

Protect Your Medical Labs From Cyber Attacks

by Dr. Bernard Gouget

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Health is one of the vital sectors that require compliance with regulations and the application of strict security measures. The proliferation of cyber-attacks against health organizations proves that the danger is very real. Several large US groups specialized in healthcare have actually been attacked. Anthem, one of the health insurance heavy weights was targeted by a very sophisticated external cyber-attack and has had data from tens of millions of client hacked, including names, dates of birth, health insurance numbers, medical information, job related data, income, etc. Intrusions into IT systems have increased by more

than 600% since a year ago, according to the calculations of Websense, a cyber-security agency, and in 2015, hospitals have been particularly targeted. Today, it's not a question of knowing whether health organizations will be attacked, but when. In France, a group of medical labs was hacked of some 40,000 IDs and hundreds of medical reports and tests. When the laboratory refused to pay a ransom, hackers of the Rex Mundi group disclosed non-encrypted patient reports on the internet for several days.

In fact, hackers are not interested in databanks with too-complex information systems, but are

turning to the health sector, which is full of data where smaller amounts have been invested in cyber security due to lack of resources or foresight, and which is easy prey. There are several levels of motivation. Firstly, industrial espionage: data is stolen from pharmaceutical companies related to medical research or advances. Next, comes blackmail. In this case, patient medical records are stolen from hospitals to be returned when a ransom is paid. Encryption is also fashionable in France. Hackers encrypt information belonging to healthcare facilities and decrypt it for a certain sum of money. Another primary motivation for cybercriminals concerns resale of health information to supplementary insurance companies, pharmaceutical and biomedical companies.

Medical information belonging to individuals can prove valuable to insurers: this data allows them to adjust their rates more precisely. The pharmaceutical industry can establish statistics of capital importance with this information in order to guide their drug marketing.

Digitalization in the health sector represents a real opportunity to improve prevention and healthcare quality, as well as for overall growth of the sector if, and only if, the stakeholders are able to guarantee a high level of data security and available resources. For this, it is important for every health organization, regardless of its business, size and status, whether it is a hospital, laboratory or even an equipment manufacturer, to be 100% sure of its security solutions and provisions. The capacity of its partners, providers and subcontractors to ensure protection and confidentiality of information is also a major issue, since they are likely to represent a gateway for hackers if they are not well secured. Moreover, staff must be both involved and trained, and then adopt best practices for protection, since it is not rare for human negligence to be the cause of security vulnerabilities.

In a context where the vast majority of infrastructure and equipment are connected, players in the healthcare field must continue their protection and compliance efforts to meet the complex challenges connected with the sector. This will happen by adopting a comprehensive approach to security, with powerful analysis tools and proactive monitoring of network activity in real time. By setting up a so-called smart strategy, organizations can detect threats and abnormal behavior that could be warning signs of an attack as they happen, and immediately react to breaches. Understanding standards, as well as researching potential threats, is the first line of defense against attacks: by keeping a constant eye on network activity, those involved in health can collect vital data on their IT systems and obtain traceable information that regulators may require in the future. In France, the Haute Autorite de Sante [French National Health Authority] has integrated IT security into its approval criteria for healthcare facilities: those who do not meet a certain level of expectations do not get the subsidies provided for this purpose. Laboratory accreditation is trending in the same direction.

Beyond compliance with the standards and regulations that govern the sector, security must be part of a comprehensive, ongoing and active process. This is why security training and collaboration efforts are essential for all the stakeholders concerned. In the digital era, the security of procedures, operations and medical data is a societal issue that no one can ignore or neglect given the consequences that a cyber-attack can entail, whether for patients or practitioners.

EUROMEDLAB
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- 22nd IFCC - EFLM European Congress of Clinical Chemistry and Laboratory Medicine
- 25th Meeting of Balkan Clinical Laboratory Federation
- 15th National Congress of GSCC-CB

www.athens2017.org

IFCC International Federation of Clinical Chemistry and Laboratory Medicine

EFLM EUROPEAN FEDERATION OF CLINICAL CHEMISTRY AND LABORATORY MEDICINE

GSCC-CB GREEN SOCIETY OF CLINICAL CHEMISTRY CLINICAL BIOCHEMISTRY

BCLF

New EFLM Website Launched

EFLM has the pleasure to announce that for a more user friendly view and access to the EFLM website contents, a new homepage has been released.

It can be reached from both the current domain www.efcclm.eu and a new one www.eflm.eu (easier to remember!). We invite you to bookmark the new address www.eflm.eu on your PC (the previous domain will remain available only for a short time).

In addition to the page dedicated to the news from the Federation, two

new pages: "News from National Societies" and "News from Companies" have been created. We invite all EFLM Society Members and EFLM Corporate Partners to send to the EFLM office, the news that they may wish to diffuse to a wide and highly professional audience.

We encourage all of you to report to the EFLM office any problem you may encounter during your visits, so that we can try to fix them rapidly.

We hope you may appreciate the initiative. Have a nice web-navigation!

EFLM Scientific Awards Presented At EuroMedLab 2015

The "EFLM-Roche Award for Laboratory Medicine" was created in 2001 to honor an individual from an EFLM Member Society who made unique contributions to the promotion and understanding of Clinical Chemistry and Laboratory Medicine throughout Europe.

The "EFLM-Roche Award for Laboratory Medicine 2015" is presented to Dr. Simone Zerach, Laboratoire Zerach-Taar-Pfeffer, Bagnolet, France, for her distinguished career as a Scientist in Clinical Chemistry and Laboratory Medicine and her extraordinary and energetic contribution to the promotion of the Profession.

The "Abbott Diagnostics Award for Excellence in Outcomes Research in Laboratory Medicine" is given to the best published paper, as judged by an independent panel of experts, which demonstrates improved outcomes (clinical and/or economic) or improved

utilization of an in vitro diagnostic test. The "Abbott Diagnostics Award for Excellence in Outcomes Research in Laboratory Medicine 2015" is presented to Prof. Gabor L. Kovacs, Dept. of Laboratory Medicine, Faculty of Medicine, University of Pecs, Hungary, as presenting Author of the article "Noninvasive embryo viability assessment by quantitation of human haptoglobin alpha-1 fragment in the in vitro fertilization culture medium: an additional tool to increase success rate."

Gergely Montsko^{1,2}, Zita Zrínyi^{1,2}, Tamas Janaky³, Zoltan Szabo³, Akos Varnagy⁴, Gabor L. Kovacs^{1,2}, Jozsef Bodis^{1,4}.

REFERENCES

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EFLM Task & Finish Group to Initiate Standardized Color-Coding for Blood Collection Tube Closures

by Ana-Maria Simundic, TFG on Standardization of Tube Closure Colour (TFG-STCC), Chair

EFLM has recently established a Task-and-Finish group (TFG) with the title: Standardization of the color coding for blood collection tube closures.

TFG membership is as follows:

Ana-Maria SIMUNDIC, Chair (Croatia); Nuria BARBA MESEGUER (Spain); Michael CORNES (UK); Alberto DOLCI (Italy); Edmee van DONGEN-LASES (The Netherlands); Stephen CHURCH (Becton Dickinson); Helene IVANOV (Greiner Bio); Christa SEIPELT (Sarstedt)

The aim of this project is to initiate and manage a dialog between interested parties in order to achieve the world-wide harmonization of the color coding for blood collection tube closures and labels.

The background of the problem has recently been described in the EFLM Opinion paper published in CCLM (Simundic AM, et al. Color coding for blood collection tube closures – A call for harmonization. Clin Chem Lab Med. 2015;53(3):371-6)

TFG members will meet for the first time in Paris, during Euromedlab for an initial dialogue and hopefully reach a preliminary consensus and agree on the way forward. All IVD manufacturers have been invited to join this TFG and EFLM wishes to acknowledge the kind participation of three major manufacturers of blood collection systems.

We hope that our efforts are going to take us one step closer to global harmonization and standardization initiatives in laboratory medicine.



Photo: New members of SEQC Board of Directors

New Leadership Takes Helm At Spanish National Society

The Spanish Society of Clinical Biochemistry and Molecular Pathology (SEQC) have named a new president, vice-president and one member at-large to the board of directors.

The new board now comprises Dr. Imma Caballe, president; Dr. Jose Luis Marín, vice-president; Dr. Jose Angel Cocho, treasurer; Dr. Josefina Mora, secretary; and Dr. Francisco A. Bernabeu, Dr. Ángeles Gimenez, Dr. Patrocinio Chueca, Dr. Dolores Balsells and Dr. Anna Padros, directors.

Dr. Caballe – the incoming SEQC president for the next six years, replacing Dr. Alvarez, who had occupied this position for the last eight years – is the first woman to reach the presidency of the Society. Since 2007, Dr. Caballe has served in various roles on previous boards, as a director and vice-president.

“One of the priority strategic goals of the SEQC’s board of directors is to promote professional recognition of the clinical laboratory and contribute to the training and scientific knowledge of our members. We will attempt this mainly through the strengthening of institutional relations with European scientific societies,” Dr. Caballe explains.

Also, Dr. Caballe points out that “the goals set in terms of training and education of the members are very high, not only through international grants, which give the opportunity to work in a lab outside Spain, but also through residents grants, providing job experience in difficult times.”

The new board has as a priority that SEQC members are represented in international societies, such as the European Federation of Clinical Chemistry and Laboratory Medicine (EFLM) and the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC). “In fact, there are now 20 people from SEQC serving in working groups in international associations. We are working proactively on many issues of core subjects and specialties in Spain. Our aim is to standardize the training given to residents across countries,” says the new president.

In this new phase, SEQC will work to promote regulation of quality guarantee systems, as is already the case in the rest of Europe.

Applications Invited for Travel Grants To the 15th EFLM Postgraduate Course In Zagreb (October 24-25, 2015)

EFLM is promoting a bursaries program for young scientists attending the 15 EFLM Continuing Postgraduate Course in Clinical Chemistry and Laboratory Medicine on October 24–25, 2015, in Zagreb <http://www.eflm-course.org>.

The bursaries will cover the cost of the travel and accommodation (max 2 nights in a 3-star hotel) for a maximum of EUR 400. Kindly note that the registration fee is not refundable.

Eligible candidates must come from an EFLM Member Society and meet the following criteria: Young participants (under 35 years old at the date of the conference); Having a poster abstract accepted as First Author.

Applications must be submitted through the proper application form (downloadable here www.eflm-course.org/bursary) and accompanied by the following documentation: 1) Copy of the ID or passport; 2) Document proving the membership to the National Society; 3) Notification of poster acceptance. Please send your applications to silvia.cattaneo@efclm.eu within September 10, 2015. Applicants will be notified of the bursaries acceptance/rejection within October 2, 2015.

Important date: 15 September 2015 – deadline for reduced registration fee.

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15th EFLM Continuous Postgraduate Course in Clinical Chemistry and Laboratory Medicine

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11th Balkan EFLM Symposium Marks 60th Anniversary of Serbian Society

by Dr. Snezana Jovicic, Society of Medical Biochemists of Serbia

The Society of Medical Biochemists of Serbia (SMBS) celebrated this year, on May 14 and 15, its 60th Anniversary. It was marked with the organization, for the 11th time, of the EFLM Symposium for Balkan Region. This year's Symposium, entitled "Laboratory Medicine Specialist Focuses on the Patients Well-being," was organized by SMBS, EFLM and Department of Medical Biochemistry of the University of Belgrade – Faculty of Pharmacy, and under the auspices of IFCC, Balkan Clinical Laboratory Federation (BCLF), Ministry of Education, Science and Technological Development and Ministry of Health of Republic of Serbia.

During the two day Symposium, the participants had a chance to hear about the current hot topics concerning the laboratory medicine profession today from leading European experts in this field – Prof. Mauro Panteghini, Prof. Simone Zerah, Dr. Gilbert Wieringa, Dr. Ian D. Watson, Dr. Wytze Oosterhuis, Prof. Elizabeta Topic, Dr. Wim Huisman, and Prof. Ana-Maria Simundic; as well as about the situation in training of specialists in laboratory medicine, accreditation and key processes quality indicators in Serbian medical laboratories from Prof. Nada Majkic-Singh and Dr. Zorica Sumarac.

The talks were about the role of laboratory medicine specialists in verification of in vitro medical diagnostics metrological traceability, implementation and the transposition of the Directive on the professional qualifications, common training frameworks for specialists in laboratory medicine, common values in the liberal professions in Europe, laboratory medicine in the EU, the implementation of continuous professional development, present situation on accreditation in Europe, and preanalytical phase quality management.

This year's round table discussion, which finalized the Symposium, was exceptionally vibrant. It was hosted by students of medical biochemistry from the Faculty of Pharmacy, University of Belgrade, gathered in the "Team of Medical Biochemists." After the short presentation they had made on their extracurricular activities, they initiated a discussion with (and among) the distinguished lecturers about a topic of the utmost interest to these enthusiastic young people, as they defined it, what it takes to become a lab hero.

After the completion of the Symposium sessions, the Ceremony of the 60th Anniversary of the SMBS celebration began. The ceremony was opened by the Infinity Quintet and their inspiring performance of popular pieces by Guns'n'Roses, Whitesnake, Scorpions, in classical adaptation for a string quintet, symbolizing the continuity of the Society's work during the past 60 years and its constant change and advancement according to the demands of the actual time. Prof. Nada Majkic-Singh, the Executive Director of the SMBS, reminded us briefly of the beginnings and development of medical biochemistry in Serbia, from the middle ages on, as well as of the foundation of SMBS and its various activities. This was followed by photos from numerous events that SMBS patronized and organized during the last 60 years, which were included in the book "Serbian Medical Biochemistry in 21st Century – 70 years later," published on this occasion by the SMBS.

Many distinguished guests from Serbia and abroad were invited and responded to the sum-



Photo: Lecturers and participants at the 11th EFLM Symposium for Balkan Region and SMBS 60th Anniversary

mons, and they made the welcoming address to the gathering. The greatest honor to the SMBS was made with the attendance and addressing of Her Royal Highness Crown Princess Katherine of Serbia. Congratulations to the SMBS were delivered also by IFCC President Prof. Maurizio Ferrari, EFLM President Prof. Mauro Panteghini, Dean of the Faculty of Pharmacy University of Belgrade Prof. Zorica Vujic, Dean of the Faculty of Medicine University of Belgrade Prof. Nebojša Lalic, and Director of the Chamber of Biochemists of Serbia Dr. Slavica Cimbalevic. Also, President of the Croatian Society of Medical Biochemistry and Laboratory Medicine Prof. Ana-Maria Simundic and Sonja Kuzmanovska, Representative of the Macedonian Society of Medical Biochemistry congratulated the Anniversary, and the letter from the Polish Society of Laboratory Diagnostics sent on this occasion was read.

Regarding the 60th Anniversary of the SMBS, the President of the SMBS Dr. Zorica Sumarac delivered the awards. The Honorary Diploma, the highest recognition of the SMBS, intended for the designated individuals for promoting clinical chemistry and laboratory medicine in Europe and globally, was handed to Prof. Simone Zerah. The highest award, the Charter, regarding 60 years of existence and work, in appreciation and gratitude for the significant contribution to the work and development of the SMBS, was delivered to IFCC and EFLM. As recognition and gratitude for significant contribution to the work of the SMBS, Diplomas and Acknowledgments were handed to 60 individuals and organizations. The special Honorary Diploma and Anniversary Logo were delivered to Prof. Nada Majkic-Singh, the long-time President of the SMBS and present Executive Director, for her enormous contribution to the foundation and development of the SMBS and the profession of medical biochemistry in Serbia.

It is important to note that the formation of the professional association of medical biochemists in Serbia started more than 60 years ago. The Section for Medical Biochemistry of the Pharmaceutical Society of Serbia was founded in 1951, one year before the formation of IFCC (in 1952). Four years later, on the 6th Plenum of the Alliance of Pharmaceutical Societies of Yugoslavia, held in Split on May 15, 1955, the Section for Medical Biochemistry of the Alliance of Pharmaceutical Societies of Yugoslavia was formed. This Section was later re-

named the Society for Medical Biochemistry within the Alliance, according to the resolution of the 16th Plenum, held May 15, 1965, in Banjaluka. In 1995, the Society of Medical Biochemists of Yugoslavia accepted May 15 as the Day of the Society, according to these historical facts. It is important to note that the Society of Medical Biochemists of Yugoslavia soon became the 28th member of the IFCC, in May 1971.

Today, SMBS organizes congresses, biochemical days and seminars for continuous education of its members. Till now 19 congresses and 20 seminars were held. As a member of the Balkan Clinical Laboratory Federation (BCLF), SMBS organized three BCLF congresses: 4th in Budva in 1996, 11th in Belgrade in 2003, and 20th also in Belgrade in 2012. Every year, SMBS organizes together with EFLM and under the auspices of IFCC and BCLF, EFLM Symposium for Balkan Region which covers actual topics important for the promotion of the profession. Also, SMBS is the publisher of Journal of Medical Biochemistry, an international peer-reviewed journal.

Within SMBS two foundations are at work, "Professor Ivan Berkes" and "Magistra Milica Markovic." Scientific Foundation "Professor Ivan Berkes" was named after the distinguished teacher and expert in medical biochemistry in Serbia and former Yugoslavia. On the Annual Scientific Conference, dedicated to his life and work, the Foundation and SMBS award the best students of the Faculty of Pharmacy University of Belgrade, and the results of doctoral thesis of members of the SMBS are presented. The Foundation "Magistra Milica Markovic" was founded in memory of the esteemed colleague and long-time member of SMBS, who left an indelible mark in the development of the medical biochemistry profession in Serbia. The Foundation awards medical biochemists for promotion of technological and organizational principles of work of clinical laboratories.

This celebration of the 60th Anniversary reminded all the members and contributors of the successful development of the SMBS and it should be an impulse to young colleagues and students to continue the tradition of SMBS with even more success. They should be motivated with the motto of our long-lasting work, written by our Nobel prize laureate for literature, "He who does good, more good is expected from him."

First Combined Romanian National Congress Held in Historic Citadel-Town of Sighisoara

by Assoc. Prof. Dr. Ioana Brudasca, RALM president

The 1st Romanian Association of Laboratory Medicine (RALM) Congress was held during May 20–23, 2015, in Sighisoara. The congress was organized under the auspices of IFCC and EFLM and in collaboration with the Romanian Society of Microbiology, the Romanian Society of Hematology and the Universities of Medicine and Pharmacy in Targu Mures, Cluj, Napoca, Iasi, and Bucharest

The congress was the first event organized by RALM, the new single national professional society which was formed in 2015 by the merger of the two former societies (the Romanian Association of Medical Laboratories and the Romanian Society of Laboratory Medicine).

The congress was attended by over 350 participants. IFCC representatives Prof. Maurizio Ferrari (IFCC president), Prof. Graham Beastall (past president of IFCC) were invited to the congress. Other invited speakers from abroad were Dr. Paivi Laitinen (HUSLAB Helsin-

ki, Finland), Prof. Vladimir Palicka (Charles University in Prague, Faculty of Medicine, Czech Republic) and Prof. Janos Kappelmayer (University of Debrecen, Hungary). The participation of Prof. Ferrari, Beastall and Dr. Laitinen was supported by the Visiting Lecturers Program of IFCC.

Many of the Romanian speakers were teachers at the medical faculties of Bucharest, Cluj, Napoca, Targu Mures, Iasi. As our association is very interested in motivating young laboratory professionals, many communications were presented by young colleagues, most of them PhD fellows. Two awards were granted, one for the best poster, and one for professional activity.

The scientific program covered a large area of themes in laboratory medicine (clinical chemistry, microbiology, hematology, genetics, molecular biology) presented in 46 posters, 43 oral communications and 35 plenary reports. Many of the presentations focused on quality

assessment, standardization, traceability, technology, instrumentation and method evaluation, performance criteria of laboratory tests, laboratory errors, and patient safety showing the interest of the participants in the improvement of our professional activity.

During the discussions that followed the presentations, the participants had the opportunity to share their experience and to identify solutions for the scientific or technical issues they are confronted to in their everyday practice.

Congress abstracts were published in a supplement of *Romanian Review of Laboratory Medicine (RRML)*. An important event at the congress opening session was the presentation of the 3rd edition of the book "Clinical Chemistry – Practical Implications" by Minodora Dobreanu (editor), published by University Press Targu Mures in 2015. The book is a comprehensive clinical chemistry textbook, very useful to all medical laboratory professionals, as well as to clinical practitioners.

As our profession is in a permanent partnership with the clinical diagnostic industry, during the congress an exhibition of reagents,

equipment, supplies, software was organized by 19 companies. There were also 8 workshops organized by clinical diagnostic providers, which were an excellent opportunity for the development and transfer of technical innovations to clinical laboratory professionals.

At the general assembly elections were organized for the new executive board of RALM, which includes the following positions: President: Assoc. Prof. Dr. Ioana Brudasca; Vice Presidents: Prof. Dr. Minodora Dobreanu; Dr. Chem. Constansa Popa; Member: Dr. Adrian Man; Secretary: Dr. Daniela Miricescu; Treasurer: Biol. Ariadna Radulescu; The national representatives are: Assoc. Prof. Dr. Ioana Brudasca – NR for IFCC; Dr. Chem. Constansa Popa – NR for EFLM.

The scientific quality and the diversity of the presentations, the excellent organization, the appealing social program, as well as the unique charm of the historical city of Sighisoara (one of the most beautiful and well preserved inhabited citadels in Europe, listed by UNESCO as a World Heritage Site) fully contributed to the success of this scientific and professional gathering.

Spanish Society to Increase Grants for Resident Training

The Spanish Society of Clinical Biochemistry and Molecular Pathology (SEQC), through its board of directors, seek to promote and provide a higher profile to clinical laboratory specialists. To that end, the Society will increase the number of grants and double the amount granted, this year reaching EUR 96,000.

Dr. Imma Caballe, SEQC's president, explains that the Society is committed to residents, their future and their training. The SEQC "recognizes how difficult it is to find a job once the residence has been completed and therefore we have decided to double the amount of grants and keep the residence period free of fees."

Dr. Caballe adds that "our goal is to facilitate and contribute to the improvement of continued training through diverse activities, including seminars, web-based lectures, pre-congress courses, Scientific Committee sessions, the publishing of monographs and documents with expert recommendations, etc."

Dr. Dolores Balsells, a member of SEQC's education committee and the secretary of the Fundacion Jose Luis Castano, emphasizes the need for constant training efforts to maintain professional competencies in the clinical lab

speciality, since "scientific advances in methodology and diagnostic proceedings, instrumental techniques, robotics or information systems require that specialists in this field update their knowledge constantly."

To support resident and post-resident training in the different areas of clinical laboratory, SEQC – through Fundacion Jose Luis Castano – has launched this year eight post-residence grants, twice as many as in previous editions (financed half by the Fundacion, and half by SEQC).

Also, SEQC subsidizes five grants to cover registration costs of all courses and meetings organized by SEQC and this year is offering five international grants for stays in labs in foreign countries where there is a scientific society subsidiary of IFCC (International Federation of Clinical Chemistry and Laboratory Medicine).

Through these actions and through the creation of a Residents committee within the scientific committee, the board of directors wants to reflect its concern for the future of residents and post-residents "since they will become the driving force of our Society a few years from now," according to Dr. Balsells.


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