

Propositions

accompanying the thesis

“Paneth cells: tales of a gutsy cell”

1. Even 145 years after their discovery, Paneth cells are still revealing novel and fascinating aspects of their multi-tasking and context-dependent identity (*this thesis*).
2. Upon inflammation, secretory phospholipases (group IIA/X sPLA2s) are secreted into the intestinal lumen from where they support tissue regeneration by promoting prostaglandin synthesis and Wnt signalling (*this thesis*).
3. In the future, it will be important to understand how the metabolic profiles of Paneth cells change in response to different organismal cues, and how these responses might be manipulated to promote regeneration, decrease tissue damage, or to prevent tumorigenesis (Dayton et al., Cell Research. 2017. 27: 851-852).
4. Acute inflammation of the mouse small intestine is followed by a rapid and dramatic loss of *Lgr5*⁺ stem cells. Instead, Paneth cells re-enter the cell cycle, lose their characteristic secretory expression signature, and acquire stem cell properties. As such they contribute to the tissue regenerative response to inflammation. (*this thesis*).
5. To re-establish homeostasis after tissue injury, redundancy between several cell types and replenishment of the rapid dividing *Lgr5*⁺ stem cell pool in the crypt are key features (*this thesis*).
6. The only thing I know is that I know nothing (Socrates).
7. No one is dumb who is curious. The people who don't ask questions remain clueless throughout their lives (Neil deGrasse Tyson).
8. At school, I was never more than about halfway up the class. It was a very bright class. My classwork was very untidy, and my handwriting was the despair of my teachers (Stephen Hawking).
9. Science knows no country, because knowledge belongs to humanity, and is the torch which illuminates the world. Science is the highest personification of the nation because that nation will remain the first which carries the furthest the works of thought and intelligence (Louis Pasteur).
10. Of course it is happening inside your head, Harry, but why on earth should that mean that it is not real? (J.K. Rowling, from “*Harry Potter and the Deathly Hallows*”).
11. Physics is like sex: sure, it may give some practical results, but that's not why we do it (Richard Feynman).