early treatment with antibiotics is important to reduce the risk of a more serious infection such as Sepsis

More information on iGAS can be found on Spencer Dayman Meningitis Research website
www.SpencerDaymanMeningitisResearch.org

Early signs and symptoms of Invasive Group A Strep (iGAS) disease:

- High fever and excessive tiredness.
- Muscle or body pain (can be severe).
- Swelling or redness at woundsite of the wound or joint.
- Unexplained nausea, vomiting and diarrhoea.

Our Mission to find a vaccine and improve treatment

Group A Strep infections have been attracting increasing attention globally, with many countries experiencing a surge in iGAS cases in recent years.

Every Year there are an estimated 1.8 million cases of iGAS worldwide each year and 500,000 deaths due to GAS and complications like rheumatic heart disease.

The United States, for example, sees between 20,000 and 27,000 cases of iGAS annually, resulting in approximately 2,000 deaths.

In the UK there are around 3,000 cases of iGAS and 300-400 deaths due to iGAS every year. iGAS can affect men, women and children of all ages, backgrounds and regions of the UK. Some of the most vulnerable are the very young, pregnant women and the elderly.

There is no vaccine available to prevent GAS, and therefor antibiotics and surgery are still the only way to treat severe infections.

Our Research, to prevent and improve the treatment of iGAS, Sepsis and Meningitis.

Project 1. Entitled: Gold Bionanoconjugates for the rapid detection of bacteria causing sepsis, meningitis and other related diseases. This groundbreaking project aims to provide evidence to develop a rapid diagnostic test to detect a range of bacterial disease including meningitis and sepsis in five minutes. Early onset of meningitis and sepsis is very difficult to detect and delay in medical treatment can often be catastrophic. In order to inform the most important type of treatment, it is essential to identify if the infection is caused by bacteria or virus and specifically which bacteria. At present, Identification can be slow, inaccurate and often leading to death and disability. The introduction of a rapid diagnostic kit has the potential to be rolled out not only in hospital environments but also health centres and GP surgeries.
Total cost £71,000.

