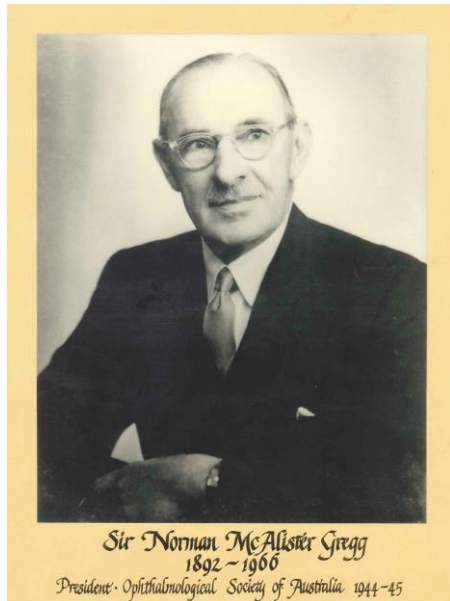


Sir Norman McAlister Gregg MC (7 March 1892 – 27 July 1966)

MB 1915 MSurgery 1915 Hon DSc 1952 FRACS Hon FRCOG Hon FRACP Hon AAOO Hon DSc (ANU)



“IN the first half of the year, 1941, an unusual number of cases of congenital cataract made their appearance in Sydney”.¹ So begins the masterpiece of clinical observation by Sydney Ophthalmologist Sir Norman McAlister Gregg reporting the increased incidence of congenital cataracts that followed a significant rubella epidemic in Australia a year prior. Gregg’s work triggered a fundamental shift in the science of teratology or causes of birth defects.

Gregg was born in Sydney in 1892. Educated at Homebush and he then studied medicine at the, graduating with first class honours. He excelled at several university sports and represented in cricket three times and once in tennis.

During World War I having travelled to England Gregg was an officer in the British. He served on the as ultimately achieving promotion acting in 1919. He was awarded for the “conspicuous gallantry and devotion to duty during a raid” in September 1918.

Gregg returned to England to study gaining a diploma of ophthalmic medicine and surgery after training at and in, and the Birmingham and Midland Counties Eye Hospital.

Back to Sydney in 1923, Gregg set up a practice in Macquarie St. That same year he was appointed ophthalmic surgeon at RPA, and the nearby from 1925.

When began Gregg noticed a high incidence of congenital in infants arriving at his surgery – two to three times the normal rate that would be expected from hereditary factors. He overheard a conversation between several mothers whose babies had cataracts, in which they mentioned that they had suffered from German measles (rubella) during pregnancy. Investigating the medical records of children with similar conditions, Gregg discovered that out of 78 affected children (13 in his own office) 68 had been exposed to rubella *in utero*. There had been an outbreak of rubella in Australian army camps in 1941, which had been transmitted to the wider community when the men returned to their families. In addition to the cataracts, He noted the microphthalmia, frequent low birth weight and cardiac problems in these infants.

On 15 October 1941, Gregg delivered his paper, *Congenital Cataract following German Measles in the Mother*, to the Ophthalmological Society of Australia in which was subsequently published in *Transactions*. Following press coverage, Gregg was contacted by two mothers who had contracted rubella, and whose children suffered from deafness, and he subsequently issued a further paper detailing *Further Observations on Congenital Defects in Infants following Maternal Rubella*.

Whilst Gregg's findings were met with praise in Australia, internationally his peers were not so convinced. British medical journal wrote that he had failed to adequately prove his case,

and it was not until Professor Oliver Lancaster of the proved the association between the rubella virus and congenital syndromes in infants was significant, that his research was accepted around the world.

In 1961 two decades later scientists were to isolate the rubella virus. A vaccine was developed in 1964 but not before a worldwide outbreak of rubella caused 20,000 cases of congenital cataract in the United States alone.

During his lifetime Gregg's achievements were acknowledged with the James Cook Medal by for "outstanding contribution to science and human welfare in the Southern Hemisphere". He was knighted on 1 January 1953 for services to medical science. Most notably he is acknowledged for stimulating the development of the field of teratology, the study of birth defects due whatever the cause.

At the time of Gregg's discovery, Waddy Pockley was a junior staff member at Royal Prince Alfred Hospital in Sydney. He recounted later to Frank Taylor how Gregg was pacing the floor in the clinic and exclaimed "I've got it!" As he realised the connection between rubella and congenital cataract.

1 Congenital Cataract Following German Measles in the Mother, Transactions of the Ophthalmological Society of Australia (1941 p35-46)