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**PARIS FRANCE**

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**ISSCD** International Society for the  
Study of Celiac Disease

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DrSchär

## Nutritional profiles compared: processed GF food and their gluten containing equivalents (or counterparts)

**Paula Crespo Escobar.**

European University Miguel de Cervantes

Hospital Campo Grande

Valladolid – Spain -

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# 1. Background and objectives

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- ü **Previous studies:** the nutritional composition of Gluten Free Products (GFP) has been always considered worse than Gluten Containing Products (GCP).
- ü The GF market and industry are continuously flourishing and improving à necessary to update the previous studies results.



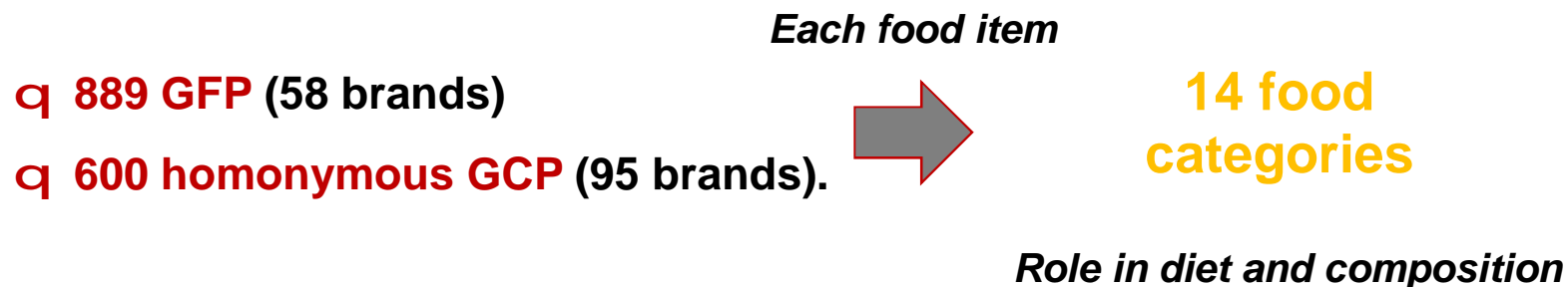
- **Global analysis:** nutritional composition of available GFP *versus* GCP (not considering food categories).
- **Specific analysis 1:** nutritional composition and ingredients of different food categories of GFP and GCP.
- **Specific analysis 2:** differences among GFP brands.

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## 2. Material and methods

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- Cross-sectional study based on the labelling information:



- Nutritional facts and ingredients:

q Energy (kcal), protein, carbohydrates, sugar, fat, saturated fatty acids and fibre.

q **Two groups of ingredients:** starchy ingredients (i.e. flour or starch) and added fats (oils and solid fats).

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### 3. Results:

## Global differences between GFP and their GCP

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### Nutritional composition

Mean (SD)	GFP	GCP	P-value
Energy (Kcal)	365 (94.5)	374.9 (92.5)	0.89
Proteins (g)	<b>5.1 (3.6)</b>	<b>8.5 (3.3)</b>	<b>0.003</b>
Carbohydrates (g)	59.6 (18.8)	55.9 (16.3)	0.357
Sugar (g)	12.2 (12.3)	14.2 (13.5)	0.113
Fiber (g)	3.6 (2.7)	3.6 (2.7)	0.196
Fats (g)	11.4 (9.6)	12.1 (9.2)	0.43
SFA (g)	4.5 (4.8)	4.6 (5)	0.645



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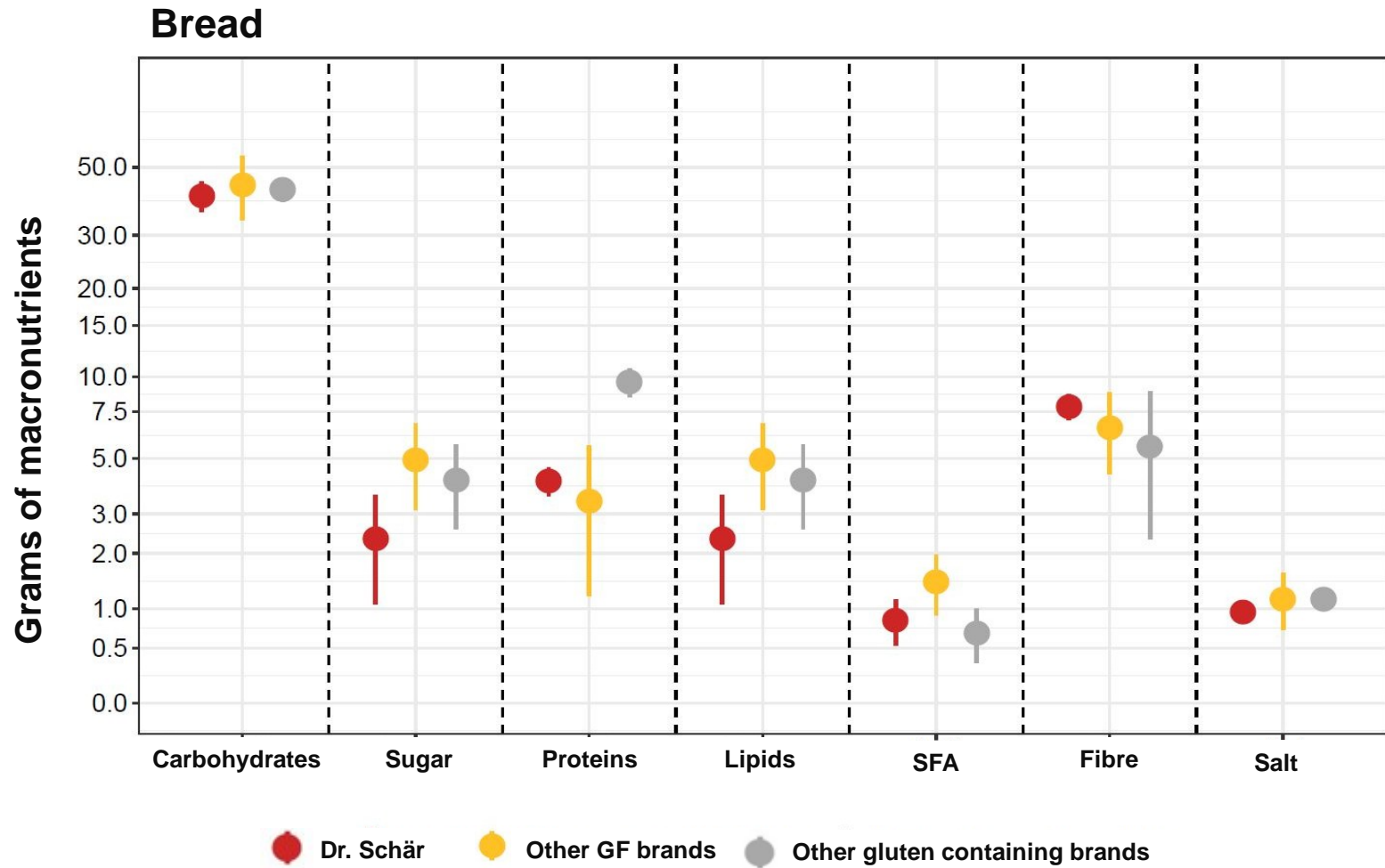




### 3. Results:

## Specific differences between GFP and their GCP

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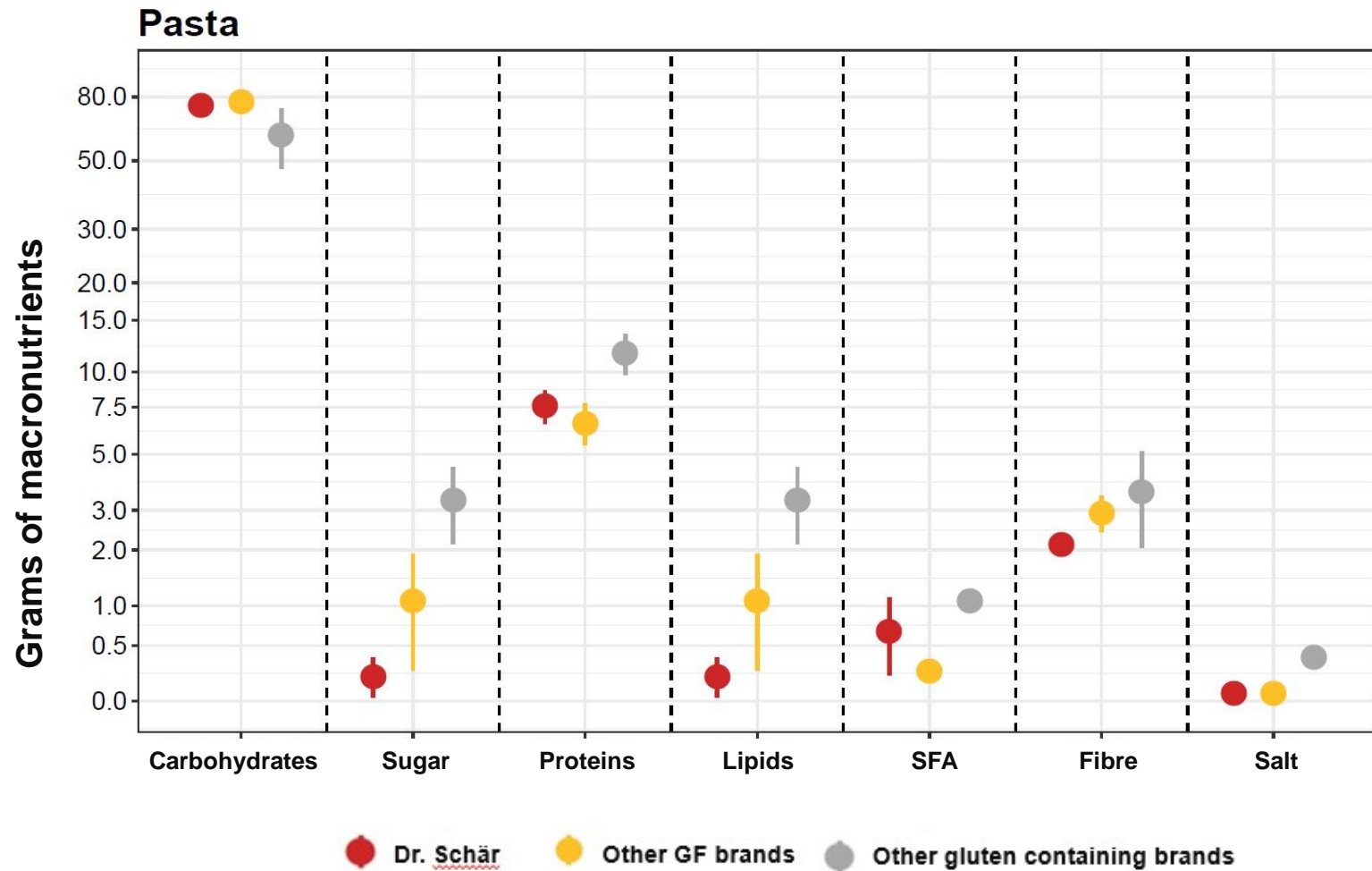




### 3. Results:

## Specific differences between GFP and their GCP

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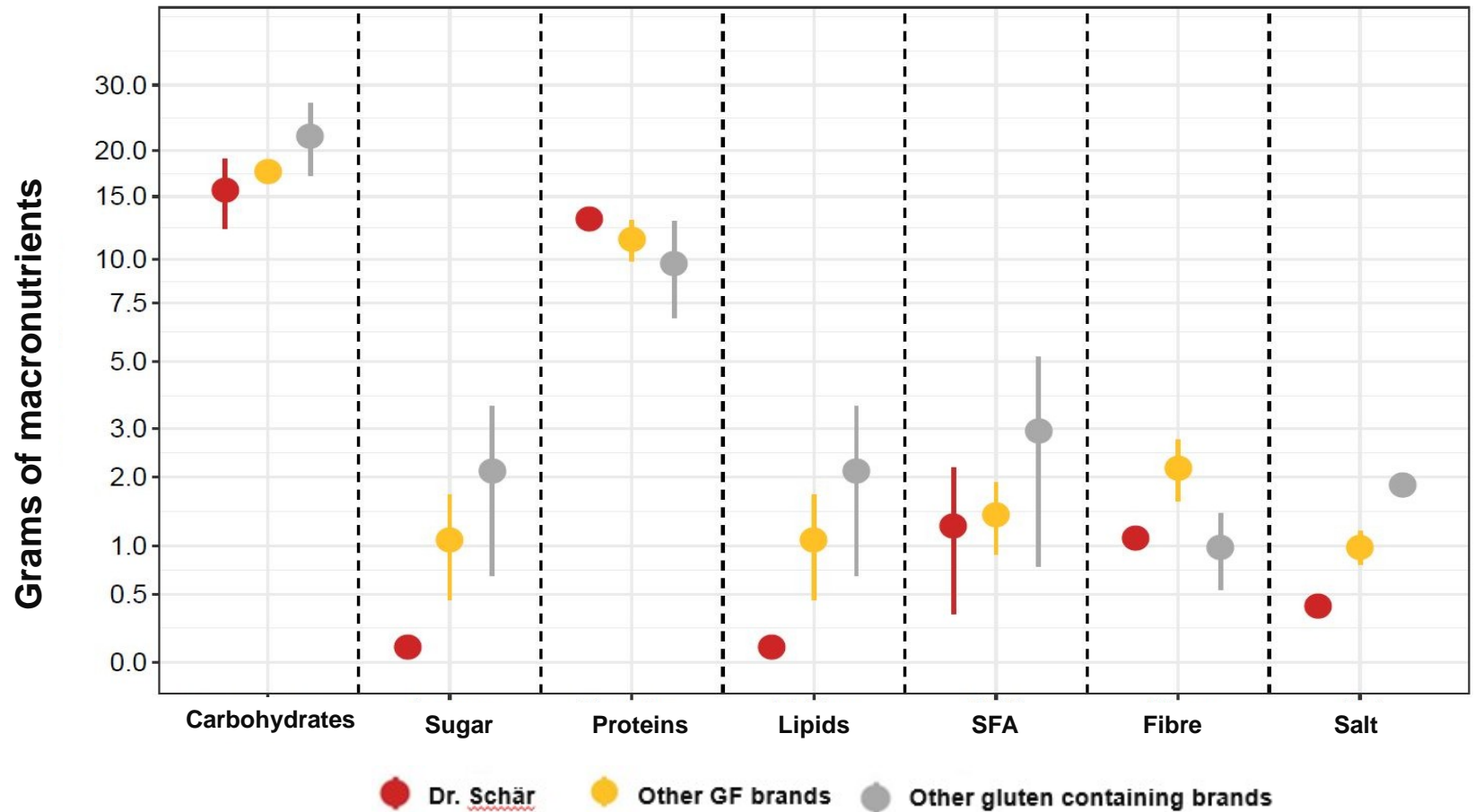


### 3. Results:

## Specific differences between GFP and their GCP

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#### Breaded products



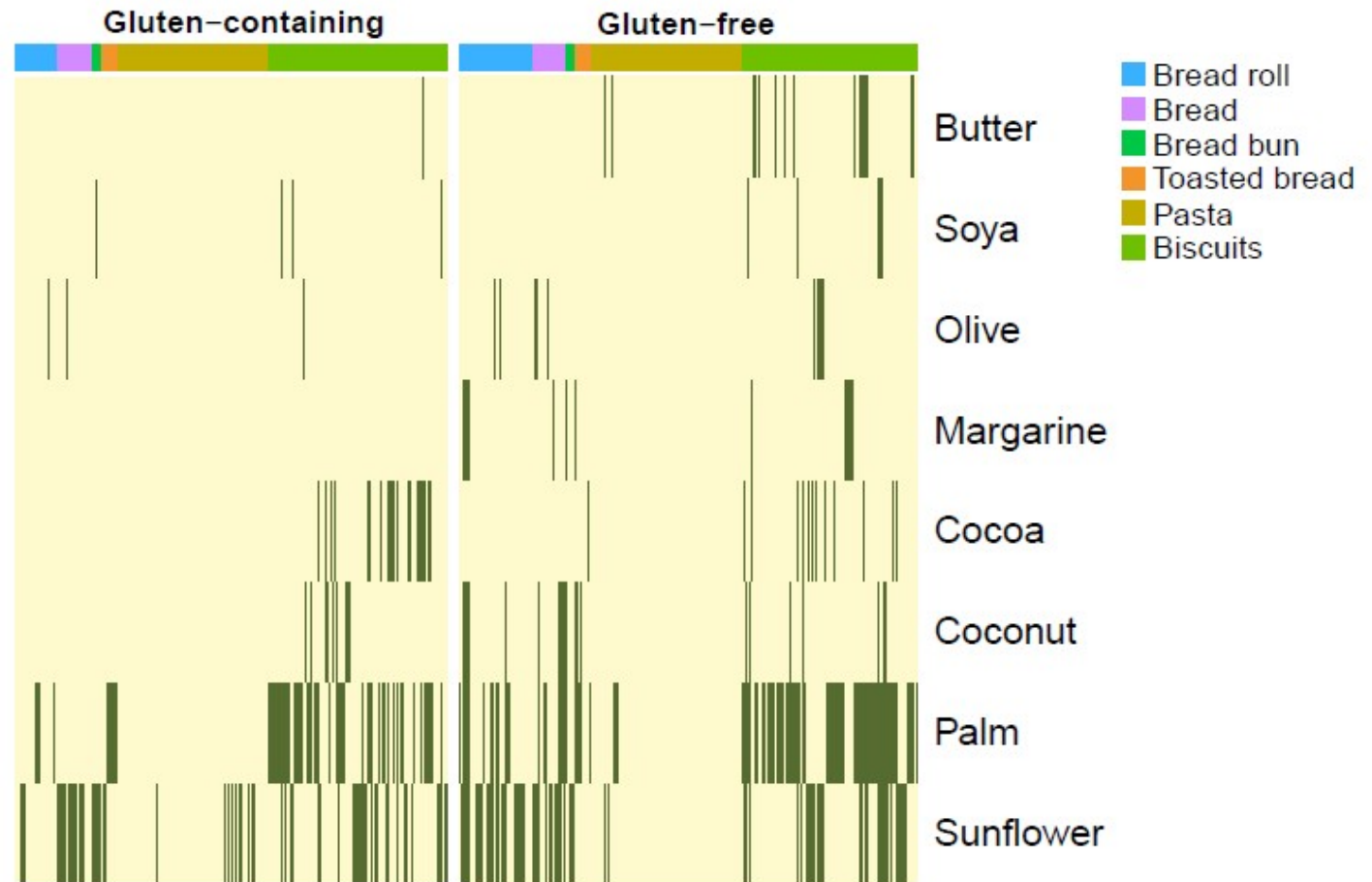




### 3. Results: **Analysis of ingredients**

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**Added fats**



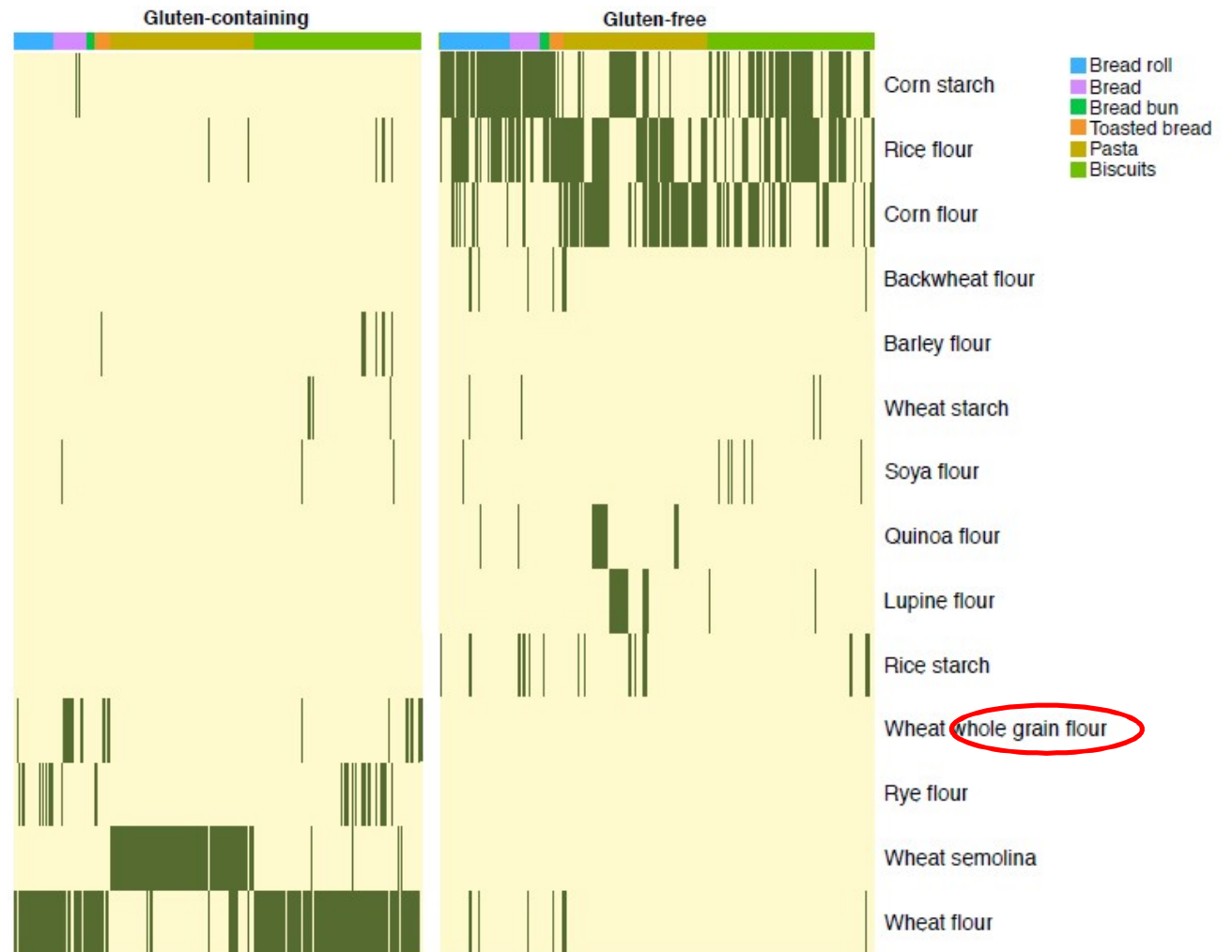


### 3. Results: **Analysis of ingredients**

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**Starchy ingredients**

The differences in the protein content.

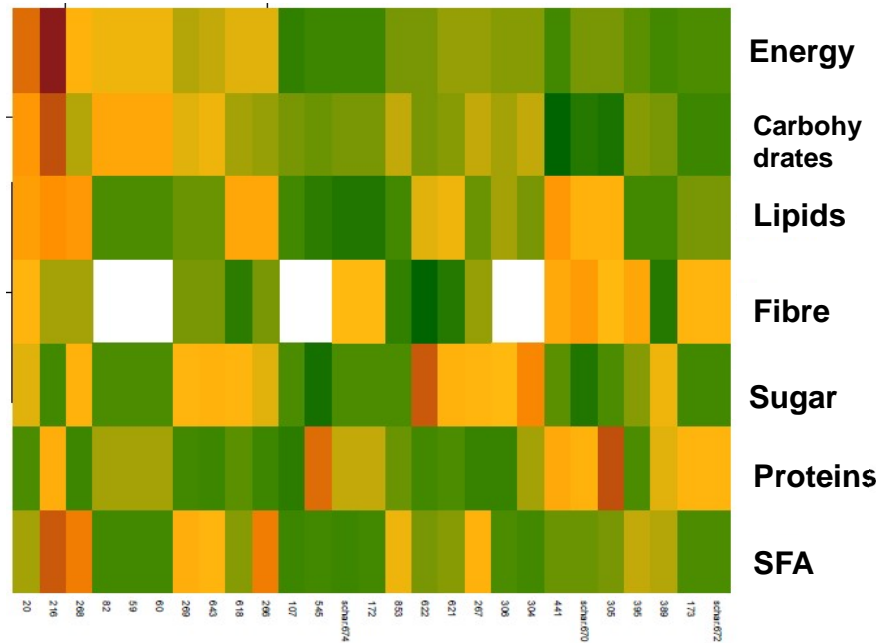




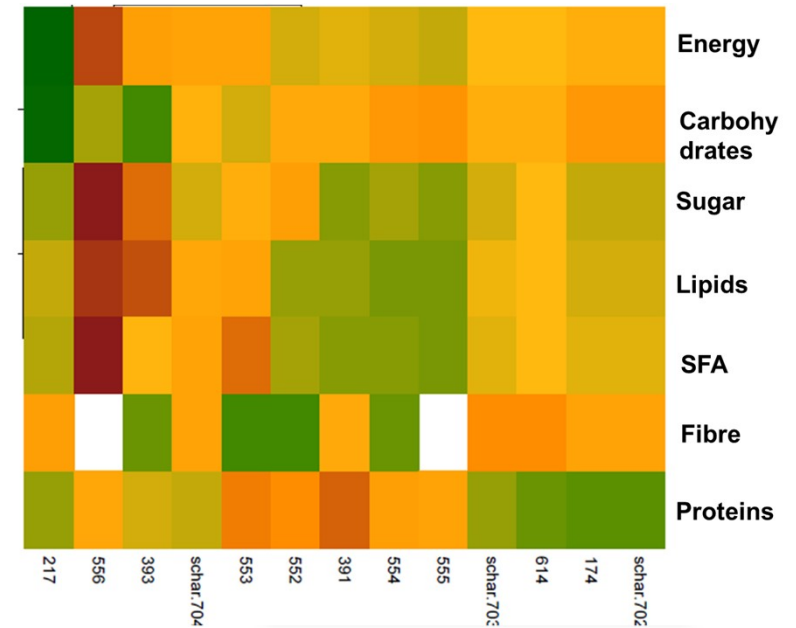
### 3. Results: Comparison among GFP brands

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Bread



Toasted  
bread



The need of read labels and compare products

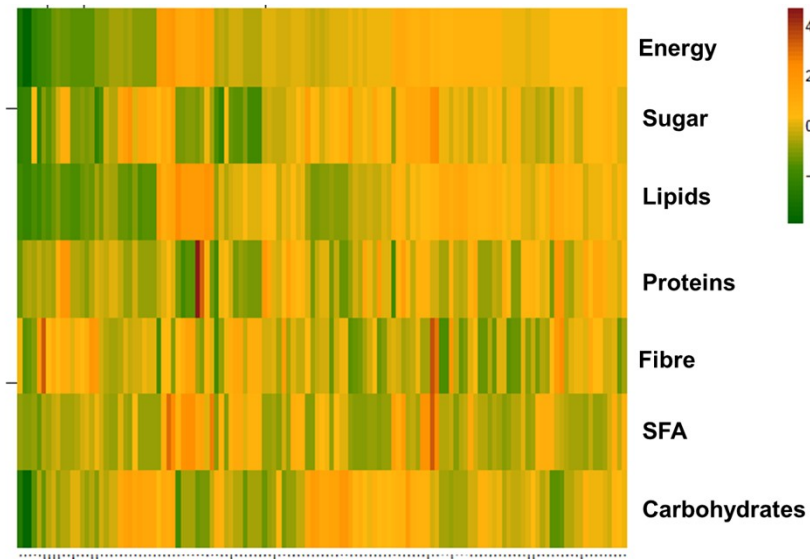




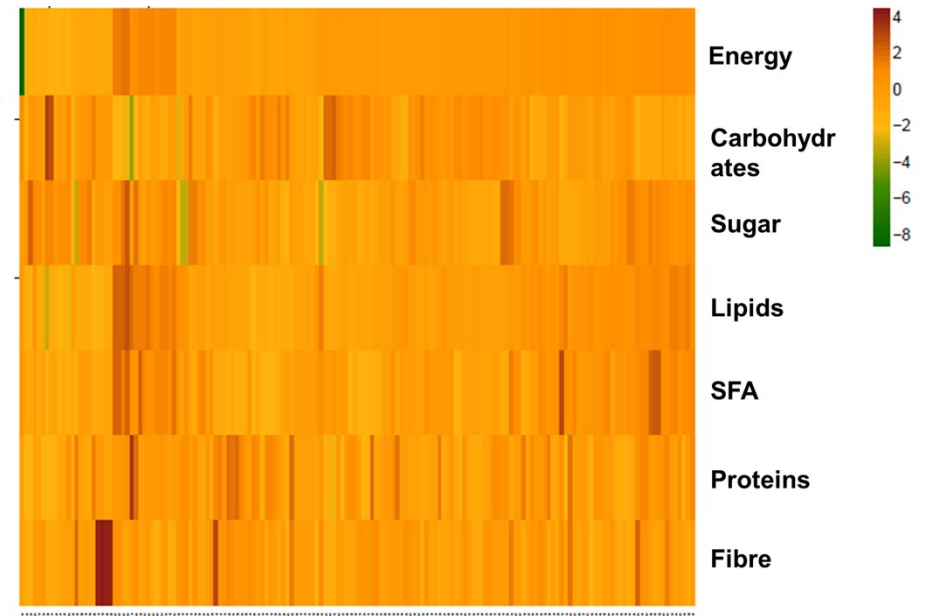
### 3. Results: Comparison among GFP brands

Dr. Schär

Pastries



Biscuits



## 4. Conclusions

DrSchär

- **Generally:** the nutritional profile of GFP is associated with a lower content of protein as compared to their gluten-containing counterparts. No other significant differences.
- **Both type of products (GF & GC):** use poor quality added fats. It's necessary to use better fats (olive oil).
- **Among GFP brands:** there are significant differences in the nutritional composition. It's very important to read labels and compare products before selecting them à **TIME TO WORK IN NUTRITIONAL EDUCATION.**

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## 4. Conclusions

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- **Currently it is not possible to generalize by saying that GFP have worse nutritional profile than similar GCP.** The nutritional composition of GFP have increased in recent years.
- **It is necessary continue improving (GFP and GCP):** there is still room for improvement.
- **Don't forget the peculiarity of gluten:** the formulation and processing of gluten free products is challenging and no comparable with gluten-containing products.
- **Important to teach patients to base the GFD in fresh products** (fish, meat, egg, vegetables, pulses, fruits, daily products...). The problem is not only GFP, the real problem is an unbalanced gluten free diet.

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