# Correcting the Environmental Factors Leading to Childhood Obesity

**by Dr. Bernard Gouget**

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The subject of childhood obesity has been in the shadows for far too long. Admittedly, it is a sensitive issue and, of course, we must take care not to stigmatize anyone who suffers from this condition. Obesity has reached epidemic levels in recent years. Childhood obesity is now considered a major issue because of its prevalence and because of its severe consequences on adult health. There is also increasing evidence that obesity has deleterious social, economic (1%-3% of the total expenditure in most countries), and health consequences.

The definition of overweight and obesity in children is less standardized that in adults because natural age-related physiological variations in body composition during childhood make it difficult to distinguish between normal and excessive adiposity. For population screening of obesity, anthropometric measurement of height, weight and skinfold thicknesses remain the most feasible and practical methods. The International Obesity task Force (IOTF)'s international standard for analyzing childhood overweight and obesity data has been widely adopted. It provides growth curves which relate cut-off points for different age groups to the adult categories for overweight and obesity of Body Mass Index (BMI) >25 and BMI >30. Nevertheless, since skinfold thicknesses and BMI vary in both sensitivity and specificity as indicators of obesity, this represents a major impediment in estimating obesity prevalence.

According to the European commission, one in five children in the EU is considered overweight or obese, with the numbers growing by 400,000 per year. Approximately 13% of schoolchildren aged 11-15 are overweight or obese with numbers rising for boys in all countries while declining slightly for girls in few countries. Children who have at least one obese parent are 3-4 times more likely to be obese themselves. This in part is genetic, but children generally share their parents' unhealthy diet and sedentary lifestyles, an influence that has played an important role in the spread of obesity. The concern is not only that young people, who are already overweight and obese, are destined to remain so throughout their adult lives with heightened risks to health, but that youngsters are already developing "diseases of old age." Major health threats associated with overweight and obesity include dyslipidemia, metabolic syndrome, type 2 diabetes, and cardiovascular diseases are now affecting ever-younger people.

Since it is difficult to reduce excessive weight once it becomes established, the general consensus amongst researchers is that prevention could be the key strategy for controlling the current epidemic of obesity, and therefore, the focus needs to shift towards children and early intervention strategies. Indeed, despite the numerous initiatives by WHO with the second WHO European Action Plan for Food and Nutrition Policy (2007–2012) across Europe, which include actions on poor diet, nutrition and low physical activities, prevention in early childhood is still emerging at the top of the EU agenda. It is clear that promoting healthy diets and stimulating physical activity alone do not work. Encouraging healthy diet, active lifestyles during childhood and adolescence is known to reduce the risks of both immediate nutrition related problems and noncommunicable diseases in later life.

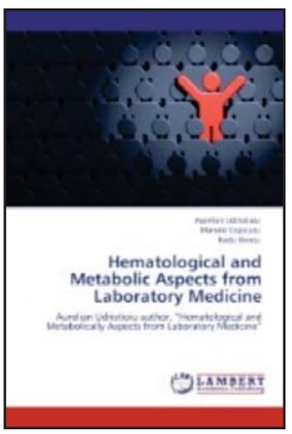
The challenge is to create a multifaceted public health approach capable of delivering long-term reductions in the prevalence of overweight and obesity. An effective strategy must combine complementary strengths: population approaches, health promotion campaigns, taxes and subsidies, or government regulation with individual approaches as counseling by health professionals to change what people perceive as the norm in healthy behavior. Fighting childhood obesity and associated chronic diseases will demand cooperation on the part of all stakeholders for standardized and Europe-wide harmonized surveillance systems, and for implementation of effective and sustainable interventions in health, education, and care systems in order to influence current environment and cultural practices notably within schools. Taken together, these actions offer insight into how we might tackle childhood obesity and offer children the promise of a healthy future.



# Book Review: Hematological and Metabolic Aspects from Laboratory Medicine

by Aurelian Udristioiu, Manole Cojocaru, Radu Iliescu
Publisher LAP LAMBERT Academic Publishing GmbH & C. KG, 2011, pp.109, ISBN 978-3-8473-0775-4, Germany

The authors have published numerous articles in professional journals in the country and abroad and produced numerous books. The volume presents the authors' experience in this field of art of medicine. The coverage and the fund of ideas on physiology, pathophysiology work stands as a bold attempt to address laboratory medicine in light of current concepts, directions, and modern principles.




The theoretical and practical work is original content. The paper shows the great need for biological sciences in general and medicine in particular taking into account progress in pathophysiology. Appropriate authority, novelty aspects treated, makes this volume constitute an important reference point for those studying and deepening problems of hematologic and metabolic aspects of pathological body.

I am confident that the volume is a successful Romanian medical school abroad and in this volume brings a substantial contribution of Romanian medicine toward the universal medicine. It is not possible, in this review, inevitably limited, to analyze all data from all the fields of medicine in nine chapters, but readers are helped by a style and language that reveals a general complementary specialization in science.

The paper is a large volume of data, experiences, clinical and laboratory research, systematically and logically presented, with the inclusion of research, experience, and personal interpretation. The work is based on solid scientific information, faced rigorous experience, gained through basic research in the country and abroad.

Due to the wealth of modern data, and because the system adopted in drafting the paper is very useful, especially practical in care physicians of all specialties, medical students, staff working in clinical laboratories.

# Profile: Society of Medical Biochemists of Serbia

by Prof. Dr. Nada Majkic-Singh, President, Society of Medical Biochemists of Serbia


Since its establishment, the Society of Medical Biochemists of Serbia (SMBS) has undertaken significant activities in all fields of clinical chemistry, according to guidelines and orientation of the IFCC and EFLM. The main activities of the Society are in the fields of education, and the organization of laboratory services, external quality control, conferences, and publishing. The Society is run by the Executive Board and the Assembly and acts through various committees for: science, education, congress activity, standardization, organization and technology of laboratory services, quality control, as well as quality management and accreditation, cooperation with industry, history of medical biochemistry and clinical chemistry, award committee, and committee for cooperation with IFCC, EFLM and BCLF, and related organizations in country and abroad. The Society of Medical Biochemists has a wide net of regular members, associate members and student members (over 700). There is a growing tendency for other experts from related natural and medical disciplines to become members as well.

The purpose of SMBS is to engage all medical biochemists in development and improvement of all the branches of medical biochemistry in health service. Its tasks are the following: to standardize operations in clinical-biochemical laboratories, the education of young biochemists on all levels, to encourage scientific research, to set up of working standards, and to implement ethics codes and monitor the compliance of health workers. The SMBS is also involved in promoting systemized standards in the field of medical biochemistry, with the relevant Serbian institutions and in facilitating exchange of experiences between its members with the members of affiliate associations at home and abroad.

In collaboration with the Faculty of Pharmacy of Belgrade University, the Society has devised education programs for undergraduate and postgraduate clinical chemists (master's degree and residency) through which full-time 5-year studies for medical biochemists and subsequent 4-year advanced training for specialization are being successfully completed. In 7th April 2011 Society organized the educational seminar with topic "Education of medical biochemists and quality improvement of laboratory work" it which besides of domestic lecturers (N. Majkic-Singh, S. Ignjatovic, J. Parocic, V. Canic and V.D. Majstorovic) participation took Simone Zerah with presentation "EC4 Registar for Specialists in Clinical Chemistry and Laboratory Medicine" and Janet McMurray with lecture on "Implementation of the EU Directive on Recognition of Profesional Qualifications as applied to Specialists in Clinical Chemistry and Laboratory Medicine".

The Society of Medical Biochemists of Serbia collaborating with the Serbian Ministry of Health, for the organization of laboratory services within all segments of the healthcare service (primary, secondary, and tertiary healthcare) in terms of implementing plans of action, education, organization, equipment, etc., in 2011 together with Republic Commission for Medical Biochemistry of Ministry of Health the members of the Society prepared two documents: "The Guideline on Point-of-Care Testing" and "Nomenclature of Laboratory Tests with prices for reimbursement". In addition, as a program of external quality control known as SNEQAS program (has been carried out since 1965 within the laboratories) organized by the Society of Medical Biochemists which allows continual improvement of the workflow in all clinical-biochemical laboratories in Serbia, the Society prepared and published together with Ministry of Health "The Guidelines on Quality Control Scheme for Internal and External Quality Control". To improve and maintain the quality of laboratory services, the Society, together with the Institute of Medical Biochemistry of the Clinical Center of Serbia and the Accreditation Body of Serbia (ATS) permanently working on the introduction of quality management system according to standard ISO 9001, and accreditation to ISO 17025 and ISO 15189. In 2011, the Society organized the educational seminars on quality management system, accreditation, and other relevant subjects for their members, i.e., Biomarkers (Kopaonik, April 2011, Banja Luka, and October 2011), Accreditation on Medical Laboratories (Belgrade, June 2011), The Novelities in Laboratory Medicine (Belgrade, October 2011).

At present, the Society is involved in the organization of congresses (biennial), and events such as Biochemical days (every year), and Innovations in laboratory medicine (every year, during the International Fair on Medical Equipment Medipharm, Belgrade). In 2011 the Society organized the 7th EFLM Symposium for the Balkan region with topics "Biomarkers: From Standardization to Performance" with the participation of domestic (N. Majkic-Singh, S. Ignjatovic, M. Jankovic, S. Stankovic) and foreign lecturers (M. Panthegini, PMM

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# Memorandum of Understanding Defines Collaboration Between EFLM and ESPT

A Memorandum of Understanding has been prepared to define a collaborative working relationship between EFLM and ESPT, the European Society for Pharmacogenomics and Theranostics, to foster the cooperation and to advance Clinical Laboratory Medicine. The European Society of Pharmacogenomics and Theranostics (ESPT) is a nonprofit organization, whose aims are to promote the education and research in pharmacogenomics and theranostics, to ensure the high standards in their application to clinical practice for improving the delivery of medicines, to provide a scientific basis for official recommendations and to provide education materials for patients, clinicians and all health workers.

For further information the document is downloadable at the following link: http://efcclm.eu/downloads (section: Agreement)

### *EFLM presence at National Society meetings*

The Executive Board appreciates the support it receives from National Societies and individual members of these societies in the various past and current EFLM activities. To foster this relationship, EFLM officers' attendance and their active participation as invited speakers has been arranged during the following National Congresses:

- 11th Baltic Congress of Laboratory Medicine – Vilnius (LT), May 10-12, 2012
- Congress of the Slovak Society of Clinical Biochemistry (NC SSCB) - Banska Bystrica (SK), 27-29 May 2012
- XXXIII Nordic Congress in Clinical Chemistry – Reykjavik (IS), June 12-15, 2012
- National Days for Russian Laboratory Medicine – InterLabDiagnostika 2012 – Moscow (RU), October 2-4, 2012
- 7th Conference of the Romanian Association of Medical Laboratories (RAML) with International Participation - Sinaia, Romania (RO), 20-23 June, 2012

### *New type of membership: Young membership*

The EFLM Executive Board to strengthen the role of Young Scientists inside its Working Groups invited National Societies to send nominations. The number of Full Members' positions inside each EFLM Working Group has been enlarged to enable Young Scientists to take part in the WG activities.

A large number of nominations were received and the selected candidates are as follows:

- Cardiac Markers (WG-CM): Christopher DUFF (UK)
- Biological Variation (WG-BV): Federica BRAGA (IT)
- Guidelines (WG-G): Shivani MISRA (UK)
- Test Evaluation (WG-TE): Philip MONOGHAN (UK)
- Preanalytical Phase (WG-PA): Michael CORNES (UK)
- Congresses and Postgraduate Education (WG-CPE): Andjelo BELETIC (SRB)
- Distance Education and e-Learning (WG-DE): Darya KISILICHINA (RU)
- Accreditation and ISO/CEN (WG-A/ISO): Kanella KONSTANTINAKOU (GR)

### *Working Group: Preanalytical Phase (WG-PA)*

The pre- and post-analytical phases of the laboratory testing process are now widely recognized as the major source of laboratory errors. Preanalytical errors are the most common and account for up to 2/3 of the total number of errors. The risk for errors in the laboratory testing process quite is underestimated in the everyday clinical practice.

To reduce the error risk, important steps are to increase the awareness of the importance of the preanalytical phase in the total testing process and recommend guidelines for the best preanalytical practices. Efficient indicators and educational tools should be provided in order to implement the best preanalytical practices.

For this reason a new EFLM WG was created under the Chairmanship of Prof. Ana-Maria Simundic (Croatia).

This WG will focus their work on the following:

1) To promote the importance of the quality of the preanalytical phase of laboratory medicine;
2) To define the best practices and provide recommendations for some critical activities in the preanalytical phase;
3) To design and validate questionnaires for assessing the current practices related to some preanalytical variables;
4) To conduct surveys using validated questionnaires with the aim to assess the current preanalytical practices;
5) Organize symposia, workshops, webinars, or training courses on preanalytical phase issues.

One of the main future activities of this WG will be to organize the 2nd EFLM-BD Conference on pre-analytical phase, during March 1-2, 2013, in Zagreb (Croatia).

### *EFLM-AACB Agreement on the Joint Task-and-Finish Working Group on Critical Values (TFG-CV)*

EFLM and AACB (Australasian Association of Clinical Biochemists) recognize the added value of working together to foster cooperation and to advance Laboratory Medicine. To formalize this cooperation a joint Task-and–Finish Working Group on Critical Values (TFG-CV) has been established for a 2 year period.

Action points that are of mutual interest to both parties are:

1) To expand the recent Australasian survey on critical values management to Europe. 2) To publish results of the European survey of critical value management jointly with AACB 3) develop joint recommendations on best laboratory practice for communicating critical results.



# Profile: Society of Medical Biochemists of Serbia

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Bossuyt, G. Sypniewska, D. Rogic, V. Blaton, P. Gillery, D. Aslan, A. Griesmacher, D. Rizos, B. Gouget). Also in 2011 the Society started to prepare the program for the 18th Congress of Medical Biochemistry and Laboratory Medicine that will be held in Belgrade in September, 2012 together with 8th EFLM Symposium for Balkan Region ("Vitamin D Deficiency: A new challenge for laboratory medicine") and 20th Meeting of the Balkan Clinical Laboratory Federation. In March 2012, the Society organized the seminar on "Quality Indicators in Pre-Analytical Phase" and started to send data on quality indicator to the IFCC WG-LEPS. To improve total quality in laboratory process during the 20th Meeting of the Balkan Clinical Laboratory Federation will be organized the Session on "Preanalytics--the right way for the improvement of patient safety" by participation of M. Plebeni, V. Palicka, AM Simundic, S. Kitchen, M. Serteser, Z. Sumarac, etc. In addition, the members of the Society of Medical Biochemists of Serbia actively participate in all IFCC and other relevant Congresses and Conferences in the field of clinical chemistry and laboratory medicine. This participation promotes the implementation of standard procedures for diagnosis, forming of protocol and implementing uniform organization in all laboratories in the country.

As the Society fourteen years ago established the "Professor Ivan Berkes" Scientific Conference, devoted to the Professor Ivan Berkes, founder of clinical chemistry in Yugoslavia and Serbia, which takes place in Belgrade every year in December 2011 the Society organized the Fourteen Conference during which have been presented the doctoral thesis defended in that year. On the occasion of this Conference, the Society awards a prize to the most successful graduated students of the Faculty of Pharmacy (Belgrade University) in medical biochemistry.

The Society is involved in significant publishing activity. Experts of the Society have participated in the preparation of published professional methodological guidebooks for the field of medical biochemistry through the Serbian Ministry of Health. For over 25 years, the Society has published the "Journal of Medical Biochemistry" (www.versita.com/science/medicine/jmb ) as well as a series of books and scientific literatures written by its members. At the beginning of 2012, Society published book Clinical Enzymologist (N. Majkic-Singh, DMBS).