

External ID

Name	Date of Birth	Order ID
First Name	Sex	Order Date
Sampling Date	Validation by	Dr. Herbert Schmidt
Sample Material	Validation Date	Findings Status
		Findings Date
		Final Report

Test	Result	Unit	Standard Range	Previous Result
------	--------	------	----------------	-----------------

Stool Diagnostics
Microbolome 1.0
Molecular genetic microbiome analysis 3.0
Stool Properties

Colour	brown				FE NA) VISU
Consistency	tough pasty				FE NA) VISU
pH	6,8		5,8 - 6,5		FE NA) TESTS

Biodiversity

Diversity	5,78		> 5,5		FE NA) MGSEQ
-----------	------	--	-------	--	-----------------

The bacterial diversity in the intestinal tract may vary considerably from person to person. Antibiotic therapies, infections, increasing age, unbalanced diets or smoking are causes of declining diversity.

Grad

5
Enterotype

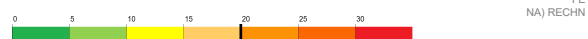
Bacteroides					FE NA) MGSEQ
-------------	--	--	--	--	-----------------

Human intestinal microbiomes can be differentiated into three Enterotypes. Enterotypes are defined by dominant bacterial clusters with distinct metabolic properties.

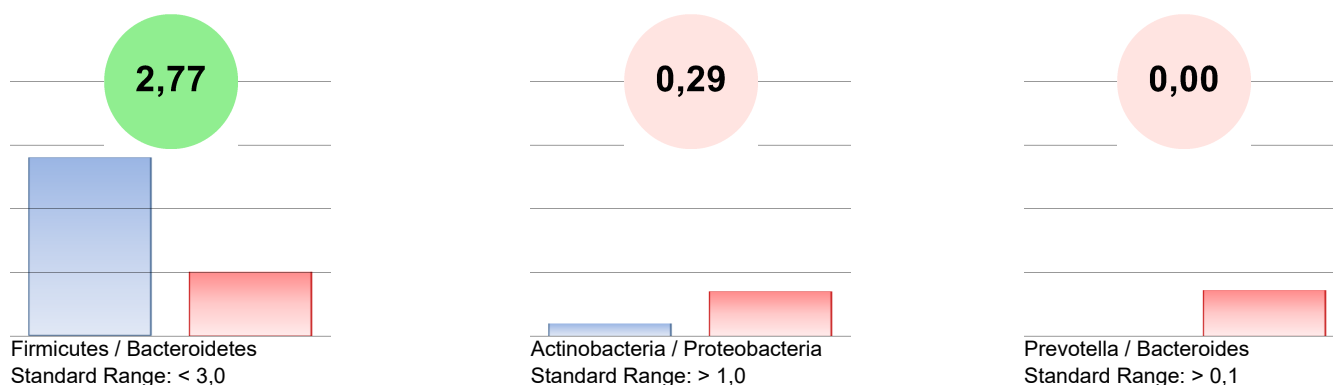
Enterotyp

1
Dysbiosis index

The dysbiosis index represents a measure of deviations within the microbiome. Depending on their relevance, all detected phyla, genera and species are considered.



Index

20
Ratio


* cooperate analytics (R), A) accredited, NA) not accredited, further information on the abbreviations can be found in our laboratory service list. FE=stool

Test	Result	Unit	Standard Range	Previous Result	Order Material Method
------	--------	------	----------------	-----------------	-----------------------

Phyla					
Actinobacteria	1,0	%	1,5 - 7		FE NA) MGSEQ
Bacteroidetes	25,3	%	20 - 45		FE NA) MGSEQ
Firmicutes	70,2	%	50 - 75		FE NA) MGSEQ
Fusobacteria	0,0	%	0,0 - 1,0		FE NA) MGSEQ
Proteobacteria	3,5	%	1,0 - 3,5		FE NA) MGSEQ
Verrucomicrobia	0,0	%	1,5 - 5,0		FE NA) MGSEQ
Other	0,0	%			FE NA) MGSEQ

Metabolome (functional groups)					
TMA / TMAO	266,0	%			
Ammonia	35,9	%			
Equol	-48,0	%			
Beta glucuronidases	-48,5	%			

Bacteria Phyla - most important genera and species

Actinobacteria

Bifidobacterium	7,9 x 10^9 CFU/g faeces	> 1,0 x 10^10		FE NA) MGSEQ
-----------------	-------------------------	---------------	------------------------	-----------------

Bacteroidetes

Bacteroides	1,8 x 10^11 CFU/g faeces	> 5,0 x 10^10		FE NA) MGSEQ
Prevotella	1,9 x 10^8 CFU/g faeces	> 1,0 x 10^10		FE NA) MGSEQ

Firmicutes

Butyrate producing bacteria

Total bacteria count	5,5 x 10^11 CFU/g faeces	> 2,4 x 10^11		FE NA) MGSEQ
Faecalibacterium prausnitzii	2,1 x 10^11 CFU/g faeces	>1,0 x10^11		FE NA) MGSEQ
Eubacterium rectale	7,6 x 10^10 CFU/g faeces	> 2,0 x 10^10		FE NA) MGSEQ
Eubacterium hallii	3,7 x 10^10 CFU/g faeces	> 1,5 x 10^10		FE NA) MGSEQ
Roseburia spp.	9,2 x 10^10 CFU/g faeces	> 3,0 x10^10		FE NA) MGSEQ
Ruminococcus spp.	6,5 x 10^10 CFU/g faeces	> 5,0 x 10^10		FE NA) MGSEQ
Coprococcus spp.	3,3 x 10^10 CFU/g faeces	> 5,0 x 10^10		FE NA) MGSEQ
Butyrivibrio spp.	3,5 x 10^10 CFU/g faeces	>1,5 x 10^10		FE NA) MGSEQ

Clostridia

Clostridia total bacteria count	7,3 x 10^9 CFU/g faeces	< 4,0 x 10^9		FE NA) MGSEQ
Clostridia Cluster I	1,1 x 10^8 CFU/g faeces	< 2,0 x 10^9		FE NA) MGSEQ
Clostridium histolyticum	< 1,0 x 10^5 CFU/g faeces	< 2,0 x 10^9		FE NA) MGSEQ
Clostridium perfringens	1,1 x 10^8 CFU/g faeces	< 1,0 x 10^8		FE NA) MGSEQ
Clostridium sporogenes	< 1,0 x 10^5 CFU/g faeces	< 1,0 x 10^8		FE NA) MGSEQ

Other Firmicutes

Christensenellaceae	3,8 x 10^8 CFU/g faeces	> 5,0 x 10^9		FE NA) MGSEQ
Dialister spp.	< 1,0 x 10^5 CFU/g faeces	< 4,0 x 10^10		FE NA) MGSEQ
C. butyricum	4,8 x 10^9 CFU/g faeces	> 1,0 x 10^8		FE NA) MGSEQ

Fusobacteria

Fusobacterium	8,1 x 10^6 CFU/g faeces	< 1,0 x 10^7		FE NA) MGSEQ
---------------	-------------------------	--------------	------------------------	-----------------

Verrucomicrobia

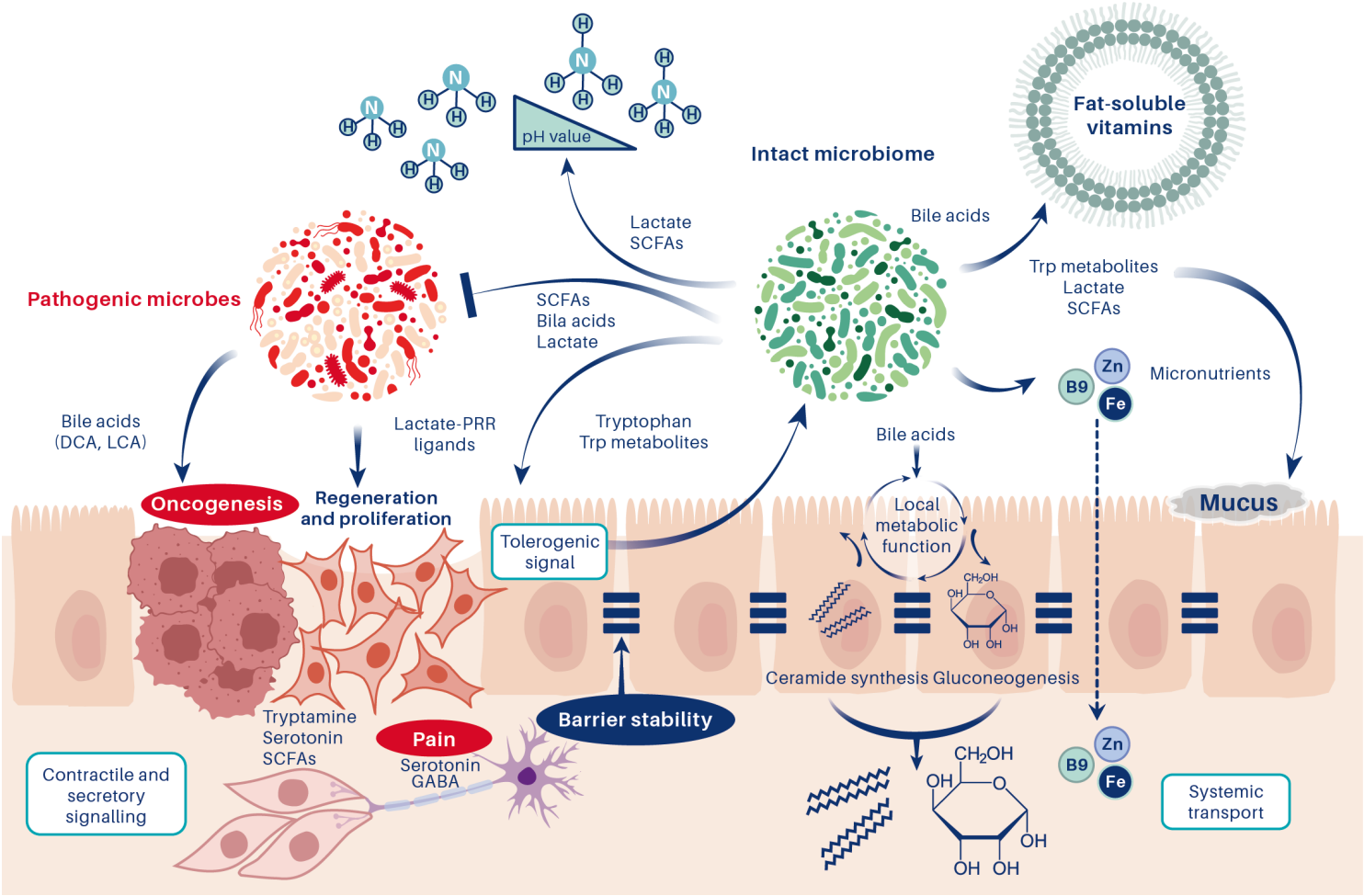
Akkermansia muciniphila	< 1,0 x 10^5 CFU/g faeces	> 5,0 x 10^9		FE NA) MGSEQ
-------------------------	---------------------------	--------------	------------------------	-----------------

Proteobacteria

* cooperate analytics (R), A) accredited, NA) not accredited, further information on the abbreviations can be found in our laboratory service list.

[illegible]

Test	Result	Unit	Standard Range	Previous Result
Pathogenic intestinal protozoa				
Giardia lamblia	negative		negative	FE A) MOLEK
Entamoeba histolytica	negative		negative	FE A) MOLEK
Cryptosporidium species	negative		negative	FE A) MOLEK
Cyclospora cayetanensis	negative		negative	FE A) MOLEK CC



Irritable Bowel Relevant Metabolites					
Histamine	46,2	μmol/l	< 5		FE NA) LCMS
Tryptophan	41,2	μmol/l	> 14,5		FE NA) LCMS
Serotonin	1,8	μmol/l	0,8 - 4,5		FE NA) LCMS
GABA	494	μmol/l	> 60		FE NA) LCMS
Amino Acids (Precursors)					
Tryptophan	41,2	μmol/l	> 14,5		FE NA) LCMS
Tyrosine	350	μmol/l	> 50		FE NA) LCMS
Phenylalanine	216	μmol/l	> 35		FE NA) LCMS
Toxins					
Tryptamine	1,54	μmol/l	0,05 - 19,99		FE NA) LCMS
Indoxyl sulphate	<0,20	μmol/l	< 0,2		FE NA) LCMS
p-Cresol sulphate	0,16	μmol/l	< 1,5		FE NA) LCMS
Kynurenic acid	4,18	μmol/l	0,1 - 7,49		FE NA) LCMS
Composite Parameter					
Toxin- Score	0	Index	< 3		FE NA) LCMS

* cooperate analytics (R), A) accredited, NA) not accredited, further information on the abbreviations can be found in our laboratory service list.

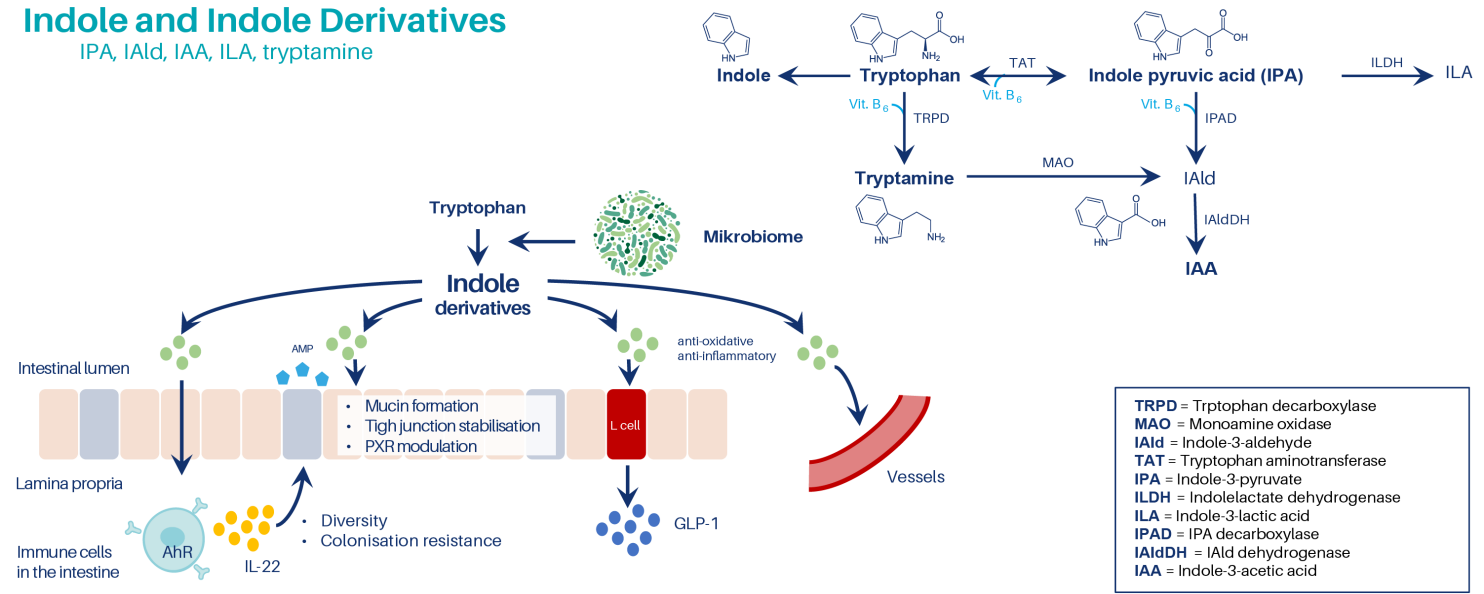
FE=stool

Test	Result	Unit	Standard Range	Previous Result
Indole Derivatives (AhR Agonists)				
Indole propionate (IPA)	5,65	µmol/l	> 3,5	FE NA) LCMS
Indole-3-acetic acid	9,5	µmol/l	> 3,2	FE NA) LCMS
Indole aldehyde	1,87	µmol/l	> 0,35	FE NA) LCMS
Tryptamine	1,54	µmol/l	0,05 -19,99	FE NA) LCMS
Indole	380,0	µmol/l	> 60	FE NA) LCMS
Indole lactate (ILA)	1,50	µmol/l	> 1,4	FE NA) LCMS
Kynurenic acid	4,18	µmol/l	0,1 - 7,49	FE NA) LCMS
AHR score	99	%	> 80	FE NA) LCMS

Bile Acids				
Conjugated/free bile acids	4,5	Ratio	2 - 20	FE NA) LCMS
Deoxycholic acid (DCA)	353	µmol/l	175 - 2500	FE NA) LCMS
Cytotoxic bile acids / Protective bile acids** **DCA / UDCA	36,13	Ratio	< 67	FE NA) LCMS
Total bile acids	905	µmol/l	630 - 4125	FE NA) LCMS FF

Indole and Indole Derivatives

IPA, IAld, IAA, ILA, tryptamine



* cooperate analytics (R), A) accredited, NA) not accredited, further information on the abbreviations can be found in our laboratory service list. FE=stool

Test	Result	Unit	Standard Range	Previous Result
------	--------	------	----------------	-----------------

Erläuterungen und Hinweise:

Detailed information on the recommended therapeutic approaches can be found in the report, including for complex findings. The recommended dosages apply to adults and may vary in individual cases.

¹ Fermented foods not in cases of histamine intolerance or elevated histamine levels in the stool.elevated histamine levels in the stool.

* Tryptophan rich foods, classified by fat content, for use as part of a low-fat or a diet balanced in fat content (see below!).
In cases of intolerance to the listed foods, tryptophan can also be supplemented as a dietary supplement.

Low fat tryptophan-rich foods: turkey breastsoy beans, lentils, low-fat quark
Higher-fat tryptophan-rich foods: nuts, cheese,eggs, salmon

** Tyrosine-rich foods, categorized by fat content. In cases of intolerance, tyrosine can also be supplemented.

Low-fat tyrosine-rich foods: chicken breast, tofu, low-fat yogurt, beans.
Higher-fat tyrosine-rich foods: Parmesan, avocado, almonds, pork.

Note: In the presence of toxins, such as p-cresol or indoxyl sulfate, protein-rich foods should generally be consumed with caution, and plant-based alternatives should be preferred instead.

*** If a low-histamine diet is not feasible, antihistamines may also be used.

* cooperate analytics (R), A) accredited, NA) not accredited, further information on the abbreviations can be found in our laboratory service list.

FE=stool

Cactus Health Romania 4E Zagazului street,ground floor,Ap.B4, room 5

RO-077190 District 1, Bucharest

Seite 6 von 8

Overview - Results and Therapy



pH	↑	
Enterotype	1	
Biodiversity	●	
Ratio Firmicutes/Bacteroidetes	●	
Butyrate producing bacteria	↓	
Mucus production	↓	
Mucosa integrity	●	
Milieu stabilising bacteria	↓	
Immunogenic bacteria	↓	
Clostridia - total bacteria count	↑	milieu stabilizing probiotics*, prebiotics (scFOS/scGOS)*
Clostridia cluster I	●	
Fusobacteria	●	
H2S producing bacteria (SRB)	↑	
Potentially pathogenic bacteria	↑	
Candida (facultive pathogenic)	●	
Oxalate degrading bacteria	↓	

Metabolome (functional groups)

TMA / TMAO	↑
Beta glucuronidases	●
Ammonia	↑
Equol	↓

Irritable Bowel Relevant Metabolites

Histamine	↑	Mast cell stabilizers***, low-histamine diet, DAO supplementation if necessary, vit. C 500-1000 mg/day), histamine blocking probiotics (e.g. SAH Hista-Care, VP Biotik
Tryptophan	●	
Serotonin	●	

GABA



Amino Acids (Precursors)

Tryptophan



Tyrosine



Phenylalanine



Toxins

Toxins



AHR Agonists

AHR agonists



Bile Acids

Conjugated/free bile acids



Deoxycholic acid (DCA)



Cytotoxic/protective bile acids



Total bile acids

