Reviewer's report

**Title:** Autoantibodies to Tumor Associated Antigens as Early Detection Biomarkers for Lung Cancer or Noncalcified Nodules

**Version:** 1 **Date:** 24 August 2009

**Reviewer:** Eckart Meese

**Reviewer's report:**

The study by Rom et al. reports the use of a pattern of autoantibody reactivity that distinguished lung cancer patients from various controls. The separation shows a high specificity and sensitivity. Although of general interest, the study shows several weaknesses.

Throughout the paper the authors claim that the autoantibody reactivity can be used as a biomarker for the early detection of lung cancer. There is, however, no strong evidence to support such a claim.

Specifically, the authors do not provide information on the kind of lung cancer that was analyzed. Are these advanced stages in the tumor development? Do the authors analyze NSCLC or SCLC?

It is not obvious why the authors do not try performing other separation tasks including the separation of GGO versus non-smoker and the separation between smoker and non-smoker.

It should be clarified what influence does COPD / emphysema has on the pattern and on the specificity and sensitivity of the separations?

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests