

Hullbridge u3a Historic London Group, visit:

Alexander Fleming Laboratory Museum

Alexander Fleming discovered penicillin by accident in a laboratory at St Mary's Hospital in Paddington (Famous for delivering Royal babies), and this discovery changed the world of modern medicine. Fleming's original laboratory has been restored and now operates as a small museum dedicated to Sir Alexander Fleming and his discovery of penicillin.. So some members of the Historic London Group set off by train to learn about this amazing discovery. On the way to St Mary's there was a photo opportunity for the group, (Photo 1)



Born on a farm in the Scottish Highlands, Alexander started his working life as a shipping clerk. Fleming used an inheritance wisely and enrolled in medical school. In 1915, he married Sarah Marion McElroy, an Irish nurse. Their marriage was marked by mutual support and shared interests in the medical field. In September 1928, Alexander Fleming (Photo 2) made one of the most fortuitous discoveries in medical history. Upon returning to his laboratory at St. Mary's Hospital (photo 3) after a six-week vacation, Fleming noticed something unusual on a Petri dish that had been uncovered. The dish containing colonies



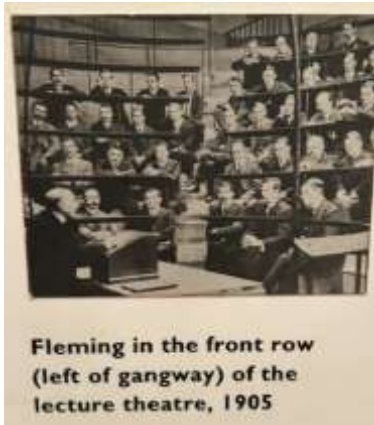
of *Staphylococcus* bacteria had been contaminated by a mould, later identified as *Penicilli notatum*. Fleming observed that the mould had created a clear zone around itself where the bacteria could not grow. Intrigued by this phenomenon, Fleming conducted experiments to understand the mould's antibacterial properties. He found that the mould produced a substance that killed many harmful bacteria, including those responsible for diseases such as pneumonia, meningitis, and diphtheria. Fleming named this substance "penicillin" after the *Penicillium* mould. His initial observations and experiments

demonstrated penicillin's potential as a powerful antibacterial agent, marking the beginning of a new era in medical science. Despite the promising results, Fleming faced significant challenges in isolating and producing penicillin in quantities sufficient for practical use. Extracting and purifying penicillin was complex and time-consuming, and the yields were initially meagre. Fleming's laboratory lacked the resources and expertise to overcome these technical obstacles, also, and many researchers were sceptical about the feasibility of producing penicillin on a large scale. This lack of support and funding hindered the progress of penicillin development, and for several years, Fleming's groundbreaking discovery remained largely overlooked. Despite these early challenges, Fleming's perseverance and the subsequent efforts of other scientists eventually led to the widespread adoption of penicillin, transforming it into a lifesaving antibiotic. The development of penicillin into a widely usable antibiotic was not the work of Fleming alone. In the late 1930s and early 1940s, a team of scientists at



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the University of Oxford, including Howard Florey, Ernst Boris Chain, and Norman Heatley, took on the challenge of furthering Fleming's discovery. World War II provided the impetus needed to accelerate the development and production of penicillin. The high incidence of infected wounds and diseases among soldiers underscored the urgent need for effective antibacterial treatments. The success of penicillin in early clinical trials caught the attention of the United States and British governments, who recognized its potential to save countless lives. Penicillin drastically reduced the death rates from

bacterial infections, such as pneumonia, rheumatic fever, and syphilis. Its success paved the way for discovering and developing other antibiotics. Alexander was knighted by King George VI in 1944, becoming Sir Alexander Fleming. After the death of wife Sarah in 1949, Fleming remarried in 1953. His second wife was Dr. Amelia Koutsouri-Voureka, a Greek colleague and bacteriologist whom he had met during his work. Alexander Fleming passed away on March 11, 1955, from a heart attack. He was interred in St. Paul's Cathedral in London, an honour befitting his monumental contributions to science and medicine. Fleming's legacy continued to be celebrated posthumously through numerous honours and commemorations. We concluded the visit to the museum by watching a film about Alexander Fleming and a look around an exhibit room and made our way on foot to the local Wetherspoons restaurant for lunch. We then took a stroll along the Grand Union Canal where box office hits Mission Impossible, A Hard Day's Night and Paddington 2 were filmed. Reaching Little Venice a large part of the group boarded a canal boat (photo 5) to Camden Lock and some enjoyed refreshments alongside the man made water way before taking the train home.

Thank you to Carol and Paul Ogden for an interesting, fun day, learning about the perseverance and dedication of a man who has helped us all at sometime in our lives.

