Integrin α6 variants and colorectal cancer

I read with interest the study by De Archangelis et al1 on the protective role of hemidesmosomes against colitis and colorectal cancer using genetically modified mouse integrin α6 subunit mutant models. I was however surprised to read that, based on their observations with these α6 mutant mice, the authors concluded that the α6β4 integrin can be classified as a tumour suppressor in the colon. Indeed, earlier studies have reported that in carcinomas, α6β4 can be released from hemidesmosomes to become associated with microfilament-associated cell motility adhesomes and, consequently, engage in various signal transduction pathways that contribute to tumour progression.2 3 While it is recognised that the roles of α6β4 may be dependent on the tissue-context as underlined by the authors, it remains increasingly evident that the alternative messenger RNA splicing of the α6 subunit constitutes a key-contributing factor for the definition of the function of α6β4 in determining the fate of cancer cells,4 including colorectal cancer cells.5

First, it is noteworthy that both α6 subunits are normally expressed in the
In this context, the colon tumorigenesis observed in mice carrying a total gut epithelial-specific deletion of the α6 integrin subunits may need to be interpreted with caution.

Jean-François Beaulieu Beaulieu
Laboratory of Intestinal Physiopathology, Department of Anatomy & Cell Biology, Faculty of Medicine and Health Sciences, Université de Sherbrooke, Sherbrooke, Québec, J1H 5M4, Canada

Correspondence to Prof Jean-François Beaulieu, Laboratory of Intestinal Physiopathology, Room 9425, Department of Anatomy & Cell Biology, Faculty of Medicine and Health Sciences, Université de Sherbrooke, Sherbrooke, Québec, J1H 5N4, Canada; jean-francois.beaulieu@usherbrooke.ca

Acknowledgements The author thanks Professor Pierre Vachon for the critical reading of the manuscript and suggestions and Elizabeth Herring for corrections.

Funding The original work was funded by the Canadian Institutes of Health Research grants MOP-97836 and MOP-123415 and the Canada Research Chair in Intestinal Physiopathology.

Competing interests None declared.

Provenance and peer review Not commissioned; internally peer reviewed.

OPEN ACCESS

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited and the use is non-commercial. See: http://creativecommons.org/licenses/by-nc/4.0/

© Article author(s) (or their employer(s) unless otherwise stated in the text of the article) 2018. All rights reserved. No commercial use is permitted unless otherwise expressly granted.

To cite Beaulieu J-F. Gut 2018;67:1747–1748.


REFERENCES