



SDI Review Form 1.6

Journal Name:	Journal of Advances in Medical and Pharmaceutical Sciences
Manuscript Number:	2015_JAMPS_16073
Title of the Manuscript:	Food allergens: Overview of clinical features and molecular study
Type of the Article	Review Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

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PART 1: Review Comments		
	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	1) Please elaborate the concept of allergen cross-reactivity, since it is frequently mentioned in this manuscript. 2) The authors mentioned about the <i>in vitro</i> molecular study to assess allergen-specific IgE. It is an important topic, however, it is hardly been explained in this manuscript. Please state and explain the existing <i>in vitro</i> assays beside ImmunoCAP e.g., RAST, ELISA, microarray. Also, please compare the advantage and disadvantage of each existing method to ImmunoCAP. 3) It is intriguing why the authors refer to the specific company website (reference #16) when they discussed the advantage of ImmunoCAP. Please find a more suitable reference. 4) The authors mentioned in page 7, the <i>in vivo</i> assessments of IgE-mediated allergic reactions consist of patch test. It is incorrect since the patch test is primarily used for suspected type IV of hypersensitivity reaction. Please take a look at a proper reference, such as the EAACI global atlas of allergy. 5) In page 9, 4th paragraph is started with a sentence "This method has also been used...". Which method do the authors refer? 6) What do the authors mean with "conducting other top-notch examinations"? It is unclear.	1) Cross-reactivity definition inserted in page 4 "immunologic cross-reactivity, which is defined as the immunological recognition by an IgE antibody of similar allergenic molecules (homologues) present in different foods, either molecules of closely related species either molecules with similar functions present in different species¹." 2) Explanation of existing <i>in vitro</i> allergen specific IgE assays is added: page 9-10 "<i>In vitro</i> assays available for specific IgE are several: Radio Allergo Sorbent Test (RAST), Enzyme immune assay (ELISA)¹⁶, ImmunoCAP and Immuno Solid phase Allergen Chip (ImmunoCap-ISAC) (table 2). In RAST a radioactive isotope is used to mark the IgE antibody bound to the allergen, the main disadvantage being the use of radioactivity. ELISA uses an enzyme marker that can be measured by fluorescence, it has lower sensitivity than the more recent methods. ImmunoCAP uses a tridimensional cellulose structure that enhances the allergen-antibody bound and then an antibody enzyme marked with fluorescein¹⁶. ImmunoCAP-ISAC uses a miniaturized immunoassay platform of multiple



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		allergenic components immobilized in a microarray supported by biochip automatized technology. Both ImmunoCAP and ISAC have high specificity and high sensitivity although at low levels of specific IgE, ImmunoCap is more sensitive. The main advantage of ISAC is that a very small amount of blood is needed to assess more than 100 molecular components; the main disadvantage is that it is a semi quantitative and quite expensive method ^{1,16}.”. See also Table 2- Specific Ig E Assays 3) The information provided by the company website is quite clear and complete. That was why we used it. Anyway we agree to replace that reference -16- for a more suitable reference free of any disclosure conflict. 4) You are absolutely right about patch test being a Type IV test. It was a mistake. 5) Altered to: page 10 “The application of DNA technology (molecular biology and recombinant DNA techniques) allows the sequencing....” 6) Altered to: page 12 “This technique should be reserved for situations of complex allergies and polysensitization and always after conducting a thorough clinical investigation as first line approach and also after second line diagnostic exams like skin prick tests and other less
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		expensive specific IgE tests ^{1,8,18,19.}
<u>Minor</u> REVISION comments	1) Prepare a table of major allergens and their cross-reactivity. Also prepare a table comparing existing in vitro assays of analysing specific IgE. 2) Please explain a bit more of Profilins: does it belong to the "other large and heterogenous group of structural, catalytic and regulatory proteins" or something else? 3) Please re-check the grammar, since there are several disturbing grammar mistakes found in this manuscript e.g.: <i>* "...Are rarely associated with clinical symptoms"</i> (page 6 line 144-146): it does not have any subject. <i>* "Although it does not belong to the same taxonomic classification, certain proteins have identical amino acid sequences"</i> (page 7 line 159-160): there is a confusion between singular and plural subjects. 4) Please improve and update the references. A few of the references are questionable.	1) See Table 1 and 2 2) Yes they do. Altered to: page 8 "The profilins are proteins that act in the regulation of actin polymerization. They belong to the third group of heterogeneous structural, catalytic and regulatory proteins." 3) Grammar corrections done 4) References 1 and 16 were replaced, updated and improved
<u>Optional/General</u> comments		