



A colony of Clostridium on gut lining, coloured.

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Bacterial Metabolism

A colony of Clostridium in a human gut – a type of bacterium often responsible for diarrhoea in its hosts.

Stephenson's early work with **R.H.A. Plimmer** (1877-1955) from 1911 focused on digestion in the gut. Co-written papers included one given to an early meeting of the Biochemical Club on 'The Effect of Glucose and of Galactose on Intestinal Lactase', presented on 2 March 1912.¹ As such, Stephenson's earliest research concentrated on the metabolism of higher organisms.

In research conducted after 1920, however, Marjory Stephenson studied the relationship between bacteria and digestion in a different capacity. Rather than examine the effect of bacteria upon the digestive systems of higher animals, Stephenson turned to investigate the metabolic processes within bacteria themselves.

To enquire more deeply, Stephenson adopted an interdisciplinary approach. Enzymology, physiology and evolutionary biology all featured within Stephenson's unique hybrid microbial biochemistry – as Robert Kohler has observed, 'no one ingredient was novel, but the combination was groundbreaking'.²

¹ Wellcome Library for the History and Understanding of Medicine [WLHUM], Biochemical Society, Minutes, SA/BIO/A/3/1, 2 March 1912, p. 37.

² Robert Kohler, 'Innovation in Normal Science: Bacterial Physiology', *Isis* **76** (1985), p. 171.