Regional specialization within the intestinal immune system.

The intestine represents the largest compartment of the immune system. It is continually exposed to antigens and immunomodulatory agents from the diet and the commensal microbiota, and it is the port of entry for many clinically important pathogens. Intestinal immune processes are also increasingly implicated in controlling disease development elsewhere in the body. In this Review, we detail the anatomical and physiological distinctions that are observed in the small and large intestines, and we suggest how these may account for the diversity in the immune apparatus that is seen throughout the intestine. We describe how the distribution of innate, adaptive and innate-like immune cells varies in different segments of the intestine and discuss the environmental factors that may influence this. Finally, we consider the implications of regional immune specialization for inflammatory disease in the intestine.

General information
State: Published
Organisations: National Veterinary Institute, Section for Immunology and Vaccinology, University of Glasgow
Contributors: Mowat, A. M., Agace, W. W.
Number of pages: 19
Pages: 667-685
Publication date: 2014
Peer-reviewed: Yes

Publication information
Journal: Nature Reviews. Immunology
Volume: 14
Issue number: 10
ISSN (Print): 1474-1733
Ratings:
BFI (2018): BFI-level 2
Web of Science (2018): Indexed yes
BFI (2017): BFI-level 2
Scopus rating (2017): CiteScore 17.23 SJR 28.786 SNIP 9.533
Web of Science (2017): Impact factor 41.982
Web of Science (2017): Indexed yes
BFI (2016): BFI-level 2
Scopus rating (2016): CiteScore 14.75 SJR 30.644 SNIP 9.573
Web of Science (2016): Impact factor 39.932
BFI (2015): BFI-level 2
Scopus rating (2015): CiteScore 14.9 SJR 26.399 SNIP 8.201
BFI (2014): BFI-level 2
Scopus rating (2014): CiteScore 15.03 SJR 27.596 SNIP 8.325
Web of Science (2014): Impact factor 34.985
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2
Scopus rating (2013): CiteScore 14.26 SJR 17.428 SNIP 5.849
Web of Science (2013): Impact factor 33.836
ISI indexed (2013): ISI indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): CiteScore 14.07 SJR 12.601 SNIP 3.986
Web of Science (2012): Impact factor 33.129
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): CiteScore 14.51 SJR 11.728 SNIP 3.653
Web of Science (2011): Impact factor 33.287
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 2
Scopus rating (2010): SJR 11.334 SNIP 3.22
Web of Science (2010): Impact factor 35.196
BFI (2009): BFI-level 2