



CHRONIC INFLAMMATORY RESPONSE SYNDROME (CIRS)

FUNGI-TEN CODE EM228

We are also able to offer an environmental dust swiffer test that may associate with urinary mycotoxin testing called the Fungi-Ten test. This test has been developed to include the 5 mould species found on the HERTSMI-2 alongside 5 mycotoxin producer mould species.

MOULD SPECIES	MYCOTOXIN
Aspergillus niger	Ochratoxin
Aspergillus ochraceus	Ochratoxin
Aspergillus flavus	Aflatoxin
Aspergillus fumigatus	Gliotoxin
Penicillium brevicompactum	Mycophenolic acid

THE FOLLOWING COMBINATIONS OF TESTS CAN ALSO BE ORDERED

DUST TESTS

EM208	ERMI & Endotoxin	RESULTS 2-3
EM211	Actinomycetes + ERMI	TEST Dust
EM212	Actinomycetes + Total Mould (FAB2)	TEST Dust
EM213	Actinomycetes, Endotoxin & ERMI (SM-AEE)	TEST Dust
EM215	HERTSMI-2+10 Moulds + Mycotoxin	TEST Dust
EM218	Total Mould	TEST Dust
EM219	Actinomycetes & Endotoxins	TEST Dust
EM236	Beta Glucans & Endotoxins	TEST Dust

Colab Services support an annual training course on CIRS, known as Biotoxins in Clinical Practice. Contact us for further details.

To utilise the GENIE and the volumetric MRI testing we invite you to join our Scientific Working Group which meets quarterly.

FOR FURTHER INFORMATION PLEASE CONTACT US

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TEST OPTIONS

colabs
for the deeper dive

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HUMAN TEST OPTIONS

1. GENIE

The GENIE test is a gene expression test comprising 19 sections. GENIE is an mRNA assay. This test is particularly useful in cases of CIRS, chronic fatigue and to indicate key signalling pathways which may require attention in complex cases. Lyme, mycotoxins, bacterial/endotoxin and viruses all have a signature pattern that may become more visible with GENIE alongside vascular and neurological health.

TEST This test requires a two vial morning blood draw and then shipping to the US on dry ice.

RESULTS 5-6 Weeks

CODE PD501

2. GENE TESTING: HLA TESTING

Human Leukocyte Antigen (HLA) profiles indicate antigen presentation capacity, which can illuminate the likely response to a foreign protein. Dr Shoemaker's Rosetta Stone helps us to understand the HLA DRB 1,3,4,5 and DQB1 results relative to possible environmental susceptibilities. Hyper-mobility appears to associate with the multi-susceptible HLA presentation.

TEST Blood or Cheek Swab

RESULTS 2-3 Weeks

CODE Q97112 / KA910

3. CIRS BIOMARKERS

CIRS biomarker testing comprises markers such as Total IgE, MMP9, TGFb1 and C4a that illuminate how the immune system is responding to the environment. Neuro-peptides and hormones indicate downstream inflammatory processes: VIP, VEGF, Osmolality, ADH/Copeptin, Cortisol/ACTH, aMSH and leptin are therefore considered alongside anti-cardiolipin antibodies.

TEST These tests require a morning, fasted (12 hours) blood draw then ship on dry ice.

RESULTS 3-4 Weeks

CODES Q100 / Q150
Q160 / Q170 / Q175
Q190 / Q99 / Q97 / Q98

	HLA	TOTAL IGE	TGFb1	C4A	MMP9	AMSH	VIP	VEGF	OSMO/ADH	CORTISOL/ACTH	LEPTIN	ACLA	COPEPTIN	C3A
Q100 CIRS FULL PANEL		●	●	●	●	●			●	●	●	●	●	●
Q150 CIRS LITE		●	●	●	●	●					●			
Q160 CIRS COMPREHENSIVE					●	●			●	●			●	
Q170 CIRS ESSENTIALS				●	●	●								
Q175 CIRS ESSENTIALS + TGFb1			●	●	●	●								
Q190 ULTIMATE CIRS	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Q99 PRACTITIONER MADE			●	●	●	●			●	●			●	
Q97			●		●	●		●						
Q98			●	●	●	●		●	●		●			●



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4. MARCONS NASAL SWAB TESTING

The recommended full initial nasal swab test considers both gram positive and gram negative bacterial presence, including Coagulase Negative Staphylococcus, a bacteria which, when antibiotic resistance is found, is known as Multiple Antibiotic Resistant Coag. Neg. Staph. (MARCoNS). MARCoNS Biofilm and fungi are also tested for. A cavitation swab option is also available for Dentists.

TEST This test requires nasal swab insertion into the nose/sinus cavity.

RESULTS 2-4 Weeks

CODES MD101-105
MD107 (Cavitation swab)

5. LYME RELATED TESTING

Lyme related testing can include Borrelia, Bartonella, Ehrlichia/Anaplasma, Rickettsia and Babesia. Frequently Chlamydia and Mycoplasma Pneumoniae can associate. The challenge of Lyme testing is that the microbes are able to exist inside cells and go through life-cycles that include being dormant so can be hard to find on either Elispot or Antibody testing. New PCR testing is increasing pick-up rates, along with Next Generation Sequencing and i-spot testing.

TEST These tests require a blood draw, any time of day.

RESULTS 3-4 Weeks

CODE All NL/G codes

6. MOULD HYPERSENSITIVITY

Mould hypersensitivity options can be especially useful where there are respiratory or allergy symptoms that could indicate an allergy (IgE) or hypersensitivity (IgE/IgG) response to mould. By adding a total IgE option to the test we can ascertain if IgE is also elevated. Positive testing highly associates with exposure.

TEST These tests require a blood draw, any time of day.

RESULTS 10-14 Days

CODE AL305

7. BRAIN MRI- VOLUMETRIC + NEUROQUANT REPORT

Volumetric MRI brain scans can be ordered for clients who may have significant cognitive symptoms/cognitive decline or have concerns about the impact of CIRS on their brain structure. Assessment is then made as to whether the structures are smaller or larger than expected. In CIRS there is a pattern of results that can be measured on a matrix to assess for a typical result, and for cognitive decline key areas of the brain are also be assessed e.g. both frontal lobe & hippocampus.

TEST MRI Brain Scan

RESULTS 2 Days

CODES NQ551 / NR550

8. ACTINOMYCETES (ACTINOS) TESTING

The newest significant trigger to be identified relating to CIRS are actinomycetes bacteria. Colab Services offers both skin swab testing as well as plasma and actino nasal swab testing.

TEST Blood draw or skin swab.

RESULTS 2 Weeks

CODES EM217 / EM220
EM226

CIRS

HOME/WORKPLACE TEST OPTIONS

DUST SWIFFER

Dust Swiffer testing (simple dusting cloth) comprises tests for assessing environmental exposure to key moulds and metabolites. ERMI and HERTSMI-2 testing, Actinomycetes, Mycotoxins and Endotoxins can be considered and combination options are available for a more complete picture:

	MARKERS TESTED FOR	ADDITIONAL INFORMATION
ERMI (INCLUDES HERTSMI-2) CODE EM205	Group 1: A. flavus/oryzae, fumigatus, niger, ochraeus, penicillioides, restrictus, sclerotium, sydowii, unguis, versicolor, Aureobasidium pullulans, Chaetomium globosum, Cladosporium sphaerospermum, Eurotium amstelodami, Paecilomyces variotii, P.brevicompactum, corylophilum, crustosum, purpurogenum, spinulosum, variabile, Scopulariopsis brevicaulis/fusca, Scopulariopsis chartarum, Stachybotrys chartarum, Trichoderma viride, Wallemia sebi.	Group 2: Alternaria alternata, Acremonium striatum, A. ustus, Cladosporium cladosporioides 1/2/herbarum, Epicoccum nigrum, Mucor amphibiorum, P. chrysogenum, Rhizopus stolonifer. HERTSMI-2 test consists of: Aspergillus penicillioides, Asp. Versicolor, Chaetomium globosum, Stachybotrys chartarum, Wallemia sebi.
HERTSMI-2 CODE EM210	Aspergillus penicillioides, Aspergillus versicolor, Chaetomium globosum, Stachybotrys chartarum, Wallemia sebi.	Weighting score given on these moulds.
ACTINOMYCETES CODE EM217	22 species pathogenic species reported.	11 non-pathogenic species reported plus unclassified species.
MYCOTOXINS CODE EM214	Aflatoxin M1, Ochratoxin, Sterigmatocystin, Roridin E, Verrucaric acid, Enniatin B, Zearalenone, Gliotoxin, Mycophenolic Acid, Dihydrocitrinone, Chaetoglobosin A.	
ENDOTOXINS CODE EM216	Total endotoxin level reported. This is highly associated with sewage/ black water leaks.	
BETA GLUCANS CODE EM235	Glucans are polysaccharides. They are found in the cell walls of bacteria, plants, fungi (yeasts and molds), and algae. Immunomodulatory Properties: Glucans, specifically (1→3)-β-D-glucans, act as immunomodulators. They are known to bind to and activate various immune cells, including NK cells, neutrophils, monocytes, and macrophages.	