Research

Knowledge Forum Trauma

2015-Q3 Report
Steering committee

Alex Vaccaro (Chairman)
Thomas Jefferson University
Philadelphia, USA
Start of Term: 01 Apr 2013
End of Term: 30 Jun 2016

Jens Chapman
Swedish Neuroscience Institute
Seattle, USA
Start of Term: 01 Jan 2012
End of Term: 31 Dec 2017

S. Rajasekaran
Ganga Hospital
Coimbatore, India
Start of Term: 01 Mar 2012
End of Term: 28 Feb 2018

Cumhur Öner (Chairman elect)
University Medical Center
Utrecht, Netherlands
Start of Term: 01 Jan 2012
End of Term: 31 Dec 2017

Marcel Dvorak
Vancouver General Hospital
Vancouver, Canada
Start of Term: 01 Jan 2012
End of Term: 31 Dec 2017

Frank Kandziora
Unfallklinik Frankfurt
Frankfurt, Germany
Start of Term: 01 Jan 2012
End of Term: 31 Dec 2017

Klaus Schnake
Schön Klinik Nürnberg Fürth
Fürth, Germany
Start of Term: 01 Jun 2015
End of Term: 31 May 2018

New Knowledge Forum Manager

María Álvarez Sánchez
AOSpine International
Clavadelstrasse 8
7270 Davos
Switzerland
T +41 81 414 27 36
malvarez@aospine.org
### Projects
#### Spine Trauma Classification

**Title:** Development of an AOSpine trauma injury classification system.

**Principal Investigator:** Alex Vaccaro

**Co-Principal Investigator:** Cumhur Öner

**Aim:** To develop and validate a comprehensive classification system of traumatic spine injuries: phase 1: TL system, phase 2: cervical system and phase 3: pelvic system

### Co-investigators TL system:

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<thead>
<tr>
<th>Name</th>
<th>Institute</th>
<th>City</th>
<th>Country</th>
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### Collaborating Surgeons TL system validation:

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**Publications:**
- Abstract submitted: 2
- Podium presentation: 9
- Manuscripts submitted: 2
- Manuscripts published: 11

**Awards & Nominations:** None

**Status:**
- TL system: Data analysis and reporting
- Cervical system: Planning
- Pelvic system: Planning

**Link:** Surgery References  
https://www2.aofoundation.org/wps/portal/surgery/showPage=diagnosis&bone=Spine&segment=TraumaThoracolumbar
Outcome measurement

**Title:** Development of an AOSpine trauma outcome instrument

**Principal Investigator:** Cumhur Öner

**Aim:** To develop and validate a multidisciplinary and universal outcome instrument for spinal trauma patients, which includes both the patients’ and health professionals’ perspective on health and functioning.

- Phase 1: define core set
- Phase 2: international consensus conference
- Phase 3: validation

**Participating sites (empirical study):**

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<th>Local PI</th>
<th>Last</th>
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<tr>
<td>Vaccaro</td>
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**Publications:**
- Abstracts submitted: 2
- Podium presentation: 1
- Manuscripts submitted: 2
- Manuscripts published: 5

**Awards & Nominations:** None

**Status:** Executing - data analysis
Value of CT and MRI

**Title:** The additional value of CT and MRI in determining the fracture severity and management in spinal column injuries

**Aim:** To define and determine the value of a CT scan and an MRI in addition to plain radiographs in a cohort of spinal fractures of various severities

**Principal Investigator:** Shanmuganathan Rajasekaran

**Co-Investigators:** n/a

**Collaborating Surgeons CT/MRI study:**

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<td>Africa</td>
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**Publications:**
- Abstracts presented: 0
- Podium presentation: 0
- Manuscripts submitted: 1
- Manuscripts published: 0

**Awards & Nominations:** None

**Status:** Disseminating

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Thoracolumbar Burst Fractures

**Title:** Thoracolumbar Burst Fractures (AOSpine A3, A4) in neurologically intact patients: An observational, multicenter cohort study comparing surgical versus non-surgical treatment

**Aim:** To establish and quantify the difference in the patients’ clinical outcome after surgical treatment as compared to non-surgical treatment of thoracolumbar burst fractures within the first year after treatment with the Oswestry Disability Index (ODI).

**Principal Investigator:** Marcel Dvorak

**Co-Investigators:** Cumhur Öner

**Publications:**
- Abstracts presented: 0
- Podium presentation: 0
- Manuscripts submitted: 0
- Manuscripts published: 0

**Awards & Nominations:** None

**Status:** Executing
**Effect of Riluzole on osteogenic differentiation**

**Title:** Effect of Riluzole on osteogenic differentiation of human mesenchymal stem cells and human osteoblast

**Principal Investigator:** Alex Vaccaro

**Aim:** To understand the effects of Riluzole on mesenchymal stem cells’ ability to convert to osteoblasts, on osteogenic and differentiation and possible toxicity of the drug on these cells.

**Co-Investigators:** Cumhur Öner

**Publications:**
- Abstracts presented: 2
- Podium presentation: 0
- Manuscripts submitted: 0
- Manuscripts published: 0

**Awards & Nominations:** None

**Status:** Executing

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**Publication Summary**

**Abstracts**

**Submitted (under review)**


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**Accepted for Presentation**

**Podium Presentations:**

7. **Sadiqi S,** Lehr AM, Oner FC. Towards the development of an international disease specific outcome instrument for spine trauma – surgeon reported outcome. Eurospine, Copenhagen, Denmark, 2-4 September, 2015.

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**E-poster Presentations:**

8. **Schroeder GD,** Kepler CK, Grad S, Alini M, Markova DZ, Koerner JD, Rajasekaran S, Chapman JR, Kandziora F, Schnake K, Dvorak MF, Oner C. Effect of Riluzole on human bone marrow stromal cells and...
Presented

Podium Presentations:

1. **Sadiqi S**, Lehr AM, Oner FC. Towards the development of an international disease specific outcome instrument for spine trauma – results of an international consensus meeting. 11th International Turkish Spine Congress. Izmir, Turkey, 29April-3 May, 2015.

2. **Sadiqi S**, Lehr AM, Oner FC. Towards developing a specific outcome instrument for spine trauma - An empirical cross-sectional multicenter ICF-based study by the AOSpine Knowledge Forum Trauma. 11th International Turkish Spine Congress. Izmir, Turkey, 29April-3 May, 2015.

3. **Sadiqi S**, Lehr AM, Oner FC. Towards the development of an outcome instrument for spine trauma – An international survey of spinal surgeons. 11th International Turkish Spine Congress. Izmir, Turkey, 29April-3 May, 2015.

4. **Oner FC**, Jacobs WC, Lehr AM, Sadiqi S. Towards the development of a universal outcome instrument for spine trauma – A systematic review and content comparison of outcome measures used in spine trauma research. 11th International Turkish Spine Congress. Izmir, Turkey, 29April-3 May, 2015.


E-poster Presentations:

Manuscripts

Submitted


November, 2015.


5. Schroeder GD, Vaccaro AR, "Variations in the treatment of thoracolumbar burst fractures". Contemporary Spine Surgery (Accepted)


Published


Book Chapters


Advancing spine care worldwide