ACKNOWLEDGEMENT
The OTC Foundation is supported by an annual grant from Stryker Trauma and Extremities.

© OTC Foundation
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CH-4528 Zuchwil
Switzerland
www.otcfoundation.org
info@otcfoundation.org
Our organization is young, compared to others, and this is our strength, since it encourages more dynamic and perhaps unconventional actions. Many activities in the OTC Chapters are operated by passionate enthusiasts and most often on a voluntary basis. Some chapters are large and well organized with staff, while others are operated by a few dedicated persons. Naturally, there are local organizational differences, even in terms of economic foundation to organize activities, due to great variation in the size of participating countries.

The past ten years, illustrated in this brochure, have witnessed some inconsistencies in the organization and in the activities of the OTC Foundation. But a better use of resources has been achieved today by working together across the established network of OTC Chapters. This is our strong point and, in recent years, when courses were held in Strasbourg, Boston, Gothenburg and other places, it generated cooperation across borders. Another recent example can be found in webinars, which have led to closer relations between surgeon communities in Europe and in the Americas.

With the desire to strengthen the network of OTC Chapters, the governance of the OTC Foundation was restructured by introducing Regional Coordinators to strengthen cooperation in regions that have cultural and economic communalities. An Executive Board was established to streamline and reinforce the governance of the OTC Foundation and the OTC Global Alliance.

In 2017, we have our 10th anniversary, and it will be celebrated in conjunction with our 2017 General Assembly in Amsterdam. Our colleagues of OTC Netherlands will be hosting the celebrations for their own 25th anniversary in 2017. On this occasion we wish to thank Stryker Trauma, our principal grantor and relentless supporter over the past years.

With very best wishes to all our members, friends and supporters for the next 10 years to come!

Oliver Trapp  
Past President

Ole Brink  
2017 President

Yoshinobu Watanabe  
Incoming President
“The OTC Vision”
An interactive global network of surgeons and scientists to advance osteosynthesis and trauma care through education, research and professional networking
The OTC Foundation (OTCF) is a non-profit Swiss foundation incorporated in the Canton of Solothurn, Switzerland. After intensive negotiations conducted in 2007, the contract between OTCF and Stryker Trauma SA was signed in November 2007 and established OTCF as a legal entity. As of 2008, Stryker remained its main sponsor, assisting OTCF in the process of becoming an interactive global network of surgeons and scientists in the area of orthopaedic surgery and trauma care.

Organized into 18 local chapters, member surgeons and scientists are dedicated to the advancement of osteosynthesis and trauma care through education, research and professional networking. The goal of the foundation is to attract both younger and experienced professionals who strive to enhance their competence in fields such as fragility fractures and osteoporosis.

The OTC Foundation offers services to local OTC Chapters or other affiliated organizations by interlinking them through common meetings and addressing them and their members directly via a global platform.

The current situation of the OTC Foundation stems from a decade of development and change. Everything commenced under the palm trees of Promenade des Anglais in Nice, France, in 2007. During the early months, OTCF was hosted by the Stryker Trauma Care Institute where the education program of OTCF took off. The AIOD research program, which was also funded by Stryker, had been launched in 2005 in Strasbourg, and was then transferred to OTCF. Its first ten years had already been celebrated at GA 2015 in Athens. The OTCF education program took a quantum leap forward with its move to its own offices in Bern, Switzerland, in 2009. With the strategic change from international training courses to chapter-based local educational programs by the end of 2011, the foundation’s policy was redirected towards supporting the chapters within the OTC Global Alliance in their educational efforts. Respective reallocation of financial resources by the grantor led to merging the OTCF headquarters with its cost center in Zuchwil, in the canton of Solothurn, where the foundation is registered.

The purpose of this publication is to document and underscore the major events and milestones of the first decade of the foundation’s existence. The achievements made and footprints left behind during these years were only possible with the commitment and personal efforts of the many surgeons and scientists involved. The following historical summaries are, therefore, dedicated to all members of the OTC Chapters who contributed to the successful implementation of our common mission.
Historically, the network of local chapters has developed over time. Chapters were established as legal entities according to respective national laws, both technically and financially supported by Stryker Trauma as main sponsor.

Based upon a chapter survey in 2016, the total membership of the 18 chapters amounts to about 4,000 surgeons. The chapter boards organized a total of 70 educational events that year, including courses at different levels as well as cadaveric courses, recording close to overall 2,000 participants.

Funds for chapter educational programs are mainly provided by Stryker Trauma as principal grantor but there are also local sponsors coming in, such as surgical and imaging equipment manufacturers, and pharmaceutical companies. Total funds for the OTC Global Alliance reach about USD 2,000,000 annually.

Chapter example: OTC China

Corporate Identity

- Improved public recognition
- Joint branding logo for all chapters
- House journal “INJURY” for regular publishing of OTC reports and news
- Web-based communication and OTCF Newsletter
- Sponsorship mobilization

Outstanding Chapter Examples:
Over the last ten years OTCF has developed into a consistent globally structured program with the following key elements, which are based on the vision and mission of the foundation.

**OTCF Education Program**

The OTC Foundation provides local OTC Chapters the opportunity to improve trauma care through better education by sharing experience and curricula of training courses in their chapters, and by supporting their educational programs with innovative teaching methods. OTC Chapter Presidents meet at the annual Leadership Forum to organize a global educational event for surgeons in advanced training. Regional courses and other educational events organized by OTC chapters are supported upon request.

**OTCF Research Program**

The OTCF Research Committee (RECO) encourages international focus on “hot topics” and guides research in osteosynthesis and trauma care through international symposia, leading to the award of research grants and the conduct of research courses. Research activities and outcomes are disseminated through complementary publications, such as methodology books and international journal supplements.

**OTC Chapter Cooperation and Coordination**

The OTC Global Alliance is made up of independent OTC Chapters or affiliated organizations located around the world. All alliance members are aligned with the vision of OTCF, and are served through its mission. Where needed, the OTCF provides direct support to OTC Chapters during start-up and in their educational activities, besides coordinating regional groups. The General Assembly of Chapter Presidents oversees this program and allocates the necessary resources.

**OTCF Marketing and Communication**

OTCF communicates through a Web-based platform with chapters and member surgeons. This will be expanded to build up OTCF brand awareness and identity, resulting in improved outreach, affiliation with other organizations, new member acquisition and retention, including increased industry involvement and additional sponsorships.

**OTCF Membership**

OTCF membership goes through the OTC Chapter. Interested surgeons in countries where there is no OTC chapter are invited to register directly with the OTC Foundation.

**OTCF Organizational Structure**

Over the last ten years the OTCF has matured into a consistent globally structured program with the following key elements, which are based upon the vision and mission of the foundation.
General Assembly (GA)

The GA comprises the presidents of all OTC Chapters and affiliated organizations. The GA is governed by the OTCF President, seconded by the immediate past president and a president elect (The OTCF Presidents).

Executive Board (EB)

The Executive Board was founded in 2014, and includes the OTCF President, the Past President and the President Elect, as well as six OTCF Regional Coordinators.

The first EB Presidents were:

2014: Enrique Guerado (Spain)
2015: Ton Tran (South Pacific)
2016: Jörg Franke (Germany), later substituted by Oliver Trapp

NOTE: See Lisbon 2014 photo on page 18

Current Executive Board Members

OTCF Presidents

<table>
<thead>
<tr>
<th>Office</th>
<th>Year</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>GA President</td>
<td>2017</td>
<td>Ole Brink</td>
</tr>
<tr>
<td>GA Past President</td>
<td>2016</td>
<td>Oliver Trapp</td>
</tr>
<tr>
<td>GA President Elect</td>
<td>2018</td>
<td>Yoshinobu Watanabe</td>
</tr>
</tbody>
</table>

OTCF Regional Coordinators

<table>
<thead>
<tr>
<th>Region</th>
<th>Year</th>
<th>Name</th>
</tr>
</thead>
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<tr>
<td>OTCF RC Europe</td>
<td>2016</td>
<td>Oliver Trapp</td>
</tr>
<tr>
<td>OTCF RC Nordic</td>
<td>2016</td>
<td>Ole Brink</td>
</tr>
<tr>
<td>OTCF RC Latina</td>
<td>2016</td>
<td>Enrique Guerado</td>
</tr>
<tr>
<td>OTCF RC America</td>
<td>2016</td>
<td>David Lowenberg</td>
</tr>
<tr>
<td>OTCF RC Asia/Pacifi</td>
<td>2016</td>
<td>Ton Tran</td>
</tr>
<tr>
<td>OTCF RC Japan</td>
<td>2016</td>
<td>Yoshinobu Watanabe</td>
</tr>
</tbody>
</table>

Board of Trustees (BOT)

The BOT consists of three members who are appointed for a period of three years with possible re-election. The BOT ensures that OTCF corporate bodies and all activities comply with the mission of the Foundation and with OTCF charters, bylaws and signed agreements.

OTCF Secretariat

The current OTCF Secretariat includes four members of staff, namely an Executive Secretary, a Research Manager, a Legal/Compliance Officer, and a Cost Center. They are appointed by the BOT and report to the EB President. The OTCF Secretariat ensures implementation of all operational activities.
OTCF Organigram

Today the OTC Foundation can best be described as an “Umbrella”- organization which brings together the activities within the OTC Global Alliance under one coherent structure.

OTCF Funding Basis

Today OTCF grantor funding is allocated to core tasks, such as coordinating the OTC Global Alliance, providing assistance for chapter education events, and continued support to the research program that is a generic activity with scientists participating on a worldwide basis. As of 2012 the annual grant amounts to USD 895,000 and is utilized as shown in the pie diagram.
“The OTCF Mission”
To offer services to all OTC chapters within the OTC Global Alliance through common events, cooperation and communication
The development of the OTCF required the establishment of a legal framework with regulations specifying the ground rules and conditions for the structure and activities of the foundation. This process took place in several phases with geographical shifts of the operational center and variations in human and financial resources available to the foundation. These developments are given below in chronological order.

OTCF Board of Trustees (BOT)

The legal responsibility for the foundation is in the hands of the BOT, whose members are personally responsible for all matters related to the foundation. BOT composition over the years:

**Chairman:** Emanuel Zloczower

<table>
<thead>
<tr>
<th>Member</th>
<th>Years</th>
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</thead>
<tbody>
<tr>
<td>Volker Bühren, Germany</td>
<td>2013 – today</td>
</tr>
<tr>
<td>Sonia Cronin, Switzerland</td>
<td>2007 – 2013</td>
</tr>
<tr>
<td>Peter van den Hazel, Netherlands</td>
<td>2007 – today</td>
</tr>
<tr>
<td>Emanuel Zloczower, Switzerland</td>
<td>2007 – today</td>
</tr>
</tbody>
</table>

Initial BOT Members

<table>
<thead>
<tr>
<th>Member</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volker Bühren, Germany</td>
<td>2007 – 2010</td>
</tr>
<tr>
<td>Enrique Guerado, Spain</td>
<td>2010 – 2014</td>
</tr>
<tr>
<td>Kwok Sui Leung, Hong Kong</td>
<td>2007 – 2010</td>
</tr>
<tr>
<td>Peter Patka, Netherlands</td>
<td>2011 – 2014</td>
</tr>
<tr>
<td>Melvin Rosenwasser, USA</td>
<td>2007 – 2014</td>
</tr>
<tr>
<td>Emil Schemitsch, Canada</td>
<td>2007 – 2014</td>
</tr>
<tr>
<td>Gilbert Taglang, France</td>
<td>2007 – 2010</td>
</tr>
<tr>
<td>Yoshinobu Watanabe, Japan</td>
<td>2011 – 2014</td>
</tr>
</tbody>
</table>
OTCF/HQ at TCI, Nice, 2007 – 2009

The first premises of the OTCF at TCI with laboratories and classrooms allowed for a rapid start-up of activities.

OTCF/HQ at Trauma Care Institute (TCI), Promenade des Anglais, Nice, France, 2007 – 2009

Led by the first director, appointed by Stryker, a first core team took up duties:

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
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</thead>
<tbody>
<tr>
<td>Peter Illig</td>
<td>Executive Director</td>
</tr>
<tr>
<td>Christa Butzbach</td>
<td>Events Coordinator</td>
</tr>
<tr>
<td>Richard Helmer</td>
<td>Research Manager</td>
</tr>
<tr>
<td>Alexandra Marchetti</td>
<td>Education Manager</td>
</tr>
<tr>
<td>Angela Orli-Niosi</td>
<td>Fellowships Coordinator</td>
</tr>
<tr>
<td>Caroline Raphoz</td>
<td>Office Administrator</td>
</tr>
</tbody>
</table>

The work program focused on education with training courses held at the TCI, a fellowships program, and the Research Committee (RECO). Initially, a humanitarian program was included with field missions of OTC surgeons.

OTCF/HQ in Bern-Weissenbühl, 2009 – 2011

The Trauma Care Institute in Nice closed in 2011. The newly appointed Executive Director established the headquarters in Bern-Weissenbühl and recruited a new management team:

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Othmar Ulrich</td>
<td>Executive Director</td>
</tr>
<tr>
<td>Petra Fischer</td>
<td>Education and Events Manager</td>
</tr>
<tr>
<td>Richard Helmer</td>
<td>Research Manager</td>
</tr>
<tr>
<td>Carolyn Moncel</td>
<td>Communication Manager</td>
</tr>
<tr>
<td>Karin Wyss</td>
<td>Fellowships Coordinator</td>
</tr>
<tr>
<td>Tatjana Topalovic</td>
<td>Humanitarian Coordinator</td>
</tr>
</tbody>
</table>
With the reduction in educational activities and related budgetary resources, OTCF management operations were co-located with the OTCF cost center in Zuchwil. Program activities are now coordinated by Richard Helmer as General Manager, joined in 2016 by Debora Aebersold as Executive Secretary.

Debora Aebersold, Executive Secretary
Richard Helmer, General Manager

The education program was stepped up considerably with a series of training courses in Europe, USA, and Asia. Moreover, the annual leadership forums were continued and the fellowship program expanded. Research courses and workshops were also continued.

By the end of 2011 the concept of international training courses was abandoned at Stryker Trauma and, consequently, also at OTCF. Emphasis was, thus, placed on local training events and courses given in the local language. For OTCF this meant closing the educational team and headquarters in Bern-Weissenbühl. The fellowship program shifted from a global outreach to a European-based travel grants program. The leadership forums and the research program continued unabated.

Today the OTCF management team in Zuchwil comprises:

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Richard Helmer</td>
<td>General Manager</td>
</tr>
<tr>
<td>Emanuel Zloczower</td>
<td>Legal Counsel</td>
</tr>
<tr>
<td>Debora Aebersold</td>
<td>Executive Secretary</td>
</tr>
<tr>
<td>Bertini&amp;Partner</td>
<td>Administrative HQ and Cost Center</td>
</tr>
</tbody>
</table>

Historic Timeline of OTC Foundation
"OTC Global Alliance"
18 local/national chapters are currently participating within regional groups
Educational activities have been central to OTCF’s mission from the onset. Professional orientation and advice for program design and selection of course topics were managed by an Education Committee, which was formed at the very beginning at the TCI in Nice. A first group was replaced and expanded by another set of OTC surgeons in 2010 as follows:

**Chairman: Gilbert Taglang**

<table>
<thead>
<tr>
<th>Name</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gavin Bowyer, UK</td>
<td>2007 – 2010</td>
</tr>
<tr>
<td>Enrique Guerado, Spain</td>
<td>2007 – 2010</td>
</tr>
<tr>
<td>Filip Stockmans, Belgium</td>
<td>2007 – 2010</td>
</tr>
<tr>
<td>Tom Lyon, USA</td>
<td>2007 – 2013</td>
</tr>
<tr>
<td>Oliver Trapp, Germany</td>
<td>2007 – 2013</td>
</tr>
<tr>
<td>Jean-Marc Féron, France</td>
<td>2007 – 2013</td>
</tr>
<tr>
<td>Mellick Chehade, Australia</td>
<td>2010 – 2013</td>
</tr>
<tr>
<td>Gilbert Taglang, France</td>
<td>2010 – 2013</td>
</tr>
<tr>
<td>Ning Tang, Hong Kong</td>
<td>2010 – 2013</td>
</tr>
</tbody>
</table>

**OTCF Training Courses**

During the first phase (2007 – 2008) courses were mainly held at the TCI in Nice.

During the second phase (2009 – 2011) courses were held in Europe, the Americas, and Asia, all organized by the Bern office.

During the third phase (2013 – 2017) the OTCF focused on supporting regional cadaveric courses in Europe, and developed a webinar course.

**Number of courses given per year:**

<table>
<thead>
<tr>
<th>Year</th>
<th>Courses</th>
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<tbody>
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<td>2008</td>
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<td>2010</td>
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<td>2011</td>
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<td>2012</td>
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<td>2014</td>
<td>2</td>
</tr>
<tr>
<td>2015</td>
<td>3</td>
</tr>
<tr>
<td>2016</td>
<td>2</td>
</tr>
</tbody>
</table>

**NOTE:** The full list of OTCF educational courses is given in Annex I.
E-Learning Activities

A Web-Based Education Committee (WEB-CO) was created in 2007 to initiate the design of a roadmap for indication-based inputs for the Hyperguide. Prof. KS Leung prepared educational and audio-visual material based on experience in the South-Pacific Region (OTC/SP and AADO).

To implement the fellowship program, a network of host centers was developed to receive surgeons at different stages of advanced training, usually for a period of two weeks. A total of 64 fellowships were awarded.

Image database and OP techniques were derived from existing material for inclusion in the OTCF website. This project was led by Oliver Trapp, Murnau, in cooperation with Tom Lyon and Stryker Trauma. The Hyperguide was taken over by Stryker Trauma as of 2012.

The subject of e-learning was taken up again by OTCF in the form of a Webinar course for Latina chapters organized by Enrique Guerado in 2015.

OTCF Fellowship Program

The OTCF administered a Global Fellowship Program from 2008 to 2014. From 2015 to 2017
the program was changed to a European Travel Grants Program. Thereafter, only specific training requests from OTC Chapters will be considered as part of the OTCF Chapter support program.

OTCF Leadership Forums and Symposia

From the outset OTCF catered not only to young surgeons at various levels of training but also for experienced surgeons from OTC Chapter boards. Every year a Leadership Forum was and will be organized in an OTC member country in conjunction with the Annual General Meeting or General Assembly of Chapter Presidents.

The focus was on issues arising from clinical practice. The topics and venues were chosen after consulting with the host chapter to allow for wider participation of interested local surgeons. The series of Leadership Forums included:

**OTCF East Meets West Symposium, Dubrovnik, May 2 – 3, 2008**
“Proximal Humerus, Elbow & Distal Forearm and Polytrauma Management”

**OTCF/LF Nice, France, June 27 – 28, 2008**
“Polytrauma, Upper Extremities, and Periprosthetic fractures”

**OTCF Trauma Care Institute, Nice, France, November 8, 2008**
“Fragility Fracture Forum”

**OTCF International Trauma Symposium, Mumbai, India, March 12 – 13, 2009**
“Advanced Concepts and Innovative Solutions in Traumatology”

**OTCF/LF Nice, France, June 25 – 26, 2009**
“The Global Burden of Trauma, and Foot and Ankle Trauma”

**OTCF/LF Amsterdam, Netherlands, June 25 – 26, 2010**
“New Concepts in the Management of Fragility Fractures”
OTCF Asian Pacific Leadership Forum, Shanghai, China, October 22 – 23, 2010
“New Concepts in the Treatment of Fragility, and Clinical Research”

OTCF/LF Athens, Greece, June 11 – 12, 2015
“Challenges and Complexities in Orthopaedic Trauma”

OTCF/LF Madrid, Spain, June 23 – 24, 2011
“Osteoporotic Fractures”

OTC Forum of the Americas, Miami, October 5 – 7, 2011

OTCF/LF Berlin, Germany, June 21 – 22, 2012
“Fractures around the Elbow and Case Presentations”

OTCF/LF Copenhagen, Denmark, June 13 – 14, 2013
“Update on Fracture Treatment: Meet the Experts”

OTCF/LF Lisbon, Portugal, June 12 – 13, 2014
“Surgeon Case Controversies Forum”

OTCF/LF Verona, Italy, June 16 – 17, 2016
“Proximal Femur Fractures and Femoral Neck Fractures”

OTCF/LF Amsterdam, June 15 – 16, 2017
“Exchange of Clinical and Research Experiences on Hot Topics”
The program objective is to encourage scientific studies in support of evidence-based research in surgical practice. This includes support of clinical, preclinical, basic, biomechanical, experimental and translational research. This program receives specifically earmarked funding support from the R&D office of Stryker Trauma in Schönkirchen, Germany.

The program is guided by the OTCF Research Committee (RECO), which started its work in 2005 at AIOD Strasbourg and then transferred to OTCF in 2008. RECO celebrated its 10th anniversary in 2015 in Athens. The “OTC Research Program 2005 – 2015” is published on the OTCF website.

Chairman: Peter Patka 2005 – 2011
Theodore Miclau 2011 – today

Scientific Coordinator: Esther van Lieshout

<table>
<thead>
<tr>
<th>Name</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volker Alt, Germany</td>
<td>2005 – today</td>
</tr>
<tr>
<td>Peter Augat, Germany</td>
<td>2008 – today</td>
</tr>
<tr>
<td>Mohit Bhandari, Canada</td>
<td>2008 – 2010</td>
</tr>
<tr>
<td>Louis Wing-Hoi Cheung, Hong Kong</td>
<td>2005 – 2012</td>
</tr>
<tr>
<td>Sune B.A. Larsson, Sweden</td>
<td>2014 – today</td>
</tr>
<tr>
<td>Theodore Miclau, USA</td>
<td>2005 – today</td>
</tr>
<tr>
<td>Peter Patka, Netherlands</td>
<td>2005 – 2011</td>
</tr>
<tr>
<td>Emil Schemitsch, Canada</td>
<td>2005 – 2010</td>
</tr>
<tr>
<td>Hamish Simpson, UK</td>
<td>2006 – today</td>
</tr>
<tr>
<td>Esther van Lieshout, Netherlands</td>
<td>2006 – today</td>
</tr>
</tbody>
</table>

OTCF Research Program Trends:

1. **Clinical research**, for which a systematic methodology for evidence-based study designs was developed and translated into comprehensive textbooks, which were then used in training courses.

2. **Biomechanical research**, including a research fellowship program during the years 2008 to 2011, and a series of annual biomechanical research workshops, which were subsequently expanded to “hot topic” workshops on a broader array of research subjects.

3. **Experimental research**, starting with basic and preclinical research, and then covering all major scientific areas relevant to orthopaedic trauma studies.

The key activities of the OTCF research program include:

- Multidisciplinary workshops and symposia
- Publications in scientific journals
- Provision of research grants
- Authoritative research textbooks
- Clinical and experimental research courses
“Hot Topic” Workshops

The concept of “Hot Topics” deals with burning issues in the area of orthopaedic and trauma care, arising from surgical practice or advances in science and technology, including workshops, research grants, and publications:

BGU Murnau, 2006
“Biomechanics of Hip Fractures”

Mahwah, NY, September 2007
“Biomechanics of Locked Plating”

TCI Nice, May 5, 2008
“OTC Symposium on Biomechanics of Locked Plating”

Boston, MA, June 14 – 16, 2009
“Numerical Modelling in Trauma Care”

Barcelona, October 21 – 22, 2011
“First OTC Workshop on Functional Assessment of Fracture Healing”

Boston, MA, December 3 – 4, 2012
“Second OTC Workshop on Functional Assessment of Fracture Healing”

“Osteoporotic Fractures – The Biological Perspective”

Boston, MA, December 5 – 6, 2010
“How to Incorporate Numerical Modelling into Trauma Care”

Boston, MA, November 17 – 18, 2014
“Osteoporotic Fractures – The Mechanical Perspective”

Zurich, November 2 – 3, 2015
“Complications of IM Nailing – Evolution of Treatment”

Boston, November 3 – 5, 2016
“Complications of Plating – Evolution of Treatment”
Malaga, October 19 – 21, 2017
“External Fixation and Percutaneous Pinning”

OTCF Scientific Journal Publications

Results of these workshops are published as INJURY Supplements, also available on the OTCF website as electronic document. Earlier publications were issued as JOT Supplements. The key subjects cover:

- Assessment of fracture healing
- Osteoporotic fractures: biology and biomechanics
- Complications of nailing and plating
- External fixation and percutaneous pinning (planned)

A full list is given in ANNEX III.

OTCF Research Grants

The objective is to encourage orthopaedic trauma surgeons and biomechanical and basic scientists by providing seed and start-up funding for promising research projects through grants of up to USD 50,000. Until 2016 a total of USD 2,779,269 were awarded in grants. Results of these grant projects are made available to a wider audience through abstracts and publications.

<table>
<thead>
<tr>
<th>Year</th>
<th>Proposals</th>
<th>Grants</th>
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<tr>
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<tr>
<td>2015</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>2016</td>
<td>21</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>179</td>
<td>76</td>
</tr>
</tbody>
</table>

Publications output from 76 grants 2005 – 2016

![Graph showing abstracts and publications output from 2005 to 2016]
OTCF Research Textbooks

The program started in 2005 by developing the methodology of clinical research founded on the concept of Evidence Based Medicine (EBM). The hierarchy of evidence results in various options for clinical studies. Under the leadership of Mohit Bhandari, Canada, a series of three books on clinical research was published as listed in ANNEX III.

As of 2012 emphasis was shifted to translational research to bridge the gap between preclinical and clinical research, and to emphasize the importance of biomechanical and basic research. This resulted in a textbook covering experimental research methods for scientific studies in orthopaedic and trauma care with the contribution of ca. 100 authors worldwide.

A complete list of all OTCF publications in the area of research is given in Annex III.

OTCF Research Courses

From the clinical research methodology developed by RECO, a syllabus of clinical research courses was derived with complete sets of lectures and faculty rosters in English and Spanish.

A complete list of all OTCF research courses is given in ANNEX II.

Based on the experimental research methodology textbook, a generic course syllabus was developed which is used as of 2015 in a new series of annual courses.
From the onset the OTCF sought opportunities where the experience of members of OTC Chapters could be brought to good use for trauma patients in developing countries suffering from insufficient medical care. This includes situations caused by a chronically deficient healthcare infrastructure as well as catastrophic events with mass trauma victims.

2008 May Sichuan (China) Earthquake

Field mission of Kwok Sui Leung, AADO, for immediate medical relief and emergency trauma surgery after the devastating earthquake on May 12, 2008. The first such mission of an OTC surgeon.


Dr. Maximo Seguras, Spain, undertook two OTCF sponsored field missions to meet resident Prof. Michel Onimus in Bangassou, Alindao, and at the paediatric complex in Bangui, Central African Republic, to treat children with congenital malformations (cleft palate and clubfoot) and traumatic lesions. Local health staff was trained in postoperative treatment procedures. During the two missions they saw more than 300 patients and undertook more than 100 paediatric surgery operations.

2011 May Laos Surgical Mission

OTCF and Santé France Laos supported the humanitarian mission of Dr. Volker Alt, Germany, at Hôpital de l’Amitié in Vientiane where he carried out surgical treatment with different methods and trained local surgeons on principles of treatment and polytrauma management despite the lack of implants and hygiene.
2010 Haiti Earthquake Relief Missions

The vast destruction and high number of victims (300,000 killed and 300,000 injured) during the earthquake on 12 January 2010 called for immediate relief and long-term follow-up care of trauma patients. Rotating teams of trauma surgeons and nurses were sent to Haiti to set up emergency operating rooms.

2010 and 2011 September IGOT Courses

IGOT together with SIGN, supported by OTCF, organized two Flap Courses. 100 surgeons from developing countries were trained to manage injuries requiring wound coverage.

2015 April Nepal Earthquake

A large area of Nepal was struck by an earthquake on 25 April 2015 damaging towns, rural areas, and the Himalayan region. Prof. Reiner Schnettler, AIOD Germany, while trekking there, could provide immediate assistance and mobilize vital equipment support via Dr. Roth of AIOD Germany.
ANNEXES

ANNEX I

OTCF EDUCATION TRAINING COURSES

TCI Nice, November 8 – 9, 2007
“Fractures of the Pelvis and Acetabulum”

Toronto, November 21 – 22, 2007
“Burning Issues and Future Solutions in Hip Fractures”

AIOD Strasbourg, December 3 – 5, 2007
“14th Annual International Course on Locking Nailing and External Fixation techniques”

BGU Murnau, December 13 – 14, 2007
“Upper Extremity – Shoulder”

TCI Nice, May 12 – 14, 2008
“Train the Trainers for Nurses and Operating Theatre Staff”

TCI Nice, June 5 – 6, 2008
“Polytrauma and Damage Control”

TCI Nice, June 11 – 13, 2008
“Foot and Ankle”

TCI Nice, June 30 – July 1, 2008
“Knee”

TCI Nice, September 1 – 3, 2008
“Shoulder and Proximal Humerus”

TCI Nice, September 3 – 5, 2008
“Distal Radius and Hand”

TCI Nice, November 7 – 9, 2008
“Hip Course”

AIOD Strasbourg, October 27 – 28, 2009
“Cadaveric Course: Hand and Distal Radius”

AIOD Strasbourg, December 2 – 4, 2009
“15th Annual International Course on Locking Nailing and External Fixation techniques”

Lucerne, September 13 – 14, 2010
“OTC Advanced Course: Fractures around the Knee”

Lucerne, November 25 – 26, 2010
OTC Advanced Course: Fractures around the Elbow”

AIOD Strasbourg, December 1 – 3, 2010
“16th Annual International Course on Locking Nailing and External Fixation techniques”

Houston, February 3 – 4, 2011
“Fragility Fractures Course (Sawbone)”

Rio de Janeiro, March 24 – 25, 2011
“Osteosynthesis of Fractures of the Lower Limb”

Gothenburg, April 7 – 8, 2011
“Advanced Course on Fragility Fractures Course (Sawbone)”

Fort Lauderdale, May 12 – 13, 2011
“Advanced Course on Fractures around the Foot and Ankle (Cadaveric Workshop)”

AIOD Strasbourg, May 18 – 20, 2011
“Nurses Course: Locking Nailing and External Fixation Techniques”

Singapore, September 1 – 2, 2011
“Advanced Course on Fragility Fractures (Sawbone)”

Hong Kong, October 22 – 23, 2011
“Fractures around the Foot and Ankle”

Lucerne, November 21 – 22, 2011
“Fractures around the Foot and Ankle”

Houston, December 5 – 6, 2011
“Advanced Fragility Fractures Course (Sawbone)”

AIOD Strasbourg, December 7 – 9, 2011
“17th Annual International Course on Locking Nailing and External Fixation Techniques”

AIOD Strasbourg, December 5 – 7, 2012
“18th Annual International Course on Locking Nailing and External Fixation Techniques”

OTCF Copenhagen, June 13 – 14, 2013
“Workshop on Distal Radius (Sawbone)”

AIOD Strasbourg, December 4 – 6, 2013
“19th Annual International Course on Locking Nailing and External Fixation Techniques”

OTC Nordic, Gothenburg, September 24 – 26, 2014
“Advanced Course on Fractures around the Foot and Ankle (Cadaveric Workshops)”

AIOD Strasbourg, December 10 – 12, 2014
“20th Annual International Course on Locking Nailing and External Fixation techniques”

OTC Nordic, Aarhus, November 16 – 18, 2015
“Advanced Course on Upper Extremities Trauma (Cadaveric Workshops)”

OTC Latina, November 30 – December 2, 2015
“2015 Latin OTC Webinar Advanced Course on Polytrauma”

AIOD Strasbourg, December 2 – 4, 2015
“21st Annual International Course on Locking Nailing and External Fixation Techniques”

OTC Nordic, Gothenburg, November 14 – 15, 2016
“Advanced Course on Lower Leg Trauma (Cadaveric Workshops)”

AIOD Strasbourg, December 7 – 9, 2016
“22nd Annual International Course on Locking Nailing and External Fixation Techniques”

AIOD Strasbourg, December 6 – 8, 2017
“23rd International Improvement Course on Locking Nailing and External Fixation Techniques”
ANNEX II

OTCF RESEARCH TRAINING COURSES

- **Amsterdam, April 16 – 18, 2008**
  "First OTC Course on the Principles and Practice of Clinical Research"

- **Athens, March 28, 2009**
  "OTC/HELLAS Course on Clinical Research"

- **Toronto, September 16 – 18, 2009**
  "Third OTC/CANADA Course on Clinical and Basic Research"

- **Havana, June 2 – 3, 2010**
  "Forum Internacional de Investigaciones Clinicas en Ortopedia"

- **London, September 23 – 25, 2010**
  "OTC Course on Principles of Clinical and Experimental Research"

- **Puerto Vallarta, November 1 – 2, 2010**
  "Seminario de Investigaciones Clinicas"

- **Havana, June 1 – 2, 2011**
  "Forum Sobre las Investigaciones Clinicas en Ortopedia"

- **San Francisco, September 11 – 13, 2011**
  "OTI and IGOT Second International Annual Flap Course and Clinical Pre-Course"

- **BGU Murnau, November 7 – 8, 2011**
  "Principles of Clinical Research"

- **Aarhus, September 3 – 4, 2012**
  "Principles of Clinical Research"

- **Bonn, May 2015**
  "OTC/DGFB Experimental Research Course at German Biomechanical Society"

- **Munich, June 7, 2016**
  "OTC/ISFR Introductory Course on Experimental Research Methods in Fracture Repair"

- **Amsterdam, June 15, 2017**
  "Research Course in Orthopedics and Trauma Care"

- **Berlin, October 24, 2017**
  "OTCF/DKOU Course on Scientific Methods in Orthopaedic"

ANNEX III

OTCF RESEARCH PUBLICATIONS

RESEARCH TEXTBOOKS


- **Experimental Research Methods in Orthopedics and Trauma**, 446 pages, 257 illustrations. Edited by Hamish Simpson and Peter Augat; Thieme Stuttgart, 2015

JOURNAL SUPPLEMENTS

- "Stimulation of Fracture Healing: Osteobiologics, Bone Stimulators, and Beyond,” JOT Supplement, Volume 24, Supplement 1 March 2010

- "Fragility Fractures,” JOT Supplement, Volume 25, Supplement 1, June 2011

- **INJURY Volume 45, Supplement 2, June 2014. Assessment of Fracture Healing**
  Guest Editors: Peter Augat, Michael Bottlang

- **INJURY Volume 47 Supplement 1, January 2016. Osteoporotic Fractures – the Biological Perspective.**
  Guest Editors: Volker Alt and Theodore Miclau

- **INJURY Volume 47 Supplement 2, June 2016. Osteoporotic Fracture Fixation – a Biomechanical Perspective.**
  Guest Editors: Peter Augat, Jörg Goldhahn

- **INJURY Volume 48, Supplement 1, June 2016. Complications of IM Nailing – Evolution of Treatment.**
  Guest Editors: Volker Alt, Hamish Simpson and Theodore Miclau

OTCF RESEARCH PROGRAM PRESENTATIONS

- **OTC Research Program 2005 – 2008**
- **OTC Research Program 2009 – 2011**
- **OTC Research Program 2011 – 2014**
- **OTC Research Program 2005 – 2015: Ten Years**
  Downloadable from OTCF Website