NETWORK OF ACCREDITED CLINICAL SKILLS CENTRES IN EUROPE

Experimental – Research Center ELPEN

Apostolos E. Papalois

Biologist, PhD, KGSJ, AMACS

- Director, Experimental – Research Center ELPEN
- Teaching Staff, Universities of Athens and Alexandroupolis, Schools of Medicine
- Visiting Professor, Harvard Medical School
- Visiting Associate Professor, European University of Cyprus, School of Medicine
- Deputy President, National Committee for Laboratory Animal Science and Training
Year of Accreditation – 2017
Multispecialty Format Centre

Apostolos E. Papalois, PhD, KGSJ
Director, Experimental – Research Center ELPEN

Steering Committee

Mrs Elena Ntouvali, MD, PhD
President

Mr Theodore Sergentanis, MD, PhD
Member and Biostatistician

Mrs Argyro Zacharioudaki, DVM, MLAS
Member and Designated Veterinarian

Professor I.K.Triantafillidis, MD, PhD
P. Andriopoulos, DVM
A. Galanos, IT and Maths
Mission statement

The Experimental – Research Center ELPEN works toward four major goals: Research, Training, Quality and Safety. The Center is engaging in scientific partnerships on innovative research and implementation of the principles and practices of excellent science and technology. The European Union and other bodies, sectors and organizations (both national and international) are the main sources of funding for the center’s activities. The center has been authorized by the Greek National Health System in its framework and the Private Hospital Departments, the Greek National Health System and collaborations, experimental research and collaborations, experimental research and collaborations, experimental research and collabora... 

Organizational Structure of Duties

Process flowcharts

Regulation of operations

8 Steering Committee Sessions → 6 months:

12 September, 2017
26 October, 2017
14 November, 2017
5 December, 2017
19 December, 2017
16 January, 2018
8 February, 2018
20 February, 2018
Pikermi, Athens, June 19, 2017

Re: Letter for NASCE Application

This letter is to certify that we will continue to support for the next two years, the budget of the Experimental – Research Center of ELPEN Pharmaceuticals with the same average of money as we do all the past years.

Yours Sincerely,

Constantinos Pentafragas
CEO ELPEN Pharmaceuticals

<table>
<thead>
<tr>
<th>Year</th>
<th>ELPEN R &amp; D</th>
<th>Experimental – Research Center ELPEN</th>
<th>100 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>3,200,000</td>
<td>957,386,44</td>
<td>29.91</td>
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<tr>
<td>2010</td>
<td>4,800,000</td>
<td>1,046,317,83</td>
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<tr>
<td>2011</td>
<td>4,900,000</td>
<td>1,002,547,85</td>
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<td>2012</td>
<td>4,990,000</td>
<td>987,741,49</td>
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<td>2013</td>
<td>6,288,000</td>
<td>1,166,000</td>
<td>18.54</td>
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<td>2015</td>
<td>5,173,000</td>
<td>945,000</td>
<td>16.34</td>
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<td>2016</td>
<td>4,910,000</td>
<td>860,000</td>
<td>17.52</td>
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<td>5 Years</td>
<td>7,764,993.41</td>
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<td>12.48 %</td>
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2017: > 900,000 €
Headers for Accreditation

elpenresearchcenter.com
Governance & Administration

- **Contact details**
  - **Apostolos E. Papalois, PhD, KGSJ**
    - apapalois@elpen.gr
    - Telephone: (0030) – 210 – 60 38 105
    - Mobile: (0030) 69 777 111 25
  - **Administration**
    - **Mrs Ioanna Papala, MBA, MSc**
      - Telephone: (0030) – 2111865709
      - ipapala@elpen.gr
Teachers

- Total number – 3 F.T.E. from E.R.C. ELPEN and many, as part time, from different specialties.

- Background:
  - Medicine : 50 + 1 Vet
  - Nurses : 20
  - Technicians : 9

- Qualifications : Instructors – Re-evaluation
Teachers
Teachers

Medical Doctors and Nursing Staff

<table>
<thead>
<tr>
<th>MONTH</th>
<th>DATE</th>
<th>COURSE DETAILS</th>
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<tr>
<td>JANUARY</td>
<td>20 SATURDAY</td>
<td>9th Train the Trainers Course</td>
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<td></td>
<td>21 SUNDAY</td>
<td>9th Train the Trainers Course</td>
</tr>
<tr>
<td>MARCH</td>
<td>2 FRIDAY</td>
<td>5th Course for Emergency Medicine</td>
</tr>
<tr>
<td></td>
<td>3 SATURDAY</td>
<td>5th Course for Emergency Medicine</td>
</tr>
<tr>
<td></td>
<td>16 FRIDAY</td>
<td>5th Basic Course on Open Surgery</td>
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<tr>
<td></td>
<td>17 SATURDAY</td>
<td>5th Basic Course on Open Surgery</td>
</tr>
<tr>
<td>MAY</td>
<td>4 FRIDAY</td>
<td>5th Course on Advanced Open Surgery</td>
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<tr>
<td></td>
<td>5 SATURDAY</td>
<td>5th Course on Advanced Open Surgery</td>
</tr>
<tr>
<td></td>
<td>11 FRIDAY</td>
<td>10th Course on Basic Laparoscopic Surgery</td>
</tr>
<tr>
<td></td>
<td>12 SATURDAY</td>
<td>10th Course on Basic Laparoscopic Surgery</td>
</tr>
<tr>
<td>JUNE</td>
<td>8 FRIDAY</td>
<td>9th Course on Laparoscopic Surgery of Upper GI</td>
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<tr>
<td></td>
<td>9 SATURDAY</td>
<td>9th Course on Laparoscopic Surgery of Upper GI</td>
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<tr>
<td></td>
<td>22 FRIDAY</td>
<td>10th Course on Laparoscopic Surgery of Lower GI</td>
</tr>
<tr>
<td></td>
<td>23 SATURDAY</td>
<td>10th Course on Laparoscopic Surgery of Lower GI</td>
</tr>
<tr>
<td>OCTOBER</td>
<td>12 FRIDAY</td>
<td>5th Course on Laparoscopic Surgery of Solid Organs</td>
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<tr>
<td></td>
<td>13 SATURDAY</td>
<td>5th Course on Laparoscopic Surgery of Solid Organs</td>
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<td>DECEMBER</td>
<td>8 SATURDAY</td>
<td>10th Train the Trainers Course</td>
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<tr>
<td></td>
<td>9 SUNDAY</td>
<td>10th Train the Trainers Course</td>
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Information and applications (CV must be submitted with the application)
Hellenic Surgical Society
E-mail: info@exe1928.gr

Diplomas of participation, with CME, will be awarded in each Course

Sponsors:

- ETHICON
- STORZ
- KARL STORZ ENDOSCOPY
- ELPEN
Teachers

Hon. Prof. Dr. M. Alexandra Papadopoulou
Chief, Division of Gastroenterology & Nutrition
First Department of Pediatrics, University of Athens,
Children's Hospital 'Agia Sophia', Athens, Greece
ESPGHAN GEC Education Secretary (2011-2019).

Prof. Apostoles E. Papalois
Director, ELPEN Experimental - Research Center;
Visiting Professor, Harvard Medical School.

Prof. Mike Thompson
Center for Paediatric Gastroenterology
International Academy for Paediatric Endoscopy Training,
Sheffield Children's Hospital NHS Foundation Trust,
Weston Bank, Sheffield, U.K.
Chair, ESPGHAN Endoscopy Special Interest Group.

Prof. Frederik Gastroand
Department of Paediatric Gastroenterology, Hepatology and
Paediatric Intensive Care, Jeanne de Flandre Children's University Hospital,
Lille, France

Dr Jorge Dias
Paediatric Gastroenterology Department,
Hospital Sao Joao, Porto, Portugal

Dr Valerie Balassone
Digestive Surgery and Endoscopy Unit,
Bambino Gesù Children's Hospital, Rome, Italy

Dr Leiji Cai
Digestive Surgery and Endoscopy Unit,
Bambino Gesù Children's Hospital, Rome, Italy

Dr Christos Travinderos
Adzker Children's Hospital,
Sheffield Children's Hospital Trust, Sheffield, U.K.
Learners

- Number of participants: From Sep 10, 2017 – end of Feb, 2018: 355
- Under- and postgraduates, specialised training: 45 Medical Students, 310 Health Professionals
## Learners

### Table 3 – Course Participants

<table>
<thead>
<tr>
<th>Month &amp; Year</th>
<th>Curriculum Version</th>
<th>Number of Applicants (estimation)</th>
<th>Number of Participants</th>
<th>Greek Students</th>
<th>UK-based Students</th>
<th>Eastern Europe</th>
<th>Other</th>
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<tr>
<td>11/2014</td>
<td>14s</td>
<td>120</td>
<td>67</td>
<td>67</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>05/2015</td>
<td>20-15</td>
<td>150</td>
<td>40</td>
<td>27</td>
<td>13</td>
<td>0</td>
<td>0</td>
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<tr>
<td>11/2015</td>
<td>20-15s</td>
<td>160</td>
<td>41</td>
<td>20</td>
<td>18</td>
<td>1</td>
<td>2</td>
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<tr>
<td>05/2016</td>
<td>Ci4R</td>
<td>200</td>
<td>39</td>
<td>12</td>
<td>25</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>11/2016</td>
<td>Ci4R</td>
<td>200</td>
<td>40</td>
<td>5</td>
<td>29</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>04/2017</td>
<td>Ci4R</td>
<td>200</td>
<td>39</td>
<td>17</td>
<td>5</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>11/2017</td>
<td>Ci4R</td>
<td>250</td>
<td>45</td>
<td>3</td>
<td>35</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>1280</strong></td>
<td><strong>311</strong></td>
<td><strong>151</strong></td>
<td><strong>125</strong></td>
<td><strong>13</strong></td>
<td><strong>22</strong></td>
</tr>
</tbody>
</table>

24 %
Learners

Areas of Training:
- Veterinary Medicine.
- Massive hemorrhage, heal of terror wounds or from battle.
- Clinical skills for young doctors.
- Urology, Laparoscopic Surgery.
- New techniques in GI Endoscopy (ESD, EMR, POEM).
- Clinical Pharmacology
- Gynecology and Laparoscopic Surgery

and ....... Train the Trainers for:

- Surgical Specialties
- Gastroenterology
- Pediatric Medicine
- Urology
- Nursing Staff

Inter-disciplinary/ Inter-professional
FEB 22-24 2018

DSTC™ & DATC™ COURSE
Definitive Surgical & Anaesthetic Trauma Care

Captain Dr. C. BLEEKER
THE NETHERLANDS

Dr. M. Ortega
SOUTH AFRICA

Dr. B. Monzon
SOUTH AFRICA

Prof. D. DOLL
GERMANY

3 TRAINEES PER SURGICAL TABLE

NEW MODULE for Anesthesiologists: "Definitive Anaesthetic Trauma Care"
DATC

Interests:
SURGEONS
ANAESTHESIOLOGISTS
NURSES
RADIOLOGISTS
BLOOD BANK SPECIALISTS
INTENSIVISTS
EMERGENCY PHYSICIANS

Application & Info:
http://goo.gl/4UPXI
Mob: 698775135
Mob: 697 4442333
(PVassiliu)
Priority list applies

The Hellenic Committee of DSTC organizes a DSTC & DATC course. The seminar is the physical continuation of the ATLS.

Addressed to specialists and residents who treat severely injured patients in hospital. email: athensdetc@gmail.com

iatsic
International Association for Trauma Surgery and Intensive Care

Experimental - Research Center ELPEN, Accredited Center & Member of N.A.S.C.E

HELENIC TRAUMA AND EMERGENCY SURGERY SOCIETY
Workshops - objectives

- Knowledge:
  **Teaching and Speaking Skills**

- Technical:
  **Clinical Skills and prior to hospitalization**

- Non-technical:
  **Lecturing, communication, crisis management, collaboration, evaluation of performance.**
Workshops - objectives
R&D overview
R&D overview
The Role of Anxiety in Simulation-Based Dexterity and Overall Performance: Does It Really Matter?

Dafna F.  Pagonidou C 2  Bideris M 1  Hanahan J 1  Gonnopoulos FM 1  Trakatelli P 1  Stathopoulou N 2  Sanei P 1  Michail T 1  Travelles A 1  Karanidou E 3  Papanikolaou M 2  Tziridis E 1  Papadou GL

Author Information
1. Queen Mary University London, UK.
2. Aristotle University of Thessaloniki, Greece.
3. King's College London, UK.
5. Newham University Hospital, Barts Health NHS Trust, London, UK.
6. Experimental Research Centre ELFEN, Athens, Greece.

Abstract
BACKGROUND: Essential Skills in the Management of Surgical Cases (ESMSC) is an international undergraduate surgical masterclass which combines ex vivo, dry lab and high fidelity in vivo simulation-based learning (SBL). It consists of 32 stations of skills-based learning, including open reduction internal fixation (ORIF) of fractures. Current literature suggests early involvement in skills-based learning at the undergraduate level is vital.
AIMS: To compare students' dexterity and skills-based performance with demographic and educational background parameters.
METHODS: 112 medical students from European Union countries including the United Kingdom, Germany, Greece, Cyprus, Germany, and Bulgaria were selected from a competitive pool of candidates to attend the course. Students undertook ORIF in an ex vivo swine model and in a simulated fracture on a bamboo rod. Skills-based performance was assessed by two consultant surgeons with validated direct observation of procedural skills (DOPS) forms. Anxiety was self-assessed using the Westside Anxiety Scale prior to the ORIF stations. Dexterity was measured with the O'Connor two finger test.
RESULTS: Female students had significantly higher dexterity scores (median difference 7, p = 0.003). Right-handed students achieved higher dexterity than left-handed students (median difference 7, p = 0.043). There was no difference in students' performance across different medical schools, and across year groups (p < 0.05 for any correlation). Self-reported anxiety was not correlated with high fidelity skills-based performance (r = 0.032, p = 0.74).
CONCLUSION: Anxiety does not seem to play a significant role in Simulation Skills-Based Learning.

Simulation-Based Learning Strategies to Teach Undergraduate Students Basic Surgical Skills: A Systematic Review.

Theodoulou J 1  Nicolaides MS 1  Athanasiou T 2  Papalois A 3  Bideris M 1

Author Information
1. Faculty of Life Sciences & Medicine, King's College London, Guy's Hospital Great Maze Pond, London, United Kingdom. Electronic address: jacos.ar.is.theodoulou@kcl.ac.uk.
2. Barts and the London School of Medicine and Dentistry, Queen Mary University of London, London, United Kingdom.
3. Department of Surgery and Cancer, Imperial College London, Faculty of Medicine, London, United Kingdom.
4. Experimental Research Centre ELFEN, Athens, Greece.

Abstract
OBJECTIVE: We aimed to identify and critically appraise all literature surrounding simulation-based learning (SBL) courses, to assess their relevance as tools for undergraduate surgical education, and create a design framework targeted at standardizing future SBL.
METHODS: We performed a systematic review of the literature using a specific keyword strategy to search at MEDLINE database.
RESULTS: Of the 2371 potentially eligible titles, 472 were shortlisted and only 40 explored active interventions in undergraduate medical education. Of those, 20 were conducted in the United States, 9 in Europe and 11 in the rest of the world. Nineteen studies assessed the effectiveness of SBL by comparing students' attributes before and after interventions, 1 study assessed a new tool of surgical assessment and 16 studies evaluated SBL courses from the students' perspectives. Of those 40 studies, 12 used dry laboratory, 7 wet laboratory, 12 mixed, and 9 cadaveric SBL interventions. The extent to which positive results were obtained from dry, wet, mixed and cadaveric laboratories were 75%, 57%, 92% and 100%, respectively. Consequently, the SBL design framework was devised, providing a foundation upon which future SBL interventions can be designed such that learning outcomes are optimized.
CONCLUSIONS: SBL is an important step in surgical education, investing in a safer and more efficient generation of surgeons. Standardization of these efforts can be accelerated.
Hands train the brain – what is the role of hand tremor and anxiety in undergraduate microsurgical skills?

Harrahan J, Sideris M, Pasha T, Georgopoulos E, Thedoulou S, Nicolaides M, Bimpis A, Tsitsopeou P, Kombogiorgas D, Papalois A.

Introduction:
Physiological hand tremor occurs naturally due to oscillations of the upper extremity. Tremor can be exacerbated by stress and anxiety, interfering with fine motor tasks and potentially impact on surgical performance, particularly in microsurgery. We investigated the link between tremor, anxiety and performance in a neurosurgical module in part of an international surgical mastership.

Methods:
Essential Skills in the Management of Surgical Cases (ESMSC) course recruits medical students from European Union (EU) medical schools. Students are asked to suturé the dura mater in an ex vivo ovine model, of which the first suture completed was assessed. Questionnaires were distributed before and after the module, eliciting tremor risk factors, self-perception of tremor and anxiety. Johnson O’Connor dexterity pad was used to objectively measure dexterity. Direct Observation of Procedural Skills (DOPS) was used to assess skills-based performance. Anxiety was assessed using the Westside Test Anxiety Scale (WTAS). Tremor was evaluated by four qualified neurosurgeons.

Results:
Forty (40) delegates participated in the study. Overall performance decreased with greater subjective perception of anxiety (p = 0.032, rho = -0.392). Although increasing scores for tremor at rest and overall WTAS score were associated with slightly decreased performance, this was not statistically significant (p>0.05). Tremor at rest did not affect dexterity (p=0.876, rho = -0.027).

Conclusions:
Physiological tremor did not affect student performance and microsurgical dexterity in a simulation based environment. Self-perception of anxiety affected performance in this module, suggesting that more confident students perform better in a simulated neurosurgical setting.
R&D overview

1. Experimental - Research Center ELPEN
   (evaluation form)

2. Title of the Course and Date: ............................

3. Status: 1 - Trainee 2 - .................
   - Instructor or Speaker: ............................
   - Sex: Male 1 - Female 2 - .................

4. 1) What is your specialty?

5. 2) For how many years you practice your specialty?

6. 3) Have you visited other research experimental laboratories with a use of laboratories
   animals and simulators?
   Yes: 1 - No: 2 - In Greece: 3 - Abroad: 4 - .................

7. 4) Have you been involved with the research before?
   Yes: 1 - No: 2 - In Greece: 3 - Abroad: 4 - .................
   Indicative time of engagement: (for example 1 month, 6 months, 1 year)

8. 5) How important do you think is the field of experimental research for Greece? (0 to 10 =
   very important)

9. 6) How do you rate the facilities of the ELPEN Research Center? (0 to 10 = very important)

10. 7) Believe that the equipment of the laboratory is adequate? (0 to 10 = very important)

11. 8) How do you evaluate the professional training of the staff? (0 to 10 = very important)

12. 9) Are you satisfied with the cooperation and behavior of the staff? (0 to 10 = very important)

13. 10) What impressions did you have on your visit to the Experimental Center of ELPEN? (0 to 10 =
   very important)

14. 11) Do you believe that the operation of the ELPEN Experimental Research Center has an
   impact of research and education in our country? (0 to 10 = very important)

15. 12) Do you believe that the operation of the ELPEN Experimental Research Center has an
   impact of research and education abroad? (0 to 10 = very important)
- Well-trained staff
- Vision
- Financial support
- Facilities & equipment
- Experience

- More staff needed in the next two years.
  We need time to train and certify them.

- New facilities
- Continuous financial support
- Appreciation from scientific community

- General political conditions in Greece & Europe
Key challenges

High standards
High Quality
Key Achievements during the Past Year

New facility
AAALAC

University of Lund

Memorandum of Understanding (MoU)

STUDENT TRAINING AGREEMENT & SCIENTIFIC COLLABORATION FOR RESEARCH AND TRAINING PURPOSES FOR HEALTH PROFESSIONALS