

# Society in Europe for Simulation Applied to Medicine (SESAM): Promoting simulation in medical education.

## Newsletter, Fall 2003

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## MESSAGE FROM THE PRESIDENT

Dear friends at SESAM,

It is a great honour and privilege to be elected to the post of President of SESAM. I hereby pay tribute to the outgoing office bearers and thank them for their activity within and outside of the society. It is by their efforts, past and present, that SESAM is a recognised and growing society within Europe.

This newsletter marks the start of the newly elected executive committee (EC). We are aiming BIG. We would like to see SESAM continue to grow, developing into a more active and influential society that initiates and responds to developments in the world of medical simulation. This may be the wish of the EC but we cannot achieve this alone. We need everyone involved in the society to contribute to this goal and make and shape SESAM.

There is good news in world simulation:

- An American Society for Medical Simulation is currently being formed. This will be our first sister society and we must welcome it. The SESAM EC members have been invited to help define the shape and concept of this organization. This underlines our recognition as a society.
- A similar development is going on in the Australasia. Again, SESAM was called for help to support the birth of this new society. Brendan Flanagan from the Monash Medical Simulation Centre in Melbourne, the lead in this project, has recently joined SESAM in the spirit of good relations.
- Once these societies are up and running an organized network exists which spans the globe. We must support attendance at these meetings so that we can swap ideas and learn from each other.
- We cannot keep living in the ivory tower of anaesthetic simulation. Pioneering we may have been, but it is time to become inter-disciplinary. We must actively reach out and touch the individuals who are pioneers in simulation in their own specialties. Simulation should not become a mass of small societies or subcommittees doing "their own thing" we must unite.

To reach out is an active process. Although the EC actively looks at ongoing developments in simulation and tries to make and keep new contacts we should all contribute to this role. That means that you should report developments, create contacts and invite membership and meeting participation of potential members outside of anaesthesia. Look for educators in the medical system, look at your colleagues and their societies, the dean in your university etc! Invite participation in SESAM! Point out that we are out there already.

I am happy to report that the SESAM EC managed to meet over a very hot summer weekend to begin its work. This first meeting (which took place at no cost to the society I am happy to say but with some fun I am even more happy to say) focused on organizational aspects and the formation of an infrastructure for SESAM and its annual meetings.

The EC meeting proves that SESAMites can meet between the annual meetings. It just takes a little effort and motivation! They are also a prerequisite to producing results. I therefore call on the working groups - members and chairs - to organize similar meetings to pursue their respective tasks. The working groups are the platforms where work can be done outside annual meetings.

By the way: The next Annual SESAM Meeting will take place June 17 (Thursday) until June 19 (Saturday), 2004 in Stockholm.

The last meeting of the European Academy of Anaesthesiology working group on simulation in anaesthesia in Glasgow resulted in a great chance for simulation: The upcoming World Congress of Anaesthesiologists (April 18-20, 2004, Paris: www.wca2004.com) will offer plenty of space for simulation and a number of high level keynote speakers. What's more: SESAM has been asked to organize hands on workshops for the congress and we happily agreed to do so. The name attached to this challenging task is that of Frances Forrest of Bristol and she will inform you in this newsletter and via the mailing list about the details. This is a great opportunity to make use of the SESAM infrastructure: If you feel that your centre cannot send a complete group of facilitators to Paris why don't you line up with other centres and organize a workshop in which facilitators of several centres participate?

Let me state that I am personally happy with the EC's work and those who volunteered to support that. Expect that we will approach some of you for further support for the society as growing demands ask for increased manpower. Please do not decline such requests, also work in YOUR working group, YOU make the difference between results and failure. We must not only keep up to the pace but rather need to set the pace in the world of simulation.

SESAM is active. Are you?

## INTRODUCING THE EXECUTIVE COMMITTEE



**SESAM PRESIDENT Stefan Mönk** received the medical license in 1992 and the doctorate on hemofiltration control in 1997 from Johannes Gutenberg University in Mainz, Germany. From 1992-2001 he trained and worked as a specialist in anaesthesia and in emergency medicine. In 1997 he co-founded the Mainz simulation center, and is one of its medical directors since then. In addition he is senior physician at the Mainz university and a chief emergency physician of the city of Mainz. He has been nominated coordinator by the German society of anaesthesiology and intensive care medicine for the introduction of model-driven simulators into the German medical undergraduate education. His research interests include application and evaluation of simulation in medical education.

**SESAM VICE PRESIDENT Frances Forrest** xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx  
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**SESAM SECRETARY Willem van Meurs** received the M.Sc. degree in electrical engineering in 1987 from the University of Technology, Eindhoven, The Netherlands, and the Ph.D. degree in control engineering in 1991 from the Paul Sabatier University, Toulouse, France. From 1992-1998 in the Department of Anesthesiology at the University of Florida, Gainesville, FL, he participated in the development of the Human Patient Simulator. He is a former director of physiologic model development at Medical Education Technologies, Inc. He is currently an associate scientist at the Institute for Biomedical Engineering, Porto, Portugal. His research interests include models of cardiovascular and respiratory physiology and pharmacology, focusing on educational simulations, specifically on a full-scale intrapartum acute care simulation environment.

**SESAM TREASURER Christoph Grube** graduated from Giessen Medical University. After working scientifically on the importance of surfactant function in ARDS he joined the Department of Anesthesia at the Heidelberg University. He co-founded the "Heidelberg ANesthesia Simulator" nicknamed "HANS" together with Bernhard M. Graf and a team of dedicated anesthesiologists in 1997. Specialized in anaesthesia, emergency medicine and intensive care he is eager to improve patient safety in these fields by implementing systematic risk management. He considers patient simulation an important tool to achieve this goal and works scientifically on human factors training. He works together with S. Mönk in integrating simulation into undergraduate education on the behalf of the German anaesthesia society.



**SESAM EC MEMBER Dr. Stephen J. Mather** qualified in medicine at the University of London in 1974. After general medical, emergency medicine, obstetric and paediatric training posts, he specialised in anaesthesia and intensive care, obtaining the diploma of the Royal College of Anaesthetists in the United Kingdom in 1979. He has been a consultant in Bristol since 1984. He has maintained an interest in all aspects of medical education and has been a Royal College of Anaesthetists Tutor, Educational Supervisor in the Bristol School of Anaesthesia and is an examiner for the Fellowship of the Royal College of Anaesthetists. He is a founder member of faculty of the Bristol Medical Simulation Centre, the first high fidelity simulation facility in the UK, was its chairman for 4 years, and is now its Industrial Liaison Director.

**SESAM EC MEMBER Georgina Fletcher.** CV and picture not available at time of press.

## SUMMARY OF THE JULY 2003 EC MEETING

The first meeting of the SESAM Executive Committee, elected at the 2003 annual meeting, took place in Mainz, Germany, on July 18-20, 2003. Despite the fact that parts of the meeting took place in a "Bier Garten" and on a tour boat on the Rhine river, there were no costs to SESAM members. The following is a global summary of the main points of direct interest to members.

Membership fees will be maintained at 50€, without differential rates for different SESAM member categories. Membership will be based on calendar year, with fees are due by Jan. 31. Non-payment is followed by loss of membership rights (Newsletter, mailing list). Meeting fees for non-members will be an additional 75€, which includes membership for the rest of the calendar year. Industry forum membership is established at 250€. Benefits include: Email on mailing list, member can send 6 clearly identified industrial messages per year to the mailing list, 1 HTML file on SESAM server, accessible via "industry forum" button on main page. The budget plan for 2004 includes a total projected income of 9500€, and total projected expenses: 2050€.

Outside communication received a lot of attention; Stefan Mönk will continue to maintain the web page without making major changes. Functional specifications for a new web page will be established with 12-18 months. A newsletter will appear 3 times per year, generally shortly after an EC meeting. Willem van Meurs will act as newsletter editor. See the science corner in this newsletter for more information on our affiliate journal, the European Journal of Anaesthesiology.

SESAM's mission and vision were discussed and updated, and are included in this newsletter. It was observed that the name of the society does not contain a reference to education or training. It reflects that, in principle, we are open to all aspects of simulation applied to medicine, including, for example, a simulation study on the spread of SARS. We recommend however, designating the society by Society in Europe for Simulation Applied to Medicine (SESAM): Promoting simulation in medical education, wherever appropriate.

The role of a SESAM liaison to other societies and conferences is to promote SESAM, and to report back to SESAM members on activities and events. Stefan Mönk was appointed overall SESAM liaison coordinator, and liaison to the American Society. Frances Forrest was appointed SESAM liaison to Society for Education in Anesthesia and the 13<sup>th</sup> World Congress of Anaesthesiologists. Contacts with other professional groups and societies prioritized and pursued later. Requirements and recommendations for the organization of SESAM meetings were established and are made available to (prospective) meeting organizers.

The next EC meeting will take place in Porto, Portugal, on Dec. 12-14, 2003. Agenda items will include: Appointing a SESAM Industry Liaison, Discussion research coordination by SESAM, and making the necessary appointment(s), and reporting on SESAM's financial-legal status.

## SESAM MISSION AND VISION

The draft mission and vision statements below elaborate on earlier SESAM documents and were discussed in the executive committee meeting in July 2003. The EC welcomes member comments ([wvanmeurs@ineb.up.pt](mailto:wvanmeurs@ineb.up.pt)).

### Mission

- Encourage and support the use of simulation for training, quality assurance, and human factors research in health care.
- Provide a European forum for the sharing of information and experience concerning educational concepts, simulation technologies and research methods, in this multidisciplinary field. Special attention will be given to new EU member states.
- Facilitate information exchange between other professional societies, the medical device industry, and government agencies in this field.
- Develop a vision for - and stimulate the development of - new simulation applications, curricula, technologies, and simulator based training and competency evaluation in this field.

### Vision

- There is an urgent need for grouping, editing, and spreading of information to avoid repeated "re-invention of the wheel" in terms of simulator center preparation and start-up, educational curricula, competency evaluation methods, inventories of existing simulation and observation technologies, etc.
- In the near future, simulator based training and evaluation of acute care providers will become part of established curricula. It is our ambition to accompany this intricate process by formulating guidelines, and identifying and removing logistical and methodological stumbling blocks.
- Simulator based training and evaluation is spreading out over various health care disciplines. It is vital to SESAM to open up its forum for exchange of information to more medical specialties and health care provider functions. Expansion of collaboration with non-medical professionals will be pursued.
- There is much room for new simulator based applications, and for innovation concerning curricula, technologies, and simulator based training and competency evaluation methods. It is our ambition to help identify the needs and provide stimulation and guidance for new applications and developments.

### Means

The means SESAM has at its disposal to implement its mission and pursue its vision are: Annual meetings, working groups, encouragement and sponsorship of related conferences and special medical simulation related sessions, web-page, newsletter, affiliated journal, and affiliation with other societies. Echoing the President's message, all these efforts require active participation by members.

## SCIENCE CORNER

EDITOR Marcus Rall, [marcus.rall@med.uni-tuebingen.de](mailto:marcus.rall@med.uni-tuebingen.de)

**Introduction:** Simulators and the tools around simulation are more and more accepted and adopted, also outside anaesthesia. We as SESAM members have a long track record of research in the field of simulation and simulation associated teaching methods. Also the affiliation of SESAM with the European Journal of Anaesthesiology is a step towards more visibility and acceptance<sup>1</sup>. In my opinion the count down for the field of simulation has started and medicine will soon see simulation sky-rocket as in many other industrial domains. SESAMites should actively share their knowledge with new partners from other special boards and start interdisciplinary work and research around simulation. The Summer School for Advanced Medical Simulation held this year at the Karolinska Institute (organized by Li Tsai and Carl-Johann Wallin) was a very stimulating example of such work. The purpose of this section of the newsletter is to contribute to the sharing of scientific information. A further ambition is to position ourselves for European research funding. I encourage SESAM members to let me know what research they are doing, send me publications or just keep me in the loop of simulation research. Thanks and keep the good work up!

**Research on a European Level:** As most of you know, I already tried once to establish a European Commission funded Network of Excellence in medical simulation. I think that we should keep trying to get European Commission funds for a network. We are already joined under the roof of SESAM and could well need some funds to coordinate joint efforts in research. As patient safety is an emerging field<sup>2</sup>, chances should be good. Whoever happens to have contacts to EC officials may think about those ideas. I am happy to assist.

**Publications in the EJA:** As we are officially affiliated with the European Journal of Anaesthesiology<sup>1</sup> we should try to submit our publications to that journal if applicable. The Impact Factor of the EJA has climbed to above 1,0 in 2002, which should make it even more attractive. Perhaps we could start a "series on simulation" or even try to establish a separate "simulation section" in the EJA? I may mention here again that SESAM members may subscribe to the EJA at a very attractive rate.

**Non-technical skills (in anaesthesia):** As we all know simulators are a unique tool in medicine to assess performance under standardized conditions in simulated routine or emergency situations. That performance assessment is not an easy task is also well known, as well as the fact that evaluating behavioural markers is much more subjective than the evaluation of technical (medical) skills. And as Glavin and Maran stated "any scoring system that attempts to address the assessment of clinical competence clearly has to address both technical and non-technical skills"<sup>3</sup>. The group at Stanford (David Gaba et al) first adapted a rating scale from the NASA Aerospace Project and developed a set of behavioural markers for anaesthesia<sup>4</sup>. Recently Georgina Fletcher (with Rhona Flin, Ronnie Glavin and Nicky Maran et al) reviewed the role of non-technical skills in anaesthesia<sup>5</sup>, developed a new system for the assessment of these skills (The Anaesthetists Non-Technical Skills behavioural marker system ANTS) and evaluated the system using videotapes of simulations<sup>6</sup>. The ANTS is derived from the European aviation behavioural marker system called NOTECH-System<sup>7</sup> and scores only those skills which represent "observable behaviours". In my opinion these studies and developments are a landmark for performance assessment not only in anaesthesia, but in all medical fields. Even though every "system" can be discussed, the ANTS provides a very thought through system with very clear categories, tasks and descriptions of behaviours (desired and undesired). I refrain from going into details in this newsletter but strongly recommend the excellent papers by the group. I would also like to encourage SESAM members to use the ANTS system in their research projects when evaluating clinical performance is important. The advantage of using the same ANTS system by many of us would provide better comparability (and relevance) of the studies and could also contribute to gradually improve the ANTS as necessary. Another application of the ANTS system would be for simulator training sessions. We all agree that debriefings are the most important part of simulator training<sup>8</sup>. The use of a standardized evaluation scheme as the ANTS could help making debriefings less subjective. The use of the ANTS system in the context of evaluating routine clinical performance (continuous learning on the job as demanded by High Reliability Organisations theory<sup>9</sup>) by the attending physicians could be another application in the near future. Fletcher et al. should be applauded for their systematic work. Performance assessment will remain a very difficult but rewarding task and there are still a lot of questions to be answered.

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## UPCOMING MEETINGS

**Medicine Meets Virtual Reality (MMVR):** January 15-17, 2004, Newport Beach, California ([http://www.nextmed.com/mmvirtual\\_reality.html](http://www.nextmed.com/mmvirtual_reality.html)): An annual meeting on: Simulation, Imaging, Visualization, Modeling, Robotics, Haptics, Sensors, Displays/projection. With their related medical applications: Diagnostic tools and methods, Information-guided therapies and surgery, Education, procedural training and assessment, Intelligence networks and telemedicine.

**Society for Technology in Anesthesia / International Meeting on Medical Simulation (STA/IMMS):** January 16-18, 2004, Albuquerque, New Mexico. The Society for Technology in Anesthesia hosts the annual International Meeting on Medical Simulation but this may be subject to change as out of IMMS a simulation society is about to be formed. This meeting uses the extended simulation facilities of the Albuquerque simulation lab for workshop. Please send abstracts for workshops which are available from the meeting website (<http://www.anestech.org>).

**Human Patient Simulator Network (HPSN):** March 2-5 Tampa, Florida. This is a big meeting of METI product users. It includes a very large number of workshops ([www.meti.com](http://www.meti.com)).

**World Congress of Anaesthesiologists (WCA):** April 18-23, 2004, Paris, France. There will be 2 workshops (=lectures & discussions) and one breakfast panel plus hands-on workshops. The workshops will be coordinated by SESAM! Please contact Frances Forrest ([FrancesCForrest@aol.com](mailto:FrancesCForrest@aol.com)) for details. [www.wca2004.com](http://www.wca2004.com)

**SESAM Annual Meeting:** The next Annual SESAM Meeting will take place June 17 (Thursday) until June 19 (Saturday), 2004 in Stockholm.

Point of contact:

Carl-Johan Wallin MD, PhD, DEAA  
Huddinge University Hospital AB  
Dept. of Anaesthesiology and Intensive Care, K 32  
Stockholm SE-141 86  
Sweden

Mobile: +46-70-7373737  
E-Mail: [carl-johan.wallin@cfss.ki.se](mailto:carl-johan.wallin@cfss.ki.se) (New!)  
Work: +46 8 585 853 94  
Fax: +46 8 779 54 24  
[www.simulatorcentrum.se](http://www.simulatorcentrum.se)

## MEMBERSHIP AND CONTACT INFORMATION

Whoever wants to join SESAM should contact the treasurer ([Christoph\\_Grube@med.uni-heidelberg.de](mailto:Christoph_Grube@med.uni-heidelberg.de)) and declare his or her wish to become a member of SESAM and pay the annual fee of 50€. The treasurer will conduct this application to the president of SESAM. After approval of the Executive Committee the applicant pays his or her dues to the following bank account:

Christoph Grube – SESAM  
Bank: Sparkasse Heidelberg  
IBAN: DE90 6725 0020 1000 3541 51  
Swift-BIC: SOLADES1HDB

After payment, the applicant is considered a full member for the calendar year and is allowed to vote actively or to be elected for office at the general assembly during the annual SESAM meeting.

The membership renewal fees of 50€ are due by Jan 31. The registration fee for non-members at the annual meeting is 75€ higher than for non-members. This supplement, which cannot be waived, includes membership, if the applicant so desires.

## EDITORIAL INFORMATION

The Newsletter of the Society in Europe for Simulation Applied to Medicine (SESAM) is one of the means the society has to implement its mission and pursue its vision, see SESAM Newsletter, Fall 2003. It is a newsletter for the members, by the members. It also serves as a communication channel from the executive committee to the other members. The editor, Willem van Meurs, Ph.D., can be contacted at [wvanmeurs@ineb.up.pt](mailto:wvanmeurs@ineb.up.pt), tel:(351)965035822, fax:(351)225081624. Mailing address: Instituto de Engenharia Biomédica, INEB-LSI, Campus da FEUP, Rua Roberto Frias, s/n, Edifício I-poente, 4200-465 Porto, Portugal. Printing and distribution: Bristol Medical Simulation Centre ([stephen.mather@ubht.swest.nhs.uk](mailto:stephen.mather@ubht.swest.nhs.uk), [FrancesCForrest@aol.com](mailto:FrancesCForrest@aol.com)). Funded in part by donations from Abbott Laboratories and Pentamed/ Bristol Medical Simulation Centre.