Pre Conference Workshop on Gluten Sensitivity Hosted by Schar USA

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Conflict of Interest

In the past 12 months, I have had the following relevant financial relationships with the following manufacturer of any commercial product(s) and/or provider(s) of commercial services discussed in this CME activity:

**ALBA THERAPEUTICS, CO-FOUNDER AND STOCK HOLDER**

I will not discuss any product from Alba Therapeutics in my presentation. I do not intend to discuss an unapproved or investigative use of a commercial product or device in my presentation.
Why Gluten is Toxic
The Grass Family - (GRAMINEAE)

Subfamily
- Festucoideae

Tribe
- Hordeae
- Oryzeae
- Zizaneae
- Aveneae
- Festuceae
- Chlorideae

Wheat
- rice
- wild rice
- oat
- finger millet
- teff

Diet
- Fruits, nuts, tubers
- Occasional meat

Years
- 2.5 M
  The Human race appears on the face of hearth

Change from nomadic to settled life style
- 10,000

Advent of agriculture
- Development of gluten containing grains
- 2009

Advent of agriculture
- Development of gluten containing grains
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What is so Special About Gluten?

Gliadin

Glutenin

Gluten (gliadin+glutenin)
Mapping of α-gliadin motifs exerting cytotoxic activity (red), immunomodulatory activity (light green), zonulin release and gut permeating activity (blue) and CXCR3-dependent IL8 release in CD patients (dark green).


Lammer K et al, Immunology. 2011;132:432-40

Lammer K et al, Gastroenterology 2008;135:194-204.
Not Only Celiac Disease
For the American general population adopting a gluten-free diet is becoming an increasingly popular solution. The market for gluten-free food and beverage products grew at a compound annual growth rate of 28 percent from 2004 to 2008, to finish with almost $2.6 billion in retail sales last year. By 2017 the market is expected to reach about $6.1 billion in sales.
The Fad Factor of the GFD

Lady Gaga goes on gluten free diet

Updated: 2012-08-20 14:45
(Agencies)
The Gluten Free Diet: Not Only Celiac Disease

GLUTEN FREE DIET CONSUMERS

- MEDICAL NECESSITY
  - WHEAT ALLERGY (IGE-MEDIATED) (~0.1%)
  - CELIAC DISEASE (AUTOIMMUNE-BASED) (~1%)
- NO MEDICAL NECESSITY
  - GLUTEN SENSITIVITY (INNATE IMMUNITY?) (~6%)
Scientific Production CD Vs. GS

Celiac Disease

- Total papers
- Papers published in the last 2 years

Gluten sensitivity

- Total papers
- Papers published in the past 2 years

(11%) (28%)
ORIGINAL ARTICLE

The Oslo definitions for coeliac disease and related terms

Jonas F Ludvigsson,1,2 Daniel A Leffler,3 Julio C Bai,4 Federico Biagi,5 Alessio Fasano,6 Peter H R Green,7 Marios Hadjivassiliou,8 Katri Kaukinen,9 Ciaran P Kelly,3 Jonathan N Leonard,10 Knut Erik Aslaksen Lundin,11 Joseph A Murray,12 David S Sanders,13,14 Marjorie M Walker,14 Fabiana Zingone,15 Carolina Ciacci16

ABSTRACT
Objective The literature suggests a lack of consensus on the use of terms related to coeliac disease (CD) and gluten. Design A multidisciplinary task force of 16 physicians from seven countries used the electronic database PubMed to review the literature for CD-related terms up to January 2011. Teams of physicians then suggested a definition for each term, followed by feedback of these definitions through a web survey on definitions, discussions during a meeting in Oslo and phone conferences. In addition to ‘CD’, the following descriptors of CD were evaluated (in alphabetical order):

Significance of this study

What is already known on this subject?
- There is a lack of consensus on the use of terms related to coeliac disease (CD) and gluten.
- Variability in the use of terminology has led to difficulty when comparing and evaluating clinical studies and research findings.

What are the new findings?
- The panel reached agreement on the definition...
Some interesting statistics (updated September 22nd, 2013):

- Published February 7th, 2012;
- Total number of download since published: 72,073 (second all time);
- #4 most popular paper of the month (3,380 downloads);
- #2 Paper of the year;
- Average downloads/month: 3,787;
- Most frequent health care professionals to download the paper: pediatricians, primary care physicians and lab professionals.
6:45 – 6:55  IBS and Gluten Sensitivity  
   The European experience  
   Dr. Antonio Carroccio  
   The North American experience  
   Dr. Ciaran Kelly

6:55 – 7:05  Gluten Sensitivity, bio markers and epidemiology  
   The NANHES experience  
   Dr. Peter Green  
   The ongoing field experience  
   Dr. Umberto Volta

7:05 – 7:15  Gluten Sensitivity and the Nervous System  
   Autism and GS  
   Dr. Anna Sapone  
   Schizophrenia and GS  
   Dr. Deanna Kelly

7:15 – 7:25  Pathogenesis of Gluten Sensitivity  
   Basic evidence of innate immunity  
   Dr. Detlef Schuppan  
   Translational evidence of innate immunity

7:25 – 7:35  Management of Gluten Sensitivity  
   Patient management  
   Dr. Daniel Lefler  
   Nutritional Management  
   Pam Cureton, RD, LD

7:35 – 7:40  Summary and Invitation to open discussion  
   Dr. Alessio Fasano

7:40 – 8:20  Discussion

8:20 – 8:30  Closing Remarks  
   Dr. Alessio Fasano