

Virtual Congress and Expo
September 24–26, 2020

SHIFT
MEDICAL
2021

Program

Virtual Congress and Expo

shiftmedical.eu/program

Choose from unique sessions, presentations, and networking opportunities to get the most out of your Shift Medical experience

Day 1

Thursday, September 24

5.30 pm

Opening Words

Dr Lars Riedemann (MD), Scientific Director
Lale Jakob, Event Organisation

5.30 - 6.00 pm (CEST)
Thursday, September 24

6.00 pm

Opening Words

Dr. Raoul Haschke, Heidelberg University

Dr. Thomas Prexl, Heidelberg Startup
Partners e.V.

Dr. André H. R. Domin, Heidelberg
Technology Park

6.00 - 6.15 pm (CEST)
Thursday, September 24

6.15 pm Patron Opening Words

Theresia Bauer (MdL), State Minister for
Science, Research and Arts

6.15 - 6.30 pm (CEST)
Thursday, September 24

6.30 pm Patron Opening Words

Prof Dr Matthias Weidemüller, Heidelberg
University

6.30 - 7.00 pm (CEST)
Thursday, September 24

6.30 pm Keynote Speaker Introduction

Dr Lars Riedemann (MD), Scientific Director

6.45 - 7.00 pm (CEST)
Thursday, September 24

7.00 pm Translating VR Research into Medical Impact

Walter Greenleaf (PhD), Stanford University

7.00 - 7.30 pm (CEST)
Thursday, September 24 Thursday, September 24

7.30 pm Patient - the big loser in the Medical VR battle

Prof Grigore Burdea, Rutgers University

7.30 - 8.00 pm (CEST)
Thursday, September 24

8.00 pm Seeking the virtual, finding the real

Thomas A. Furness, University of Washington

8.00 - 8.30 pm (CEST)
Thursday, September 24

8.30 pm The Reality of Augmented Reality

Karl Gutttag

8.30 - 9.00 pm (CEST)
Thursday, September 24

**9.00 pm AR and MR headworn systems for
Surgical guidance**

Bernard Kress, Microsoft

9.00 - 9.30 pm (CEST)
Thursday, September 24

9.30 pm Congress Overview

Dr Lars Riedemann (MD), Scientific Director
Lale Jakob, Event Organisation

9.30 - 10.00 pm (CEST)
Thursday, September 24

Virtual Get Together

10.00 - 11.30 pm (CEST)
Thursday, September 24

Day 2

Friday, September 25

8.30 am Welcome day 2

Dr Lars Riedemann (MD), Scientific Director
Lale Jakob, Event Organisation

8.30 - 8.45 am (CEST)
Friday, September 25

**9.00 am XR Hardware and Software -
Status Quo**

Christian Steiner, Mixed.de

9.00 - 9.20 am (CEST)
Friday, September 25

**9.20 am Immersive Technologies across
Industries: current developments**

Prof Christoph Runde, VDC Fellbach

9.20 - 9.40 am (CEST)
Friday, September 25

**9.40 am Seeing is believing: how VR and
AR will transform business and the
economy**

Jeremy Dalton, PwC

9.40 - 10.00 am (CEST)
Friday, September 25

Session 1
Translational Research I

Moderator
Dr Hannes Kenngott (MSc)

10.00 - 11.30 am (CEST)
Friday, September 25

**10.00 am How VR can change assessment
and therapy of mental disorders**

Prof Dr Thomas Wolbers, German Center for
Neurodegenerative Diseases

10.00 - 10.15 am (CEST)
Friday, September 25

**10.15 am Deep learning for advanced
interventional imaging**

Prof Dr Lena Maier-Hein, German Cancer
Research Center

10.15 - 10.30 am (CEST)
Friday, September 25

**10.30 am Augmented Reality for Telestration
and Telementoring in Surgery**

Felix Nickel (MD), Heidelberg University
Clinic

10.30 - 10.45 am (CEST)
Friday, September 25

**10.45 am Improving Surgical Training by
Hyperrealism: A Novel Form of
Augmented-Reality**

Sandy Engelhardt (PhD), Heidelberg University
Hospital

10.45 - 11.00 am (CEST)
Friday, September 25

**11.00 am Q&A Panel Discussion with all
Session Speakers**

Session 1

11.00 - 11.30 am (CEST)
Friday, September 25

Networking Break

11.30 am - 12.30 pm (CEST)
Friday, September 25

Session 2
UX/UI

Moderator
Dr Lars Riedemann

12.30 - 1.45 pm (CEST)
Friday, September 25

12.30 pm

Extended Realities in Medical Education

Pablo Olmos, Anima Res

12.30 - 12.45 pm (CEST)
Friday, September 25

12.45 pm

The natural evolution of Operating Procedures – Leveraging ROI by using Augmented Reality

Wolfgang Stelzle, RE'FLEKT
Ralf Distler, Roche Diagnostics GmbH

12.45 - 1.00 pm (CEST)
Friday, September 25

1.00 pm

How the missing gap in the medical world sounds like

Martin Rieger, VRTonung

1.00 - 1.15 pm (CEST)
Friday, September 25

1.15 pm

Q&A Panel Discussion with all Session Speakers

Session 2

1.15 - 1.45 pm (CEST)
Friday, September 25

Networking Break

1.45 - 2.30 pm (CEST)
Friday, September 25

Session 3
Storytelling

Moderator
Boris Kantzow

2.30 - 3.45 pm (CEST)
Friday, September 25

2.30 pm

Why storytelling helps with immersive therapies

Elle Langer, Immersive Storytelling

2.30 - 2.45 pm (CEST)
Friday, September 25

2.45 pm The use of virtual reality in an academic cancer center

Prof William Levin (MD), University of Pennsylvania

2.45 - 3.00 pm (CEST)
Friday, September 25

3.00 pm Immersive Journalism for Public Health Awareness

Karthik Patanjali, The New York Times

3.00 - 3.15 pm (CEST)
Friday, September 25

3.15 pm Q&A Panel Discussion with all Session Speakers

Session 3

3.15 - 3.45 pm (CEST)
Friday, September 25

Networking Break

3.45 - 4.00 pm (CEST)
Friday, September 25

Session 4
Surgery I

Moderator
Jason McDowall

4.00 - 5.45 pm (CEST)
Friday, September 25

4.00 pm Xponential Technologies call for Xponential Surgery

Rafael Grossmann (MD, FACS)

4.00 - 4.15 pm (CEST)
Friday, September 25

4.15 pm Surgical Preparation in Mixed Reality – implementation & clinical experience

Dominik Fischer, Brainlab

4.15 - 4.30 pm (CEST)
Friday, September 25

4.30 pm Disruptive Medical Simulation & Training Using Virtual and Mixed Reality

Ville Leppälä, Varjo

4.30 - 4.45 pm (CEST)
Friday, September 25

4.45 pm Projekt HoloMed

Prof. Dr. Franziska Mathis-Ullrich
The Karlsruhe Institute of Technology (KIT)

4.45 - 5.00 pm (CEST)
Friday, September 25

5.00 pm Addressing the runaway complexity of surgery with immersive technology

Dr Justin Barad (MD), Osso VR

5.00 - 5.15 pm (CEST)
Friday, September 25

5.15 pm Q&A Panel Discussion with all Session Speakers + Jennifer Esposito, MagicLeap

Session 4

5.15 - 5.45 pm (CEST)
Friday, September 25

Networking Break

5.45 - 6.00 pm (CEST)
Friday, September 25

Session 5
Training and Education

Moderator
Petra Dahm, Boris Kantzow

6.00 - 8.00 pm (CEST)
Friday, September 25

6.00 pm **How to implement a structured on-boarding process for medical device operators by leveraging AR**

Dirk Schart, RE'FLEKT
William Harding, Medtronic plc

6.00 - 6.15 pm (CEST)
Friday, September 25

6.15 pm **Utilising the Power of VR for raining and Education at the German Red Cross - A Collaborative Approach**

Thomas Pilz, German Red Cross Kreisverband Herford-Stadt e.V.

6.15 - 6.30 pm (CEST)
Friday, September 25

6.30 pm **The Neuroscience of XR in Healthcare Education and Training**

Todd Maddox (PhD), Ikona Health

6.30 - 6.45 pm (CEST)
Friday, September 25

6.45 pm **Augmented and Virtual Reality for Higher Education of Nurses and Medical Doctors in Germany - Report on four Research Projects**

Dr Thies Pfeiffer, University of Applied Sciences Emden/Leer

6.45 - 7.00 pm (CEST)
Friday, September 25

7.00 pm **VR training for EMS personnel using the i:medtasim software as an example**

Dipl Med Päd Markus Neuberger, Tricat

7.00 - 7.15 pm (CEST)
Friday, September 25

7.15 pm **VR-Training: Use Cases and Benefits in the Field of Nephrology and Cardiology**

Boris Kantzow, Weltenmacher

7.15 - 7.30 pm (CEST)
Friday, September 25

7.30 pm **Q&A Panel Discussion with all Session Speakers**

Session 5

7.30 - 8.00 pm (CEST)
Friday, September 25

Networking Break

8.00 - 8.30 pm (CEST)
Friday, September 25

Session 6
Clinical Integration

Moderator
Richard Ward

8.30 - 11.00 pm (CEST)
Friday, September 25

8.30 pm **Towards the clinical use of augmented reality for orthopedic surgery**

Prof Dr Philipp Fürnstahl, Balgrist University Hospital

8.30 - 8.45 pm (CEST)
Friday, September 25

**8.45 pm Building a VR unit in a hospital,
practical considerations**

Arnaud Bosteels, Clinique Saint-Jean Brussels

8.45 - 9.00 pm (CEST)
Friday, September 25

**9.00 pm Virtually Better: Lessons Learned
Using Virtual Reality in Clinical
Practice**

Brennan Spiegel (MD), Cedars-Sinai Medical
Center

9.00 - 9.30 pm (CEST)
Friday, September 25

**9.30 pm Transforming and improving
neurorehabilitation services with
therapeutic virtual reality
programs**

Dr Isabel Van De Keere, Immersive Rehab

9.30 - 9.45 pm (CEST)
Friday, September 25

**9.45 pm Changing the surgical paradigm
using AI, AR & real time
telecommunications**

Nadine Hachach-Haram (MD), Proximie

9.45 - 10.00 pm (CEST)
Friday, September 25

**10.00 pm XR for Medical Training at Boston
Children's Hospital**

Jeffrey Jacobson (PhD), Boston Children's
Hospital

10.00 - 10.15 pm (CEST)
Friday, September 25

**10.15 pm Q&A Panel Discussion with all
Session Speakers**

Session 6

10.15 - 10.45 pm (CEST)
Friday, September 25

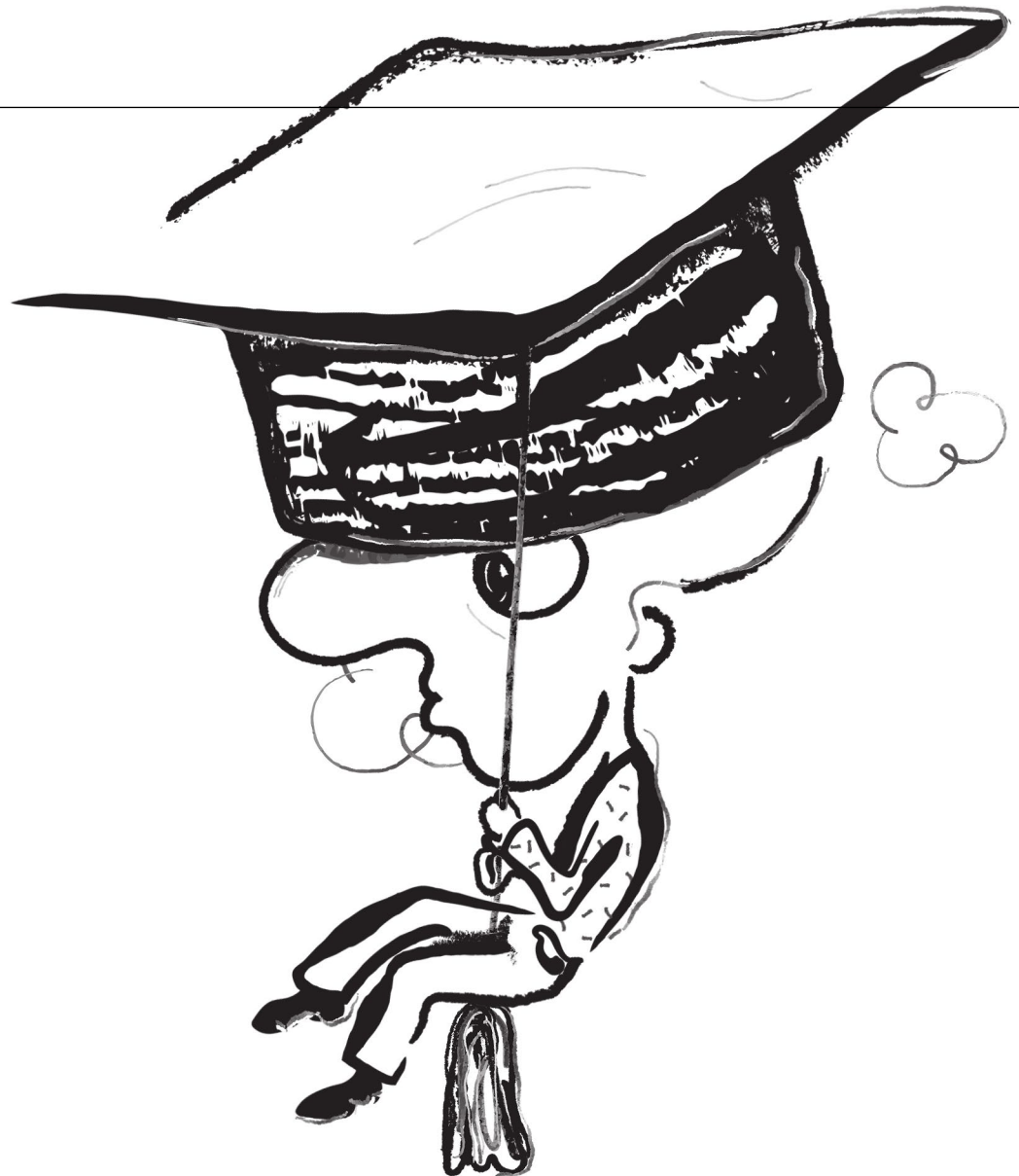
10.45 pm Summary day 2

Dr Lars Riedemann (MD), Scientific Director
Lale Jakob, Event Organisation

10.45 - 11.00 pm (CEST)
Friday, September 25

Networking Evening

11.00 pm - Open end
Friday, September 25



Day 3

Saturday, September 26

8.30 am Welcome day 3

Dr Lars Riedemann (MD), Scientific Director
Lale Jakob, Event Organisation

8.30 - 8.45 am (CEST)
Saturday, September 26

Session 7
Business Strategy

Moderator
Jürgen Klöckner

8.45 - 11.45 am (CEST)
Saturday, September 26

8.45 am Personalizing the Healthcare Journey with XR and AI/ML

Razvan Ionasec & Guy Spigelman, Amazon Web Services (AWS)

8.45 - 9.15 am (CEST)
Saturday, September 26

9.15 am Prerequisites of reimbursement of digital technologies – lessons learned from the German case

Jan Brönneke, Health Innovation Hub of the Federal Ministry of Health

9.15 - 9.45 am (CEST)
Saturday, September 26

9.45 am Medical XR Technology Adoption - Drivers and Challenges

Dennis Steininger, Universität Augsburg

9.45 - 10.00 am (CEST)
Saturday, September 26

10.00 am **Achieving health insurance reimbursement with care innovations: The case of digital anxiety therapy**

Christian Angern, Sympatient

10.00 - 10.15 am (CEST)
Saturday, September 26

Networking Break

10.15 - 10.30 pm (CEST)
Saturday, September 26

10.30 am **Cognitive rehabilitation in neurological diseases with VR: Risks and chances**

Julian Specht, Living Brain

10.30 - 10.45 am (CEST)
Saturday, September 26

10.45 am **Implementing XR technologies in Healthcare businesses**

Anton Ebert, Siemens Healthineers

10.45 - 11.00 am (CEST)
Saturday, September 26

11.00 am **HTC DeepQ to grow healthcare VR businesses**

Lewis Ting-Jung Chang, HTC Health Care (DeepQ)

11.00 - 11.15 am (CEST)
Saturday, September 26

11.15 am **Q&A Panel Discussion with all Session Speakers**

Session 7

11.15 - 11.45 am (CEST)
Saturday, September 26

Networking Break

11.45 - 12.30 pm (CEST)
Saturday, September 26

Session 8
Ethics and Privacy

Moderator
Kent Bye

12.30 - 2.00 pm (CEST)
Saturday, September 26

12.30 pm **XR, AI and Humans in Interaction: Scientific Opportunities and Ethical Challenges**

Dr Philipp Kellmeyer (MD), University of Freiburg

12.30 - 12.45 pm (CEST)
Saturday, September

12.45 pm **Privacy and Safety Considerations for Medical XR Beyond Current Regulations**

Laura Elan, XR Safety Initiative (XRSI)

12.45 - 1.00 pm (CEST)
Saturday, September 26

1.00 pm **Hacking XR – Views from a regulatory perspective**

Thomas Süptitz & Steffen Buchholz,
The Federal Ministry of Health (BMG)

1.00 - 1.15 pm (CEST)
Saturday, September 26

1.15 pm **Healthcare Cybersecurity – From threat to opportunities**

Mihir Mistry, Secureworks

1.15 - 1.30 pm (CEST)
Saturday, September 26

1.30 pm **Q&A Panel Discussion with all Session Speakers**

Session 8

1.30 - 2.00 pm (CEST)
Saturday, September 26

Networking Break

2.00 - 2.30 pm (CEST)
Saturday, September 26

Session 9
Surgery II

Moderator
Tobias Langer

2.30 - 3.45 pm (CEST)
Saturday, September 26

2.30 pm **The Smart Hospital of The Future and How We Built It**

Dr Hannes Kenngott (MSc), University Clinic Heidelberg

2.30 - 2.45 pm (CEST)
Saturday, September 26

2.45 pm **VSI Holomedicine**

Sirko Pelzl, apoQlar

2.45 - 3.00 pm (CEST)
Saturday, September 26

3.00 pm SurgeonMR: Interactive Platform for Surgical Procedures in Mixed Reality

Ehsan Azimi (PhD), Johns Hopkins University

3.00 - 3.15 pm (CEST)
Saturday, September 26

3.30 pm Q&A Panel Discussion with all Session Speakers

Session 9

3.30 - 3.45 pm (CEST)
Saturday, September 26

Networking Break

3.45 - 4.00 pm (CEST)
Saturday, September 26

Session 10
Associations

Moderator
Dr Lars Riedemann

4.00 - 6.00 pm (CEST)
Saturday, September 26

4.00 pm XR Association

Elizabeth Hyman, XR Association

4.00 - 4.15 pm (CEST)
Saturday, September 26

4.15 pm Swiss Society of Virtual and Augmented Reality

Mohamed Jean-Philippe Sangaré, SSVAR

4.15 - 4.30 pm (CEST)
Saturday, September 26

4.30 pm VDC, XRMed, EuroVR

Prof Christoph Runde, VDC Fellbach
Harald Eifert, EurA AG - Niederlassung
Hamburg

4.30 - 4.45 pm (CEST)
Saturday, September 26

4.45 pm

MedVR

Steven Patterson, Grassroots Developer
Education

4.45 - 5.00 pm (CEST)
Saturday, September 26

5.00 pm

XR4ALL – an initiative to strengthen the European XR community

Dr Ing Oliver Schreer, Fraunhofer Heinrich
Hertz Institute

5.00 - 5.15 pm (CEST)
Saturday, September 26

5.15 pm

XR Bavaria e.V. / XR HUB Bavaria

Petra Dahm, Extended Reality Bavaria e.V
Julia Wittmann, XR HUB Nürnberg

5.15 - 5.30 pm (CEST)
Saturday, September 26

5.30 pm

International Virtual Reality and Healthcare Association (IVRHA)

Bob Fine, International Virtual Reality and
Healthcare Association

5.30 - 5.45 pm (CEST)
Saturday, September 26

5.45 pm

Q&A Panel Discussion with all Session Speakers

Session 10

5.45 - 6.00 pm (CEST)
Saturday, September 26

Session 11
Regulatory Affairs

Moderator
Kent Bye

6.00 - 7.30 pm (CEST)
Saturday, September 26

6.00 pm Introduction to the basics

Prof Dr Christian Johner, Johner Institut

6.00 - 6.15 pm (CEST)
Saturday, September 26

6.15 pm XR as a medical device

Prof Dr Mark Hastenteufel, Hochschule
Mannheim

6.15 - 6.30 pm (CEST)
Saturday, September 26

6.30 pm Regulatory Evaluation Challenges for Medical Extended Reality Devices

Ryan Beams, Food and Drug Administration

6.30 - 6.45 pm (CEST)
Saturday, September 26

6.45 pm How to get started - First steps towards the mountain peak

Tobias Klingenfuss, TWT Digital Health GmbH

6.45 - 7.00 pm (CEST)
Saturday, September 26

7.00 pm Q&A Panel Discussion with all Session Speakers

Session 11

7.00 - 7.30 pm (CEST)
Saturday, September 26

Session 12
Mental Health

Moderator
Denise Silber

7.30 - 9.15 pm (CEST)
Saturday, September 26

7.30 pm

The Birth of Intelligent Virtual Humans for Clinical Training and Health Care Support

Prof Albert Rizzo, USC Institute for Creative Technologies

7.30 - 8.00 pm (CEST)
Saturday, September 26

8.00 pm

Digital Therapeutics, XR, AI, Precision Medicine - The Future of Sensor-Driven Health

Walter Greenleaf (PhD), Stanford University

8.00 - 8.30 pm (CEST)
Saturday, September 26

8.30 pm

VR to Research to Medicine and back again

Dr Susan Persky, National Institutes of Health (NIH)

8.30 - 8.45 pm (CEST)
Saturday, September 26

8.45 pm

HIPAA Compliant Virtual Reality Counseling

Erin Bogdanski, THERA Inc

8.45 - 9.00 pm (CEST)
Saturday, September 26

9.00 pm

Q&A Panel Discussion with all Session Speakers

Session 12

9.00 - 9.15 pm (CEST)
Saturday, September 26

Networking Break

9.15 - 9.30 pm (CEST)
Saturday, September 26

Session 13
Translational Research II

Moderator
Dr Lars Riedemann

9.30 - 12.00 pm (CEST)
Saturday, September 26

9.30 pm

How Do We Improve the Science of Medical VR

Dr Brandon Birckhead (MD), Cedars-Sinai Medical Center

9.30 - 10.00 pm (CEST)
Saturday, September 26

10.00 pm

From Brain Surgery to Behavioral Health: XR guides Precision Interventions

Dr Robert Louis (MD), Hoag Memorial Hospital

10.00 - 10.30 pm (CEST)
Saturday, September 26

10.30 pm

Implementing AR/VR tools for interventional radiology training and clinical care

Raul Uppot (MD), Harvard Medical School

10.30 - 11.00 pm (CEST)
Saturday, September 26

11.00 pm

Design and Development of XR Applications for Mobility Training: Moving from the Lab to the Clinic via User-Centered Design

James Finley, PhD, University of Southern California

11.00 - 11.30 pm (CEST)
Saturday, September 26

**11.30 pm Q&A Panel Discussion with all
Session Speakers**

Session 13

11.30 pm - 12.00 am (CEST)
Saturday, September 26

**11.30 pm Q&A Panel Discussion with all
Session Speakers**

Session 13

11.30 pm - 12.00 am (CEST)
Saturday, September 26

12.30 pm Closing remarks

Dr Lars Riedemann (MD), Scientific Director
Lale Jakob, Event Organisation

12.00 - 12.30 am
Saturday, September 26

Networking Evening

12.30 am - Open end
Saturday, September 26

In cooperation with



Heidelberg Technology Park



UNIVERSITÄT
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SEIT 1386

Heidelberg University



Heidelberg Startup Partners



Tricat

Let's connect

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