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Health Hunters

Newsletter

A service of Riordan Clinic, cofounded in 1975 by Olive W. Garvey and Hugh D. Riordan. The Riordan Clinic is a not-for-profit 501(c)(3) corporation. Go to www.riordanclinic.org to make your tax deductible donation today or visit us at 3100 N. Hillside, Wichita, KS 67219.



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The Super Probiotic



THE AUTHOR

Dr. Ron
Hunninghake, MD

Are we human, or are we bacteria?

Bacteria are the oldest living organisms on the planet. As simple single-celled microorganisms, they absorb nutrients from their environment, grow until they have doubled in size...then they divide. They have only one long strand of DNA that encodes all their traits and genetic functions. When they divide, this strand is replicated. Given a nutrient rich environment, bacteria can multiply very rapidly to large numbers.

Most people know that their digestive tracts are home to what are commonly referred to as "the friendly bacteria." The actual number is over 100,000,000,000,000 (100 trillion) bacteria and other symbiotic microbes. Counting the gut, the bacteria in anatomical cavities such as our sinuses, and then the large numbers on our skin, these microbes outnumber human cells by a factor of 10 to 1!



Even more striking is that the microbial genes of this "human microbiome" (as renamed by the National Institute of Health) outnumber human genes by a factor of 100 to 1! Since all life is carried out by genetic information, this amazing statistic begs the question—are we more bacterial than we are human?

This biomass of bacteria and other microbial species actually outweighs the human liver. As previously unsuspected functions of the human microbiome are being discovered, scientists now speaking of it as the "forgotten organ" within the body. The following chart may represent just the tip of the iceberg of important microbiome functions in regulating and maintaining human health:

control of unwanted pathogens in the gut	regulation of immune function
synthesis of vitamin K and biotin	enhanced mineral bioavailability
synthesis of many neurotransmitters	detoxification and inflammation regulation

The Super Probiotic continues on page 2...

Contact the Editor

Please send any comments or suggestions to newseditor@riordanclinic.org.

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Editor

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Health Hunters Newsletter

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Probiotics Are "For Us"

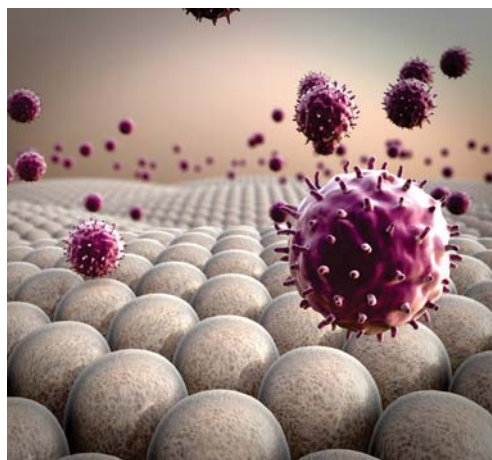
The first yogurts and kefir probably occurred in the milk-filled goat stomach bags draped over the backs of camels in the hot deserts of North Africa. Temperatures reaching 110°F were ideal for lactic acid-producing bacteria found in the stomach linings to go to work. Since this early period in human history, many races have fermented dairy to improve "shelf life" and enjoy the many diverse tastes.

Nobel laureate Metchnikoff in the early 1900s reported on the enhanced health effects and improved longevity of those consuming fermented milk products. Because

these bacteria were found to be "for us" instead of "against us" the terminology of "probiotic" was introduced by Lilly and Stillwell in 1965. Probiotics are food supplements that promote healthy bacteria in the gut as opposed to "antibiotics" which are pharmaceutical agents that generally kill both pathogenic and friendly bacteria. The following chart lists typical symptoms that can be improved by the regular consumption of probiotics.

diarrhea	vaginitis	bloating
flatulence	lactose intolerance	indigestion
constipation	food allergies	"brain fog"

Probiotics also promise better immune function. How can bacteria in the gut help our immunity?



The Mighty Macrophage

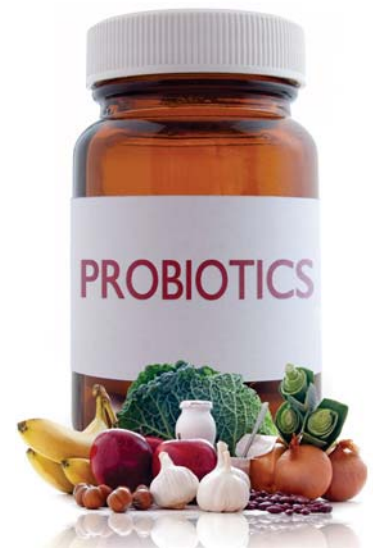
The defensive linebacker of the cellular immune system is the macrophage. These "Pacman" cells not only gobble up invading viruses and bacteria, they generally direct the other elements and various cell types in a synchronized immune defense.

There are two branches of the immune system in which the macrophage functions: the innate (non-specific immune defense) and the adaptive (specific immune defense mechanisms).

Macrophages are themselves signal-directed. The signal that activates macrophages (and subsequently the whole immune response) is a glycoprotein (a molecule made up of a sugar and a protein) called "Gc protein-derived Macrophage Activating Factor." The abbreviation for this long name is GcMAF.

The important precursor to GcMAF is "Gc" a big protein with 458 amino acids containing three domains. The first domain of Gc binds vitamin D. For this reason

The Super Probiotic continues on page 3...



Gc is sometimes called "vitamin D binding protein" (though vitamin D is not required for activation of Gc.) There's a small sugar attached on the threonine amino acid at position 420 of Gc...i.e. position 420 is "glycosylated."

When injury, inflammation, or any immune challenge is detected in the body, the sugar at position 420 is "deglycosylated" by enzymes produced by B and T-lymphocytes. The result is the conversion of Gc into GcMAF - one of the most powerful activators of the entire immune system discovered to date.

Enter the Super Probiotic

Interestingly, the same enzymes used by the immune system to transform Gc into GcMAF appear to occur during fermentation of milk.

Perhaps Metchnikoff's observation of "favorable health effects" in those consuming fermented milk products was, in actuality, the first documentation of enhanced GcMAF formation in the body from a natural food source.



It is reasonable to assume that the many and various strains of bacterial cultures in fermented dairy and the ever-growing list of probiotic bacteria probably represent different levels of effectiveness in the production of these Gc-to-GcMAF transformative enzymes.

This thinking leads to an intriguing question: would it be possible to create a "super probiotic food" made from a re-engineering of the milk fermentation process so designed to take optimal advantage of nature's method of making GcMAF?

This has been the working hypothesis of Dr. Marco Ruggerio, an Italian radiologist who for the last three years has been diligently attempting to "crack the code" so as to harvest this potential bounty of enhanced natural immune function. Marco has rounded up bacterial ferments from all over the globe, skillfully combining the art and science of milk fermentation to create a special "medical food" which holds tremendous possibilities for humankind.

Why? Because so many of modern man's most vexing chronic illnesses tie back to dysfunctional immunity. The following chart is just a summary of the many medical mysteries that involve immune dysfunction:

CFIDS	AIDS	MS
Fibromyalgia	Cancer	Lupus
Candidiasis	Autism	Severe IBS
Crohn's Colitis	Rheumatoid Arthritis	Parkinson's

This list alone serves as reason enough to thoroughly investigate the possibilities of finding a dairy fermentation formula that would regulate, heal, and optimize human immune function.

But then, with modern research demonstrating the remarkably diverse ways that the human biome influences overall human health - from chronic mood disorders,

NUTRIENT STORE

"inner-ēco™ Fresh Coconut Water Probiotic is hand crafted and made in small batches using freshly harvested coconut water from young green coconuts at the peak of their nutritional life. Lab tested to contain boundless amounts of live, probiotic cultures per serving inner-ēco™ is a living food created to build and nourish the inner ecology of your body."

Source:
www.inner-eco.com

"I like to mix the inner-ēco with seltzer water, lemon, and ice. It makes a refreshing and delicious way to get in my probiotics!"

—Dr. Ron Hunninghake
Chief Medical Officer,
Riordan Clinic



MICROBIOME PATIENT PROFILE

by Chris Brannon

If the human microbiome organisms outnumber our human cells by 10 to 1 it makes perfect sense that researchers are looking further into what role they play in our bodies. This increase in awareness allows the information to reach many people than ever before. New research breeds curiosity and people want to know if any of these findings can help them find better health. Welcome to the Riordan Clinic.

During an extensive initial visit at our clinic, a 23 year old co-learner described her symptoms as: nausea, abdominal pain, constipation/diarrhea, gas, fatigue, and headaches. Our Doctor was intent on listening to the patient to gain the whole picture from birth, family history, and what she has already tried prior to coming here. Comprehensive laboratory testing was obtained, including cytotoxic food sensitivity, and she was instructed to start taking magnesium. IV Vitamin C was also recommended on a weekly basis.

At the first follow up appointment progress was already noted. Headaches and stomach pains have improved and overall enthusiasm is better. She believes that the dietary changes that were made after reviewing the food sensitivity test were the big difference maker for the improvement. Cutting out sugars and breads will help promote

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psychiatric illness, heart disease, diabetes, obesity, and the whole gamut of modern degenerative and inflammatory illness - suddenly these complex illnesses become viable targets for a breakthrough in a food technology that would revolutionize sickness care around the world!

The Nagalase Nemesis

But there's a big fly in the soup. There is a nemesis enzyme that is activated by viruses, cancer, and other causes of chronic inflammation. The very conditions that are begging for a more effective natural therapy actually sabotage the Gc before it can be activated to GcMAF.

The enzyme's technical name is: alpha-N-acetylgalactosaminidase...but it has been mercifully abridged to the name NAGALASE.

This enzyme destroys Gc - the precursor of GcMAF. GcMAF is left untouched by it. So, ironically, when the body needs immune support the most, it is often left with inadequate "ammunition" to arm and activate its troops, the macrophages.

Nagalase activity has been used a biomarker for tumor activity (i.e. melanoma) as well as a marker for the progression of various immune suppression diseases such as AIDS and XMRV, a human retrovirus that is associated with CFS (Chronic Fatigue Syndrome.)

Therefore, in patients with elevated nagalase levels who are struggling with chronic infection, chronic inflammation, and even cancer, it should be evident that they could benefit from GcMAF.

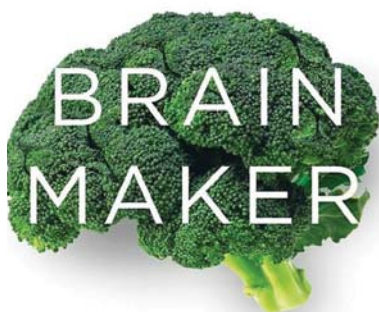
GcMAF has been synthesized in the laboratory and can be given by injection. However this is expensive and unlikely to be used by the masses of humanity suffering under the weight of chronic immune dysfunction.

MAF314

Dr. Marco came to the United States this past October to present at the 3rd Riordan Symposium on IVC and Cancer. He introduced us to over 40 published studies that document the benefits of GcMAF in cancer patients. He discussed the human biome and the role that GcMAF could play in helping humankind re-establish a healthier relationship with its "bacterial heritage."

BY THE AUTHOR OF THE NO.1 NEW YORK TIMES
BESTSELLER **GRAIN BRAIN**

*The Power of Gut Microbes to Heal and
Protect Your Brain - for Life*



DR DAVID PERLMUTTER

WITH KRISTIN LOBERG

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Dr. Marco provided the Riordan Clinic with an opportunity to serve as a test site for his discoveries in the re-engineering of milk fermentation with the explicit purpose of optimizing the production of GcMAF from a natural food. In order to set this food apart from table yogurt or kefir, he prefers to refer to it as a "medical food" he has designated MAF314.

Dr. Marco has developed a home preparation kit where you can learn how to make your own MAF314 and consume it daily for one year as a medical food treatment for any serious

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immune challenge. Go to www.bravousa.com to find how you can buy the kits for making MAF314 for yourself at home. Or read Dr. David Perlmutter's new book, "Brainmaker," to find many other natural ways to boost your own biome.

Conclusion

A famous naturopathic truism goes like this: "Death begins in the gut." As I grow in my knowledge of natural medicine, I have learned to appreciate the profound truth of this warning. As the digestive system goes, so goes the patient's health. And digestive health is highly influenced by the health of the living organisms that occupy it.

So, take good care of your gut bacteria...science is showing that they're as much you as you are!

All About Fermented Foods



THE AUTHOR

Dr. Ola Buhr, MD

Exploring the world of fermented foods can be exciting and rewarding not only for our palette, but also for our health. These cultured and fermented foods are rich in probiotics, vitamins, minerals, and enzymes. Neither pasteurization nor refrigeration is required. Not only is fermentation a great way to preserve food, but also the gut healing and health promoting properties will continue to add exceptional biodiversity to our microbiome.



For thousands of years people around the world have recognized the benefits of fermented foods. The well-known sauerkraut has been prepared since the 16th century in Eastern Europe where cabbage was cured with salt causing lactic acid producing bacteria to ferment its sugars, creating a sour yet delectable dish. Asian cultures serve kimchi, a condiment where a variety of vegetables can be fermented, some of which include napa cabbage, cucumber, radish, garlic, and ginger. Kimchi is traditionally prepared in jars that are fermented underground for many months. Japanese food incorporates miso paste into the diet; miso contains a whopping 161 strains of aerobic bacteria! Traditionally, soy sauce is brewed from several microbes including yeast and *L. acidophilus*. Many people who are lactose-intolerant can still enjoy probiotic rich cottage cheese, buttermilk, kefir, and yogurt. African cultures ferment cassava using either aerobic or anaerobic methods.

All about Fermented Foods continues on page 6...

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growth of the "good" gut flora. Laboratory review showed a strong need for Vitamin C, Vitamin D, Vitamins B2 and B6. Supplementation to correct these deficiencies along with a probiotic and zinc were suggested for continued improvement.

Now, after only 2 months of weekly iv Vitamin C and the noted supplementation, this co-learner continues to have steady improvement and is actually able to look forward to an upcoming busy school schedule.

The Riordan Clinic approach of "digging down" to find the root cause of symptoms was able to gain yet another great outcome that, if continued, will lead to a more energetic and functional life. All of this is thanks to supporting her immune system and suppressing many small organisms throughout our bodies that are most often overlooked by traditional standards.



Doctor Call Time

30 Minute Conference Calls for Potential Patients

1.800.615.2900

Access Code #2571701

Mondays, 5:30pm
Ron Hunninghake, MD

Tuesdays, 1:00pm
Anne Zauderer, DC

Wednesdays, 8:00am
Karen Wheeler, APRN

Wednesdays, 5:30pm
Jennifer Kaumeyer, ND

Thursdays, 5:30pm
Ola Buhr, MD

Fridays, 1:00pm
Karen Wheeler, APRN

Learn more about our team at:
riordanclinic.org/who-we-are/team/

Nutrient Store continued from page 5...

Making fermented foods at home can be a cost-effective and efficient process. There are many recipe books and websites devoted to making fermented foods such as sauerkraut, kombucha, yogurt, and kefir. Sauerkrautrecipes.com is a good place to start; you can also purchase probiotic rich



starter cultures from culturesforhealth.com for example. Have fun and experiment, there are numerous tasty possibilities just waiting to be created!

Dr. Elizabeth Lipski in her book, *Digestive Wellness*, describes how “many foods are fermented or cultured with the use of lactic-acid-producing bacteria, such as *Lactobacillus*, *Leuconostoc*, *Pediococcus*, and *Streptococcus*...[these] lactic-acid-producing bacteria inhibit the growth of disease-causing microbes.” Remember, beneficial bacteria do not always stay in our gut; we need to replenish them often by eating fermented and cultured foods on a regular basis. This allows us to maintain a well-balanced gastrointestinal ecosystem. Current research suggests that these microbes are only “transient residents” within our intestines and may stay in our body for up to 12 days.¹ It is also important to feed these live bacterial cultures that reside within us “prebiotics”. Prebiotics are sugar molecules such as fructooligosaccharides and inulin. *L. acidophilus* and *bifidobacterium* will increase in large numbers when food-containing prebiotics is consumed. Examples of prebiotics include: asparagus, banana, chicory, dandelion greens, fruit, garlic, honey, Jerusalem artichokes, legumes, and onions.

Probiotic Rich Foods (*List taken from Digestive Wellness book*)

Amasake (Japanese sweet rice beverage)	Miso
Beer (microbrew)	Natto
Black tea, oolong tea	Olives
Buttermilk	Pickles (brine cured, no vinegar)
Cheese	Pulke
Chocolate	Raw vinegars with “the mother”
Coconut kefir	Raw whey
Coffee	Root and ginger beers
Cottage cheese	Sauerkraut
Fermented sausages and meats	Sourdough breads (traditionally made)
Fermented Vegetables	Tempeh
Kefir	Wheat grass juice
Kimchi	Wine
Kombucha	Yogurt
Lassi	
Leban	

1) Lipski, Elizabeth. *Digestive Wellness: Strengthen the Immune System and Prevent Disease Through Healthy Digestion*. New York: McGraw Hill, 2012. Print.

2) www.culturesforhealth.com

3) www.sauerkrautrecipes.com

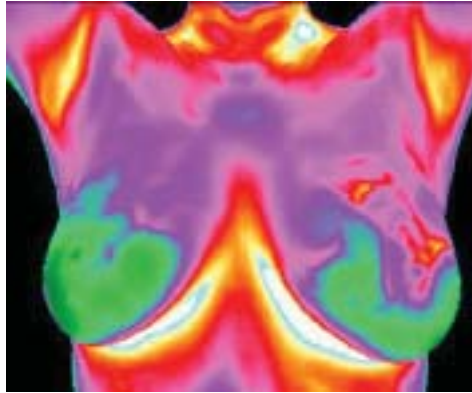
BREAST THERMOGRAPHY

What is Infrared Thermography?

Infrared Thermography uses an FDA approved medical grade Infrared Camera to detect subtle variations of heat radiating from the surface of the body. Its use in cancer prevention and early detection is based on the principal that as a cancerous tumor develops, there is increased circulation and metabolic activity in the area which correlate to a rise in radiant heat that can be detected by the infrared camera. These metabolic changes can be identified well before a noticeable mass develops, up to 8 years earlier in some cases. In some cases, such as Inflammatory Breast Cancer, there are no lumps to be detected by self-exam or Mammography.

How is Infrared Breast Thermography Different from Traditional Mammography?

Unlike Mammography, Infrared Thermography is a completely non-contact and pain-free procedure. There also is no radiation exposure. Mammography uses an X-Ray to capture an image that is a shadow of dense structures in the breast. It has an 80% sensitivity, which means that it correctly identifies malignant tumors 80% of the time, in women over age 50. It has lower sensitivity in women under age 50.



Difficulties in reading mammograms can occur in women who are on hormone replacement, nursing or have fibro-cystic, large, dense, or enhanced breasts. These types of breast differences do not cause complications in reading digital infrared scans. Thermography is designed to be an adjunctive screening and is best used in combination with other screening tools.

It has a 90% sensitivity in women of all ages. Since it detects physiological changes in tissue, a positive infrared image is the highest known risk factor for the existence of or future development of breast cancer. It is important to note that neither Mammography nor Thermography diagnose cancer. Only a biopsy can determine if a questionable area is malignant.

Prevention is Key

Breast Cancer is a leading concern for all women, and is even becoming more common among men. As a woman, you have a 1 in 8 chance of developing breast cancer at some point in your lifetime. Fortunately, nearly all breast cancers can be treated successfully if they are found early. The five-year survival rate for women whose breast cancer is found and treated in its early stages is nearly 100%. Detecting breast cancer early gives you a lifesaving head start on the road to treatment and optimal health.

Just as unique as a fingerprint, each patient has a particular infrared map of their breasts. Any variation of this infrared map on serial imaging (images taken over months to years) may indicate an early sign of an abnormality. Stay proactive and in charge of your health by making Infrared Thermography a part of your annual routine.

For more information or to schedule an appointment, please call: 316.682.3100

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SHARE your STORY



As Riordan Clinic celebrates its 40th year we would love to hear stories of your experiences! Do you have a story about a particular staff member that touched your life? A service or therapy that impacted you in a positive and lasting way? Maybe a story of an event that you attended or a note about the campus?

To share your story with us, please visit:
riordanclinic.org/shareyourstory



OPTIMAL KIDS PROGRAM

Improve your child's behavior, learning and mood through lifestyle and dietary modifications along with proper nutrient supplementation.

Our approach investigates the root cause for children who are suffering from behavior, learning, anxiety and depression issues. Optimal Kids is designed for parents and loved ones who want to avoid medication while still improving the child's day to day life.

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- Poor focus and memory
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- Digestive complaints
- Hyperactivity
- Headaches
- Developmental delays
- Asthma and allergies
- Poor sleep habits
- Food sensitivities
- Depression
- Anxiety

And please include the phone number **316.531.6242** to learn more or schedule an appointment.



Optimal Kids

Improve your child's behavior, learning and mood



#REALHEALTH PROCLAMATION

The morning of September 1st, 2015, Mayor Jeff Longwell presented a proclamation at the City of Wichita- Government City Council meeting declaring September 2015 as Real Health Awareness Month. Thank you Mayor Longwell for this recognition of the mission of #RealHealth.



The proclamation reads:

“Whereas, since its inception in 1975, the Riordan Clinic has been helping thousands of people improve their health and quality of life; and

Whereas, through innovative research, the Riordan Clinic strives to pioneer natural therapies for the advancement of medicine and improvement of human functioning, such as the Riordan Protocol, recognized worldwide as a fundamental therapy using high dose vitamin c; and

Whereas, through educational programs and international conferences, the Riordan Clinic continues to spread awareness of health and wellness worldwide; and
Whereas, the Riordan Clinic is unwavering in its mission to stimulate an epidemic of good health for the benefit of humankind,

Now, Therefore, Be it Resolved, that I, Jeff Longwell, Mayor of the City of Wichita, Kansas, along with the Wichita City Council, do hereby proclaim September 2015, as Real Health Awareness Month in honor of the 40th anniversary of the Riordan Clinic and call upon the people of Wichita to acknowledge the importance of a healthy diet and lifestyle balanced through nutrition, exercise, rest, and prevention as the essence of "Real Health", with appropriate ceremonies and activities and to further encourage schools, businesses, media, religious institutions, civic and service organizations to join in the acknowledgement of healthy living and improved wellbeing in commemorating "Real Health Awareness Month".