

**Name of Journal:** *Artificial Intelligence in Gastroenterology*

**Manuscript NO:** 57994

**Manuscript Type:** EDITORIAL

**Digital histology in celiac disease: A practice changer**

Balaban DV *et al.* Digital histology in celiac disease

Daniel Vasile Balaban, Mariana Jinga

### Abstract

Artificial intelligence (AI) has grown tremendously in the last decades and is undoubtedly the future era in medicine. Concerning digestive diseases, applications of AI include clinical gastroenterology, gastrointestinal endoscopy and imaging, and

### Match Overview

1 **Internet** 14 words  
crawled on 03-May-2020  
[www.frontiersin.org](http://www.frontiersin.org) 1%

2 **Internet** 12 words  
[qmro.qmul.ac.uk](http://qmro.qmul.ac.uk) 1%



Digital histology in celiac disease – a practice changer



ALL IMAGES VIDEOS

387,000 Results Any time

### [PDF] Measuring Change In Small Intestinal Histology In ...

<https://celiacdiseasecenter.columbia.edu/wp-content...>

tative histology as the preferred method for accurately and repro-ducibly demonstrating change in celiac disease mucosal activity both for clinical disease management and for evaluating the effi - cacy of dietary and non-dietary interventions. SMALL BOWEL HISTOLOGY IN THE DIAGNOSIS OF CELIAC DISEASE Diagnosis of celiac disease

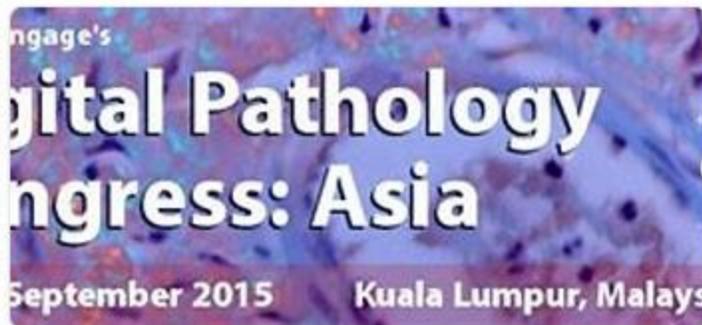
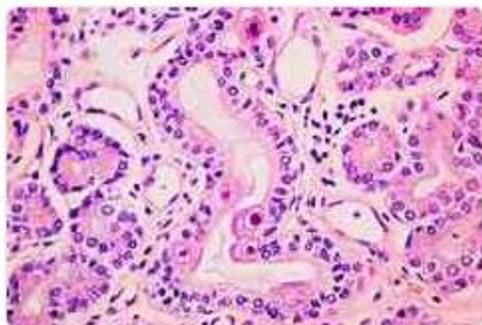
### Histological, immunohistochemical and mRNA gene ...

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6858741>

Keywords: Coeliac disease, Biopsy, Morphometry, Immunohistochemistry, mRNA, PAXgene, Digital histopathology, RNA, Histology, Gluten Background Coeliac disease is an autoimmune disorder in which dietary gluten causes a gradually developing villous atrophy and crypt hyperplasia in ...

Cited by: 4 Author: Juha Taavela, Keijo Viiri, Alina Popp, Mik...  
Publish Year: 2019

### Images of Digital Histology in Celiac Disease – A Practice Cha... <bing.com/images>



See all images >

### Baseline quantitative histology in therapeutics trials ...

<https://onlinelibrary.wiley.com/doi/full/10.1002/ygh2.380>

Nov 17, 2019. Quantitative histology in baseline duodenal biopsies collected in phase 1 and 2 clinical



Digital histology in celiac disease: A practice changer



ALL IMAGES VIDEOS

412,000 Results Any time

### [PDF] Measuring Change In Small Intestinal Histology In ...

<https://celiacdiseasecenter.columbia.edu/wp-content...>

tative histology as the preferred method for accurately and repro-ducibly demonstrating change in celiac disease mucosal activity both for clinical disease management and for evaluating the effi - cacy of dietary and non-dietary interventions. SMALL BOWEL HISTOLOGY IN THE DIAGNOSIS OF CELIAC DISEASE Diagnosis of celiac disease

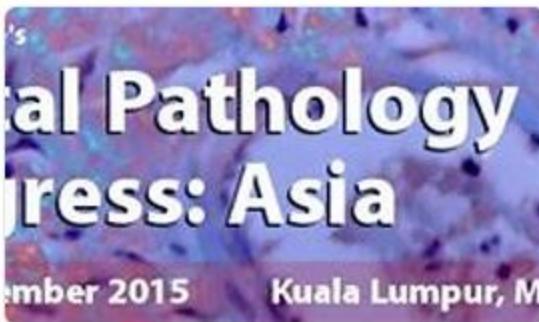
### Celiac disease (sprue) - Pathology by PathPedia.com: A ...

<https://www.pathpedia.com/education/eatlas/...>

Celiac disease (sprue) [CELIAC SPRUE]. Celiac disease (celiac sprue) is a malabsorptive syndrome of the small intestine which shows characteristic morphologic changes in the proximal small intestine.

### Images of Digital Histology in Celiac Disease A Practice Chan...

<bing.com/images>



See all images >

### Histological, immunohistochemical and mRNA gene ...

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6858741>

Keywords: Coeliac disease, Biopsy, Morphometry, Immunohistochemistry, mRNA, PAXgene, Digital histopathology, RNA, Histology, Gluten Background Coeliac disease is an autoimmune disorder in which dietary gluten causes a gradually developing villous atrophy and crypt hyperplasia in ...

Cited by: 4

Author: Juha Taavela, Keijo Viiri, Alina Popp, Mik...



412,000 Results Any time ▾

### [PDF] Measuring Change In Small Intestinal Histology In Patients ...

<https://celiacdiseasecenter.columbia.edu/wp-content...>

tative histology as the preferred method for accurately and repro-ducibly demonstrating change in celiac disease mucosal activity both for clinical disease management and for evaluating the effi - cacy of dietary and non-dietary interventions. **SMALL BOWEL HISTOLOGY IN THE DIAGNOSIS OF CELIAC DISEASE** Diagnosis of celiac disease

### Histological, immunohistochemical and mRNA gene expression ...

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6858741>

Keywords: Coeliac disease, Biopsy, Morphometry, Immunohistochemistry, mRNA, PAXgene, Digital histopathology, RNA, Histology, Gluten Background Coeliac disease is an autoimmune disorder in which dietary gluten causes a gradually developing villous atrophy and crypt hyperplasia in ...

Cited by: 4 Author: Juha Taavela, Keijo Viiri, Alina Popp, Mik...  
Publish Year: 2019

### Coeliac disease: an update for pathologists

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1861744>

Brief history. Although the earliest clinical accounts of coeliac disease are attributed to Aretaeus in the 1st century AD, it was Gee 1 who, in 1888, is credited with depicting a modern appreciation of the clinical findings associated with coeliac disease. Of note, Gee was unable to derive an explanation for its pathogenesis, on the gross morphology of the small bowel.

Cited by: 315 Author: B C Dickson, C J Streutker, R Chetty  
Publish Year: 2006

### Outcomes of Seropositive Patients With Marsh 1 Histology ...

<https://pubmed.ncbi.nlm.nih.gov/27003856>

Goals: We retrospectively studied all seropositive Marsh 1 patients seen at 2 tertiary care hospitals in the last 15 years to determine their clinical, serological, and histologic outcomes. Background: Patients with positive celiac serologies and Marsh 1 histology represent an understudied subgroup of patients, and it is unclear whether they should be advised to adopt a gluten-free diet (GFD).

## Celiac Disease

Medical Condition



A chronic immune mediated disorder triggered by gluten ingestion.

- Common (More than 200,000 cases per year in US)
- Often requires lab test or imaging
- Treatments can help manage condition, no known cure
- Can be lifelong

Caused due to the immune reaction against gluten Symptoms include vomiting, appetite loss, bloating and constipation The best approach is to follow gluten free diet.

### Symptoms

The signs and symptoms may vary between children and adults. Mild cases do not show any symptoms.

Some of the common typical signs and symptoms of celiac disease include