

Hello, I am Dr. Alexander Bralley, Founder and CEO of Metametrix. Our mission is to improve the health of individuals by providing clinicians with state-of-the-art laboratory tests for nutrients, toxicants, and other biochemical influences on health.

Since our inception in 1984, Metametrix has introduced many industry innovations. Among these are

- Quantitative organic acid profiling for functional nutrient status
- Quantitative fatty acid analysis
- Blood spot tests for food antibodies, amino acids and fatty acids
- We wrote the first and only book, now in its second edition, on the scientific evidence for the application of functional tests to chronic illness. Our team of over a dozen doctorate level application developers continues to publish research papers on new patent pending test applications for the integrative functional medicine clinician.

Now I'd like to introduce another exciting "first" from Metametrix – GI Effects, the next generation gastrointestinal function test that represents a truly comprehensive digestive stool analysis.

Microbiology techniques have not changed significantly since the days of Pasteur. These techniques identify organisms through culture. An explosion of technology in DNA analysis inspired the recent human genome project. Today we are able to identify the presence of organisms by their unique DNA sequences. GI Effects uses DNA analysis to identify microbes that affect gut ecology and GI, immune and neuronal function. Stool analysis that does not take advantage of these scientific advances is using old technology, resulting in sub-standard information for patient care.

So what are the benefits of GI Effects over the old stool analysis?

1. **At last – a test that identifies anaerobes!** Anaerobes comprise over 95% of the bacteria in the gut, but culture methods cannot detect them. Consequently, clinicians using the old stool analysis are getting an extremely limited view—5% at best—of the actual microbial population in the intestine. Through DNA identification, GI Effects can accurately detect both gut aerobes AND the much more prevalent anaerobes. If you feel you have been getting good patient results with only 5% of the information, imagine the results you can achieve with the other 95%!
2. **Solves sample transport problems.** Sample transport is a source of significant error in the old stool analysis. Since it requires culture, it also requires growth medium to transport the specimen live. This causes selective growth of some microbes at the expense of others, resulting in a microbial balance when the specimen arrives at the lab that can be quite different from that at the time of collection. Since GI Effects identifies microbiota through DNA analysis, the specimen can be placed into a fixative tube that stops microbial growth at the time of collection, producing a highly accurate snapshot of the microbial balance that actually exists in the gut.
3. **Requires only one sample collection.** Old stool analysis requires multiple collections to identify parasites in the stool by manual microscopic screening; GI Effects requires *only one collection*. While old stool analysis technology requires up to 25,000 cells per gram of sample for accurate identification, the new DNA techniques are so sensitive they can accurately identify a parasite with as few as five cells per gram of sample. This reduces turnaround time and improves patient compliance.

4. **Identifies antibiotic resistance genes.** GI Effects detects organisms possessing genes that give rise to antibiotic resistance. Such identification is not available with old stool analysis. Combined with normal culture and sensitivities, this significant new information gives the clinician superior tools for effective patient treatment.
5. **Identifies “Fat bugs.”** Recent research has shown that an imbalance of certain mainly anaerobic bacteria in the gut can cause obesity. Only GI Effects can measure these imbalances, providing information that can guide and monitor pre- and/or probiotic therapy to alter gut ecology.
6. **Detects Pathogens -- no add-ons necessary.** Old stool analyses cannot identify the anaerobic pathogens *h. pylori*, *h e. coli* and *c. difficile* through culture. They must rely on additional techniques for identification, which can significantly increase the cost of the test. GI Effects, using the power of DNA analysis, can detect the presence of these pathogens at no additional charge.
7. **All you’re used to -- and more.** GI Effects includes the familiar chemistries, enzymes, drug and botanical sensitivity testing found in other stool analyses. In addition, it includes elastase 1, a sensitive marker of pancreatic function; gliadin-specific sIgA, a screen for gluten sensitivity; and, of course, the drug-resistance genes, fat bugs, and the anaerobes – all at no additional charge!
8. **Significantly faster turnaround time.** While culture techniques require several days for bacterial growth, DNA identification can be performed immediately, shortening turnaround time by several days.

Metametrix is very excited to be the first clinical laboratory in the world to apply this groundbreaking new technology to functional stool analysis. GI Effects is a stool analysis that truly deserves the term “comprehensive,” at a price that makes it a real value. GI Effects—the new standard in GI function testing—is another “Next Generation” technological innovation from Metametrix Clinical Laboratory.

Thank you for your interest. For more information please see the links below.