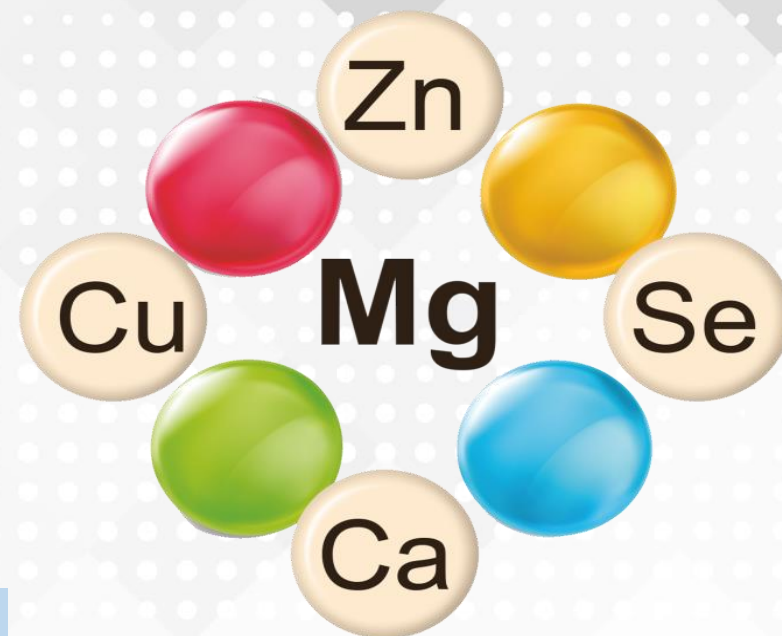


# XVII International Conference of the Polish Society of Magnesium Science of the name of prof. Julian Aleksandrowicz

2<sup>nd</sup> Polish-German Symposium

*„Role of magnesium and other bioelements in  
various areas of life and science”*



SEPTEMBER 13-15, 2018; WARSAW, POLAND



↑  
Sala seminaryjna  
Seminar Room

XVII International Conference of the Polish Society  
of Magnesium Science of the name  
of prof. Julian Aleksandrowicz

2<sup>nd</sup> Polish-German Symposium

and other bioelements  
science"





emicznych  
Warszawskiego

↑  
Sala seminaryjna  
0.003  
Aula A i B  
Radiochemia  
Radiochemistry

































XVII International Conference of the Polish Society of  
Magnesium Science of the name of prof. Julian Aleksandrowicz

2<sup>nd</sup> Polish-German Symposium

*„Role of magnesium and other bioelements  
in various areas of life and science”*



SEPTEMBER 13-15, 2018, WARSAW, POLAND





**ORGANIZERS**

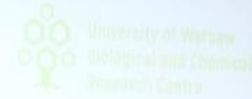
**PARTNERS**





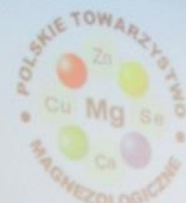
## ORGANIZERS



## PARTNERS



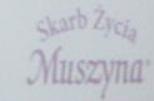
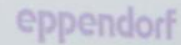




## ORGANIZERS



## PARTNERS









## ORGANIZERS



## PARTNERS









## Magnesium deficit

- Personality disorders
- Hypersusceptibility to stress
- Catecholamin cardiotoxicity
- Arterial hypertension
- Vasoconstriction
- Coronary insufficiency
- Tachycardia, arrhythmias
- Hypercoagulability
- Thrombotic complications
- Neuromuscular hyperexcitability
- Diabetic retinopathy
- Anxious hyperemotionation
- Insomnia
- Immunity | infections
- | cancers















Conference of the Polish Society of Magnesium Science - 2<sup>nd</sup> Polish-German Symposium  
Warsaw September 13-15, 2018

# Magnesium in Muscle Function



Federica I Wolf

UNIVERSITÀ CATTOLICA  
SACRAMENTO

Istituto di Patologia generale, Facoltà di Medicina - Fondazione Policlinico Gemelli IRCCS Roma-Italy  
(198 Mg and Muscle Function - Warsaw 2018)









XVII Międzynarodowa Konferencja  
Polskiego Towarzystwa Magnezologicznego  
im. prof. Juliana Aleksandrowicza

II Sympozjum Polsko-Niemieckie

*„Rola magnezu i innych biopierwiastków  
w różnych dziedzinach życia i nauki”*

13-15 WRZEŚNIA 2018, WARSZAWA  
CENTRUM NAUK BIOLOGICZNO-CHEMICZNYCH, AULA B

ORGANIZATORZY:

PARTNERZY:



















2<sup>nd</sup> Polish-German Symposium  
Role of magnesium and other bioelements  
in various areas of life and science  
September 13-15, 2018, Warsaw, Poland



SATURDAY, SEPTEMBER 15, 2018

08:30-10:00 Welcome Coffee

**SESSION 1: Bioelements in Medical Science II**

Chairman: Hans Georg Causen, Andrzej Lewenstam

10:30-10:35 Magnesium in Hypertension

**BLAIS KISTEBS, BERNHARD GREMMER, TANJA WERNER, UWE GÖBBER**  
Medial Clinic I, St. Anna Hospital & ESH Excellence Center,  
Herne, Germany, and Inst. f. Micronutrients, Essen, Germany

10:35-10:50 Magnesium Status Evaluation: the Present and the Perspectives

**ANDRZEJ MAZUR, EDMOND ROCK**  
Unité de Nutrition Humaine, Inra, Université Clermont-Auvergne,  
Clermont-Ferrand, France

10:50-11:05 The Effect of Acute Lower Limbs Ischemia on the Oxidative  
Stress Biomarkers and Blood Plasma Magnesium and Calcium  
Concentration

**MARIA KISKA, MAGDALENA SNOCH-ZIOKIEWICZ, WIKTOR MAJEWSKI**  
Department of General Chemistry, Chair of Chemistry and Clinical  
Biochemistry, and Department of General and Vascular Sur-  
gery, Poznan University of Medical Sciences, Poznan, Poland

11:05-11:15 Coffee Break







## 7. Data Analysis I – Comparison of Participants with and without Diagnosed Hypomagnesemia

Based on the Mg Serum Test 73.5% of the participants turned out to have hypomagnesemia using a cut off value of  $<0.76$  mmol/l. Participants with ( $n=138$ ) and without hypomagnesemia ( $n=55$ ) were compared for all questionnaire items.

11 Items showed significant or borderline significant differences.

	Mg Deficiency $n=138$	Mg Normal $n=55$	Odds Ratio	Confidence Interval (95%)
1. Current tobacco consumption (mm)	97.0%	89.0%	6.69	1.89 - 22.43
2. Use of tobacco (mm)	97.0%	100%	6.19	0.99 - 37.50
3. Use of tobacco (mm)	10.1%	3.7%	4.39	1.04 - 17.16
4. Hospital admission (mm)	20.0%	7.7%	3.09	1.01 - 9.65
5. Hospital admission (mm)	19.7%	7.7%	2.94	1.08 - 8.03
6. Hospital admission (mm)	40.0%	20.0%	2.73	1.30 - 5.66
7. Hospital admission (mm)	50.9%	33.3%	2.68	1.05 - 6.99
8. Hospital admission (mm)	47.3%	25.4%	2.23	1.17 - 4.26
9. Hospital admission (mm)	45.6%	25.4%	2.10	0.97 - 4.53
10. Hospital admission (mm)	32.7%	10.5%	1.99	0.92 - 4.11
11. Anxiety	34.3%	24.2%	1.99	0.92 - 4.11

- As could be expected low nutritional magnesium intake is a predominant risk factor for Mg-Deficiency with an Odds-Ratio of 6.1.
- From the many possible symptoms of Mg-Deficiency 4 turned out to be associated with the condition (shown in italics).
- However there is also a correlation between smoking as well as hospital admission. The latter may be due to higher morbidity and/or stress.
- There is also evidence that supplementation generally is less accepted in participants with hypomagnesemia and with regard to folic acid also done less before pregnancy.













szka Ryszarda Kapuścińskiego  
rd Kapuściński's path































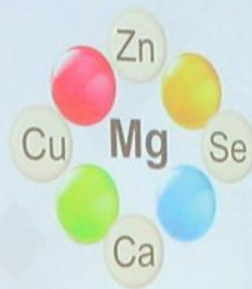








XVII International Conference of the Polish Society of  
Magnesium Science of the name of prof. Julian Aleksandrowicz



SEPTEMBER 13-15, 2018, WARSAW, POLAND





## Conclusions

- There are at present no definitely validated appropriate biomarkers of Mg status to detect latent Mg deficiency.
- Well-designed studies are still insufficient to define suitability of existing biomarkers.
- Studies on novel potential biomarkers are still scarce. However, the development of new approaches is promising.

25









RSYTET  
AWSKI

# BIBLIOTEKA ANALITYKA

*chemia w dobrym wydaniu*



www.mala

# ANALITYKA

NAUKA I PRAKTYKA



1 2018

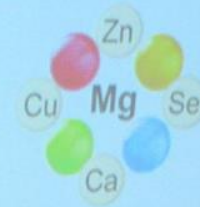
mut-pl



rm w zakresie two  
sateriałów reklam  
ferencje biurog na  
wykonując prace z  
socyjnych, komuni



# Redistribution



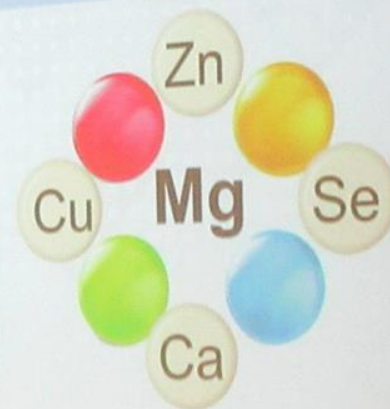


*Thank you for your participation in*

XVII International Conference of the Polish Society of  
Magnesium Science of the name of prof. Julian Aleksandrowicz

2<sup>nd</sup> Polish-German Symposium

*„Role of magnesium and other bioelements  
in various areas of life and science”*



SEPTEMBER 13-15, 2018, WARSAW, POLAND





