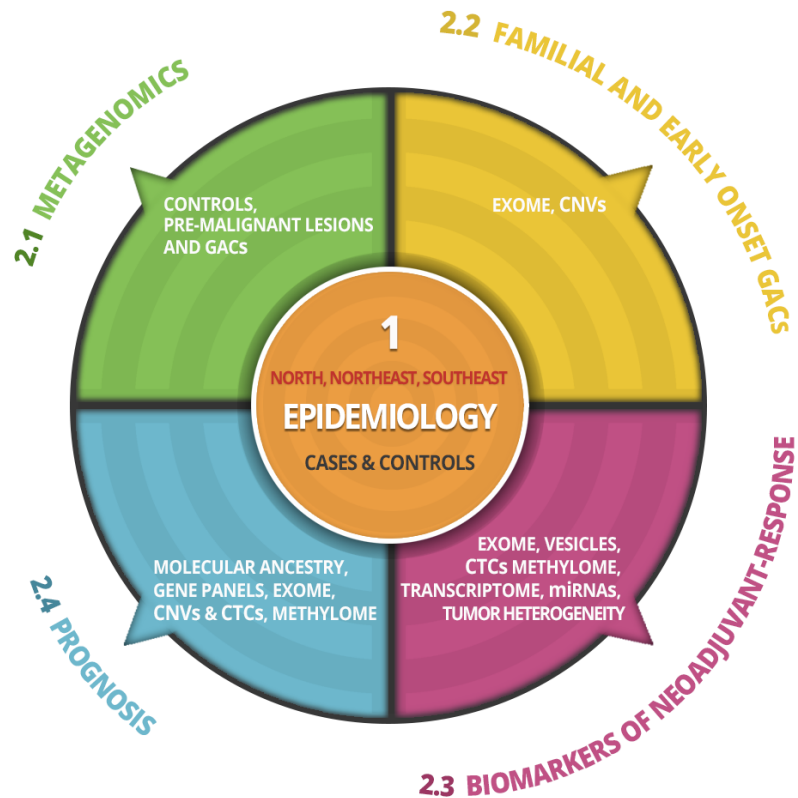
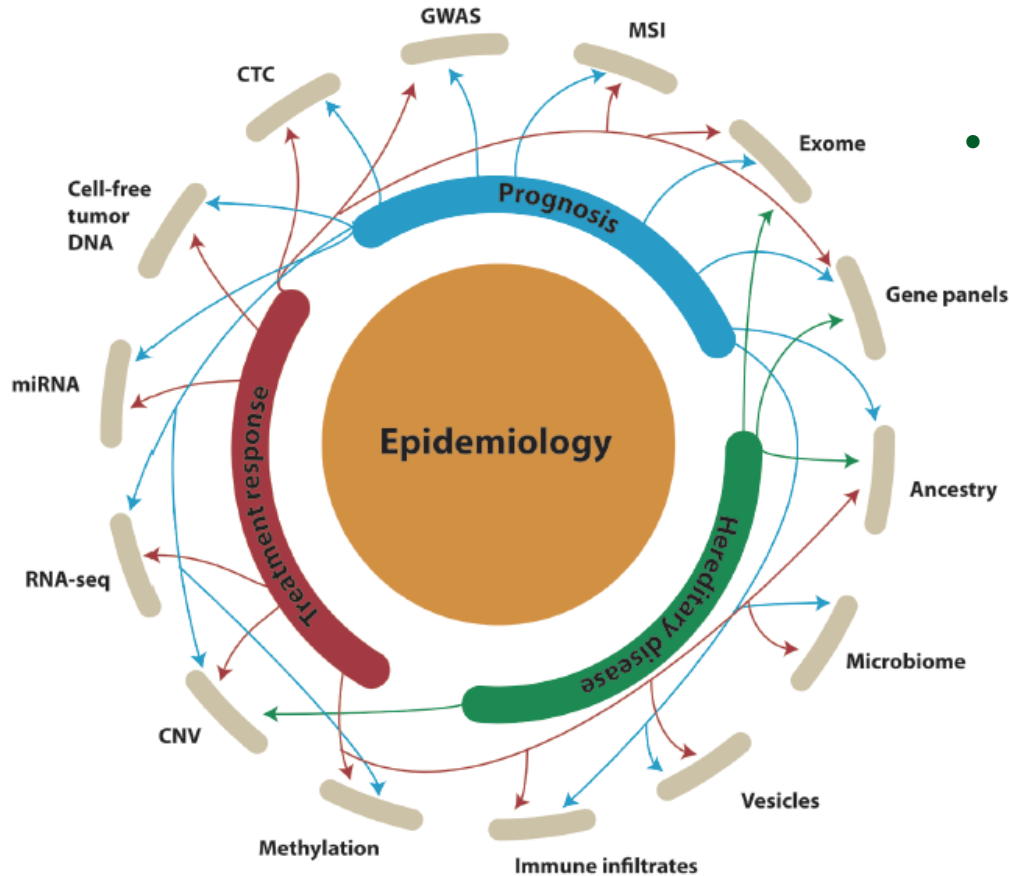


Genomics and Epidemiology for Gastric Cancer (GE4GAC)



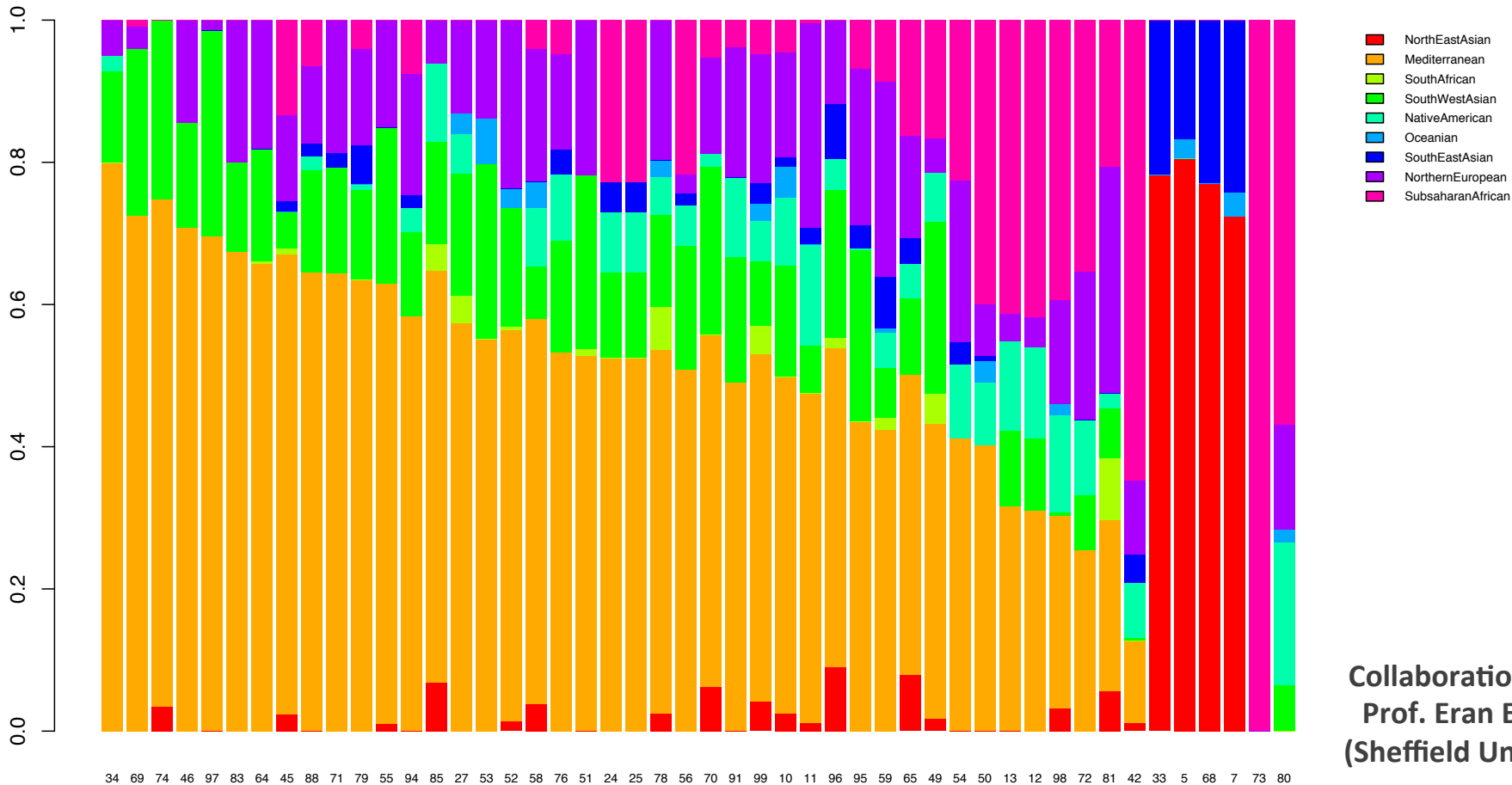
Genomics and Epidemiology for Gastric Adenocarcinomas (GE4GAC)



- **EPIDEMIOLOGY** - Subject information collected through 3 main questionnaires:

- **Patient personal information:** 49 variables;
- **Lifestyle:** 835 variables;
- **Nutritional habits:** 640 variables.

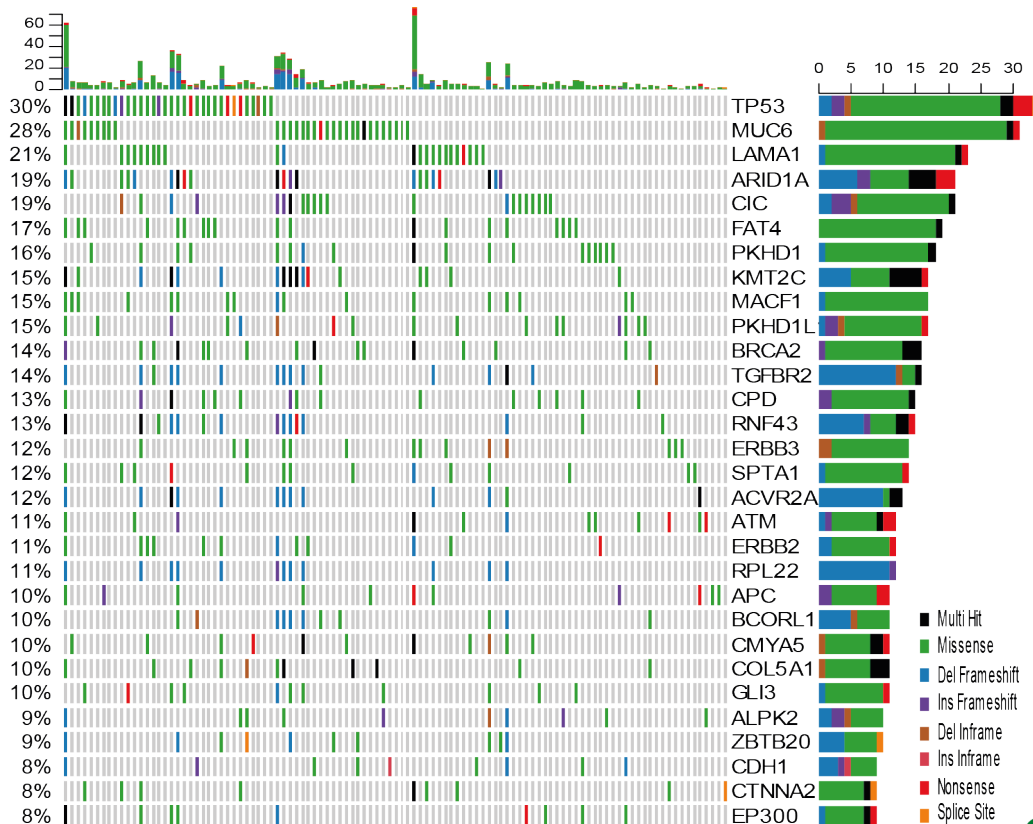
Molecular Ancestry of all GC cases



Collaboration with
Prof. Eran Elhaik
(Sheffield Univ, UK)

		N (%)	
Gender	M	71 (63)	
	F	41 (37)	
Age (y)	Mediana	64	
	Min.-Máx.	(37-91)	
Tumor Location	EGJ	13 (11,6)	
	Body	56 (50)	
	Antrum	34 (30,4)	
	Linitis	7 (6,2)	
	Stump	2 (1,8)	
Histology	Adenocarcinoma NOS	59 (52,7)	
	Signet ring	30 (26,8)	
	Papillary	1 (0,9)	
	Tubular	12 (10,7)	
	Poorly differentiated	10 (8,9)	
Lauren	Intestinal	46 (41,1)	
	Diffuse	53 (47,3)	
	Mixed	3 (2,7)	
	Not classifiable	10 (8,9)	
Cirurgia do primário	Yes	111 (99,1)	
	No	1 (0,9)	
Staging (AJCC 7ª Ed.)	IA	17 (15,2)	
	IB	8 (7,1)	
	IIA	12 (10,7)	
	IIB	11 (9,8)	
	IIIA	12 (10,7)	
	IIIB	17 (15,2)	
	IIIC	19 (17)	
	IV	16 (14,3)	
	EBV	Negative	107 (95,5)
		Positive	5 (4,5)

Tumor mutation profile of gastric adenocarcinomas (n=112)

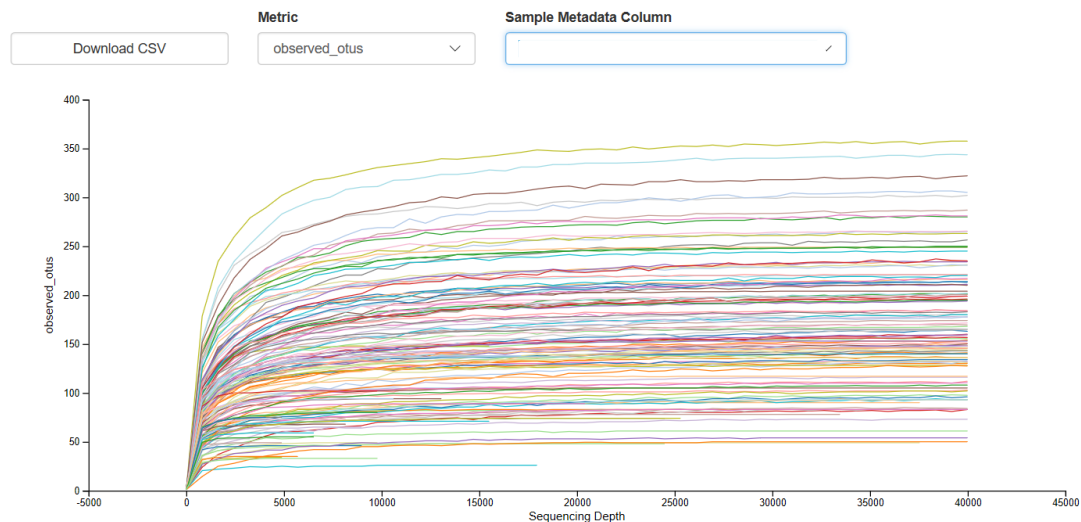


Helano Freitas
(PhD candidate)

Gastric fluids and the analysis of the stomach microbiota

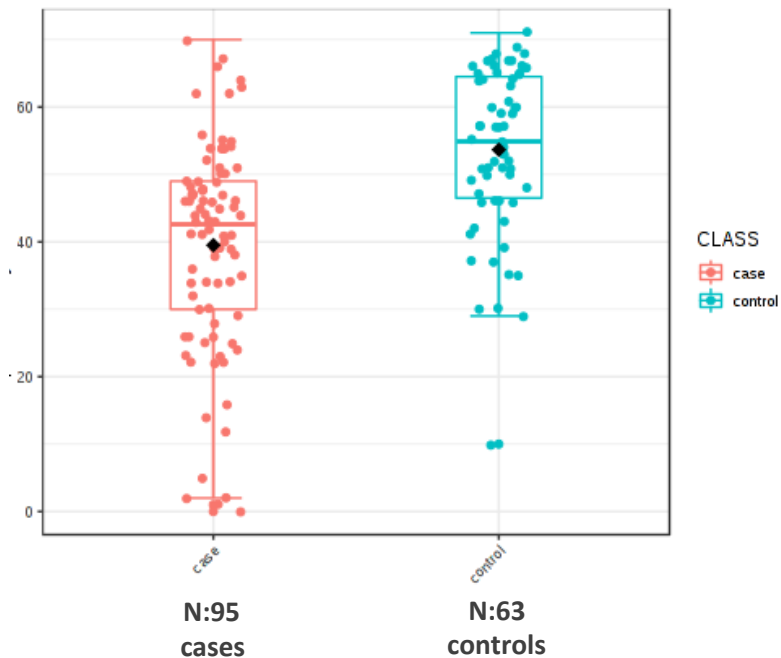


Alpha rarefaction



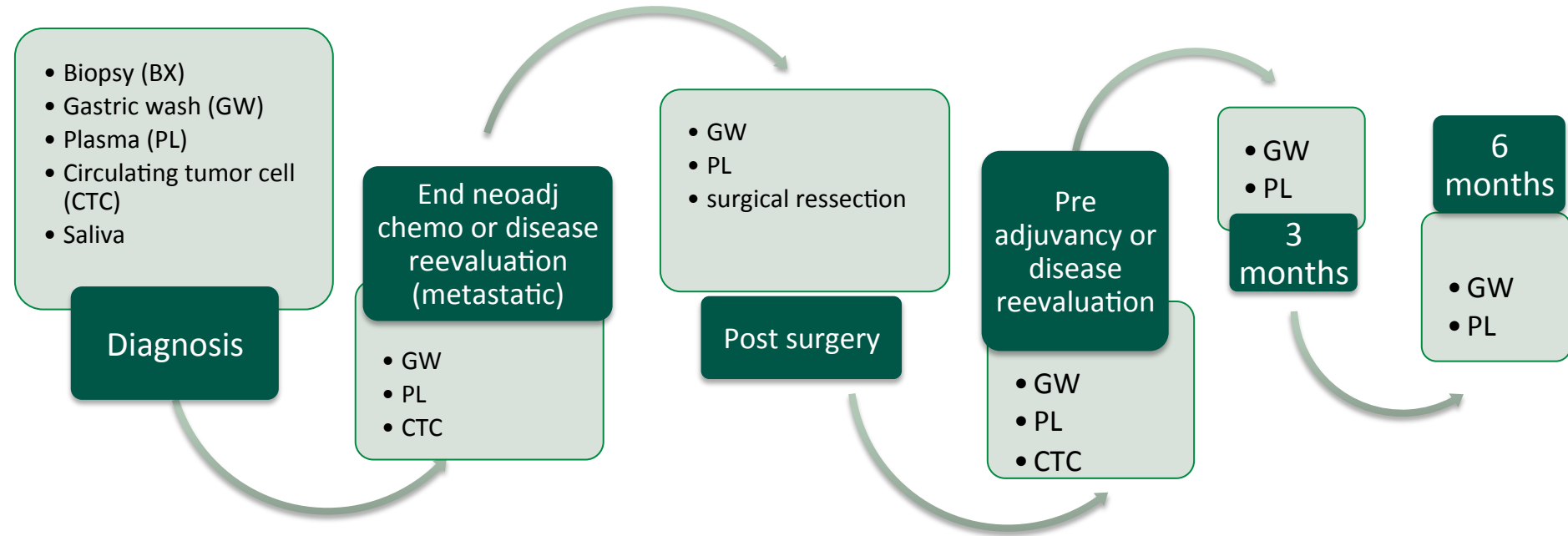
Total of 252 samples sequenced: GW, BX (cases and controls)

At diagnosis, the microbiome diversity of GC patients is significantly reduced

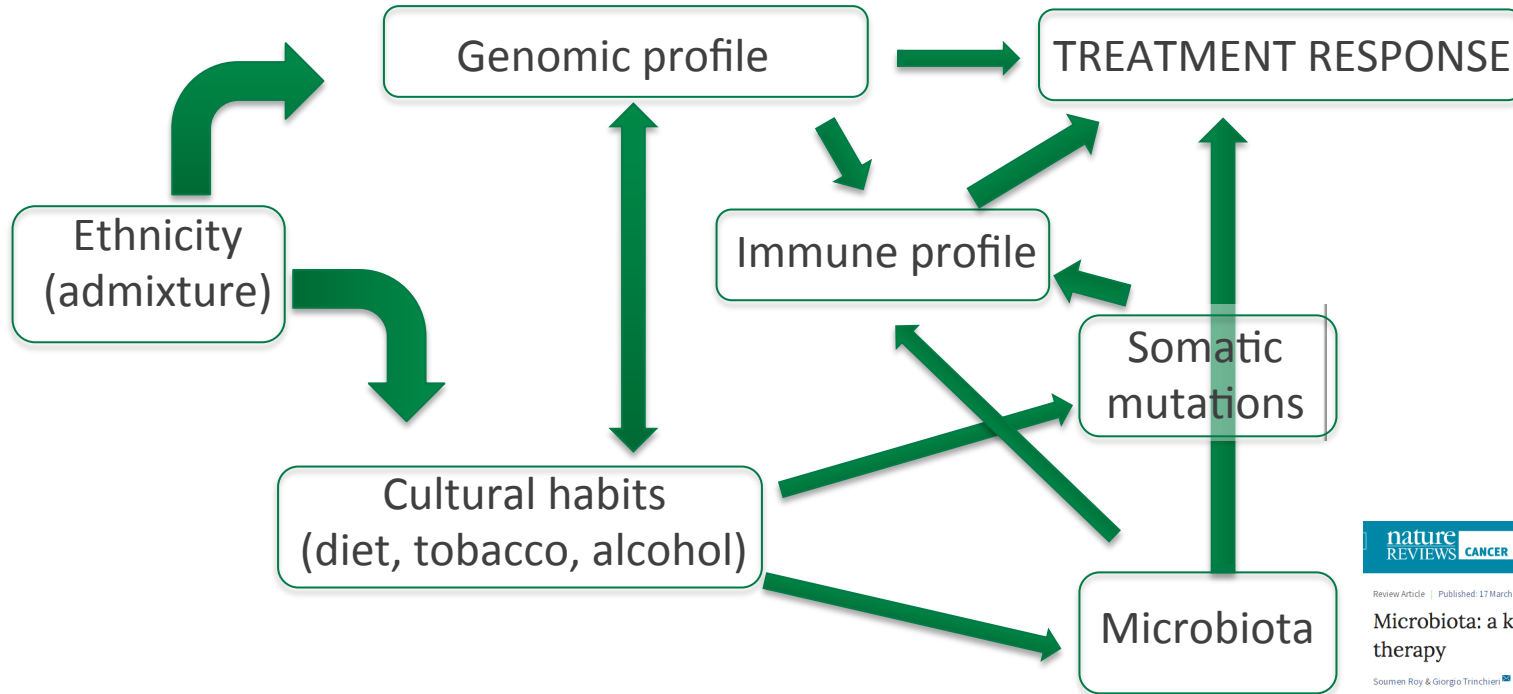


p-value: 5.0143e-06; [Mann-Whitney] statistic: 1562

Gastric cancer - Sample collection



Why similar tumors have different responses to neoadjuvant chemotherapy?



Review Article | Published: 17 March 2017

Microbiota: a key orchestrator of cancer therapy

Soumen Roy & Giorgio Trinchieri

Nature Reviews Cancer 17, 271–285 (2017) | Download Citation

We need an organized, comprehensive and integrated database



nature
medicine

Brief Communication | Published: 03 June 2019

Deep learning can predict microsatellite instability directly from histology in gastrointestinal cancer

Data integration allowing convergence of approaches: histology (*in silico pathology*), patient & tumor data, molecular ancestry, metabolome, mutation analysis & microbiome.

Data Science team at A.C.Camargo

Acknowledgements



A.C. Camargo Cancer Center



Horizon2020