



the incidence of 'toxaemia', was reported in the *Lancet* in 1937 [[Theobald 1937](#)]. It was methodologically pioneering, having been published more than a decade before the celebrated Medical Research Council randomized trial of streptomycin for pulmonary tuberculosis [[MRC 1948 a](#)]. One hundred women drew beads from a box (blue for the vitamins, white for control), and, as far as possible, those assessing outcomes were kept unaware of the groups to which women had assigned themselves at random. Theobald reports that Egon Pearson, of the Department of Statistics, University College London, advised him on the analysis of his data. The results suggested a beneficial effect of supplementation, and remain relevant today.

After his move to Bradford after the Second World War, Theobald summarised his ideas on pre-eclampsia in a book entitled "*The pregnancy toxaemias or the encymonic atelositeses*", published in 1955. It was also during this era, when maternity hospital beds were few and the mortality rate from eclampsia in the deprived population in Bradford was high, that he was forced to take revolutionary action. Instead of routinely 'confining' women in hospital for ten days after delivery, Theobald introduced the 48-hour discharge scheme, thus freeing maternity beds for antenatal care. It was a clinical and political masterstroke, which was followed by a dramatic fall in the number of deaths from eclampsia. The 1959 *BMJ* publication "Home on the second day: the Bradford Experiment" was highly influential, and had far-reaching consequences for the NHS.

Apart from pre-eclampsia, Theobald's other major research interest was the physiological and clinical control of labour. The basis of his thinking was that the hypothalamus had centres controlling menstruation, ovulation, pregnancy and parturition. In the 1930s, he worked with Dr Verney at University College London on the physiology of the posterior pituitary, water metabolism and diuresis, and the neural and endocrine influences on the myometrium, the dog providing their main experimental model. Many publications appeared in the *Journal of Physiology*, and one appeared in *Nature*.

In 1934, Theobald identified the dose of pituitary extract (oxytocin) needed to inhibit diuresis in dogs, in men and in pregnant women, and this enabled him to estimate the physiological concentrations of oxytocin required to stimulate the uterus. His demonstration that the myometrium became increasingly sensitive to oxytocin towards term led to a prolonged but gentlemanly controversy with Roberto Caldeyro-Barcia of Montevideo. In 1948, writing from St. Luke's Hospital, he published another ground-breaking paper in the *BMJ* on the first use of infusions of oxytocin in physiological doses for the induction of labour. One practical effect of this was that women with pre-eclampsia could be delivered before they developed the life-threatening complication of eclampsia. This can hardly be bettered as an example of superbly effective 'translational research'.

Theobald's research activity in the Obstetric Unit at University College Hospital Medical School barely diminished in his final years, despite ill health. Although Nixon died in 1963, his successor as head of department, Denis Fairweather, continued to provide support for Theobald, who published two more books in 1973 - "*The endocrine control of uterine innervation*" and "*The electrical induction of labour*".

As a medical student, I had both the privilege of seeing Theo apply his 'Pulse Generator Belt' for inducing labour, and the dubious pleasure of looking after women receiving slow oxytocin infusions through many a long night. The belt did not become a clinically useful method of inducing labour; but the latter certainly did. I am fortunate to have succeeded Nixon and Fairweather as head of the Department of Obstetrics and Gynaecology at University College Hospital. Our seminar room is named in honour of Geoffrey William Theobald and adorned with a [photograph](#) of the great man himself.

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