

The practitioner partnership

Cambridge Nutritional Sciences has pioneered the application of ELISA-based technology for food intolerance testing. So, what's on the agenda for the future?

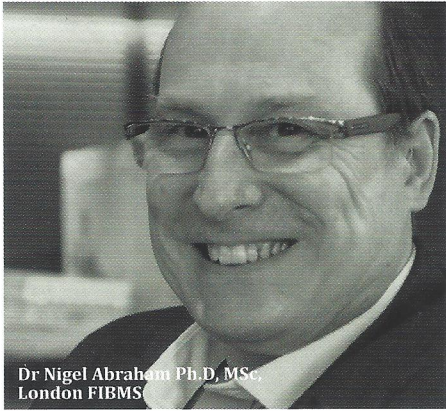


Cambridge Nutritional Sciences (CNS) has many firsts within its roll call; not only did the testing experts pioneer the application of ELISA-based technology for food

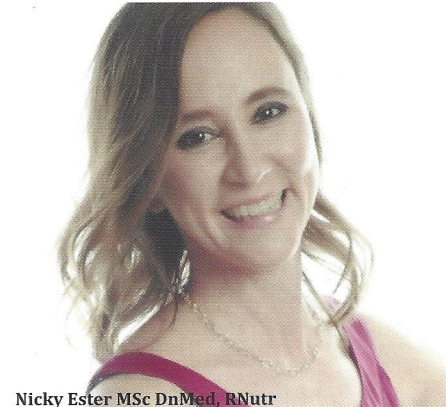
intolerance testing, it also developed the first IgG food intolerance test in the UK.

This company, which is ISO certified and a member of the British In Vitro Diagnostics Association (BIVDA), has continued to develop its portfolio of laboratory services.

“Our most recent introduction to our test menu was our DAO screen. It helps to give practitioners options when the more obvious tests don't seem to be helping their clients and giving the results that both are looking for,” commented Nicky Ester, Nutritionist at CNS. “Awareness around



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Nicky Ester MSc DnMed, RNutr



histamine intolerance is growing and having the ability to test a client's diamine oxidase concentration should aid practitioners in formulating individualised plans to support their clients.

"We are also very proud of our coeliac rapid test, a point of care test to use in clinic. While coeliac disease can be tested on the NHS, clients often prefer to do this simple test with a practitioner. It is a great add on to our IgG food intolerance test, particularly if clients are sensitive to gliadin. Using this test ensures they know just how strict they need to be as being gluten sensitive and having coeliac disease are very different, the latter requiring confirmation with the doctor and complete avoidance for life of foods containing gluten."

As we have seen in recent years, the market for diagnostics is a large one and growing all the time, but CNS certainly has its own point of difference.

Nicky commented: "Currently, our main USP is the uniqueness of our food intolerance tests. Starting with our laboratory food intolerance test, FoodPrint, it uses a microarray-based ELISA technology to measure the antibodies, which is more sensitive than standard ELISA technology used by most other companies. We also have the only point of care IgG food intolerance test, Food Detective, which tests for all IgG antibodies and not just IgG4."

DIAGNOSTICS EXPERTISE

The company was established more than 21 years ago, and by the early '90s had moved into the field of food intolerance testing. Today, CNS specialises in immunodiagnostics and offers a wide range of CE marked tests for food intolerance and other conditions to both healthcare professionals and consumers.

Based in Littleport, Cambridgeshire, CNS boasts a purpose-built facility, which accommodates laboratories that are equipped with state-of-the-art equipment. Its quality management system is ISO9001 and ISO13485 certified.

As a company, a big part of its testing portfolio is centred on gut health.

"Our main test for gut health is our parasite test and, in addition to this, of course, Candida is important as well. Given the importance of the microbiome and the role it plays in overall health, the moat to the castle as it were, this is an area we are focussing more intently and look forward to playing a larger role in the market," Nicky commented.

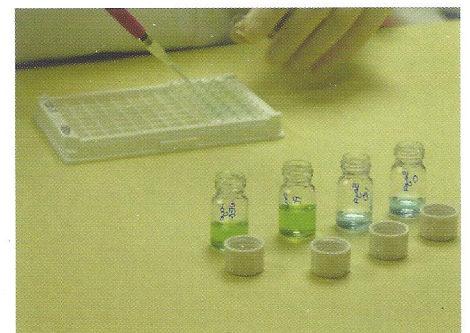
"We are in the preliminary phases of researching a new stool test, which not only includes familiar markers practitioners are used to, but which will also include innovative markers, which should help with interpretation."

Nicky added: "Our ability to be able to do this has been greatly helped by Dr Nigel

Abraham joining the company last year as our Scientific Director, bringing with him a wealth of expertise in this area. Definitely exciting times ahead as we work towards a future launch!"

Subsequently, CNS continues to evolve what it offers in terms of diagnostic tools for practitioners.

"Food allergy/intolerance has been our primary focus for many years. However, as valuable as these assessments are, they form only part of an investigation



TESTING OPTIONS

Practitioners are able to access a wide variety of tests from CNS.

Food Detective is an easy to use food IgG antibody self-test, with immediate results. It measures IgG antibodies, which may be linked to inflammatory conditions in the body, manifesting in a range of health issues.

There is also FoodPrint, a range of more detailed tests, including FoodPrint 200+, which utilises a new, state of the art immunoassay based on microarray technology to detect food-specific IgG antibodies. The FoodPrint 200+ test is carried on a finger prick blood sample, which is then sent back to the laboratory for testing. The antibody reactivity associated with each food can be compared to allow the practitioner to devise an optimal dietary regime based on food antibody level.

So, what can we expect for the future?

“As specialists in the field of allergy and intolerance, our test portfolio currently consists of tests for IgG mediated food intolerance, specific tests for coeliac disease and our new DAO test for histamine intolerance,” Dr Abraham explained.

“Later this year, we will be introducing specific IgE testing to identify ‘true’ allergies to common foods, thus creating one of the most comprehensive range of tests for food allergy and intolerance available in the UK.”

And that’s not all in terms of new product development.

Dr Abraham continued: “We have also been providing testing services for anti-candida antibodies for many years by measuring IgG and IgM class antibodies. Over the next few months, we will be expanding this test to incorporate IgA class antibodies also. This class of antibodies can provide valuable information about possible candida infections of the mucus membranes and will help to increase the clinical utility of this type of assessment.

“The commercial CE marked testing kits we use for the analysis in the CNS laboratory are, in fact, manufactured by our sister company, Genesis Diagnostics, and sold to laboratories all over the world. Thus, we are able to uniquely utilise the expertise and knowledge base from both sides of our company in this specialist area.”



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into gut health or disease. There is much interest in measuring and identifying the bacteria that make up our microbiome and the relationship to disease, but it is equally important to use markers to identify how well the various functions of these bacteria are performing,” Dr Abraham explained.

“This would include tests for digestion and absorption, barrier function, both in terms of immune reactions and intestinal permeability and evidence of inflammation. The presence of gut parasites is a significantly overlooked area of poor gut health; our experience has shown that 20-25 per cent of unexplained IBS like symptoms can be due to the presence of one or more parasites, so an accurate test performed by an experienced laboratory is vital.”

PRACTITIONER SUPPORT

For many years, CNS has enjoyed strong relationships with CAM practitioners, and in turn, it invests much time and resource into this partnership.

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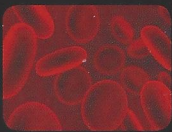
our flagship product is food intolerance testing (IgG antibodies) and there is still some confusion around this type of testing, we offer four seminars a year, which explain the background of IgG testing and why it is different to other types of food intolerance tests and, of course, allergy testing.

“We also try to accommodate practitioners by travelling to them, offering seminars both in the South and the North of Britain. This year is our first year to visit Edinburgh and it’s great to hear the feedback from practitioners of how nice it is to have meetings in their area than having to travel.”

Research is also an important focus, and the company has revealed that it is currently completing studies investigating the role of IgG mediated food antibodies in driving low-grade inflammation that is at the core of modern day chronic disease.

Dr Abraham explained: “Preliminary results are interesting and if correct will certainly help to give more guidance behind the IgG food intolerance mechanism. This will, of course, be invaluable to practitioners as it will help them to appreciate the benefit of offering the test, but also should help their clients to better understand the investment they are making when paying for a test.” *in Focus*

LABORATORY TESTING SERVICE



ANAEMIA (*Intrinsic Factor IgG*)

Tests for autoimmune pernicious anaemia.
Differentiates between other forms of vitamin B12 related anaemia.



CANDIDA (*Candida albicans IgG/IgM*)

An effective test to identify and monitor early stage, ongoing or past occurrence of *C. albicans*.



COELIAC DISEASE (*tTG IgA/IgG*)

A convenient and reliable screening method to detect the autoantibodies commonly associated with coeliac disease.



FOOD INTOLERANCE (*Food-specific IgG antibodies*)

FoodPrint® is an accurate and reliable method to detect adverse reactions to over 200 commonly eaten foods.



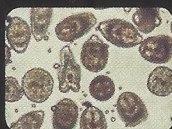
GASTRIC ULCER (*Helicobacter pylori IgG*)

Tests for antibodies against *H. pylori*, a bacteria that can cause inflammation, ulcers, gastric cancer and gastritis.



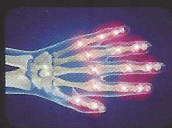
HISTAMINE INTOLERANCE (*Diamine oxidase (DAO)*)

A convenient and reliable method to detect circulatory levels of DAO - the enzyme responsible for metabolising histamine.



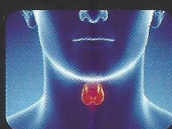
PARASITES (*Microscopic examination*)

Parasitic infections can be responsible for leaky gut syndrome and the development of food intolerances.



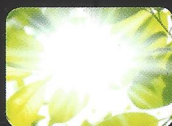
RHEUMATOID ARTHRITIS (*Rheumatoid factor IgA/IgM, CPA*)

Therapies can dramatically reduce disease progression, so early intervention is important to avoid long-term damage to joints.



THYROID (*TPO antibodies*)

Helps to confirm autoimmune thyroiditis and is often the only indication of underlying disease.



VITAMIN D (*25-OH Vitamin D*)

A low level of 25-OH Vitamin D is the most reliable marker of deficiency.
Growing evidence shows a link with many chronic diseases.

For more information about our laboratory tests, please visit the CNS website or contact us on 01353 863279.