REMOTE DAMAGE
CONTROL RESUSCITATION
SYMPOSIUM

June 23-26
Bergen, Norway
Sunday, June 23
18:00-20:00 Welcome Reception
20:00 Dinner & Entertainment

Monday, June 24
08:30-08:40 Opening Remarks - THOR And RDCR
Jon G. Reichelt
Major General / Surgeon General
Norwegian Armed Forces
Norway
Philip C. Spinella, MD FCCM
Professor, Pediatrics
Director, Translational Research Program
Division of Critical Care, Department of Pediatrics
Washington University in St Louis
St Louis, Missouri, USA
Geir Strandenes, MD
Senior Anesthetist
Dept of War Surgery and Emergency Medicine
Norwegian Armed Forces Medical Services
Bergen, Norway

08:45 SESSION 1: TRAINING AND PROCEDURES
Moderator:
Patrick Thompson
Medic
UK / S. Africa

08:45-09:15 Medic Demo Of RDCR Skills
Patrick Thompson
Medic
UK / S. Africa

09:15-09:35 Practical Implications Of Trauma Induced Blood Failure
Patrick Thompson
Medic
UK / S. Africa

09:35-09:55 RDCR Training Manual/Preconference Curriculum Review (Train The Trainer Program)
Marc Depasquale
Medic
USA

Håkon S. Eliassen
BFF/MJK/UiB Medic
Bergen, Norway

09:55-10:25 Challenges In Implementing RDCR Principles
COL Elon Glassberg, MD MHA
Professor of Surgery
Head, Medical Services Department
Israel Defense Forces Medical Corps
Israel

10:25-10:35 Training And Procedures Speaker Panel Discussion

10:35-10:45 Break
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tr>
<td>10:45</td>
<td><strong>SESSION 2: PREPARING FOR THE FUTURE</strong></td>
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<td>Moderators:</td>
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<td>Col Thomas Woolley, MD FRCA RAMC</td>
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<td>Defence Professor of Anaesthesia and Critical Care</td>
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<td>10:45-10:55</td>
<td>Prolonged Field Care Experience And Data</td>
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<td>Stéphane Travers, MD</td>
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<td>Professor Emergency Medicine</td>
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<td>French Military Health Service</td>
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<td>France</td>
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<td>10:55-11:05</td>
<td>Analysis Of The Victimology Of The Paris Attacks: Medical Care For</td>
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<td>The Wounded And Avoidable Mortality</td>
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<td>Mathieu Raux, MD PhD</td>
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<td></td>
<td>Professor of Anesthesiology and Critical Care Medicine</td>
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<td>Pitié Salpêtrière University Hospital</td>
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<td>Paris, France</td>
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<td>11:05-11:35</td>
<td>Advanced Resuscitative Care In Tactical Combat Casualty Care</td>
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<td>Frank K. Butler, MD, FAAO, FUHM</td>
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<td>Chairman, Committee on Tactical Combat Casualty Care</td>
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<td>Joint Trauma System</td>
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<td>11:35-12:05</td>
<td>Future Battlefield And Medical Needs And Preparedness Requirements</td>
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<td>Col Michael R. Davis, MD PhD</td>
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<td>Director, Combat Casualty Care Research Program</td>
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<td>12:15-12:30</td>
<td>Preparing For The Future Speaker Panel Discussion</td>
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<td>LUNCH AND NETWORKING</td>
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<td><strong>SESSION 3: EMERGENCY PREPAREDNESS</strong></td>
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<td>Heidi Doughty, MD</td>
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<td>Consultant in Transfusion Medicine</td>
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<td>Ashley Cecere, MS</td>
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<td>Biomedical Advanced Research and Development Authority (BARDA)</td>
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<td>U.S. Department of Health and Human Services</td>
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<td>15:00-15:20</td>
<td>Norway Mass Casualty Scenarios And Emergency Preparedness</td>
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<td>Geir Strandenes, MD</td>
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<td>Senior Anaesthetist</td>
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<td>Dept of War Surgery and Emergency Medicine</td>
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<td>Norwegian Armed Forces Medical Services</td>
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AGENDA

MONDAY

Mary Homer, PhD  
Biomedical Advanced Research and Development Authority (BARDA)  
Office of the Assistant Secretary for Preparedness and Response  
U.S. Department of Health and Human Services  
USA

15:40-16:00  Radiation Induced Blood Failure And Hemostatic Resuscitation As A Countermeasure
Lauren Jackson, PhD (USA)  
Associate Professor  
University of Maryland School of Maryland  
Baltimore, MD, USA

16:00-16:15  Blood Availability For Mass Casualties-Data From THOR-AABB Working Group
Jeremy W. Cannon, MD SM FACS  
Trauma Medical Director  
The Hospital Of The University Of Pennsylvania  
The Presbyterian Medical Center Of Philadelphia  
Philadelphia, PA, USA

16:15-16:30  PANEL DISCUSSION: Emergency Preparedness Speakers

16:30-16:45  BREAK

16:45  SESSION 4: MECHANICAL CONTROL OF BLEEDING
Moderator:  
Joseph F. Rappold, MD FACS  
Chief, Acute Care Surgery  
Professor of Surgery  
Maine Medical Center | Tufts University School of Medicine  
Portland, Maine, USA

16:45-17:05  Tourniquets State Of The Art
Matthew D. Neal, MD FACS  
Roberta G. Simmons Assistant Professor of Surgery  
University of Pittsburgh  
Pittsburgh, PA, USA

17:05-17:25  Injectable Foams
Christian Kastrup, MD  
Associate Professor  
University of British Columbia (UBC)  
Vancouver, Canada

17:25-17:45  Hemostatic Dressings/Topical Hemostatic Agents
Bijan S. Kheirabadi, PhD  
Research Scientist  
US Army Institute Of Surgical Research  
San Antonio, TX USA

17:45-18:05  REBOA: Where And When
Dr. Robbie Lendrum  
Consultant in Pre-Hospital Care Bart’s Health Royal London Hospital  
London’s Air Ambulance  
Consultant in Cardiothoracic Anaesthesia and Critical Care  
NHS Lothian, Royal Infirmary of Edinburgh  
UK

18:05-18:20  PANEL DISCUSSION: Mechanical Control Of Bleeding Speakers

18:20-18:45  BREAK

18:45-19:45  COCKTAIL HOUR

19:45-21:00  DINNER
08:30 **SESSION 5: HEMOSTATIC RESUSCITATION**
Moderator: Mark H. Yazer, MD
Professor of Pathology, University of Pittsburgh
Medical Director of the RBC Serology Laboratory at the Centralized Transfusion Service
Pittsburgh, Pennsylvania, USA

08:30-09:00 **Blood Products In Development**
COL Andrew P Cap, MD PhD
Medical Corps, US Army
Chief, Blood Research, US Army Institute of Surgical Research
Associate Professor of Medicine, Uniformed Services University
Program Director, Clinical Research Fellowship | Staff Hematologist-Oncologist
San Antonio Military Medical Center
San Antonio, Texas, USA

09:00-09:25 **Secondary Outcomes From The PAMPER Trial**
Jason L. Sperry, MD MPH
Trauma/Acute Care Surgeon
Division of Trauma and General Surgery
University of Pittsburgh
Pittsburgh, Pennsylvania, USA

09:25-09:45 **What’s New In Hemostatic Resuscitation: Civilians**
Donald Jenkins, MD
Professor of Surgery
Vice Chair for Quality, Department of Surgery
U. of Texas Health Science Center at San Antonio
San Antonio, Texas, USA

09:45-10:05 **What’s New In Hemostatic Resuscitation: Military**
COL Jennifer M. Gurney, MD, FACS
Assistant Professor of Surgery
United States Uniformed Services University
US Army Joint Trauma System
USA

10:05-10:25 **Hemostatic Resuscitation Effects: In Silico Mathematical Model Simulations**
Jansen N. Seheult, MB BCh BAO, MSc, MD
Special Coagulation Fellow, Department of Laboratory Medicine and Pathology
Mayo Clinic
Rochester, Minnesota USA

10:25-10:40 **PANEL DISCUSSION: Hemostatic Resuscitation Speakers**

10:40-10:50 **BREAK**

10:50 **SESSION 6: UNDER PRESSURE**
Moderator: COL Jennifer M. Gurney, MD, FACS
Assistant Professor of Surgery
United States Uniformed Services University
US Army Joint Trauma System
USA

10:50-11:10 **Permissive Hypotension In Animal Models**
Dr. Sarah Watts
Senior Principle Scientist
DSTL
UK
11:10-11:40  Permissive Hypotension Debate
Moderator:
Christopher Bjerkvig, MD
Helse-Bergen / Norwegian Navy
Norway

Panelists:
Col Thomas Woolley, MD FRCA RAMC
Consultant Anaesthetist
Defence Professor of Anaesthesia and Critical Care
British Army
UK

Dr. Anne Weaver
London’s Air Ambulance
Barts Health NHS Trust
UK

11:40-12:00  Vasopressors In Traumatic Hemorrhagic Shock
Nicholas Prat, MD PhD
Battlefield Trauma Unit
French Armed Forces Biomedical Research Institute
France

12:00-12:20  CRI To Guide Resuscitation – Responders/Non Responders,
Goal Directed Concept
Victor A. Convertino, PhD
Senior Scientist, Combat Casualty Care Research Program
US Army Institute of Surgical Research
San Antonio, Texas USA

12:20-12:30  Under Pressure Speaker Panel Discussion

12:30-15:00  LUNCH AND NETWORKING

15:00  SESSION 7.1: GET YOUR SCIENCE ON!
PARALLEL SESSIONS (MAIN AUDITORIUM)

Moderators:
Anthony E Pusateri, PhD
Director of Research
US. Army of Institute of Surgical Research
San Antonio, Texas, USA

Einar K. Kristoffersen, MD PhD
Head of Department/Professor
Bloodbank
Haukeland University Hospital
Bergen, Norway

Mitchell Jay Cohen, MD
Director of Surgery, Denver Health Medical Center
Professor and Vice Chair, Department of Surgery
University of Colorado
Denver, Colorado, USA

15:00-15:30 Hemostasis Monitoring Comparisons And Future Directions
Nathan J. White, MD
Associate Professor of Emergency Medicine
University of Washington
Seattle, Washington, USA

15:30-16:00 Microparticles And vWF Role In Hemostasis After Traumatic Injury
Matthew D. Neal, MD FACS
Roberta G. Simmons Assistant Professor of Surgery
University of Pittsburgh
Pittsburgh, Pennsylvania, USA

16:00-16:30 Alternative Methods To Abo Titers For Risk Of Hemolysis
Mark H. Yazer, MD
Professor of Pathology, University of Pittsburgh
Medical Director of the RBC Serology Laboratory at the
Centralized Transfusion Service
Pittsburgh, Pennsylvania, USA

16:30-17:00 Immunologic And Hemostatic Effects Of Cold Storage Of Platelets
Kim Thomas, PhD
Senior Scientist
Washington University School of Medicine
St. Louis, Missouri, USA

Susan Shea, PhD
Staff Scientist
Washington University School of Medicine
St. Louis, Missouri, USA

17:00-17:15 BREAK
15:00  SESSION 7.2: PREHOSPITAL AIRWAY MANAGEMENT AND VENTILATION STRATEGIES FOR HEMORRHAGIC SHOCK

Moderators:
Victor A. Convertino, PhD
Senior Scientist, Combat Casualty Care Research Program
US Army Institute of Surgical Research
San Antonio, Texas  USA

Christopher Bjerkvig, MD
Helse-Bergen / Norwegian Navy
Norway

15:00-15:30  Successful Procedures – Unsuccessful Care
Patrick Thompson
Medic
UK / S. Africa

15:30-16:00  Regulating Intrathoracic Pressure For Resuscitation In Humans Suffering From Hemorrhage: The ‘Other Side Of Breathing’
Victor A. Convertino, PhD
Senior Scientist, Combat Casualty Care Research Program
US Army Institute of Surgical Research
San Antonio, Texas  USA

16:00-16:30  Evidence & Guidelines; “To Tube Or Not To Tube- That’s The Question”
Dr Tony Hudson
UK NHS
Great Britain

16:30-17:00  NORNAVSO/C Bergen HEMS Approach
Christopher Bjerkvig, MD
Helse-Bergen / Norwegian Navy
Norway

17:00-17:15  BREAK
**AGENDA**

**TUESDAY**

17:15-17:45  **Cold Stored Platelet Effect On Inhibited Platelets And Functional Effects Of Blood Product Storage**  
**Surg Lt Cdr Tom Scorer MBBS FRCPath RN**  
Haematology Fellow  
University of Bristol, Bristol, UK  
US Army Institute of Surgical Research  
Ft. Sam Houston, Texas USA

Michael Adam Meledeo, PhD  
Research Scientist  
US Army Institute of Surgical Research  
Ft. Sam Houston, Texas USA

James Bynum, PhD  
Deputy Chief, Coagulation and Blood Research  
US Army Institute of Surgical Research  
Ft. Sam Houston, Texas USA

17:45-18:15  **Norwegian Blood Far Forward Data On Maintaining Cold Chain, Leukoreduction And Immune Effects Of Storage**  
**Torunn Apelseth, MD PhD**  
Department of Immunology and Transfusion Medicine  
Haukeland University Hospital  
Bergen, Norway

18:15-18:30  BREAK

18:30-19:30  COCKTAIL HOUR

19:30-21:00  DINNER
08:30  SESSION 8: GUIDELINES
Moderator:
Geir Strandenes, MD
Senior Anesthetist
Dept of War Surgery and Emergency Medicine
Norwegian Armed Forces Medical Services
Bergen, Norway

08:30-09:30  Trauma Resuscitation Guidelines / Prehospital Case Presentation And Panel Discussion
Panelists:
London HEMS Guidelines:
Dr. Anne Weaver
London’s Air Ambulance
Barts Health NHS Trust
UK

TCCC Guidelines:
COL Jennifer M. Gurney, MD, FACS
Assistant Professor of Surgery
United States Uniformed Services University
US Army Joint Trauma System
USA

ATLS Guidelines:
Andrew Beckett, CD MD MSc FRCSC FACS
Royal Canadian Medical Service
Canada

European Guidelines:
Dr. Ingeborg Bretschneider, Com
Senior Medical Officer
Federal Armed Forces Hospital Ulm
Germany

Bergen Approach:
Christopher Bjerkvig, MD
Helse-Bergen / Norwegian Navy
Norway

09:00  SESSION 9: NOVEL RESUSCITATION STRATEGIES
Moderator:
Philip C. Spinella, MD FCCM
Professor, Pediatrics
Director, Translational Research Program
Division of Critical Care, Department of Pediatrics
Washington University in St Louis
St Louis, Missouri, USA

09:30-10:00  Reducing Metabolic Needs In Hemorrhagic Shock
Sam Tisherman, MD, FACS, FCCM
University of Maryland
Baltimore, MD, USA
10:00  Blood Banking Debates

10:00-10:30  Are PRT Platelets OK For Massive Bleeding Debate
Panelists:
John R. Hess, MD, MPH, FACP FAAS (USA)
Professor, Lab Medicine and Hematology
University of Washington
Seattle, Washington  USA

Heather Pidcoe, MD PhD
Chief Medical Research Officer
Office of the Vice President of Research
Colorado State University
Colorado, USA

10:30-10:45  BREAK

10:45-11:00  Cryoprecipitate Vs. Fibrinogen Concentrates Debate
Panelists:
Melissa Cushing, MD
Professor of Pathology and Laboratory Medicine
Weill Cornell Medicine
New York, New York  USA

Jeannie Callum, MD, FRCPC
Transfusion Medicine Specialist
Sunnybrook Health Sciences Centre
Toronto, Canada

11:15-11:35  TXA RCT Trial Data Review From OHSU
Martin A. Schreiber, MD
Professor of Surgery
Oregon Health & Science University
Portland, Oregon  USA

11:35-11:45  Trial Data Discussion

11:45-12:45  LUNCH
**SESSION 10: POSITION PAPER AND WRAP UP**

Moderators: Geir Strandenes, MD (Norway) and Philip C. Spinella, MD, FCCM (USA)

**12:45-13:15**

**Position Paper Presentation: Plasma As Volume Expander In Non-Coagulopathic Trauma Patients**

Donald Jenkins, MD  
Professor of Surgery  
Vice Chair for Quality, Department of Surgery  
University of Texas Health Science Center at San Antonio  
San Antonio, Texas, USA

**13:15-13:30**

**Wrap Up And Feedback On Future Directions**

Geir Strandenes, MD  
Senior Anesthetist  
Dept of War Surgery and Emergency Medicine  
Norwegian Armed Forces Medical Services  
Bergen, Norway

Philip C. Spinella, MD FCCM  
Professor, Pediatrics  
Director, Translational Research Program  
Division of Critical Care, Department of Pediatrics  
Washington University in St Louis  
St Louis, Missouri, USA
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**FRANK BUTLER’S LAWS**

1. Nothing gets a pass because “That’s the way we’ve always done it.”
2. It doesn’t matter how good the plan is – if nobody’s using it.
3. If what you are doing is not working, do something else.
4. Pick a team that knows trauma care and is strongly motivated to keep improving it.
5. Maintain an active search for good ideas – wherever they can be found – and process them as though lives depend on it. Because, indeed, they do.
6. Make needed corrections quickly as additional evidence and experience is gained.
7. Improve the methodology for reaching decisions on battlefield trauma care recommendations.
8. Effective strategic messaging is needed to inform and inspire decision makers.
9. Evidence does not drive advances in trauma care. People do that.
10. Lessons learned are not really lessons learned – unless we actually learn them.

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[Image of soldiers in combat]

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Viking Laws

1. BE BRAVE AND AGGRESSIVE
   Be Direct
   Grab All Opportunities
   Use Varying Methods of Attack
   Be Versatile and Agile
   Attack One Target at a Time
   Don't Plan Everything in Detail
   Use Top Quality Weapons

2. BE PREPARED
   Keep Weapons in Good Condition
   Keep in Shape
   Find Good Battle Comrades
   Agree on Important Points
   Choose ONE Chief

3. BE A GOOD MERCHANT
   Find Out What the Market Needs
   Don't Promise What You Can't Keep
   Don't Demand Overpayment
   Arrange Things So That You Can Return

4. KEEP THE CAMP IN ORDER
   Keep Things Tidy and Organized
   Arrange Enjoyable Activities
   Which Strengthen the Group
   Make Sure Everybody Does Useful Work
   Consult All Members of the Group for Advice