

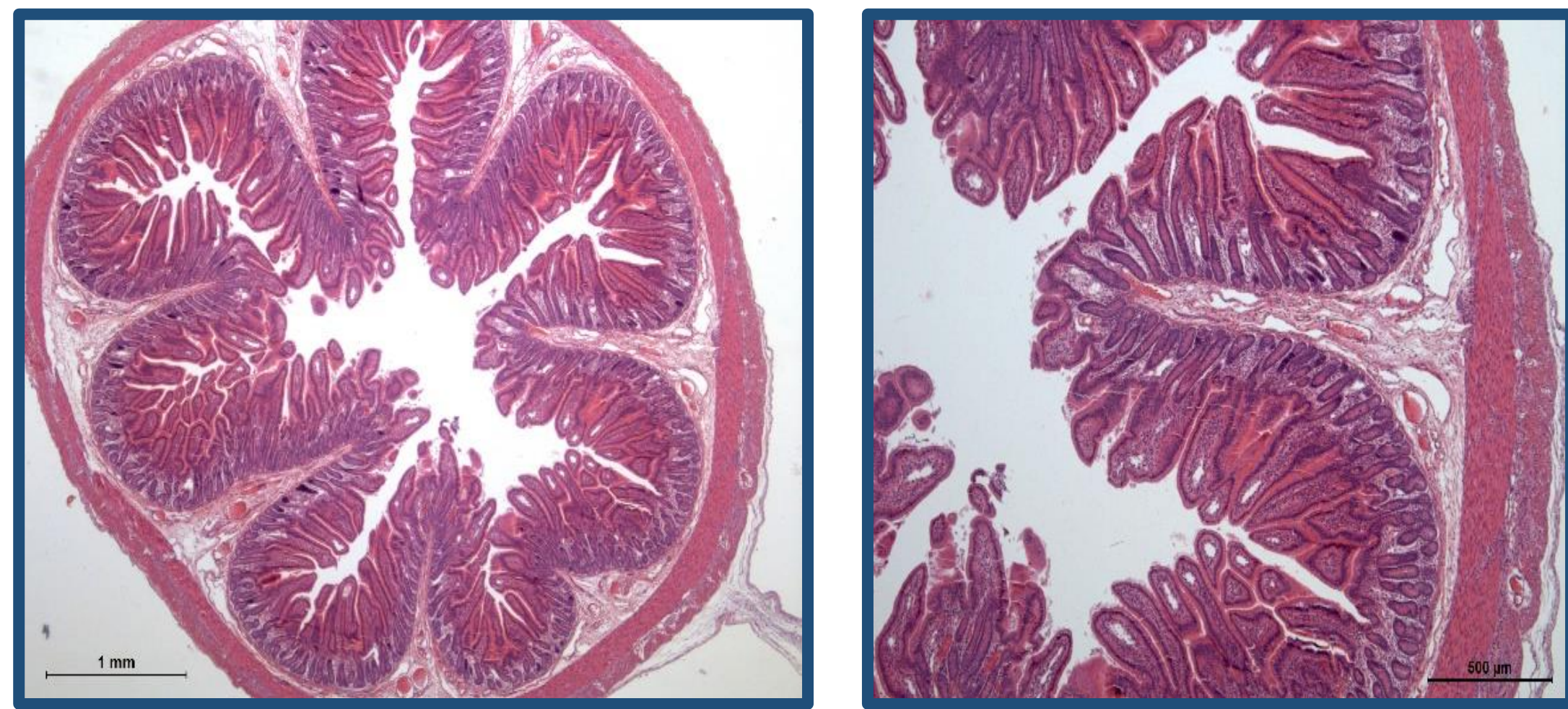
# Celiac disease and its consequences in food production

## OBJECTIVES

- To study the **physiology** and **histology** of the human gastrointestinal tract, more specifically, the **small intestine** and its features and functions.
- To describe **pathophysiology of the celiac disease (CD)** and to relate the disease to other aspects such as its epidemiology, symptomatology, environmental influences...
- To present the **current European and National Laws** related to gluten-free products.
- To study how the system manages everything that refers to CD in **food industry** through the implantation of **Allergen Plan** and how **catering** get the “gluten-free”.

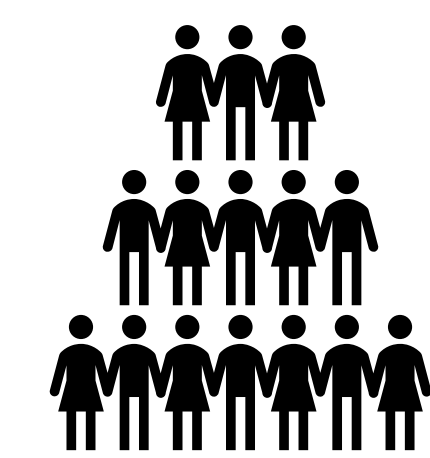
## CONCLUSIONS

After understand  
how physiological  
mechanisms work



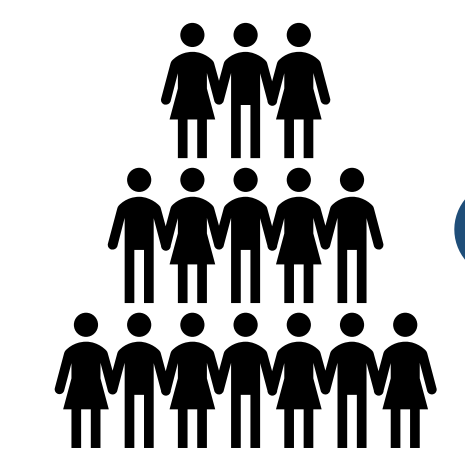
**Figure 1.** Healthy pig's jejunum photographs with hematoxylin eosin staining. Pathological Anatomy Department, UAB.

The **treatment** of people with a CD diagnostic is eating a **gluten-free diet**.



**Figure 2.**

There are **healthy people** who choose to eat without gluten in their diet. From the physiological point of view, no diagnosed people for CD, **can eat gluten** without compromising their health.



**Figure 3.**



**Figure 2.**

Without the incidence of CD, the **food industry** does not allocate **economic funds** to the development of gluten-free products that satisfy the increasing demand.

It is an **autoimmune disease**

In Regulation (EC) n° 828/2014 and Regulation (EC) n° 41/2009 they call CD as **gluten intolerance**.

- Food Industry: Implementation of an **Allergen Control Programme (ACP)**.
- Catering: Implementation of **Guidelines for Hygienic Practices (GHP)**.

CD is confused with a

**Food  
allergy**

**Food  
intolerance**

**Table 1.** Mentions that can be included in the labels of food products established by Regulation n° 828/2014 (EU).

**<<Gluten-free>>:** When the food in its final form does not contain more than 20 mg/kg of gluten.

**<<Low in gluten>>:** When the food in its final form do not contain more than 100 mg/kg of gluten.