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INTRODUCING THE ALLERGY XPLORER 3 (ALEX³) TEST

The diagnosis of an allergy involves thorough history taking and diagnostic blood, skin prick and/or provocation tests. Blood tests can be divided into IgE-mediated and non-IgE-mediated tests. Blood tests for specific IgE antibodies against allergens are safe and do not require medication to be withdrawn prior to testing. The IgE-mediated blood tests consist of screening panels (Phadiatop inhalant and food mix IgE) and specific IgE tests directed at individual allergen extracts with or without allergen molecular components.

Allergy Xplorer (ALEX³) will replace the ALEX² test at the same cost, and incorporates some exciting new allergens, which includes **alpha-gal (red meat), shrimp mix, Whiteleg shrimp, Giant freshwater prawn, coconut, pine nut, maize pollen, oak tree pollen, Golden hamster and Bald-faced hornet venom**. The ALEX³ is also a multiplex IgE immunoassay in the form of a chip-based macroarray. It contains both whole allergen extracts and molecular allergen components. This multiplex allergy test simultaneously measures multiple allergens in one test. It is a cost-effective way to examine IgE sensitisation patterns, especially in patients with complex symptoms, poly-sensitisation and high levels of total serum IgE. The use of a cross-reactive carbohydrate determinant (CCD) inhibitor reduces the reporting of clinically irrelevant cross-reactivity.

A personalised, user-friendly and interpretive report outlining the allergy profile, together with relevant supporting information, will still be provided.

GROUPS OF ALLERGENS TESTED WITH ALEX³

 INHALANTS	 FOOD	 VENOMS
<ul style="list-style-type: none"> Grass, tree and weed pollen House dust mite and storage mite Pets e.g. dog, cat, guinea pig, mouse, hamster and rabbit Farm animals e.g. pig, sheep, horse and cow Mould and yeast Cockroach 	<p>Plant-based</p> <ul style="list-style-type: none"> Nuts and tree nuts e.g. cashew, Brazil nuts, pecan, hazelnut, walnut, macadamia, pistachio and almonds Legumes e.g. peanut, soy, chickpea, lentils and pea Seeds e.g. pumpkin, sunflower, poppy and sesame Grains e.g. oats, quinoa, barley, wheat and maize Spices e.g. mustard seed Vegetables e.g. onion, tomato, potato, celery and garlic Fruit e.g. peach, apple, banana, strawberry, kiwi, papaya, pear, mango and fig <p>Animal-based</p> <ul style="list-style-type: none"> Milk e.g. cow, camel, goat, mare and sheep Egg white and egg yolk Meat e.g. cow, chicken, turkey, lamb, pork and alpha-gal (red meat) <p>Seafood</p> <ul style="list-style-type: none"> Cod, tuna, salmon, crab, squid, prawn/shrimp and anisakis (herring worm) <p>Edible insects</p> <ul style="list-style-type: none"> Mealworms, crickets and locust 	<ul style="list-style-type: none"> Ant, bee and wasp
		<p> OTHER</p> <ul style="list-style-type: none"> Latex



CROSS-REACTIVE COMPONENTS

CCD, PR-10, profilin, lipid transfer protein (LTP), serum albumin, parvalbumin, tropomyosin, storage proteins and lipocalins, cyclophilins and defensins

Note: These are examples of allergens detected with ALEX³ and are not an exhaustive list of allergens included in the test panel.

CONCLUSION

The ALEX³ test has replaced the ALEX² test and will continue to aid in allergy management through accurate and affordable IgE-mediated allergy diagnosis and risk assessment. An accurate diagnosis can guide appropriate allergen avoidance strategies, medical therapy and/or immunotherapy, with the aim of improving patients' symptom control and quality of life.

For more information, contact the NRL Immunology Laboratory on 012 678 0613/4.