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• **Conflict of Interest:** *FMTVDM issued to first author. First author, authored the Inflammation and Heart Disease Theory.* Ann Intern Med 2019;171(10):721-731.

The Food Fight over the effect red and processed meats has on Cardiovascular Disease and Cancer – Lessons Learned from our Mistakes.

Comparisons of the publications by Zhong [1], Rubin [2], and Johnston [3] suggests that the currently available research surrounding red and processed meats upon heart disease and cancer, leaves us with what Dyer calls a food fight [4]; providing little or no scientific information for physicians, patients and the media to draw upon to make informed conclusions.

Merely conducting a meta-analysis of published studies looking at qualitative or semi-quantitative imaging studies, changes in weight or blood tests of various factors which contribute to coronary artery disease (CAD) or cancer – provides limited useful information about the effect of red and processed meats [5-8].

If we are to clear up this confusion we must quantitatively measure the actual impact these foods have on cancer and CAD [7-9]. Admitting our mistakes can be hard!

References:

1. Zhong VW, Van Horn L, Greenland P, et al. Associations of Processed Meat, Unprocessed Red Meat, Poultry, or Fish Intake With Incident Cardiovascular Disease and All-Cause Mortality. JAMA Intern Med. Published online February 03, 2020. doi:10.1001/jamainternmed.2019.6969
2. Rubin R. Backlash Over Meat Dietary Recommendations Raises Questions About Corporate Ties to Nutrition Scientists. JAMA. Published online January 15, 2020. doi:10.1001/jama.2019.21441.
3. Johnston BC, Zeraatkar D, Han MA, et al. Unprocessed Red Meat and Processed Meat Consumption: Dietary Guideline Recommendations From the Nutritional Recommendations (NutriRECS) Consortium. Ann Intern Med 2019. DOI: 10.7326/M19-1621.

4. Dyer O. Food fight: controversy over red meat guidelines rumbles on. BMJ 2020;368, doi.org/10.1136/bmj.m397
5. Fleming RM., Kirkeeide RL, Smalling RW, Gould KL. Patterns in Visual Interpretation of Coronary Arteriograms as Detected by Quantitative Coronary Arteriography. J Am Coll. Cardiol. 1991;18:945- 951.
6. Fleming RM. Chapter 64. The Pathogenesis of Vascular Disease. Textbook of Angiology. John C. Chang Editor, Springer-Verlag New York, NY. 1999, pp. 787-798.
7. Fleming RM, Fleming MR, Dooley WC, Chaudhuri TK. Invited Editorial. The Importance of Differentiating Between Qualitative, Semi-Quantitative and Quantitative Imaging – Close Only Counts in Horseshoes. Eur J Nucl Med Mol Imaging. DOI:10.1007/s00259-019-04668-y. Published online 17 January 2020 <https://link.springer.com/article/10.1007/s00259-019-04668-y>
8. Fleming RM, Harrington GM. What is the Relationship between Myocardial Perfusion Imaging and Coronary Artery Disease Risk Factors and Markers of Inflammation? Angiology 2008;59:16-25.
9. The Fleming Method for Tissue and Vascular Differentiation and Metabolism (FMTVDM) using same state single or sequential quantification comparisons. Patent Number 9566037. Issued 02/14/2017.