

NEWSLETTER JUNE 2011

Welcome to the June edition of our Allergy and Autoimmunity newsletter.

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ALLERGY UPDATE

Diagnosis and management of soy-allergic patients

IgE-mediated allergy to soy might be the result of primary sensitisation, but could also result from cross-reactivity to birch-related tree pollen and a variety of legumes.¹⁻⁵

- IgE positivity to soy may be the result of different cross-reactivities, some without clinical reactions to soy.⁶⁻⁷
- For patients sensitised to birch pollen with a suspicion of soy allergy, testing for Gly m 4, could be valuable as it is under represented on tests based on extracts.^{4,5,8}



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Better identification of the soy-allergic patient...

The presence of specific IgE to the storage proteins Gly m 5 and Gly m 6 indicates real soy allergy and risk of severe reactions.^{2,3}

- Sensitisation to Gly m 4, a PR-10 protein, is common in patients allergic to birch-related tree pollen and indicates risk of reactions to soy. The reactions are often local, but might also be systemic.^{4,5,8,9}

References:

1. L'Hocine et al J. Crit Rev Food Sci Nutr 2007; 47:127-143.
2. Holzhauser T, et al. J Allergy Clin Immunol 2009; 123(2): 452-8.
3. Ito K et al. J Allergy Clin Immunol. 2011 in press.
4. Kleine-Tebbe J, et al. J Allergy Clin Immunol 2002; 110: 797-804.
5. Mittag D, et al. J Allergy Clin Immunol 2004; 113: 148-154.
6. Sampson HA. Clin Immunol. 2001; 107: 891-6.

Venom Update

Ves v 1 is now available

Completing the venom component panel, helping clinicians to better differentiate between bee and wasp allergy.

The panel can also aid in resolving double positivity due to CCD cross reactivity.

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Peanut allergy - Component testing can aid in the diagnosis and management of peanut allergic patients

With ImmunoCAP® allergen component tests, it is possible to differentiate between "true" peanut allergy and symptoms caused by cross-reactivity.



- In children, approximately 10% are considered peanut sensitised⁷ but only 1–2% are "truly" peanut allergic.^{8–10}
- Ara h 2 is the most important peanut allergen component but antibodies to Ara h 1 and/or Ara h 3 in addition increases the risk of severe reactions.^{1–3, 7}
- Patients with "true" peanut allergy often have antibodies to Ara h 2. However, in rare cases sensitisation to only Ara h 1 and/or Ara h 3 can occur.¹¹
- IgE antibodies to the Ara h 8 are seldom associated with systemic reactions but more often to local reactions like OAS (oral allergy syndrome).^{4,12}
- The amount of Ara h 9 in a peanut is low and severe reactions in peanut allergy are not so well documented. However, sensitisation to LTP (Lipid Transfer Protein) is generally associated with severe reactions in addition to OAS.^{5,6}

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RECOMMENDED TEST PROFILE: Peanut (f13) and Ara h 1 and Ara h 2 and Ara h 3 and Ara h 9* and Ara h 8*				
RESULTS:				
Peanut (f13)	Ara h 1 / Ara h 2 / Ara h 3	Ara h 9*	Ara h 8*	
+	+	+	-	Risk for severe reactions to peanut
+	-	+	+	Risk for reactions to peanut due to cross reactivity

* According to local exposure

References:

1. Astier C. et al. J Allergy Clin Immunol 2006; 118: 250-256
2. Flinterman AE. Et al. Clin Exp Allergy 2007; 37(8):1221-1228
3. Peeters KABM et al. Clin Exp Allergy 2007;37(1):108-115
4. Codreanu et al. Int.Arch.Allergy.Immunol 2011;154: 216-226
5. Mittag D et al. J Allergy Clin Immunol 2004;114: 1410-1417
6. Lauer I. et al. Clin Exp Allergy 2009;39: 1427-1437
7. Krause S. et al. J Allergy Clin Immunol 2009;124: 771-778

AUTOIMMUNITY UPDATE

Autoimmunity - What's new on the Phadia platform?

EliA - What's new 2011:

- **EliA Rheumatoid factor (RF) IgA**
- **EliA Rheumatoid factor (RF) IgM**
- **EliA MPOs (s = sensitive)**
- **EliA PM-Scl*** - Pinpoints PM-Scl Overlap, PM/DM and Scleroderma
- **RNA Pol III Well*** - 14-5599-01 2 x 12 human recombinant RNA polymerase III protein

*available soon

EliA™ JOURNAL



NEW Literature...

New Journal based on ANCA and associated disease featuring the most recent MPO sensitive assay and its performance.

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New assays released in 2010:

- **EliA GliadinDP IgA/IgG** - superior performance with added clinical usefulness in children, particularly under 2 year olds.
- **EliA PR3S** - an improved "capture" assay with improved sensitivity for Wegeners
- **EliA CTD Screen** - dsDNA, U1RNP (70, A, C), SmD, Ro (52, 60), La, Scl-70, Jo-1, CENP-B, Rib-P, Fibrillar, RNA Polymerase III, PM-Scl 100, PCNA, Mi-2
- **EliARo52** - a useful predictor for neonatal lupus – heart block
- **EliA Ro60** - proves to be more sensitive in SLE, ss, PM/DM
- **EliA Rib-P** - positively assures SLE and kidney/liver problems - now CE marked

RECENT PUBLICATIONS FEATURING EliA dsDNA

Autoantibodies to double-stranded DNA - Intermethod comparison between four commercial immunoassays and a research biosensor-based device

Fiegel F, Buhl A, Jaekel H-P, Werle E, Schmolke M, Ollert M, Luppa PB *Lupus* 2010; 19: 957-964

ELISA methods EliA, Farrzyme and Bindazyme have similar diagnostic performance characteristics compared with the classical Farr RIA, often regarded as the gold-standard for anti-dsDNA measurement. Furthermore, these immunoassays were compared to the SPR biosensor method.

In this study the authors investigated the assay performance characteristics of five different methods for the determination of anti-dsDNA in sera from SLE patients.

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Diagnosing systemic lupus erythematosus: new-generation immunoassays for measurement of anti-dsDNA antibodies are an effective alternative to the Farr technique and the Crithidia luciliae immunofluorescence test

Antico A, Platzgummer S, Bassetti D, Bizzaro N, Tozzoli R, Villalta D *Lupus* (2010); doi:10.1177/0961203310362995

The EliA dsDNA assay performs very well, providing the best specificity, positive predictive value and post-test probability in this study.

For a copy of this publication, please email marketing@abacus-als.com

New Format CCP Kit from MBL

As recently advised the new format evaluation kits will be available in July for customers – thanks for letting us know the numbers.

Primate adsorbed conjugate to be included in IMMCO IFA kits

As part of IMMCO's product improvement process they will be incorporating a product enhancement into several IFA products that utilise primate tissues and an IgG FITC conjugate.

In the past, IMMCO has offered an optional conjugate for use with these kits that minimises potential background caused by heterophile reactions. Use of this conjugate makes the reactions much easier to read.

From May 2011 on, the primate adsorbed IgG FITC conjugate (part number 2099) will be included in the following kits as the conjugate with no increase in kit price.

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DIABETES UPDATE

RSR Zinc Transporter 8 (ZNT8) ELISA Kit

Type 1 diabetes (immune-mediated diabetes) accounts for approximately 10 to 15% of the total diabetic population.

Autoantibodies to glutamic-acid decarboxylase (GAD Ab), protein tyrosine IA-2 (IA-2 Ab), and insulin (IAA) are regarded as well-defined markers of autoimmune diabetes.

Moving forward we now can measure antibodies to zinc transporter 8 (ZnT8 Ab), a distinct and additional auto-antigen of immune-mediated diabetes.

Antibodies to ZnT8 have been identified in type 1 diabetes patients serologically negative for existing markers (GAD, IA-2 and IAA), thereby rendering its measurement useful in select indications.

ZnT8 is an independent marker for type 1 DM and combined with GAD, IA-2 and IAA for increased sensitivity for childhood and adolescent type 1

References

J. M. Wenzlau et al

"The cation efflux transporter ZnT8 (Slc30A8) is a major autoantigen in human type I diabetes."

PNAS 2007 104:17040-17045

P. Achenbach et al

"Autoantibodies to zinc transporter 8 and SLc30A8 genotype stratify type 1 diabetes risk."

Diabetologia 2009 52:1881-1888

RSR IA-2 (Version 2)

Another recent development within the RSR diabetes assays - an improved IA-2 ELISA assay that performs much more favourably against the IA-2 RIA assay.

One reason for altering the assay was to deal with the difficulty some labs have in maintaining 18- 22°C for the IA-2-biotin incubation step as well as modifying calibrators to maintain calibration with NIBSC 97/550 standardisation.

RSR are able to provide the additional components that are often needed for automation e.g. further controls, wash etc.

For all of your allergy and autoimmune needs,
please contact Abacus ALS

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