

## Guillermou

A transcendental document, by Dr. Mercola, which includes a perspective on the involvement of the intestinal bacterial genome, intestinal architecture, diet and lifestyle, with age-related factors that allow intestinal colonization to be restored. Recent association studies of the microbiome genome reveal that variants in many human genes involved in immunity and bowel architecture are associated with an altered composition of the gut microbiome, in concert with environmental factors such as diet and lifestyle, predisposing individual towards dysbiosis, which is an important factor in diseases of metabolism and immunity. Variants in individual genes (eg, LCT, NOD2 and FUT2) affect the composition of the intestinal microbiota. In addition a subset of species in the intestinal microbiome are heritable, especially representatives of the Firmicutes and Verrucomicrobia phyla. Microbiome studies of genome association are fundamental for the identification of host genetic variants that affect the progression of the disease to the composition of the microbiome. Taxonomic and functional changes to the composition of the intestinal microbiota have been implicated in multiple human diseases.

Human genetic variation and the gut microbiome in disease

[www.researchgate.net/publication/319204015\\_Human\\_genetic\\_variation\\_and..](http://www.researchgate.net/publication/319204015_Human_genetic_variation_and..) (2017). Available pdf download:///

Host Genetics and Gut Microbiome: Challenges and Perspectives

[www.sciencedirect.com/.../S1471490617301060](http://www.sciencedirect.com/.../S1471490617301060)

We can consider the main factors that influence the composition of the intestinal microbiome. 1. The physical architecture of the intestine. The intestinal architecture is probably the most important factor that influences the composition of the intestinal microbiome. The intestinal architecture, the phylogenetically related and defined species tend to have intestinal microbiomes more similar than those related to distant species.

## Guillermou

A recent study of how different microbial communities colonize the intestine, showed that the deterministic mechanisms, led to the reproducible conformation of the microbiota regardless of the source of the input community. One of the benefits offered by the microbiota to the host is resistance to colonization of pathogens. In this review, we analyze the spatial distribution of how symbiotic bacteria between physical niches, in the intestine, for the maintenance of a resistant microbial ecosystem Gut biogeography of the bacterial microbiota. [europepmc.org/.../pmc4837114](https://europepmc.org/.../pmc4837114) (2016).///

2. Genetics, diet and lifestyle. Long-term diet influences the structure and activity of the trillions of microorganisms that reside in the human gut. In this study, these changes are analyzed by diet and lifestyle. Diet rapidly and reproducibly alters the human gut microbiome. [europepmc.org/.../pmc3957428](https://europepmc.org/.../pmc3957428) (2014).///

Additional genes are involved in barrier defense and recognition. Host genetics influence the abundance of intestinal bacteria associated with health. Many hereditary taxa can concur. Christensenellaceae, is associated with a lean body mass index. Genetic Determinants of the Gut Microbiome in Twins. [www.sciencedirect.com/.../S1931312816301536](https://www.sciencedirect.com/.../S1931312816301536) (2017).///

Human Genetics Shape the Gut Microbiome. [www.sciencedirect.com/.../S0092867414012410](https://www.sciencedirect.com/.../S0092867414012410) (2014).///

Genetic variants influence the composition of the intestinal microbiome by contributing to aspects such as intestinal architecture, diet, body mass index and immune system activity. Diet Dominates Host Genotype in Shaping the Murine Gut Microbiota. [www.sciencedirect.com/.../S1931312814004260](https://www.sciencedirect.com/.../S1931312814004260) (2015).///

Heritable components of the human fecal microbiome are associated with visceral fat. [genomebiology.biomedcentral.com/articles/10.1186/s13059-016-1052-7](https://genomebiology.biomedcentral.com/articles/10.1186/s13059-016-1052-7) (2017).///

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## Guillermou

3. Antibiotics. The use of antibiotics can also have marked effects on the composition of the gut microbiome. The intestinal microbiome of children born vaginally was further dominated by Bacteroides species. Children born by cesarean section lacked Bacteroides in the first 6 to 18 months. The microbiota of children treated with antibiotics was less diverse. Genes also showed alterations. In adults, antibiotic treatment has been reported to affect both the richness and diversity of the microbiota and is associated with the decrease of bifidobacteria, as well as Bacteroides-Prevotella. Natural history of the infant gut microbiome and impact of antibiotic treatment on bacterial strain diversity and stability. [europepmc.org/.../pmc5032909](https://europepmc.org/.../pmc5032909) (2017).///

4. The age. Age also has specific effects on bowel diversity and richness. Microbiome A significant reduction in the proportion of lactobacilli, Bacteroides / Prevotella and Faecalibacterium prausnitzii, and an increase in the proportion of Ruminococcus, Atopobium, and Enterobacteriaceae was observed in individuals with high fragility scores Aging and the human gut microbiota, from correlation to causality. [www.frontiersin.org/.../full](http://www.frontiersin.org/.../full) (2015).///

Before the age of 3, the intestinal microbiome has a "childlike" configuration that is characterized for a lower diversity of species, to later obtain the configuration of "adult". This review describes the recent studies on early colonization and factors that influence this process that impact on health, from the prenatal state. Birth, feeding, lifestyle and genes, as well as related diseases.

The composition of the gut microbiota throughout life, with an emphasis on early life..[europepmc.org/.../pmc4315782](https://europepmc.org/.../pmc4315782) (2016).///

Experimental evaluation of the importance of colonization history in early-life gut microbiota assembly. [www.ncbi.nlm.nih.gov/.../PMC6143339](http://www.ncbi.nlm.nih.gov/.../PMC6143339) (2018).//

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## Victoriaeliz

I make organic goat milk kefir with the grains and drink it every day. As well, I make Kombucha with the scobi which is also part of my daily diet. I should ferment some veggies like sauerkraut. My daughter feels the difference after several days of no kefir and Kombucha . Do I still need to take a probiotic pill?  
Be well!

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## Guillermou

Hi Victoria. How well do you take care of yourself? The kombucha is exceptional. I also take, alternatively, yogurt from goat's milk, kimchi, natto. cabbage sauerkraut and fermented other vegetables such as beets (all unpasteurized), and unfiltered and unpasteurized apple cider vinegar. I believe that if you take a good diet and take many fermented, I think that good health is guaranteed, although it depends on personal characteristics. Experience is the master key. Taking probiotics when there is an intestinal or health change is positive, if the probiotic is warranted and very complete in its composition.

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## **caws**

OMG! They used Metronidazole [Flagyl] and Cipro? The first is carcinogenic and the second has been banned by FDA for all but Plague, MRSA or Anthrax. because it is a topoisomerase inhibitor that ALTERS THE DNA OF BACTERIA [and mammalian cells] AT THE POINT OF REPLICATION; making it a CHEMO DRUG. By the way Flagyl while not an FQ also alters DNA.

So while they may have seen the similar levels & genus of bacteria after the "natural " recovery of these poor guinea pigs ; did they even think to check to see if the bacteria had been altered and were still functional? Did the subjects take a full course? How many now have connective tissue disorders? Were they warned of the risk? FQs have had warnings for tendon rupture, tendonitis, permanent peripheral neuropathy and C difficile for 12 years. They are in litigation for causing delayed retinal detachment, aortic aneurism and aortic stricture. Many of us have lost teeth because the peritoneal ligament detaches causing the tooth to die from the inside out. Catch Lyme disease and it can take up residence inside your teeth. Case in point one of the first "die off "symptoms I experienced during Lyme treatment was aching teeth & jaw bone. Fluorine laced drugs [like for osteoporosis] cause "fossil jaw" too. Please avoid all F enhanced drugs as there are safer, cheaper ,effective alternatives. Go to [www.slweb.org](http://www.slweb.org) and click on the FTRC link for 360+ examples.

It is a crime that with 900million FQ scripts written over last 30 years and the damage done [which starts with a permanently ruined gut & severe insomnia and ends with crippling pain] that fecal transplants are only allowed for C Diff in USA. I have taken every probiotic & done most dietary protocols on planet including spores and made little progress but denied the transplant.

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## **stanleybecker**

if the stool has only a 20% correlation to the microbiome as stated in the article - this begs the question " why do fecal transplants effectively reseed the gut? "

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Good question STAN. The intestinal microbiome of the small intestine is different than that of the large intestine. Also in the large intestine the initial microbiome is fermentation and the end predominates putrefaction. I understand that the 20 percent correlation between the gut microbiome and the feces microbiome is due to the fact that the stool sample mainly collects the final part of the large intestine and the small intestine bacteria that persist in the large intestine. This link is the fecal analysis in chickens, whose effectiveness is different than in humans, for its process and characteristics, it includes some aspects.

[www.biorxiv.org/content/biorxiv/early/2018/09/05/313577.full.pdf?%3Fco..](http://www.biorxiv.org/content/biorxiv/early/2018/09/05/313577.full.pdf?%3Fco..) (2018)

Regarding the effectiveness of the faecal transplant depends on the sample collected and I understand that the process involves a greater reception of the intestinal microbiome. Fecal microbiota transplantation or FMT is the transfer of fecal material containing bacteria and natural antibacterials from a healthy individual into a diseased recipient. Previous terms for the procedure include fecal bacteriotherapy, fecal transfusion, fecal transplant, stool transplant, fecal enema, and human probiotic infusion (HPI). Because the procedure involves the complete restoration of the entire fecal microbiota, not just a single agent or combination of agents, these terms have now been replaced by the new term fecal microbiota transplantation. [www.ncbi.nlm.nih.gov/.../PMC3223289](http://www.ncbi.nlm.nih.gov/.../PMC3223289)

Faecal transplantation is usually done by colonoscopy and, less frequently, by nasoduodenal tube. During colonoscopy, the colonoscope advances through the entire colon. As the colonoscope is removed, the donor's stool is sent through the colonoscopy to your colon. Before your procedure, you should follow specific preparation instructions.

[www.hopkinsmedicine.org/gastroenterology\\_hepatology/clinical\\_services/..](http://www.hopkinsmedicine.org/gastroenterology_hepatology/clinical_services/)

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## Guillermou

Hi ChrisColes. Normally the faeces are stored for fecal tests, such as molecular analysis. However, protein concentrations and measurements of protease activity are more reliable when carried out in the analysis of frozen fecal samples. The recovery of faecal samples, 1 g of the samples should be dispensed into storage containers, sterile suitable for future protein extractions. Care must be taken with samples that exhibit significantly higher levels of protease activity compared to the rest of the cohort after storage for more than 3 months as long maintained samples may not be representative of the intestinal microbiota from of that individual. Human fecal samples offer a highly reproducible means of accessing the protease activity of the human intestine, even after long periods of storage  
Assessing the impact of long term frozen storage of faecal samples on protein concentration and protease activity [www.ncbi.nlm.nih.gov/.../PMC4819717](http://www.ncbi.nlm.nih.gov/.../PMC4819717)

Long term formalin preserved stool specimens for detection of intestinal parasites from school aged children in Tripoli, Libya. [www.ncbi.nlm.nih.gov/.../18383804](http://www.ncbi.nlm.nih.gov/.../18383804)

Assessing the impact of long term frozen storage of faecal samples on protein concentration and protease activity [www.ncbi.nlm.nih.gov/.../PMC4819717](http://www.ncbi.nlm.nih.gov/.../PMC4819717)    Informacion sobre las pruebas de laboratorio, [www.cdc.gov/.../specimencoll.html](http://www.cdc.gov/.../specimencoll.html)

Fecal Collection and Stabilization Methods for Improved Fecal DNA Test for Colorectal Cancer in a Screening Setting [www.hindawi.com/.../818675](http://www.hindawi.com/.../818675)

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## ina24275

I've taken Dr. Mercola's \*Complete Probiotic\* for at least 2 years - 1 pill every morning. It prevented having any side-effects when I had to take an antibiotic and I have noticed that when I stop taking the Probiotic for a few days I start to get constipated. That's enough for me to continue taking it every day and at 73 I feel fine - bright-eyed and bushy-tailed.

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