Lab Ref. No	: **SDA260047951**	Centre	: DR DANGS LAB
Name	: **MR. DUMMY**	Client	: DR DANGS LAB
Age / Gender	: 23 Y 0 M 0 D /MALE	Collection Time	: 11-11-2026 06:23 PM
Ref. By Dr	: SELF	Reporting Time	: 12-11-2026 06:05 PM
		Report Status	: Amended

DEPARTMENT OF ALLERGY

TEST (METHODOLOGY)	RESULT	UNIT	BIO. REF. INTERVAL
ALLERGYNIUS CRD Dx COMPREHENSIVE ALLERGY PROFILE (148 Allergens & 299 Components)			

COMMENT: OUT OF THE 299 ALLERGEN COMPONENTS THAT WERE TESTED, 65 ALLERGEN COMPONENTS ARE POSITIVE & HAD SPECIFIC IGE LEVELS OF ≥ 0.3 KUA/L.

***** End Of Report *****

DR. ARJUN DANG
M.D. (PATHOLOGY)

SAMPLE REPORT

DR. DANGS LAB LLP - C2/1, AUROBINDO MARG, S.D.A., NEW DELHI-110016
GURUGRAM | NEW FRIENDS COLONY | PUNJABI BAGH | KAMLA NAGAR | VASANT KUNJ | GREATER KAILASH - 1
WWW.DRDANGSLAB.COM | INFO@DRDANGSLAB.COM | 999-999-2020, 011-45004200 (Sunday Closed)

Dr. Manju Dang - M.D. Pathology | Prof (Dr.) Navin Dang - M.D. Microbiology
---
Dr. Manavi Dang - M.D. Pathology | Dr. Arjun Dang - M.D. Pathology

DR.DANGS LAB

PATIENT CODE
SDA000000000

PATIENT NAME
MR. DUMMY (ALEX-3)

SAMPLE CODE
AL000000

QR-CODE
03EHT16C

DOCTOR INFORMATION

QC RESULT
The automatic QC was within the acceptance range.

LAB REPORT

Summary of detectable sensitisations

ALEX ALLERGY XPLORER

POLLEN
Grass Pollen
Tree Pollen
Weed Pollen

MITES
House Dust Mites & Storage Mites

DANDER & EPITHELIA
Farm Animals
Pets

MICROORGANISMS
Fungal Spores & Yeast

INSECTS
Cockroach

VENOMS
Ant, Bee, Wasp, Hornet

PLANT-BASED FOOD
Fruits
Grains
Legumes
Nuts & Seeds
Spices
Vegetables

ANIMAL-BASED FOOD
Egg
Fish & Seafood
Meat
Milk

OTHERS
CCD
Ficus
Latex
Parasite

Measured IgE concentration ranges per allergen group

<0.3 kU_A/L	0.3-1 kU_A/L	1-5 kU_A/L	5-15 kU_A/L	>15 kU_A/L
Negative or uncertain	Low IgE level	Moderate IgE level	High IgE level	Very high IgE level

SAMPLE REPORT

Summary of all results. Please note that no components were added to the respective extracts (i.e., the extracts were not spiked).

Pollen

Grass Pollen

Name	E/M	Allergen	Allergen family	kU_A/L
Bahia grass	⁘	Pas n		0.31
Bermuda grass	◉	Cyn d 1	β-Expansin	1.03
Common reed	⁘	Phr c		< 0.10
Maize pollen	◉	Zea m 1	β-Expansin	0.14
Rye pollen	⁘	Sec c_pollen		< 0.10
Timothy grass	◉	Phl p 1	β-Expansin	1.37
	◉	Phl p 12	Profilin	< 0.10
	◉	Phl p 2	Expansin	< 0.10
	◉	Phl p 5.0101	Grass Group 5/6	< 0.10
	◉	Phl p 6	Grass Group 5/6	< 0.10
	◉	Phl p 7	Polcalcin	< 0.10

Tree Pollen

Name	E/M	Allergen	Allergen family	kU_A/L
Acacia	⁘	Aca m		< 0.10
Alder	◉	Aln g 1	PR-10	< 0.10
	◉	Aln g 4	Polcalcin	0.41
Arizona cypress	◉	Cup a 1	Pectate Lyase	< 0.10
Ash	◉	Fra e 1	Ole e 1 Family	< 0.10
Cypress	⁘	Cup s		< 0.10
London plane tree	◉	Pla a 1	Plant Invertase	< 0.10
	◉	Pla a 2	Polygalacturonase	< 0.10
	◉	Pla a 3	nsLTP	< 0.10
Mountain cedar	⁘	Jun a		< 0.10
Oak	◉	Que a 1	PR-10	0.29
Olive	◉	Ole e 1	Ole e 1 Family	0.23
	◉	Ole e 7	nsLTP	< 0.10
	◉	Ole e 9	β-1,3-Glucanase	< 0.10
Paper mulberry	⁘	Bro pa		< 0.10
Silver birch	◉	Bet v 1	PR-10	< 0.10
	◉	Bet v 6	Isoflavon Reductase	< 0.10
	◉	Bet v 7	Cyclophilin	< 0.10
Sugi	◉	Cry j 1	Pectate Lyase	0.53
Tree of heaven	⁘	Ail a		0.24
Walnut	⁘	Jug r_pollen		< 0.10

SAMPLE REPORT

Weed Pollen

Name	E/M	Allergen	Allergen family	kU_A/L
Hemp	⁘	Can s		< 0.10
	⊙	Can s 3	nsLTP	< 0.10
Lamb's quarter	⁘	Che a		< 0.10
	⊙	Che a 1	Ole e 1 Family	< 0.10
Mugwort	⁘	Art v		0.11
	⊙	Art v 1	Plant Defensin	< 0.10
	⊙	Art v 3	nsLTP	0.29
Pigweed	⁘	Ama r		< 0.10
Ragweed	⁘	Amb a		0.20
	⊙	Amb a 1	Pectate Lyase	< 0.10
	⊙	Amb a 4	Plant Defensin	< 0.10
Ribwort	⊙	Pla l 1	Ole e 1 Family	< 0.10
Russian thistle	⁘	Sal k		0.14
	⊙	Sal k 1	Pectin Methylesterase	< 0.10
	⊙	Sal k 5	Ole e 1 Family	0.63
Wall pellitory	⁘	Par j		0.27
	⊙	Par j 2	nsLTP	0.65

Mites

House Dust Mites & Storage Mites

Name	E/M	Allergen	Allergen family	kU_A/L
Acarus siro	⁘	Aca s		0.13
American house dust mite	⊙	Der f 1	Cysteine Protease	0.12
	⊙	Der f 15	Chitinase	< 0.10
	⊙	Der f 18	Chitinase-like Protein	< 0.10
	⊙	Der f 2	NPC2 Family	< 0.10
Blomia tropicalis	⊙	Blo t 10	Tropomyosin	0.17
	⊙	Blo t 21	Mite Group 5/21	< 0.10
	⊙	Blo t 5	Mite Group 5/21	< 0.10
	⊙	Blo t 2	NPC2 Family	< 0.10
European house dust mite	⊙	Der p 1	Cysteine Protease	< 0.10
	⊙	Der p 10	Tropomyosin	< 0.10
	⊙	Der p 2	NPC2 Family	< 0.10
	⊙	Der p 20	Arginine Kinase	< 0.10
	⊙	Der p 21	Mite Group 5/21	0.29
	⊙	Der p 23	Peritrophin-like Protein Domain	< 0.10
	⊙	Der p 5	Mite Group 5/21	< 0.10
	⊙	Der p 7	Mite Group 7	0.29
Glycyphagus domesticus	⊙	Gly d 2	NPC2 Family	0.25

SAMPLE REPORT

Name	E/M	Allergen	Allergen family	kU_A/L
Lepidoglyphus destructor	⦿	Lep d 2	NPC2 Family	0.23
Tyrophagus putrescentiae	⁘	Tyr p		0.17
	⦿	Tyr p 10	Tropomyosin	0.18
	⦿	Tyr p 2	NPC2 Family	0.15

Dander & Epithelia

Farm Animals

Name	E/M	Allergen	Allergen family	kU_A/L
Cattle	⦿	Bos d 2	Lipocalin	0.52
Goat	⁘	Cap h_epithelia		< 0.10
Horse	⦿	Equ c 1	Lipocalin	< 0.10
	⦿	Equ c 3	Serum Albumin	< 0.10
	⦿	Equ c 4	Latherin	0.24
Pig	⁘	Sus d_epithelia		< 0.10

Pets

Name	E/M	Allergen	Allergen family	kU_A/L
Cat	⦿	Fel d 1	Uteroglobin	< 0.10
	⦿	Fel d 2	Serum Albumin	< 0.10
	⦿	Fel d 4	Lipocalin	< 0.10
	⦿	Fel d 7	Lipocalin	0.80
Djungarian hamster	⦿	Phod s 1	Lipocalin	< 0.10
Dog	⦿	Can f 1	Lipocalin	< 0.10
	⦿	Can f 2	Lipocalin	< 0.10
	⦿	Can f 3	Serum Albumin	< 0.10
	⦿	Can f 4	Lipocalin	< 0.10
	⦿	Can f 6	Lipocalin	< 0.10
	⦿	Can f Fel d 1 like	Uteroglobin	0.15
Dog urine (incl. Can f 5)	⁘	Can f_male urine		0.23
Golden hamster	⦿	Mes a 1	Lipocalin	< 0.10
Guinea pig	⦿	Cav p 1	Lipocalin	0.40
Mouse	⦿	Mus m 1	Lipocalin	0.21
Rabbit	⦿	Ory c 1	Lipocalin	< 0.10
	⦿	Ory c 2	Lipocalin	< 0.10
	⦿	Ory c 3	Uteroglobin	< 0.10
Rat	⦿	Rat n 1	Lipocalin	< 0.10

Microorganisms

Fungal Spores & Yeast

SAMPLE REPORT

Name	E/M	Allergen	Allergen family	kU_A/L
Alternaria alternata	⦿	Alt a 1	Alt a 1 Family	0.12
	⦿	Alt a 6	Enolase	< 0.10
Aspergillus fumigatus	⦿	Asp f 1	Mitogillin Family	< 0.10
	⦿	Asp f 3	Peroxysomal Protein	< 0.10
	⦿	Asp f 4	Unknown	0.51
	⦿	Asp f 6	Mn Superoxide Dismutase	< 0.10
	⦿	Asp f 8	Ribosomal Protein P2	< 0.10
Cladosporium herbarum	⁘	Cla h		< 0.10
	⦿	Cla h 8	Mannitol Dehydrogenase	< 0.10
Malassezia sympodialis	⦿	Mala s 11	Mn Superoxide Dismutase	0.27
	⦿	Mala s 13	Thioredoxin	0.67
	⦿	Mala s 5	Unknown	< 0.10
	⦿	Mala s 6	Cyclophilin	< 0.10
Penicilium chrysogenum	⁘	Pen ch		< 0.10

Insects

Cockroach

Name	E/M	Allergen	Allergen family	kU_A/L
American cockroach	⁘	Per a		0.11
	⦿	Per a 6	Troponin C	0.33
	⦿	Per a 7	Tropomyosin	0.43
German cockroach	⦿	Bla g 1	Nitrile Specifier	< 0.10
	⦿	Bla g 2	Aspartic Protease	< 0.10
	⦿	Bla g 4	Lipocalin	< 0.10
	⦿	Bla g 5	Glutathione S-Transferase	< 0.10
	⦿	Bla g 9	Arginine Kinase	< 0.10

Venoms

Ant, Bee, Wasp, Hornet

Name	E/M	Allergen	Allergen family	kU_A/L
Bald-faced Hornet	⦿	Dol m 2	Hyaluronidase	< 0.10
	⦿	Dol m 5	Antigen 5	< 0.10
Common wasp	⦿	Ves v 1	Phospholipase A1	< 0.10
	⦿	Ves v 5	Antigen 5	0.17
Fire ant	⁘	Sol spp		< 0.10
Honey bee	⁘	Api m		< 0.10
	⦿	Api m 1	Phospholipase A2	< 0.10
	⦿	Api m 10	Icarapin Variant 2	0.53
	⦿	Api m 2	Hyaluronidase	< 0.10
Paper wasp	⁘	Pol d		0.16

SAMPLE REPORT

Name	E/M	Allergen	Allergen family	kU$_A$/L
	⦿	Pol d 5	Antigen 5	< 0.10

Plant-Based Food

Fruits

Name	E/M	Allergen	Allergen family	kU$_A$/L
Apple	⦿	Mal d 1	PR-10	0.38
	⦿	Mal d 3	nsLTP	0.22
Avocado	⁘	Pers a		< 0.10
	⦿	Pers a 1	Class 1 Chitinase	0.47
Banana	⦿	Mus a 2	Class 1 Chitinase	0.47
	⦿	Mus a 5	β-1,3-Glucanase	< 0.10
Cherry	⦿	Pru av 3	nsLTP	< 0.10
Coconut	⦿	Coc n 1	7/8S Globulin	< 0.10
Fig	⁘	Fic c		< 0.10
Grape	⦿	Vit v 1	nsLTP	< 0.10
Kiwi	⦿	Act d 1	Cysteine Protease	0.61
	⦿	Act d 10	nsLTP	1.37
	⦿	Act d 2	Thaumatin-like Protein	< 0.10
	⦿	Act d 5	Kiwellin	0.28
Mango	⦿	Man i 1	Class 4 Chitinase	< 0.10
Muskmelon	⦿	Cuc m 2	Profilin	< 0.10
Papaya	⁘	Car p		< 0.10
Peach	⦿	Pru p 3	nsLTP	< 0.10
	⦿	Pru p 7	Gibberellin-regulated Protein	< 0.10
Pear	⁘	Pyr c		< 0.10
Strawberry	⦿	Fra a 3	nsLTP	< 0.10

Grains

Name	E/M	Allergen	Allergen family	kU$_A$/L
Barley	⁘	Hor v		< 0.10
Buckwheat	⁘	Fag e		0.66
	⦿	Fag e 2	2S Albumin	0.68
Cultivated rye	⁘	Sec c_flour		0.57
Lupine seed	⁘	Lup a		0.40
Maize	⁘	Zea m		0.28
	⦿	Zea m 14	nsLTP	0.17
Millet	⁘	Pan m		0.41
Oat	⁘	Ave s		0.63
Quinoa	⁘	Che q		0.60
Spelt	⁘	Tri s		0.30
Wheat	⦿	Tri a 14	nsLTP	< 0.10

SAMPLE REPORT

Name	E/M	Allergen	Allergen family	kU$_A$/L
	⦿	Tri a 19	Ω-5-Gliadin	0.77
	⦿	Tri a 36	Low Molecular Weight Glutenin	< 0.10
	⦿	Tri a 37	α-Purothionin	0.39
	⦿	Tri a aA_TI	α-Amylase Trypsin-Inhibitor	0.15

Legumes

Name	E/M	Allergen	Allergen family	kU$_A$/L
Chickpea	⁘	Cic a		< 0.10
Lentil	⦿	Len c 1	7/8S Globulin	< 0.10
	⦿	Len c 3	nsLTP	< 0.10
Pea	⦿	Pis s 1	7/8S Globulin	< 0.10
	⦿	Pis s 2	7/8S Globulin	< 0.10
	⦿	Pis s 3	nsLTP	0.20
Peanut	⦿	Ara h 1	7/8S Globulin	< 0.10
	⦿	Ara h 15	Oleosin	1.82
	⦿	Ara h 18	Cyclophilin	< 0.10
	⦿	Ara h 2	2S Albumin	1.55
	⦿	Ara h 3	11S Globulin	< 0.10
	⦿	Ara h 6	2S Albumin	1.52
	⦿	Ara h 8	PR-10	0.76
	⦿	Ara h 9	nsLTP	< 0.10
Soy	⦿	Gly m 4	PR-10	< 0.10
	⦿	Gly m 5	7/8S Globulin	< 0.10
	⦿	Gly m 6	11S Globulin	< 0.10
	⦿	Gly m 8	2S Albumin	0.93

Nuts & Seeds

Name	E/M	Allergen	Allergen family	kU$_A$/L
Almond	⁘	Pru du		0.26
	⦿	Pru du 6	11S Globulin	< 0.10
Brazil nut	⁘	Ber e		0.32
	⦿	Ber e 1	2S Albumin	1.22
Cashew	⦿	Ana o 1	7/8S Globulin	< 0.10
	⦿	Ana o 2	11S Globulin	0.54
	⦿	Ana o 3	2S Albumin	0.45
Hazelnut	⦿	Cor a 1.0401	PR-10	0.12
	⦿	Cor a 11	7/8S Globulin	1.78
	⦿	Cor a 14	2S Albumin	0.47
	⦿	Cor a 8	nsLTP	0.23
	⦿	Cor a 9	11S Globulin	1.21
Macadamia	⦿	Mac i 1.0101 (28-76)	α-Hairpinin	0.22

SAMPLE REPORT

Name	E/M	Allergen	Allergen family	kU_A/L
	⁘	Mac i		0.57
Pecan	⁘	Car i		0.71
	⊙	Car i 1	2S Albumin	< 0.10
	⊙	Car i 2 (256-386)	7/8S Globulin	0.27
	⊙	Car i 4	11S Globulin	< 0.10
Pine nut	⁘	Pin p		< 0.10
	⊙	Pin p 1	2S Albumin	< 0.10
Pistachio	⊙	Pis v 1	2S Albumin	0.12
	⊙	Pis v 2	11S Globulin	< 0.10
	⊙	Pis v 3	7/8S Globulin	0.14
Poppy seed	⁘	Pap s		< 0.10
	⊙	Pap s 1.0101 (27-846)	α-Hairpinin	0.14
Pumpkin seed	⁘	Cuc p		0.39
Sesame	⁘	Ses i		0.38
	⊙	Ses i 1	2S Albumin	0.17
Sunflower seed	⁘	Hel a		0.57
	⊙	Hel a 3	nsLTP	< 0.10
Walnut	⊙	Jug r 1	2S Albumin	< 0.10
	⊙	Jug r 2	7/8S Globulin	< 0.10
	⊙	Jug r 3	nsLTP	< 0.10
	⊙	Jug r 4	11S Globulin	< 0.10
	⊙	Jug r 6	7/8S Globulin	0.15

Spices

Name	E/M	Allergen	Allergen family	kU_A/L
Mustard	⁘	Sin a		< 0.10
	⊙	Sin a 1	2S Albumin	< 0.10

Vegetables

Name	E/M	Allergen	Allergen family	kU_A/L
Celery	⊙	Api g 1	PR-10	< 0.10
	⊙	Api g 2	nsLTP	0.14
	⊙	Api g 6	nsLTP	< 0.10
	⊙	Api g 7	Plant Defensin	0.16
Garlic	⁘	All s		< 0.10
Onion	⁘	All c		< 0.10
Potato	⁘	Sol t		0.33
Tomato	⁘	Sola l		0.18
	⊙	Sola l 6	nsLTP	0.17

Animal-Based Food

SAMPLE REPORT

Egg

Name	E/M	Allergen	Allergen family	kU$_A$/L
Egg white	◉	Gal d 1	Ovomucoid	< 0.10
	◉	Gal d 2	Ovalbumin	< 0.10
	◉	Gal d 3	Ovotransferrin	< 0.10
	◉	Gal d 4	Lysozyme C	< 0.10
	⁘	Gal d_white		< 0.10
Egg yolk	◉	Gal d 5	Serum Albumin	< 0.10
	⁘	Gal d_yolk		0.40

Fish & Seafood

Name	E/M	Allergen	Allergen family	kU$_A$/L
Anisakis simplex	◉	Ani s 1	Kunitz Serine Protease Inhibitor	0.47
	◉	Ani s 3	Tropomyosin	< 0.10
Atlantic cod	◉	Gad m 1	β-Parvalbumin	< 0.10
Atlantic mackerel	⁘	Sco s		< 0.10
	◉	Sco s 1	β-Parvalbumin	0.45
Black tiger shrimp	◉	Pen m 1	Tropomyosin	0.18
	◉	Pen m 2	Arginine Kinase	1.06
	◉	Pen m 3	Myosin Light Chain	0.56
	◉	Pen m 4	Sarcoplasmic Calcium-binding Protein	< 0.10
Brown shrimp	◉	Cra c 6	Troponin C	< 0.10
Carp	◉	Cyp c 1	β-Parvalbumin	0.15
	◉	Cyp c 2	Enolase	< 0.10
Crab	⁘	Chi spp		0.69
Giant freshwater prawn	◉	Mac r 1	Tropomyosin	< 0.10
	◉	Mac r 2	Arginine Kinase	0.10
Herring	⁘	Clu h		< 0.10
	◉	Clu h 1	β-Parvalbumin	0.19
Lobster	⁘	Hom g		< 0.10
Northern prawn	⁘	Pan b		< 0.10
Salmon	⁘	Sal s		< 0.10
	◉	Sal s 1	β-Parvalbumin	0.27
	◉	Sal s 6	Collagen	< 0.10
Shrimp	⁘	Lit spp		0.23
Squid	⁘	Lol spp		0.40
Swordfish	◉	Xip g 1	β-Parvalbumin	0.10
Thornback ray	⁘	Raj c		< 0.10
	◉	Raj c Parvalbumin	α-Parvalbumin	0.38
Tuna	◉	Thu a 1	β-Parvalbumin	0.71
Venus clam	⁘	Rud spp		0.17
Whiteleg shrimp	◉	Lit v 7	Hemocyanin	< 0.10

SAMPLE REPORT

Meat

Name	E/M	Allergen	Allergen family	kU_A/L
Beef	◉	Bos d 6	Serum Albumin	< 0.10
	⁘	Bos d_meat		< 0.10
Chicken	◉	Gal d 7	Myosin Light Chain	< 0.10
	⁘	Gal d_meat		< 0.10
Horse	⁘	Equ c_meat		0.20
House cricket	⁘	Ach d		0.88
Lamb	⁘	Ovi a_meat		< 0.10
Mealworm	⁘	Ten m		0.87
Migratory locust	⁘	Loc m		1.25
Pork	◉	Sus d 1	Serum Albumin	< 0.10
Rabbit	⁘	Ory c_meat		< 0.10
Red meat	◉	Alpha-GAL	α-Gal	0.78
Turkey	⁘	Mel g		< 0.10

Milk

Name	E/M	Allergen	Allergen family	kU_A/L
Camel's milk	⁘	Cam d		0.15
Cow's milk	◉	Bos d 10	α-S2 Casein	< 0.10
	◉	Bos d 11	β-Casein	< 0.10
	◉	Bos d 12	κ-Casein	< 0.10
	◉	Bos d 4	α-Lactalbumin	0.82
	◉	Bos d 5	β-Lactoglobulin	< 0.10
	◉	Bos d 8	Casein	0.25
	◉	Bos d 9	α-S1 Casein	< 0.10
	⁘	Bos d_milk		< 0.10
Goat's milk	⁘	Cap h_milk		0.44
Mare's milk	⁘	Equ c_milk		0.61
Sheep's milk	⁘	Ovi a_milk		0.15

Others

CCD

Name	E/M	Allergen	Allergen family	kU_A/L
Hom s Lactoferrin	◉	Hom s LF	CCD	< 0.10

Ficus

Name	E/M	Allergen	Allergen family	kU_A/L
Weeping fig	⁘	Fic b		< 0.10

SAMPLE REPORT

Latex

Name	E/M	Allergen	Allergen family	kU_A/L
Latex	⦿	Hev b 1	Rubber Elongation Factor	0.21
	⦿	Hev b 11	Class 1 Chitinase	< 0.10
	⦿	Hev b 3	Small Rubber Particle Protein	0.80
	⦿	Hev b 5	Unknown	< 0.10
	⦿	Hev b 6.02	Pro-Hevein	< 0.10

Parasite

Name	E/M	Allergen	Allergen family	kU_A/L
Pigeon tick	⦿	Arg r 1	Lipocalin	< 0.10

Information to cross-reactive allergens

PR-10

PR-10 allergens show a high degree of cross-reactivity.
PR-10 inhalative:
The major birch pollen allergen, Bet v 1, represents the prototype of all PR-10 allergens and is the primary sensitiser in regions with birch pollen exposure. The presence of PR-10 allergens in Fagales tree pollen explains IgE cross-reactivity between pollen from hazel, alder, beech, oak and hornbeam.
PR-10 nutritive:
PR-10 allergens in raw fruits, nuts, vegetable and legumes can induce oral allergy syndrome and sometimes severe allergic reactions in sensitised individuals, if a high amount of the respective allergen is consumed. PR-10 allergens are not stable to processing.

Name	E/M	Allergen	Allergen family	kU_A/L
Alder	⦿	Aln g 1	PR-10	< 0.10
Apple	⦿	Mal d 1	PR-10	0.38
Celery	⦿	Api g 1	PR-10	< 0.10
Hazelnut	⦿	Cor a 1.0401	PR-10	0.12
Oak	⦿	Que a 1	PR-10	0.29
Peanut	⦿	Ara h 8	PR-10	0.76
Silver birch	⦿	Bet v 1	PR-10	< 0.10
Soy	⦿	Gly m 4	PR-10	< 0.10

nsLTP

nsLTPs show a high degree of cross-reactivity within plant family borders (e.g. stone-fruit, Rosaceae).
nsLTPs are the most prevalent plant-food allergens in Southern Europe. The clinical reactions can be systemic and severe, especially when not associated to birch pollinosis. Pru p 3, the major allergen of peach, plays a precursor role in the sensitization to other nsLTPs. Relevant nsLTPs containing plant-foods belong not only to Rosaceae family (incl. stone- and pomaceous fruit), but also to the nuts and legumes group, as well as to cereals such as wheat, maize and rice. nsLTPs are stable to processing.

Name	E/M	Allergen	Allergen family	kU_A/L
Apple	⦿	Mal d 3	nsLTP	0.22
Celery	⦿	Api g 2	nsLTP	0.14
	⦿	Api g 6	nsLTP	< 0.10
Cherry	⦿	Pru av 3	nsLTP	< 0.10
Grape	⦿	Vit v 1	nsLTP	< 0.10
Hazelnut	⦿	Cor a 8	nsLTP	0.23
Hemp	⦿	Can s 3	nsLTP	< 0.10
Kiwi	⦿	Act d 10	nsLTP	1.37

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Name	E/M	Allergen	Allergen family	kU_A/L
Lentil	⦿	Len c 3	nsLTP	< 0.10
London plane tree	⦿	Pla a 3	nsLTP	< 0.10
Maize	⦿	Zea m 14	nsLTP	0.17
Mugwort	⦿	Art v 3	nsLTP	0.29
Olive	⦿	Ole e 7	nsLTP	< 0.10
Pea	⦿	Pis s 3	nsLTP	0.20
Peach	⦿	Pru p 3	nsLTP	< 0.10
Peanut	⦿	Ara h 9	nsLTP	< 0.10
Strawberry	⦿	Fra a 3	nsLTP	< 0.10
Sunflower seed	⦿	Hel a 3	nsLTP	< 0.10
Tomato	⦿	Sola l 6	nsLTP	0.17
Wall pellitory	⦿	Par j 2	nsLTP	0.65
Walnut	⦿	Jug r 3	nsLTP	< 0.10
Wheat	⦿	Tri a 14	nsLTP	< 0.10

Storage Proteins

Storage proteins show a limited degree of cross-reactivity.
Storage proteins are major allergens in legumes (e.g. peanut or soy), tree nuts (e.g. wal- or hazelnut) and other seeds (e.g. buckwheat, sesame, mustard). Storage proteins are the major cause of severe allergic reactions, including anaphylaxis. Storage proteins are stable to processing.

Name	E/M	Allergen	Allergen family	kU_A/L
Almond	⦿	Pru du 6	11S Globulin	< 0.10
Brazil nut	⦿	Ber e 1	2S Albumin	1.22
Buckwheat	⦿	Fag e 2	2S Albumin	0.68
Cashew	⦿	Ana o 1	7/8S Globulin	< 0.10
	⦿	Ana o 2	11S Globulin	0.54
	⦿	Ana o 3	2S Albumin	0.45
Coconut	⦿	Coc n 1	7/8S Globulin	< 0.10
Hazelnut	⦿	Cor a 11	7/8S Globulin	1.78
	⦿	Cor a 14	2S Albumin	0.47
	⦿	Cor a 9	11S Globulin	1.21
Lentil	⦿	Len c 1	7/8S Globulin	< 0.10
Macadamia	⦿	Mac i 1.0101 (28-76)	α-Hairpinin	0.22
Mustard	⦿	Sin a 1	2S Albumin	< 0.10
Pea	⦿	Pis s 1	7/8S Globulin	< 0.10
	⦿	Pis s 2	7/8S Globulin	< 0.10
Peanut	⦿	Ara h 1	7/8S Globulin	< 0.10
	⦿	Ara h 15	Oleosin	1.82
	⦿	Ara h 2	2S Albumin	1.55
	⦿	Ara h 3	11S Globulin	< 0.10
	⦿	Ara h 6	2S Albumin	1.52
Pecan	⦿	Car i 1	2S Albumin	< 0.10
	⦿	Car i 2 (256-386)	7/8S Globulin	0.27
	⦿	Car i 4	11S Globulin	< 0.10
Pine nut	⦿	Pin p 1	2S Albumin	< 0.10

SAMPLE REPORT

Name	E/M	Allergen	Allergen family	kU_A/L
Pistachio	⦿	Pis v 1	2S Albumin	0.12
	⦿	Pis v 2	11S Globulin	< 0.10
	⦿	Pis v 3	7/8S Globulin	0.14
Poppy seed	⦿	Pap s 1.0101 (27-846)	α-Hairpinin	0.14
Sesame	⦿	Ses i 1	2S Albumin	0.17
Soy	⦿	Gly m 5	7/8S Globulin	< 0.10
	⦿	Gly m 6	11S Globulin	< 0.10
	⦿	Gly m 8	2S Albumin	0.93
Walnut	⦿	Jug r 1	2S Albumin	< 0.10
	⦿	Jug r 2	7/8S Globulin	< 0.10
	⦿	Jug r 4	11S Globulin	< 0.10
	⦿	Jug r 6	7/8S Globulin	0.15

Lipocalin

Lipocalins show a limited degree of cross-reactivity.
Lipocalins are airborne and easily spread in indoor environments. They are a risk factor for respiratory symptoms and asthma. The impact of individual lipocalin allergens on severity of symptoms is unknown.

Name	E/M	Allergen	Allergen family	kU_A/L
Cat	⦿	Fel d 4	Lipocalin	< 0.10
	⦿	Fel d 7	Lipocalin	0.80
Cattle	⦿	Bos d 2	Lipocalin	0.52
Djungarian hamster	⦿	Phod s 1	Lipocalin	< 0.10
Dog	⦿	Can f 1	Lipocalin	< 0.10
	⦿	Can f 2	Lipocalin	< 0.10
	⦿	Can f 4	Lipocalin	< 0.10
	⦿	Can f 6	Lipocalin	< 0.10
German cockroach	⦿	Bla g 4	Lipocalin	< 0.10
Golden hamster	⦿	Mes a 1	Lipocalin	< 0.10
Guinea pig	⦿	Cav p 1	Lipocalin	0.40
Horse	⦿	Equ c 1	Lipocalin	< 0.10
Mouse	⦿	Mus m 1	Lipocalin	0.21
Pigeon tick	⦿	Arg r 1	Lipocalin	< 0.10
Rabbit	⦿	Ory c 1	Lipocalin	< 0.10
	⦿	Ory c 2	Lipocalin	< 0.10
Rat	⦿	Rat n 1	Lipocalin	< 0.10

Parvalbumin

Parvalbumins show a very high degree of cross-reactivity.
Clinical cross-reactivity between different fish species is explained by highly conserved parvalbumin IgE epitopes. Parvalbumins are food and respiratory allergens and can cause severe allergic reactions. Parvalbumins are stable to processing.

Name	E/M	Allergen	Allergen family	kU_A/L
Atlantic cod	⦿	Gad m 1	β-Parvalbumin	< 0.10
Atlantic mackerel	⦿	Sco s 1	β-Parvalbumin	0.45
Carp	⦿	Cyp c 1	β-Parvalbumin	0.15

SAMPLE REPORT

Name	E/M	Allergen	Allergen family	kU$_A$/L
Herring	⊙	Clu h 1	β-Parvalbumin	0.19
Salmon	⊙	Sal s 1	β-Parvalbumin	0.27
Swordfish	⊙	Xip g 1	β-Parvalbumin	0.10
Thornback ray	⊙	Raj c Parvalbumin	α-Parvalbumin	0.38
Tuna	⊙	Thu a 1	β-Parvalbumin	0.71

Polcalcin

Polcalcins show a very high degree of cross-reactivity.
Polcalcins are calcium binding proteins only expressed in mature pollen. Positive sIgE results against polcalcines can be considered a marker of polysensitisation with unknown clinical relevance for respiratory symptoms.

Name	E/M	Allergen	Allergen family	kU$_A$/L
Alder	⊙	Aln g 4	Polcalcin	0.41
Timothy grass	⊙	Phl p 7	Polcalcin	< 0.10

Tropomyosin

Tropomyosins show a very high degree of cross-reactivity.
Tropomyosins can induce diverse symptoms including anaphylaxis. Sensitisation to tropomyosins can occur by ingestion (seafood), inhalation (mites, cockroaches) or parasite infection (ascariasis, anisakiasis). Tropomyosins are stable to processing.

Name	E/M	Allergen	Allergen family	kU$_A$/L
American cockroach	⊙	Per a 7	Tropomyosin	0.43
Anisakis simplex	⊙	Ani s 3	Tropomyosin	< 0.10
Black tiger shrimp	⊙	Pen m 1	Tropomyosin	0.18
Blomia tropicalis	⊙	Blo t 10	Tropomyosin	0.17
European house dust mite	⊙	Der p 10	Tropomyosin	< 0.10
Giant freshwater prawn	⊙	Mac r 1	Tropomyosin	< 0.10
Tyrophagus putrescentiae	⊙	Tyr p 10	Tropomyosin	0.18

Ole e 1

Ole e 1 family allergens show a high degree of cross-reactivity within plant family borders.
The major olive pollen allergen, Ole e 1, represents the prototype of all Ole e 1 family allergens and is the primary sensitiser in regions with olive pollen exposure. Further Ole e 1 related allergens were identified in other trees from the Oleaceae family (ash, lilac, privet). There are further Ole e 1 family members present in grass- and weed pollen.

Name	E/M	Allergen	Allergen family	kU$_A$/L
Ash	⊙	Fra e 1	Ole e 1 Family	< 0.10
Lamb's quarter	⊙	Che a 1	Ole e 1 Family	< 0.10
Olive	⊙	Ole e 1	Ole e 1 Family	0.23
Ribwort	⊙	Pla l 1	Ole e 1 Family	< 0.10
Russian thistle	⊙	Sal k 5	Ole e 1 Family	0.63

Arginine Kinase

Arginine kinases show a very high degree of cross-reactivity.
Arginine kinases from food sources can elicit allergic reactions. Sensitizations against Arginine kinases can occur after ingestion (seafood) and inhalation (cockroaches, mites, seafood).
Arginine kinases are not stable towards heat and digestion.

Name	E/M	Allergen	Allergen family	kU$_A$/L
Black tiger shrimp	⊙	Pen m 2	Arginine Kinase	1.06
European house dust mite	⊙	Der p 20	Arginine Kinase	< 0.10
German cockroach	⊙	Bla g 9	Arginine Kinase	< 0.10

SAMPLE REPORT

Name	E/M	Allergen	Allergen family	kU_A/L	
Giant freshwater prawn	⦿	Mac r 2	Arginine Kinase		0.10

β-Expansin

β-Expansins show limited cross-reactivity between temperate and subtropical grasses, but high cross-reactivity within these subgroups.
Grass pollen β-expansins are a family of major grass pollen allergens and are classified as 'group 1' grass pollen allergens. A positive test result to grass pollen β-expansin confirms genuine sensitisation. Group 1 allergens are present in both temperate grasses (e.g., Timothy, Orchard, Perennial rye, Bluegrass, Sweet vernal) and subtropical grasses (e.g., Bahia, Johnson and Bermuda). Phl p 1 is useful for diagnosis and therapy of grass pollen allergy in temperate regions. Bermuda and Bahia grasses belong to distinct subfamilies of subtropical grasses, with Cyn d 1 serving as a marker for Bermuda grass sensitisation and Pas n extract for Bahia and Johnson grass. Although cross-reactivity between temperate and subtropical group 1 allergens can occur, species-specific epitopes exist and should be considered when choosing therapy.

Name	E/M	Allergen	Allergen family	kU_A/L	
Bermuda grass	⦿	Cyn d 1	β-Expansin		1.03
Maize pollen	⦿	Zea m 1	β-Expansin		0.14
Timothy grass	⦿	Phl p 1	β-Expansin		1.37

SAMPLE REPORT

RAVEN® INTERPRETATION SOFTWARE

The sample was tested on QR code 03EHT16C. RAVEN² analysed a total of 300 parameters, of which 65 were positive.

Seasonal (Spring)

Symptoms indicative of allergies in spring time were either absent or not recorded in RAVEN².
Genuine sensitisation to japanese cedar was detected without any reported symptoms upon exposure. Sensitisation to different cross-reactive families can lead to sensitisation to other Cupressaceae and Oleaceae and other trees.
Sensitisation to japanese cedar, bermuda grass, wall pellitory, kiwi and peanut are suspected to be the primary sources of cross-sensitisation to Fagales, respectively.

Seasonal (Summer)

Symptoms indicative of allergies in summer were either absent or not recorded in RAVEN².
Genuine sensitisation to bermuda grass, timothy grass and wall pellitory and IgE-reactivity to bahia grass was detected, but symptoms were either absent or not recorded in RAVEN².
Sensitisation to different cross-reactive families can lead to sensitisation to Oleaceae and other trees.
Sensitisation to japanese cedar, bermuda grass, timothy grass, wall pellitory, kiwi and peanut are suspected to be the primary sources of cross-sensitisation to other grasses and weeds, respectively.
Confirmation of absence of clinical reactivity to weeds might be advisable.

Perennial

Symptoms indicative of perennial allergies were either absent or not recorded in RAVEN².
Genuine sensitisation to aspergillus fumigatus, guinea pig and latex and IgE-reactivity to house cricket, mealworm and migratory locust was detected, but symptoms were either absent or not recorded in RAVEN². Sensitisation to different cross-reactive families can lead to sensitisation to domestic mites and hemp.
Sensitisation to black-tiger shrimp, guinea pig and aspergillus fumigatus are suspected to be the primary sources of cross-sensitisation to other insects , animal dander and yeast, respectively.

Food

Symptoms indicative of food-related allergies were either absent or not recorded in RAVEN².
Genuine sensitisation to avocado, black-tiger shrimp, brazil nut, buckwheat, cashew, cow's milk, hazelnut, kiwi, peanut, soy, tuna and wheat and IgE-reactivity to egg yolk, pecan, goat's milk, mare's milk, squid, lupine seed, millet, oat, potato, pumpkin seed, spelt, quinoa, sunflower seed, rye flour and sesame was detected, but symptoms were either absent or not recorded in RAVEN². Sensitisation to different cross-reactive families can lead to sensitisation to other prawn/shrimp , tree nuts and crab/lobster, hemp, insects and spices.
Sensitisation to cow's milk, black-tiger shrimp, japanese cedar, latex, avocado, brazil nut, buckwheat, cashew, hazelnut, kiwi, peanut, soy, bermuda grass, timothy grass, wall pellitory, wheat and tuna are suspected to be the primary sources of cross-sensitisation to other milk, molluscs, peanut and legumes, cereals and seeds, vegetables, fruits , fish and parasites, respectively.
Sensitisation to different cross-reactive families were detected which can cause cross-sensitisation to meat and parasites.
Confirmation of absence of clinical reactivity to tree nuts, cereals and seeds, fruits and peanut and legumes might be advisable.

Contact allergens and insect venom

Symptoms indicative of allergies to insects- or arachnid venom were either absent or not recorded in RAVEN².
Genuine sensitisation to honey bee was detected without any reported symptoms upon exposure.
Confirmation of absence of clinical reactivity to Apinae (bee/bumblebee) might be advisable.

Cross-Reactive allergen sensitisation detected

Sensitisations against molecular allergens which are markers of (broad) cross-reactivity between different allergen sources were detected.
Detected cross-reactive allergen sensitisations:

- PR-10s: Ara h 8, Mal d 1
- nsLTPs: Act d 10, Par j 2
- Parvalbumins: Raj c Parvalbumin, Sco s 1, Thu a 1
- Cysteine Proteases: Act d 1
- Polcalcins: Aln g 4
- Storage Proteins: Ana o 2, Ana o 3, Ara h 2, Ara h 6, Ber e 1, Cor a 9, Cor a 11, Cor a 14, Fag e 2, Gly m 8
- Tropomyosins: Per a 7
- Lipocalins: Bos d 2, Cav p 1, Fel d 7
- Arginin Kinases: Pen m 2

PR-10 Proteins

PR-10 inhalative: The major birch pollen allergen, Bet v 1, represents the prototype of all PR-10 allergens and is the primary sensitiser in regions with birch-pollen exposure. The presence of PR-10 allergens in birch related tree pollen explains possible IgE cross-reactivity between pollen from hazel, alder, beech, oak and hornbeam. PR-10 nutritive: PR-10 allergens in fresh fruits, nuts, vegetables and legumes can induce oral allergy syndrome and sometimes even severe allergic reactions in sensitised individuals. PR-10 allergens are not stable to heat and digestion.

Non-specific Lipid Transfer Proteins (nsLTP)

Members of the nsLTP allergen family can cause inhalative symptoms (nsLTP in pollen), as well as mild to severe forms of food allergy. nsLTP allergens can be found in tree-and weed pollen, and in many plant foods as well as in latex. Inhalative symptoms manifest themselves as allergic rhinoconjunctivitis and/or allergic asthma. nsLTP food allergens can trigger both mild and severe reactions. nsLTPs are stable to heat and digestion.

Parvalbumins

Parvalbumins are the major allergens from fish species. The degree of cross-reactivity between different Parvalbumins is high, but not absolute. Parvalbumins are resistant to heat and digestion. α-Parvalbumin from thornback ray has been described as hypoallergenic.

Cysteine Proteases

Members of the CP allergen family can cause inhalative symptoms, as well as mild to severe forms of food allergy. CP allergens can be found in several fruits, mites and in ragweed pollen. Inhalative symptoms manifest as allergic rhinoconjunctivitis and/or allergic asthma. CP food allergens can cause severe reactions. Fruit CP allergens are resistant to heat and digestion.

Polcalcins (Ca++ binding proteins)

Members of the PC allergen family can cause inhalative symptoms. PC allergens can be found in pollen from grasses, trees and weeds. Inhalative symptoms manifest as allergic rhino-conjunctivitis and/or allergic asthma.

Storage Proteins

Members of the storage protein allergen families are able to induce mild and strong allergic reactions and even anaphylactic shock. Allergens of these families can be found in legumes, nuts and seeds. Storage proteins are resistant to heat and digestion. Storage protein allergen families include 2S Albumins, 7/8S & 11S Globulins.

Tropomyosins

Members of the Tropomyosin allergen family can cause inhalative, as well as mild to severe reactions after consumption of seafood. Allergens of the TM allergen family have been identified in ,fish-parasites, insects (e.g. cockroach), mites and seafood. The degree of cross-reactivity between TM members is high.

Lipocalins

Nearly all members of the Lipocalin allergen family can cause inhalative symptoms like allergic rhinoconjunctivitis and allergic asthma. Lipocalin from pigeon tick is associated with idiopathic nocturnal anaphylaxis. The degree of cross-reactivity varies wildly between members of this family. Some members of the Lipocalin family serve as markers for AIT indication.

Arginin Kinase (AK)

Arginine Kinases show a very high degree of cross-reactivity. AK from food sources can elicit allergic reactions. Sensitisations against AKs can occur after ingestion (seafood) and inhalation (cockroaches, mites, seafood). AKs are not stable towards heat and digestion.

Tree Pollen

Birch Family

Sensitisation to pollen from the birch family was detected. Allergic symptoms associated with this allergen source range from allergic rhinoconjunctivitis to allergic asthma.
Aln g 4 is a member of the Polcalcin allergen family and is associated with inhalative symptoms. The degree of cross-reactivity between Aln g 4 and other members of the Polcalcin allergen family is high. The importance of these cross-reactions has to be analysed on a clinical level.
Causal treatment is possible via AIT, symptomatic treatment includes anti-histamines and local corticosteroids in various formulations (tablet, spray).

Cypress Family

SAMPLE REPORT

Sensitisation to pollen from the cypress family was detected. Allergic symptoms associated with this allergen source range from allergic rhinoconjunctivitis to allergic asthma.
Cry j 1 is a member fo the Pectate Lyase allergen family. The degree of cross-reactivity between different cypress species based on Pectate Lyases is high. Cry j 1 serves as a marker for AIT indication, if corresponding clinical symptoms are present.
Causal treatment is possible via AIT, symptomatic treatment includes anti-histamines and corticosteroids in various formulations (tablet, spray).

Grass pollen

Sensitisation to grass pollen was detected. Allergic symptoms associated with grass pollen range from allergic rhinoconjunctivitis to allergic asthma.
Cyn d 1, Lol p 1 and Phl p 1 are members fo the β-Expansin allergen family. The degree of cross-reactivity between members of this allergen family is very high. β-Expansins serve as markers for AIT indication, if corresponding clinical symptoms are present. Positive results were obtained for: Cyn d 1, Phl p 1.
Causal treatment is possible via AIT - Phl p 1 and 5 serve as markers for AIT indication, if corresponding are present. Symptomatic treatment includes anti-histamines and local corticosteroids in various formulations (tablet, spray).

Weed Pollen

Russian Thistle

Sensitisation to pollen from Russian thistle was detected. Allergic symptoms associated with this allergen source range from allergic rhinoconjunctivitis to allergic asthma.
Sal k 5 is a member of the Ole e 1 allergen family and is associated with inhalative symptoms. The degree of cross-reactivity between Sal k 5 and other members of this family is low, with the exception of Che a 1 (Lamb's quarter), where a high degree of cross-reactivity was observed. The importance of these cross-reactions has to be analysed on a clinical level.
Causal treatment is possible via AIT - Sal k 1 serves as a marker for AIT indication.
Symptomatic treatment includes anti-histamines and local corticosteroids in various formulations (tablet, spray).

Wall pellitory

Sensitisation to pollen from pellitory was detected. Allergic symptoms associated with this allergen source range from allergic rhinoconjunctivitis to allergic asthma.
Par j 2 is a member of the nsLTP allergen family. The degree of cross-reactivity to most other members of this family can be considered low. Par j 2 is a highly specific marker for pellitory sensitisation.
Causal treatment is possible via AIT - Par j 2 serves as a marker for AIT indication, if corresponding clinical symptoms are present. Symptomatic treatment includes anti-histamines and local corticosteroids in various formulations (tablet, spray).

Furry Animals

Cat

Sensitisation to cat was detected. Allergic symptoms associated with this allergen source range from allergic rhinoconjunctivitis to allergic asthma.
Fel d 7 is a member of of the Lipocalin allergen family (LC). A moderate degree of crossreactivity to LC from dog (Can f 1) has been described.
If avoidance of cats is not possible, an AIT can be prescribed. Symptomatic treatment includes anti-histamines as well as local corticosteroids in various formulations (tablet, spray). Avoidance of exposition to cats is strongly recommended.

Cattle

Sensitisation to cattle was detected. Allergic symptoms associated with this allergen source range from allergic rhino-conjunctivitis to allergic asthma, especially when exposure is frequent (e.g. cattle ranchers).
Bos d 2 is a member of the Lipocalin allergen family. The degree of cross-reactivity to other members of this family is low. There is no difference in the Bos d 2 level between female and male cattle.
If avoidance of cattle is not possible an AIT can be prescribed - Bos d 2 may serve as marker for AIT indication, if corresponding clinical symproms are present. Symptomatic treatment includes anti-histamines as well as local corticosteroids in various formulations (tablet, spray). Avoidance is strongly recommended, especially carpets in living quarters should be thoroughly cleaned on a regular basis to reduce allergen exposure.

Guinea pig

Sensitisation to guinea pig was detected. Allergic symptoms associated with this allergen source range from allergic rhino-conjunctivitis to allergic asthma, especially when exposure is frequent.
Cav p 1 is a member of the Lipocalin allergen family. The degree of cross-reactivity to other members of this family is low.
AIT for causal treatment may not be available. Symptomatic treatment includes anti-histamines as well as local corticosteroids in various formulations (tablet, spray). Avoidance is strongly recommended.

Moulds and Yeasts

Aspergillus fumigatus

Sensitisation to spores from Aspergillus fumigatus was detected. Allergic symptomps associated with A. fumigatus range from allergic rhinoconjunctivitis to allergic asthma, and also include allergic bronchopulmonary aspergillosis (ABPA). Aspergillus fumigatus is an indoor fungal species.
Asp f 4 is a biochemically unclassified allergen. It is strongly associated with ABPA, but not with A. fumigatus allergy.
Causal treatment is possible via AIT. Symptomatic treatment includes anti-histamines as well as local corticosteroids in various formulations (tablet, spray). Therapeutic options for ABPA include systemic corticosteroids and itraconazole or omalizumab. Exposition prophylaxis is also an important treatment strategy.

Malassezia sympodialis

Sensitisation to Malassezia sympodialis (MS) was detected. This is common in adult atopic dermatitis patients but rare in healthy individuals. Especially seborrheic skin sites (e.g. head, neck) are preferrable colonisation sites.
Mala s 13 is a member of the Thioredoxin allergen family. The degree of cross-reactivity with other members of this family is high for other Malassezia species and medium for many moulds (e.g different Aspergillus species).
Skin emollients are the basis of AD therapy. In case of clinically manifest skin inflammation during AD flares, anti-inflammatory treatment is necessary. AD patients may benefit from an antifungal therapy that is effective against Malassezia.

Mites and Cockroaches

Cockroach

Sensitisation to cockroach was detected. Allergic symptoms associated with this allergen source range from allergic rhinoconjunctivitis to allergic asthma.
Per a 6 is a member of the Troponin C protein family. The degree of cross-reactivity between Per a 6 and other members of this family is very high for related insects (e.g. other cockroaches, midges, mosquitos, flies) and medium for less related species like Crangon crangon (brown shrimp).
Per a 7 is a member of the Tropomyosin allergen family and it is highly cross-reactive to other members of this allergen family. Sensitisation to Per a 7 can be the cause for cross-reactions to shrimp and other seafood species (except fish).
Pest control is advised as a first line measure. If this is not possible, an AIT can be prescribed.
Symptomatic treatment includes anti-histamines as well as corticosteroids in various formulations (tablet, spray).

Insect Venoms

Honey bee

Sensitisation to honey bee venom was detected. Allergic symptoms associated with honey bee venom allergy range from local to severe anaphylactic reactions.
Api m 10 is a member of the Icarapin allergen familiy. The degree of cross-reactivity between Api m 10 and other members of the Icarapin allergen family is very high for closely related bee species (e.g. oriental honey bee). Api m 10 is underrepresented in some AIT solutions.
As avoidance of honey bees is difficult, AIT is the major therapy option. Additionally the prescription of an emergency kit (incl. adrenalin autoinjector for severe cases) is advised.

Cereals and Seeds

Buckwheat

Sensitisation to buckwheat was detected. Allergic symptoms associated with buckwheat range from oral allergy syndrome to anaphylactic reactions. Especially in Asia buckwheat is a major cause fo anaphylactic reactions. A high prevalence of buckwheat sensitisation was reported from Northern Italy.
Fag e 2 is a storage protein (2S Albumin) associated with clinical reactions up to anaphylaxis. The degree of cross-reactivity between storage proteins from buckwheat and storage proteins from legumes, nuts and seeds is low to moderate. The importance of these cross-reactions has to be analysed on a clinical level. Fag e 2 is stable towards heat and digestion.
Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

Rye flour

Sensitisation to rye (flour) was detected. Allergic symptoms associated with rye Include immediate and excercise induced anaphylaxis, baker's asthma, gastrointestinal- and skin reactions.
Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

Millet

Sensitisation to millet was detected. Allergic symptoms associated with millet range from oral allergy syndrome to anaphylactic reactions. Millet allergy is a rare but potentially life-threatening condition, mostly resulting from primary sensitisation to airborne millet allergens in bird keepers. Potential egg allergy should always be addressed during work-up of millet-allergic subjects.
Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

Oat

SAMPLE REPORT

Sensitisation to oat was detected. Allergic symptoms associated with oat include baker's asthma, anaphylaxis and skin reactions. A high prevalence of oat sensitisation has been found in children suffering from atopic dermatitis.
Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

Pumpkin seed
Sensitisation to pumpkin seed was detected. Allergic symptoms associated with pumpkin seed range from oral allergy syndrome to severe anaphylactic reactions.
Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

Quinoa
Sensitisation to quinoa was detected. Allergic symptoms associated with quinoa range from oral allergy syndrome to severe anaphylactic reactions. Occupational asthma was also reported.
Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

Sesame
Sensitisation to sesame was detected. Allergic symptoms associated with sesame allergens range from oral allergy syndrome to severe, anaphylactic reactions.
Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

Spelt
Sensitisation to spelt (flour) was detected. Allergic symptoms associated with spelt Include immediate and excercise induced anaphylaxis, baker's asthma, gastrointestinal- and skin reactions.
Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

Sunflower seed
Sensitisation to sunflower seed was detected. Allergic symptoms associated with sunflower seeds range from oral allergy syndrome to severe anaphylactic reactions.
Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

Wheat
Sensitisation to wheat (flour) was detected. Allergic symptoms associated with wheat include immediate and excercise induced anaphylaxis, baker's asthma, gastrointestinal- and skin reactions.
Tri a 19 is a member of the Gliadin family and can cause wheat dependent exercise induced anaphylaxis (WDEIA). Patients in this category only react, when wheat consumption is followed by physical exertion or conincides with other cofactors (e.g. aspirin intake). Tri a 19 is also able to induce classic forms of immediate type wheat allergy.
Tri a 37 is an α-Purothionin found in the seeds of wheat. It is very cross-reactive with α-Purothionins found in rye, and barley, but less cross-reactive with α-Purothionins found in oat and rice. The importance of these cross-reactions should be analysed on a clinical level. Tri a 37 is resistant to heat and digestion. It helps to distinguish genuine wheat sensitisation from cross-reactivity to grass pollen as often found with wheat extracts. Tri a 37 might be a marker for severe anaphylactic reactions.
Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

Fruits

Apple
Sensitisation to apple was detected. Allergic symptoms associated with apple range from oral allergy syndrome to severe, anaphylactic reactions.
Mal d 1 is a member of the PR-10 allergen family and is associated with mild forms of apple allergy (e.g. oral allergy syndrome). The degree of cross-reactivity between Mal d 1 and other members of the PR-10 allergen family is high. The importance of these cross-reactions has to be analysed on a clinical level. In most cases an Mal d 1 sensitisation is caused by a primary sensitisation against Bet v 1 from birch pollen. Mal d 1 is not stable towards heat and digestion.
As Mal d 1 is heat sensitive, baked or cooked apple can be consumed without danger for clinical reactions. In case of genuine apple allergy due to sensitisations to Mal d 2 and/or 3, avoidance is the therapeutic option of choice. Mal d 3 is primarily located in fruit skin, peeled apple is tolerated by most patients with Mal d 3 sensitisation. Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

Avocado
Sensitisation to Avocado was detected. Allergic symptoms associated with avocado range from oral allergy syndrome to anaphylaxis. Many reactions to avocado may be based on a primary sensitisation to latex. Members of the Class I Chitinase and Profilin allergen families have been implicated in avocado sensitisations.
Pers a 1, a major avocado allergen, is a member of the Class I Chitinase allergen family. It is involved in extensive cross-reactivity with foods from different food families (e.g. banana, chestnut, kiwi, common bean, etc.) and has been shown to cross-react with a major latex allergen (Hev b 6), contributing to allergic reactions in individuals with latex-fruit syndrome. Testing for Pers a 1 can help differentiate between primary avocado allergy and latex-related reactions, making it an important component in the molecular diagnosis of food and latex allergies. Pers a 1 is stable towards digestion.
Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

Banana
Sensitisation to Banana was detected. Allergic symptoms associated with banana range from oral allergy syndrome to anaphylaxis. Many reactions to banana are based on cross-reactions via Class I Chitinase, Isoflavon Reductase, nsLTP or Profilin allergen families.
Mus a 2, a major allergen found in bananas, is a member of the Class I Chitinase allergen family. Mus a 2 is primarily encountered through food exposure and has been identified as a significant allergen for banana-sensitised individuals. Mus a 2 plays a role in cross-reactivity, particularly for individuals with latex allergies, as both banana and latex share common protein structures (i.e. hevein-like domain). Mus a 2 also shares similarities with Chitinases found in other fruits and nuts, such as avocado and chestnut, which may explain the cross-sensitisation among these foods. Mus a 2 is stable towards heat and digestion.
Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

Kiwi
Sensitisation to kiwi was detected. Allergic symptoms associated with kiwi allergy range from oral allergy syndrome to severe, anaphylactic reactions.
Act d 1 is a member of the Cysteine Protease allergen family (CP). The degree of cross-reactivity to other members of the CP family is presumed low outside different kiwi cultivars. Act d 1 is stable to heat and digestion.
Act d 10 is a member for the nsLTP allergen family and can cause clinical reactions from oral allergy syndrome to anaphylaxis. The degree of cross-reactivity between members of the nsLTP family is high within botanically closely related species (e.g. stone fruit). The importance of these cross-reactions has to be analysed on a clinical level. Act d 10 is stable towards heat and digestion.
include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

Nuts and Legumes

Brazil nut
Sensitisation to Brazil nut was detected. Allergic symptoms associated with Brazil nut range from oral allergy syndrome to anaphylaxis.
Ber e 1 is a storage protein (2S Albumin) associated with clinical reactions up to anaphylaxis. The degree of cross-reactivity between 2S albumins from Brazil nut and its related allergens from legumes, nuts and seeds is low. The importance of these cross-reactions has to be analysed on a clinical level. Ber e 1 is stable towards heat and digestion.
Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

Cashew
Sensitisation to cashew was detected. Allergic symptoms associated with cashew range from oral allergy syndrome to severe, anaphylactic reactions.
Ana o 2 and 3 are storage proteins associated with clinical reactions up to anaphylaxis. The degree of cross-reactivity between storage proteins from cashew and storage proteins from legumes, nuts and seeds is low to moderate. The importance of these cross-reactions has to be analysed on a clinical level. Ana o 2 & 3 are stable towards heat and digestion. Positive results were obtained for: Ana o 2, Ana o 3.
Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

Hazelnut
Sensitisation to hazelnut was detected. Allergic symptoms associated with hazelnut allergens range from oral allergy syndrome to severe, anaphylactic reactions.
Cor a 9, 11 & 14 are storage proteins associated with clinical reactions up to anaphylaxis. The degree of cross-reactivity between storage proteins from hazelnut and storage proteins from legumes, nuts and seeds is low to moderate. The importance of these cross-reactions has to be analysed on a clinical level. Cor a 9, 11 & 14 are stable towards heat and digestion. Positive results were obtained for: Cor a 9, Cor a 11, Cor a 14.
Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

Lupine seed
Sensitisation to lupine seed was detected. Allergic symptoms associated with lupine seed range from oral allergy syndrome to anaphylaxis. Lupine flour is used as a substitute or additive in e.g. wheat flour. As an occupational allergen lupine flour is able to induce rhino-conjunctivitis and asthma.
Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

Peanut
Sensitisation to peanut was detected. Allergic symptoms associated with peanut allergens range from oral allergy syndrome to severe, anaphylactic reactions.
The peanut storage proteins Ara h 1,2,3 and 6 are associated with clinical reactions up to severe anaphylaxis. The degree of cross-reactivity between storage proteins from peanut and storage proteins from legumes, nuts and seeds is low to moderate. The importance of these cross-reactions has to be analysed on a clinical level. Ara h 1,2,3 & 6 are stable towards heat and digestion. Positive results were obtained for: Ara h 2, Ara h 6.

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Ara h 8 is a member of the PR-10 family and is associated with mild forms of peanut allergy e.g. oral allergy syndrome. The degree of cross-reactivity between Ara h 8 and other members of the PR-10 allergen family is moderate to high. The importance of these cross-reactions has to be analysed on a clinical level. In most cases an Ara h 8 sensitisation is caused by a primary sensitisation against Bet v 1 from birch pollen. Ara h 8 is not stable towards heat and digestion
Ara h 15 is an allergen from the Oleosin allergen family and is associated with severe forms of peanut allergy. Cross-reactions between different Oleosins have been described. The importance of these cross-reactions has to be analysed on a clinical level. Ara h 15 is stable towards heat and digestion.
Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

Pecan
Sensitisation to pecan detected. Allergic symptoms associated with pecan range from oral allergy syndrome to anaphylaxis. Pecan strongly cross-reacts with walnut.
Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

Soy
Sensitisation to soy was detected. Allergic symptoms associated with soy allergens range from oral allergy syndrome to severe, anaphylactic reactions.
Gly m 5, 6 & 8 are storage proteins associated with clinical reactions up to severe anaphylaxis. The degree of cross-reactivity between storage proteins from soy and storage proteins from legumes, nuts and seeds is low to moderate. The importance of these cross-reactions has to be analysed on a clinical level. Gly m 5,6 & 8 are stable towards heat and digestion. Positive results were obtained for: Gly m 8.
Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases). Fermented soy products (e.g. soy sauce, miso) have lost allergenicity.

Vegetables

Potato
Sensitisation to potato was detected. Allergic symptoms associated with potato allergy range from oral allergy syndrome to gastrointestinal reactions. Skin contact with raw potato may cause local itch and erythema in patients sensitised to birch pollen.
Include extensive patient training on avoidance measures.

Animal Foods (Milk and Egg)

Cow's milk
Sensitisation to milk was detected. Allergic symptoms associated with milk include severe, anaphylactic reactions, as well as gastrointestinal symptoms and worsening of skin status in individuals suffering from atopic dermatitis. Most children can be expected to outgrow their cow's milk allergy.
Bos d 4 and Bos d 5 are heat labile allergens from cow's milk. Well cooked or baked milk will be tolerated by sensitised patients. Positive results were obtained for: Bos d 4.
Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases). Aside from Bos d 8, other cow's milk allergens(Bos d 4, 5 and 6) are not stable to heat.

Egg
Sensitisation to hen's egg was detected. Allergic symptoms associated with hen's egg include severe, anaphylactic reactions, as well gastrointestinal symptoms and worsening of skin status in individuals suffering from atopic dermatitis.
Include intensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases). Aside from Gal d 1, hen's egg allergens are not stable to heat.

Goat's milk
Sensitisation to goat's milk was detected. Allergic symptoms associated with goats's milk Include severe, anaphylactic reactions, as well as gastrointestinal symptoms and worsening atopic dermatitis. Most children can be expected to outgrow their goat's milk allergy. The degree of cross-reactivity to cow's milk is high, but not absolute.
Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases). Camel's milk and mare's milk are viable alternatives.

Mare's milk
Sensitisation to mare's milk was detected. Allergic symptoms associated with mare's milk Include severe, anaphylactic reactions, as well as gastrointestinal symptoms and worsening of atopic dermatitis. Most children can be expected to outgrow their mare's milk allergy. The degree of cross-reactivity to cow's milk is low.
Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases). Mare's milk can serve as an alternative in cow's milk allergic children. Camel's milk is a viable alternative.

Edible insects
Sensitisation to edible insects was detected. Allergic symptoms associated with edible insects range from oral allergy syndrome to anaphylaxis. The degree of cross-reactivity is high to other insects (e.g. cockroach) and also to mites and seafood.
Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

Red Meat

Alpha Gal, red meat
Sensitisation to Alpha-Gal was detected. Allergic symptoms associated with Alpha-Gal range from skin to anaphylactic reactions.
Alpha Gal (galactose α-1, 3 galactose) is a disaccharide. It is present in tissues from non-primate mammals which include red meat, organs such as kidneys, gelatine, cat IgA (Fel d 5). Furthermore, certain drugs contain this sugar: cetuximab, anti-venom, pancreatic enzymes, gelatine-based plasma expanders and gelatine containing vaccines (e.g. measles, mumps, rubella). Alpha Gal sensitisation is facilitated mainly through tick bites. Other routes have not been confirmed yet but seem possible.
Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

Fish
Sensitisation to fish was detected. Allergic symptoms associated with fish allergy include mild to severe anaphylactic reactions after fish consumption as well as respiratory/asthmatic reactions upon exposure to cooking vapors.
Parvalbumins are the major allergens from fish species. The degree of cross-reactivity between different Parvalbumins is high, but not absolute. Parvalbumins are resistant to heat and digestion. α-Parvalbumin from thornback ray has been described as hypoallergenic.
Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

Anisakis simplex
Sensitisation to Anisakis simplex was detected. Allergic symptoms associated with A. simplex include urticaria, gastrointestinal symptoms and anaphylaxis. Anisakis simplex is a nematode that can infect any fish or cephalopods (e.g. squid). Many cases have been reported in Japan and Western Europe, where raw fish is consumed frequently. Fish-processing workers and fishermen also have a certain risk of exposure to A. simplex.
Ani s 1 is the only member of the Kunitz Serin Protease Inhibitor allergen family so far. It is the most important allergen from A. simplex and is also heat resistant.
Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases). Persisting gastrointestinal symptoms may indicate active anisakiasis that may be treated by endoscopic removal of the worm.

Seafood

Shrimp
Sensitisation to shrimp was detected. Allergic symptoms associated with shrimp allergy include mild to severe anaphylactic reactions after shrimp consumption as well as respiratory/asthmatic reactions upon exposure to cooking vapors. The degree of cross-reactivity between crusteceans is very high.
Pen m 2 is a member of the Arginine Kinase allergen family and can cause predominately mild reactions. The degree of cross-reactivity to other Arginine Kinases is very high (e.g. Der p 20 from house dust mite & Bla g 9 from cockroach). It is not stable to heat and digestion.
Pen m 3 is a member of the Myosin Light Chain allergen family (MLC). The degree of cross-reactivity between Pen m 3 and other members of the MLC allergen family is unknown, but probably high with other shrimp species and possible with chicken. It is stable to heat and presumably also to digestion.
include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

Squid
Sensitisation to squid was detected. Allergic symptoms associated with squid allergy include mild to severe anaphylactic reactions after consumption as well as respiratory/asthmatic reactions upon exposure to cooking vapors. Squid commonly cross-reacts with mussels and shrimp.
Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

Other

Latex
Sensitisation to latex was detected. Allergic symptoms associated with latex allergy range from contact urticaria to anaphylaxis. In children with Spina bifida the most frequent manifestation is urticaria and angioedema. In latex allergic health care workers the most common symptoms are of a respiratory nature and local skin reactions.
Hev b 3 belongs to the rubber particles group and shares its biological function with Hev b 1. Like Hev b 1, it is water-insoluble and a major allergen in patients with Spina bifida (77%-100%). Hev b 1 and 3 cross-react.
Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases). The use of replacement Replacement by latex-free products (e.g. nitrile gloves) is also strongly advised.

DISCLAIMER: THE PRESENCE OF IgE-ANTIBODIES IMPLIES A RISK OF ALLERGIC

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REACTIONS AND HAS TO BE ANALYZED IN CONJUNCTION WITH THE CLINICAL HISTORY AND OTHER DIAGNOSTIC TEST RESULTS. THE RAVEN INTERPRETATION GUIDANCE SOFTWARE IS A TOOL TO SUPPORT PHYSICIANS IN THE INTERPRETATION OF ALEX RESULTS. RAVEN COMMENTS DO NOT REPLACE THE DIAGNOSIS BY A PHYSICIAN. NO LIABILITY IS ACCEPTED FOR RAVEN COMMENTS AND RESULTING THERAPEUTIC INTERVENTIONS. THE STATED COMMENTS ARE DESIGNED EXCLUSIVELY FOR ALEX RESULTS.

DR. ARJUN DANG
M.D.(PATHOLOGY)

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CONDITIONS OF REPORTING

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- In case of alarming or unexpected test results you are advised to contact the laboratory immediately for further discussions and action. Laboratory results are meant to be correlated with the patient's clinical history.
- The report will carry the name and age provided at the time of registration.
- Reporting of tests will be as per defined laboratory turn around time for each test. The same will be informed to the patient during first point of contact i.e. registration or phlebotomy as the case may be.
- Test results & reference ranges vary depending on the technology and methodology used.
- Rarely a second sample may be requested for an indeterminate result or any other pre-analytical / analytical reason.
- Reports can be received either as a hard copy or an email on your personal ID. Reports can also be delivered via courier. Payments can be made online on our website. Only reports with no pending payments are mailed, uploaded or dispatched.
- Reports can also be accessed via Dr. Dangs lab website or through the Dr. Dangs mobile application on I0S and android using the unique ID and password provided to you during registration or received by you via SMS.
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