

Response to Comment on “Tissue Factor–Dependent Chemokine Production Aggravates Experimental Colitis”

In our recent work, we used genetically modified mice to investigate the role of tissue factor (TF) in experimental colitis. We present evidence suggesting TF plays a detrimental role in this disease via signal transduction–dependent KC production in colon epithelial cells, which provokes granulocyte influx leading to subsequent inflammation and organ damage. We agree with Gambone *et al.* (1) that experiments using genetically modified mice should ideally be performed with littermate controls. Unfortunately, intercrosses of 50% TF mice are problematic, and using this strategy resulted in insufficient TFlow (1%) mice within a similar age category as littermate wild-type controls. Consequently, we opted for an experimental setup in which littermate 1% and 50% TF mice were compared with nonlittermate C57BL/6 wild types. The 1% and 50% TF mice had been backcrossed for six generations with C57BL/6 mice and are thus largely on a C57BL/6 genetic background (2). However, we performed a control experiment to exclude potential strain differences biasing our results. To this end, wild-type mice obtained from an intercross of 50% TF mice were compared with nonlittermate wild-type C57BL/6 mice in the DSS-induced experimental colitis model as described in our report (3). In this particular experiment, we did not observe differences between the groups with respect to body weight loss, increase in colon weight, reduction in colon length and disease severity score. Unfortunately, however, disease symptoms were rather mild and somewhat variable (perhaps resulting from a new batch of DSS). After careful consideration, we decided not to include

these data in the published report. Despite the limitations of this control experiment, we are confident the differences presented in our report are indeed due to changes in TF levels and not due to strain differences.

Karla C Queiroz and C Arnold Spek
Center for Experimental and Molecular
Medicine, Academic Medical Center,
Amsterdam, The Netherlands

Address correspondence and reprint requests to C A Spek, Center for Experimental and Molecular Medicine, Academic Medical Center, 1105 AZ Amsterdam, the Netherlands, Email: c.a.spek@amc.uva.nl

Submitted August 17, 2011; Accepted for publication August 25, 2011; Epub (www.molmed.org) ahead of print October 18, 2011.

© 2011 The Feinstein Institute for Medical Research, www.feinsteininstitute.org
Online address: <http://www.molmed.org>
doi: 10.2119/molmed.2011.00300

DISCLOSURE

The authors declare that they have no competing interests as defined by *Molecular Medicine*, or other interests that might be perceived to influence the results and discussion reported in this paper.

REFERENCES

- Gambone JE, Owens AP III, Mackman N. (2011) Comment on “Tissue factor–dependent chemokine production aggravates experimental colitis.” *Mol. Med.* 17:1131.
- Parry GC, Erlich JH, Carmeliet P, Luther T, Mackman N. (1998) Low levels of tissue factor are compatible with development and hemostasis in mice. *J. Clin. Invest.* 101:560–9.
- Queiroz KC, *et al.* (2011) Tissue factor–dependent chemokine production aggravates experimental colitis. *Mol. Med.* 17:1119–26.