## SIR ALEXANDER OGSTON (1844-1929) KCVO MBCM MD FRS

Alexander Ogston was born in Aberdeen on 19<sup>th</sup> April 1844 at Ogston Court, 84 Broad Street, which stood by the old entrance to Marischal College. This building was demolished in the early 1900's to make way for the new entrance and granite show frontage to Marischal College.

He was the older son of a Dr Francis Ogston (1802-1887), a medical practitioner, who from 1857 was professor in Medical Logic and Jurisprudence at Marischal College. He had also since 1831 been Police Surgeon and in 1862 took on the additional post of Medical Officer to the Local Authority, later in 1867 becoming Aberdeen's first Medical Officer of Health when this post was created. His grandfather, also Alexander Ogston had been a notable local soap and candlemaker whose factory was in Loch Street.

Alexander was educated at various private schools in Aberdeen and had a three-year spell at the Aberdeen Grammar School before beginning his university education at Marischal College at the age of fifteen years. He initially studied Latin, Greek, botany and mathematics, but did not complete his MA degree, changing instead to study medicine. After two years initial study in Aberdeen he spent a fruitful year on the continent studying in Vienna, Berlin and Paris, and becoming fluent in both German and French. He returned to Aberdeen to complete his studies and graduated MBCM with highest honours in 1866 and a year later obtained his MD degree, again with highest honours.

After a further year's study abroad he became assistant to his father in practice, Assistant in Medical Jurisprudence, and substitute MOH in which role he was responsible for the care of 213 cases of smallpox in temporary accommodation at Mounthooly during an outbreak in 1871-72.

He also developed expertise in ophthalmology and ENT surgery and in 1868 was appointed Ophthalmic Surgeon to the Aberdeen Royal Infirmary. In 1870 he became junior general surgeon there and Aurist (ENT Surgeon) at the same time. He became full surgeon in 1874 and senior surgeon in 1880.

At this time, virtually all surgical wounds became infected, often with dire consequences. Ogston was aware of Lister's work, claiming methods to avoid this involving the use of a carbolic spray in the operating theatre and carbolic soaked dressings. After visiting Lister in Edinburgh where he had recently moved from Glasgow, and seeing Lister's methods in use in Glasgow, Ogston introduced the Listerian method to Aberdeen, although not without antagonism from some of his colleagues.

This allowed safer surgery and Ogston went on to become a pioneer in abdominal and orthopaedic surgery, one of his great successes being an operation for the treatment of genu valgum ('knock-knees') which was widely acclaimed.

Ogston had long been interested in the cause of the wound infection and blood poisoning which so often followed surgical operations. The 'Germ Theory' of disease had become established following the classic work of Louis Pasteur in the mid-eighteen hundreds and in the last quarter of the nineteenth century Robert Koch and his pupils in Germany, using new staining techniques had identified the causative organisms of TB, cholera, typhoid, diphtheria and other diseases. Ogston decided to investigate this are himself and with a financial grant from the British Medical Association purchased a Zeiss microscope with attachments and an incubator. He used these between 1879 and 1882 in carrying out his

research in a wooden laboratory shed which he had built in the garden of this home at 252 Union Street (now Amicable House) where he had lived since 1870.

He first examined pus collected from abscesses from his own and colleagues' patients at the infirmary and under the microscope, when spread on slides and stained with the newer techniques, amongst the debris and inflammatory cells he identified clumps of organisms present in clusters, and unlike the already-described short chains of STREPTOCOCCUS. He later names the clumping organism STAPHYLOCOCCUS, allegedly on the advice of the local professor of Greek - STAPHULE being the Greek word for a bunch of grapes.

He later, after much trial and error, managed to culture these organisms on hens' eggs kept in his incubator and showed that this material, when injected into mice or guinea pigs, produced abscesses or led to the animal's rapid death from blood poisoning, proving a causal relationship.

His initial report on this work was published in the British Medical Journal in 1881 but was treated with scepticism by colleagues in the south, and the editor declined to accept further publications, asking scoffingly "Can any good thing come out of Aberdeen?" Ogston published his subsequent work in German, in which language as mentioned he was fluent, and in German scientific journals, where it was accepted and widely acclaimed. His findings have stood the test of time and his name stands supreme as the only research worker in Britain whose contributions find a permanent place in the understanding of the pathogenic bacteria in the early days of bacteriology.

In 1892 he was appointed Professor of Surgery at the University of Aberdeen and because of his many competing commitments pursued his researches in bacteriology no further. He proved himself a popular, capable teacher and made many contributions to surgical practice in Aberdeen. He was also interest in military surgery and involved in three wars – the Egyptian Campaign of 1884-5, the Boer War and the Great War and he had a significant influence on the foundation of the Royal Army Medical Corps in 1898.

He was awarded an LLD by Glasgow University in 1907 and by Aberdeen in 1910 and was made KCVO in 1912.

He retired from the Chair in Surgery in 1909 and became very interested in local archaeology. He died peacefully at his home in 252 Union Street on 1st February 1929 aged 85 years. His house was demolished in the early 1930's and is now the site of Amicable House.