Reviewer's report

Title: Quantifying Serum Antibody in Bird Fanciers' Hypersensitivity Pneumonitis.

Version: 1 Date: 14 February 2006

Reviewer: Christopher Baldwin

Reviewer's report:

General
An interesting paper that assess the use of automated fluorimetry in a standardized approach to the
diagnosis of pigeon fanciers hypersensitivity pneumonitis. From the data it appears that this
technique could be highly useful in this respect. My major criticism of this study is that it has been
carried out on a very small number of individuals and these have only been evaluated by clinical
questionnaire. Thus it may be prudent to note this point in the discussion and conclusion sections,
stressing that this is a pilot study and further large scale studies should be carried out before this
technique is adopted as the standard diagnostic technique for measuring anti-avian antibodies.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Page 7. I am unsure as to the relevance of the data shown in figure 1 and section antibody activity
against different avian species antigen unless you are going to suggest that you could use pigeon
antigens/budgie antigen to diagnose all forms of bird breeders HP. You must comment on this data
in your conclusion or take it out.

As an aside (which does not have to be followed up in this paper) this data is interesting from the fact
that as far as I am aware people who are symptomatic against one species are not necessarily
symptomatic against another species. If as you suggest these individuals have cross reacting
antibodies to serum antigens across the spectrum of species tested it would suggest that these
anti-serum antibodies do not play a role in the pathogenesis of disease.

Page 8. The section on comparison between EIA and precipitination techniques is muddled. Why was
there no comparison between fluorimetry and precipitin formation as I assume that the same 50
samples were used for all three techniques. This must be added. Also from this data I am not sure
how many individuals in each of your clinical groups were precipitin positive, this should also be
added. When you discuss antibody titres in relation to being precipitin positive does 22 (14) relate to
precipitin positive or negative individuals from the text it seems to relate to positives. This whole
section should be tidied up and made clearer.

In the conclusion there should be a comment about this being a pilot study and further studies
looking at larger groups of patients and clinically defined individuals must be carried out before
fluorometry is adopted as the standard diagnostic technique for pigeon fanciers hypersensitivity
pneumonitis.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the
author can be trusted to correct)

Page 3 line 1 (HP) should be added after hypersensitivity pneumonitis
Page 4 Numbers of individuals with probable HP, Intermediate symptoms and Unlikely to be added
here (as this is only mentioned on page 7)
It would be useful to add in a table with some clinical information regarding the patients e.g. number
of pigeons, number of years kept birds etc with the most important section here being whether the
patients smoked. This is especially important as the antibody titres you have for the unlikely group
are very low and this could be strongly affected by their smoking status.

Page 7. What food antigens in addition to hens egg antigens where these patients positive for (add a list in here).

Page 9. I assume that decrease in antibody titre was measured by fluoromitr. Can you make this clear in the text and in the legend for figure 3. Note this figure is refered to as figure 4 in the text on page 8, please change this.

Discretionary Revisions (which the author can choose to ignore)

**What next?:** Accept after minor essential revisions

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** No

**Declaration of competing interests:**

I declare that I have no competing interests