Alexander Fleming: Innovator of Medicine

Alexander Fleming was born in Lochfield, Scotland on August 6th, 1881. He grew up on a farm with his parents, Hugh and Grace, and his 3 siblings and had four half-siblings who were from his father’s first wife (Fleming, 2015). Fleming went the Darvel School and Kilmarnock Academy. Before he could finish school he moved to London in 1895("Alexander Fleming.", 2015). He moved to London to live with his older brother, Thomas Fleming. He then finished his grade schooling at the Regent Street Polytechnic. After finishing school, Fleming joined the Territorial Army from 1900 to 1914 in the London Scottish Regiment (Brown, 2016). During this time he entered the medical field and studied at St. Mary's Hospital Medical School at the University of London. In 1908, he earned the gold medal as the top medical student. Fleming was planning on becoming surgeon, but at St. Mary's Hospital he grew an interest in field of bacteriology, which at that time was a new subject (Brown, 2016). He worked with and was taught by Sir Almroth Edward Wright.

During World War I, Fleming worked in the Royal Medical Corps. He would study the soldier's wounds and infections. While doing this, Fleming discovered the some of the most common medicines and treatments that were used at the time,were actually causing more harm than good(Brown, 2016). Fleming learned that wounds simply would heal much better if they were just kept dry and clean. However, his discoveries were not very influential and respected at this time Fleming knew that it had the potential to be very medically helpful if it could be “developed properly” ("Alexander Fleming.", 2015). Fleming later spoke on this incident saying, "When I woke up just after dawn on September 28, 1928, I certainly didn't plan to revolutionize all medicine by discovering the world's first antibiotic, or bacteria killer. But I suppose that was exactly what I did." (Brown, 2016). After the war, he went back to St. Mary's and eventually became a professor of bacteriology in 1928.

In November 1921, Fleming discovered lysozyme. It is said, that he discovered it when he had a cold and a drop of mucus dripped from his nose onto a sample of bacteria. Wanting to know what affects the mucus would have on the bacteria, Fleming mixed it with the sample. A few weeks later, he found that the bacteria had been dissolved. This was Fleming's first great discovery and contribution to biology (Fleming, 2015).

In 1928, Fleming discovered that a sample of “Staphylococcus aureus” he had left out for over month, had grown mold. He also discovered that the area of the sample surrounding the mold, had been destroyed. What he discovered did not end up being an enzyme, but was actually an antibiotic. This was one of the first antibiotics to ever be discovered, but he could not find a way to purify it (Brown, 2016).

Throughout his carreer, Fleming helped science advance in and grow. 1946, St. Mary's Inoculation Department was renamed the Wright-Fleming Institute and Fleming served as president of the Society for General Microbiology. ,He was a member of the Pontifical Academy of Science, and an “honorary member”of mostly every medical and scientific society in the world (Fleming, 2015). He was also awarded honorary phd degrees from almost 30 European and American universities. He was married twice and his second wife, Dr. Amalia Koutsouri-Vourekas, and he had his only child Robert Fleming. Fleming died of a heart attack on March 11, 1955, at his home in London. He is seen by many scientist across the world as one of the most influential and important biologists of all time. His discoveries and research helped shape the the medical field of science today. Without him who knows what kind of medicines would not have been discovered.

Works Cited

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