



## COMMENT

## April 2020 ECI Biocommentary

Anna Tottman<sup>1</sup>*Pediatric Research* (2020) 87:804; <https://doi.org/10.1038/s41390-020-0759-z>

I grew up at the base of Cooper's Hill, Gloucestershire, which is famous for its annual Cheese Roll. I was just 18 when I left for London, achieving my undergraduate medical degree from Guy's, King's and St. Thomas' School of Medicine. I was so proud to be the first member of my family to go to university, but the research didn't feature heavily in my undergraduate years.

My interest in neonatology began whilst on elective in Western Kenya, where I was witness to the sad, slow demise of late preterm babies; the reality of surfactant deficiency in a low resource setting. After qualification in the UK, I sought out a NICU position and was sent to Derriford Hospital, Plymouth. I don't quite know what they made of my first-year enthusiasm, nor my many, many questions, but they were very kind and gave impromptu teaching sessions on respiratory and transitional physiology in the back of ambulances during transports.

Neonatology had me hooked, and after Foundation training I moved to New Zealand to a post at the National Women's NICU, Auckland. In Auckland, I found a dynamic, exciting, compassionate and academic group of neonatologists, who shaped my vision of what a neonatologist should be, and who set the standard very, very high. I was encouraged by Professor Frank Bloomfield and Dr. Jane Alsweiler to undertake formal postgraduate study alongside my clinical training. I enrolled in a PhD with Distinguished Professor Jane Harding at the Liggins Institute, University of Auckland, and undertook the Protein, Insulin and Neonatal Outcomes (PIANO) study.

The question of whether sex is important to neonatal nutrition came up over morning tea. Why are the recommended nutritional intakes different for males and females at every age except infancy? If breast milk composition differs by infant sex, why don't we take that into account when feeding preterm babies? Is some of the excess morbidity we see in preterm male infants due to suboptimal nutrition? We analysed data from the PIANO cohort to show that the relationships between early life nutrition and later outcomes were indeed different for boys and girls. This raises yet more questions- should trials of neonatal nutrition report outcomes by sex? Should early feeding policies be sex-based? Having completed my PhD and clinical training, I am now a Neonatologist with the Royal Women's Hospital, Melbourne, Australia, and intend to spend the next stage of my career pursuing some answers.

**ADDITIONAL INFORMATION**

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