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Celiac disease : towards new therapeutic modalities

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List of publications

LIST OF PUBLICATIONS

- Stepniak D., Spaenij-Dekking L., Mitea C., Moester M., de Ru A., Baak-Pablo R., van Veelen P., Edens L., Koning F. – *Highly efficient gluten degradation with a newly identified prolyl endoprotease: implications for celiac disease*. Am J Physiol Gastrointest Liver Physiol 2006 Oct;291(4):G621-9
- Mitea C., Havenaar R., Drijfhout J. W., Edens L., Dekking L., Koning F. – *Efficient degradation of gluten by a prolyl endoprotease in a gastrointestinal model: implications for coeliac disease*. Gut. 2008 Jan;57(1):25-32
- Mitea C., Kooy-Winkelaar Y., van Veelen P., de Ru A., Drijfhout J. W., Koning F., Dekking L. – *Fine specificity of monoclonal antibodies against disease inducing peptides present in the gluteome*. Am J Clin Nutr. 2008 Oct;88(4):1057-66
- Mitea C., Salentijn EM, van Veelen P, Goryunova SV, van der Meer IM, van den Broeck HC, Mujico JR, Monserrat V, Gilissen LJ, Drijfhout JW, Dekking L, Koning F, Smulders MJ. – *A universal approach to eliminate antigenic properties of alpha-gliadin peptides in celiac disease*. PLoS ONE 2010 Dec 16;5(12):e15637
- Mitea C., Mujico JR, Gilissen LJ, de Ru A, van Veelen P, Smulders MJ, Koning F. - *Natural variation in avenin epitopes among oat varieties: implications for Celiac Disease*, Journal of Cereal Science, in press
- Dekking L., Mitea C., Stepniak D., Baak-Pablo R., Kooy-Winkelaar Y., Edens L., Koning F. – *Detection and detoxification of gluten*. Proceedings of the 21st Meeting Working group on Prolamin Analysis and Toxicity, Trieste Italy, 2006

Curriculum vitae

CURRICULUM VITAE

The author of this thesis, Doina Cristina Mitea was born in Cluj-Napoca, Romania on the 28th of March 1978. She attended secondary school at the “Tiberiu Popoviciu” Computer Science High School in Cluj-Napoca, where she got her Romanian Baccalau-reate diploma in June 1997. From 1998 she studied Medicine at the “Iuliu Hatieganu” University of Medicine and Pharmacy, Cluj-Napoca. During her medical study she performed a 3-months research project at the department of Immunohematology and Blood Transfusion of the Leiden University Medical Center, under the supervision of Prof. dr. Frits Koning and dr. Liesbeth Dekking, investigating the molecular basis of celiac disease. After receiving her MD diploma in September 2004, she returned in the group of Prof. dr. Frits Koning to carry out the present PhD research project that she completed in April 2009. The results of her research led to scientific publications, poster and oral presentations during more international congresses and symposia. In May 2009 she started a 4-year training program in the Leiden University Medical Center to become a specialist in nuclear medicine.

Abbreviations

ABBREVIATIONS

Aa	amino acid;
ACN	acetonitrile
AN-PEP	<i>Aspergillus niger</i> prolyl endoprotease
BSA	bovine serum albumin
CD	celiac disease
cpm	counts per minute
ELISA	enzyme-linked immunosorbent assay
GI	gastrointestinal
Glt	glutenin
Glia	gliadin
HMW	high molecular weight
HLA	Human leukocyte antigen
IMDM	Iscove's modified Dulbecco's media
LMW	low molecular weight
mAb	monoclonal antibody
NMP	N-methyl-2-pyrrolidone
PEP	prolyl endopeptidase
PVDF	Polyvinylidene fluoride
PBMC	peripheral blood mononuclear cell
RT	room temperature
Rp HPLC	reversed phase high performance liquid chromatography
SDS-PAGE	sodiumdodecyl sulphate poly-acrylamide gel electrophoresis
TIM	TNO gastrointestinal model
tTG;	tissue transglutaminase
TTd;	tetanus toxoid

Dankwoord

DANKWOORD

It took longer than expected to finish this thesis but it is finally done. When I started my promotion I knew I could not do it alone. For this reason I would like to use this opportunity to thank everyone who contributed directly or indirectly to this book.

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