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Associate Professor

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Employment History and Medical Education:

From April 2015 in Insel University Hospital:

Division Chief of musculoskeletal Radiology
Co-Chief of Dynamic Imaging Center in sitem-Insel

Department of Diagnostic, Interventional and Pediatric
Radiology, Inselspital, Bern University Hospital, Switzerland
Director: Prof. Dr. Dr. J. T. Heverhagen

www.radiologie.insel.ch

July 2013 – March 2015

Attending physician (Oberarzt) of Radiology
Department of Radiology, Sankt Katharinen Hospital,
Seckbacher Landstraße, Frankfurt

www.sankt-katharinen-ffm.de

September 2011 – June 2013

Residency in Neuroradiology
Institute of Neuroradiology, University Hospital of Frankfurt
am Main

www.kgu.de

Sept. 2011 – Jan. 2013

Researcher on the field of molecular Imaging
Radiology Department, German Cancer Research Center,
(Deutsches Krebsforschungszentrum DKFZ) Heidelberg

April 2011- Sept. 2011
Residency in Radiology und Fellowship of Senology (Breast Imaging)
Institute for clinical Radiology, University Hospital of Münster
www.uni-muenster.de

Nov. 2009 – March 2011
Residency in Radiology
Radiology Department, German Cancer Research Center,
(Deutsches Krebsforschungszentrum DKFZ) Heidelberg
www.dkfz.de

July 2007- Oct. 2009
Residency in Radiology
Department of Diagnostic and Interventional Radiology,
University hospital of Heidelberg
www.klinikum.uni-heidelberg.de

Nov. 2006 – Feb. 2007
Residency in Radiology
Radiology Department, Kantonsspital Olten
www.kso.ch

July 2003 – Sept. 2006
Chief Marketing Manager and Country administer
Roche Diagnostics

2001 - 2002
Stage if general Surgery (Stage de chirurgie générale) in
Paris 18ième Hospital, Paris, France

1998- 2001
General Physician

1989-1997
Medical Education, Tehran Medical University, Tehran, Iran

Diplomas and Certificates:

- Confirmation of Habilitation Committee of Bern University for PD Degree
- Instructor of MSK Radiology – German Association for MSK Radiology (Deutsche Gesellschaft für Muskuloskelettale Radiologie DGMSR) e.V
- Private Medical Practice Permit (Bewilligung zur Berufsausübung) in Bern 2018

- Recognition of the medical Diplomas (MEBEKO), Switzerland July, 2015
- Board Certification of Radiology (Facharzt) in Hessen, Germany 2014
- Doctorate Thesis (Promotion) in the field of Radiology in Ruprecht-Karls- University of Heidelberg, 05/2013
- Certificate of X-ray- Protection Course (Fachkunde im Strahlenschutz), 12/2012
- Medical License in Germany/ EU (Deutsche Approbation) 04/2012
- German Language Certificate (Zertifikat Deutsch), 2008
- DIU (Diplôme Interuniversitaire) Diploma of Molecular Cytogenetic , René Descartes Université, Paris V, France, 2001 - 2002
- TOEFL Exam 2001 (240/300)
- Medical Certification, Tehran Medical university, Iran 1998
- Diploma of Biology in Alborz College, Tehran, 1990

Further Education:

- Course of Management, Inselspital 2020-2021
- Innosuisse Start-Up Training- Business Courses Module 1 to 3 (2018-2019)
- Visiting Faculty in UMH, MSK Section, Department of Radiology, University of Michigan Hospitals and Health Centers, Head: Dr. Jan Jacobson, 2016
- Principal Investigator Course in Oncology 10/2010
- Animal Experimental Course (FELASA- B), 08/2010
- Medical licensing exam in Germany (Kenntnisprüfung) 03/2010

- Production of monoclonal antibodies, Biotechnology Faculty, Tarbiat Modares University, Tehran, Iran, 2003
- Molecular Biology courses and research activities, Biotechnology Faculty, Tarbiat Modares University, Tehran, Iran, 2000

Membership in Scientific Organisation:

FMH, Ärztgesellschaft des Kantons Bern, ESR, RSNA, SGR, ESSR, ISS, DGMSR, ESNR, Marburger Bund, AK BW, IRIMC.

Research Grants:

SNF R'EQUIP 2021 grant in amount of **396,210** CHF for Dynamic Biplane Radiographic Imaging and Motion Analysis for Musculoskeletal Biodynamics Research, Cooperation between Inselspital and EMPA.

Applicants: K. Daneshvar, A. Aiyangar, J.T. Heverhagen, K. Siebenrock

Establishing Dynamic Biplane Radiographic Imaging (DBRI) research platform in Sitem/Insel with **925'000** CHF budget through Insel VCCI Fonds: 690'000 CHF and Empa (Eidgenössische Materialprüfungs- und Forschungsanstalt): CHF 235'000; The total Investment amounts to **2'000'000** CHF

Grant for recruiting a PhD candidate for 3 years and supervisor of a research project, funded by a German AI-Company 2020. The project focusses on automated evaluation of the whole body's muscle-fat composition by machine learning for magnetic resonance images. This Study won a prize of **100.000 €** from The Health Ministry of Baden Württemberg in Germany

Project Partner:

Lumbar Spine: Empa Research Boosters project **749'000 CHF**

Shoulder: Sitem-insel Support Funds **125'000 CHF**

Shoulder: Swiss National Science Foundation Project Funding **130'000 CHF**

Teaching activities:

Lecturer for 'Imaging in Sports Medicine' and DLP at the University of Bern."

Lecturer for Medical Students, residents and Fellowships in University Bern

Reviewer for MSK Imaging committee of Radiological Society of North America (RSNA), USA

Reviewer for MSK Imaging committee of European Society of Radiology and moderator of multiple sessions of MSK Topics during European Congress of Radiology in Vienna, Austria

Member of Tumor subcommittee of ESSR and Moderator of sessions on ESSR congress

Doctorate and PhD candidates:

Supervisor of med. Doctorate Thesis:

Ms. Fatemeh Jabbary Lak, 2020

Ms. Mona Mazinani, 2020

Mr. Yashar Hashemi Eghdam, 2022

Mr. Wolfram Bosbach 2024

Supervisor of PhD Doctorate Thesis:

Mr. Saied Ramedani

Publication:

Quantification of training-induced alterations in body composition via automated machine learning analysis of magnetic resonance images in the thigh region. Saied Ramedani, Ebru Kelesoglu, Norman Stutzig, Hendrik Von Tengg-Kobligk, Keivan Daneshvar (Coauthor), Tobias Siebert (Coauthor). Submitted 04.2024

Intermittent hydrarthrosis of both knees successfully treated with radiosynoviorthesis using 90Y-Citrat – a case report; Afshar-Oromieh, Ali; Daneshvar, Keivan, submitted 08.2024

Novel artificial intelligence chest x-ray diagnostics in clinical application: a study about the agreement to human doctors.

Wolfram A. Bosbach, Luca Schoeni, Jan F Senge, Pawel Dlotko, Milena Mitrakovic, Keivan Daneshvar
Submitted 08.2024

Neural network-based class labelling study on an imbalanced shoulder X-ray dataset using solely free Google colab computing resources.

Wolfram A. Bosbach, Jan F. Senge, Bence Nemeth, Regina Zelei, Milena Mitrakovic, Claus Beisbart, Pawel Dlotko, Keivan Daneshvar; Submitted 08.2024

Cross-Domain Adaptation of Machine Learning-Based Whole-Body MRI Segmentation Framework for Brain Tumor Segmentation. Saied Ramedani, Johannes T. Heverhagen, Hendrik Von Tengg-Kobligh, Keivan Daneshvar, submitted 03/2024

The Learnings from Archimedes on the leverage of medical research funding in the post-Corona era; Bosbach, Wolfram A.; Anderson, Mitrakovic, Milena; Daneshvar, Keivan. August, 2024.

Swiss Journal of Radiology and Nuclear Medicine, 11(1), 6-10. <https://doi.org/10.59667/sjoranm.v11i1.17>

Deep Learning Reconstruction of Accelerated MRI: False-Positive Cartilage Delamination Inserted in MRI Arthrography Under Traction; Bosbach, Wolfram A.; Merdes, Kim Carolin; Jung, Bernd; Montazeri, Elham; Anderson, Suzanne; Mitrakovic, Milena; Daneshvar, Keivan; Topics in Magnetic Resonance Imaging 33(4):p e0313, August 2024. DOI: 10.1097/RMR.0000000000000313

The Multiple Myeloma Extramedullary Manifestations. Keivan Daneshvar, Wolfram Andreas Bosbach, Nando Mertineit, Gerd Nöldge. Swiss J. Rad. Nucl. Med. 2024, DOI: 10.59667/sjoranm.v6i1.14

ChatGPT may free time needed by the interventional radiologist for administration / documentation: A study on the RSNA PICC line reporting template.

Jan F Senge, Matthew Murray, Fabian Haupt, Philippe S Breiding, Claus Beisbart, Keivan Daneshvar, Alois Komarek, Gerd Noeldge, Frank Mosler, Wolfram A Bosbach Swiss J. Rad. Nucl. Med. (2024) Vol 7: doi.org/10.59667/sjoranm.v7i2.12

The Regulatory Needs for Radiation Protection Devices based upon Artificial Intelligence State task or leave unregulated?

Stefanie Nicole Garni, Nando Mertineit, Gerd Nöldge, Keivan Daneshvar, Frank Mosler. Swiss J. Rad. Nucl. Med. (2024) 5; doi.org/10.59667/sjoranm.v5i1.11

Comparison of CT and MR Imaging of Cystic Renal Masses by Using the Bosniak Classification System.

Keivan Daneshvar, Johannes Huber, Wolfram A. Bosbach, Nando Mertineit, Gerd Nöldge. Swiss J. Rad. Nucl. Med. (2024) 4: 10-16;

A Deep Learning-based Fully Automated Approach for Body Composition Analysis in 3D Whole Body Dixon MRI. Saied Ramedani, Majid Ramedani, Hendrik Von Tengg-Kobligh, Keivan Daneshvar, *2023 IEEE 19th International Conference on Intelligent Computer Communication and Processing (ICCP)*, Cluj-Napoca, 2023, pp. 287-292, doi: 10.1109/ICCP60212.2023.10398648.

Ability of ChatGPT to generate competent radiology reports for distal radius fracture by use of RSNA template items and integrated AO classifier. 2023 Accepted in *Current Problems in Diagnostic Radiology*, Wolfram A. Bosbach , Jan F. Senge , Bence Nemeth ,Siti H. Omar , Milena Mitrovic , Claus Beisbart , Andras Horvath , Johannes Heverhagen , Keivan Daneshvar. doi. 10.1067/j.cpradiol.2023.04.001

Diagnostic Imaging of Diabetic Foot Disorders, Foot and Ankle Clinics, Book by Elsevier 2022, Keivan Daneshvar, Helen Anwender, <https://doi.org/10.1016/j.fcl.2022.01.002>

Automatic quantification of fatty infiltration of the supraspinatus from MRI
Hanspeter Hess, Michael Herren, Nicolas Gerber, Olivier Scheidegger, Michael Schär, Keivan Daneshvar, Matthias A Zumstein, Kate Gerber, *Proceedings of The 20th Annual Meeting of the Interna 5*, 107-110

Non-contrast-enhanced 3-Tesla magnetic resonance imaging using surface-coil as a complementary test for assessment of distribution and depth of locoregional cutaneous metastases of malignant melanoma, M. Jafari, M. Mazinani, J. T. Heverhagen, R. E. Hunger, K. Daneshvar. March 2022, *J of Melanoma research*, May. 2022 doi: 10.1097/CMR.828.

Intrapancreatic accessory spleen: Findings on MR imaging and CT,
Keivan Daneshvar, Frank Bergmann, Hans-Ulrich Kauczor, Markus W. Büchler, Lars Grenacher March 2022, <https://doi.org/10.1016/j.soda.2021.100037>

Radiosynoviorthesis of the thumb's carpometacarpal joint. Clemens Mingels, Keivan Daneshvar, Ali Afshar-Oromieh, *Orthopade*. Dec 2021 doi: 10.1007/s00132-021-04194-6

Accuracy of Magnetic Resonance Imaging in Assessing Knee Cartilage Changes Over Time in Patients with Osteoarthritis: A Systematic Review

Yashar Hashemi Aghdam, Amin Moradi, Lars Gerhard Großterlinden, Morteza Seyed Jafari, Johannes T. Heverhagen, Keivan Daneshvar, Nov. 2021

North Clin Istanb. DOI: 10.14744/nci.2021.34270

Local control and radiological changes after stereotactic radiotherapy of sternal metastases using skin surface markers: A descriptive case series and mini-review of literature.

Anna Stenger-Weisser, Keivan Daneshvar Ghorbani, Hossein Hemmatazad, Oncology & Cancer Case Reports 2021, Vol.07, Issue 2, 001-007

Non-contrast-enhanced 3-Tesla Magnetic Resonance Imaging Using Surface-coil and Sonography for Assessment of Hidradenitis Suppurativa Lesions.

Fatemeh Jabbary Lak, Mona Mazinani, Johannes Heverhagen, Robert Hunger, Morteza Jafari, Keivan Daneshvar. Derm Venereol 2020 Nov.12;100 (18), adv00317 doi: 10.2340/00015555-3639

Fibrin sealants in lumbar annuloplasty after endoscopic discectomy as a method to prevent recurrent lumbar disc herniation

Pooya Torkian, Keivan Daneshvar, Ebrahim Taherian, Yasaman Rezaeifar, Shahram Akhlaghpour, European Journal of Translational Myology, March 2020, doi.org/10.4081/ejtm.2019.8748

Renale Hämosiderose durch intravaskuläre Hämolyse. Jeremia Klaus, Adrian Huber, Keivan Daneshvar, Helmut Prosch, Andreas Christe, Lukas Ebner. RöFo 6.2018

Sphenoorbital Meningiomas - Surgical Management and Outcome. Marie-Thérèse Forster, Keivan Daneshvar, Prof. Volker Seifert, Gerhard Marquardt. Neurol Res. Volume 36 Issue 8 August 2014

Quantitative T2-mapping of recurrent Glioblastoma under Bevacizumab improves monitoring for non-enhancing tumor progression and predicts overall survival. Oliver Bähr, Alina Jurcoane, Keivan Daneshvar, Ulrich Pilatus, Michel Mittelbronn, Joachim Steinbach, Elke Hattingen. Neuro-Oncology. November 2013

637 preoperative decision making for renal cell carcinoma: Cystic morphology in cross sectional imaging predicts lower malignant potential.

Johannes Huber, Alexandra Winkler, Thomas Bruckner, Wilfried Roth, Peter Hallscheidt, Keivan Daneshvar, Markus Hohenfellner, Sascha Pahernik.

Journal of Urology Volume 189, Issue 4S, Volume 189, April 2013.

One decade experience on the Imaging of Cystic Renal Masses. Keivan Daneshvar, Peter Hallscheidt.

Thesis of Doctorate in Heidelberg Uni 2013.

Preoperative decision making for renal cell carcinoma: Cystic morphology in cross-sectional imaging might predict lower malignant potential. Johannes Huber, Alexandra Winkler, Hildegard Jakobia, Thomas Bruckner, Wilfried Roth, Peter Hallscheidt, Keivan Daneshvar, Markus Hohenfellner, Sascha Pahernik, Urologic Oncology: Seminars and Original Investigations 32 (2014) 37.e1–37.e6

Preoperative tumor localization studies using MRI or CT in patients with clinically suspected insulinoma. Keivan Daneshvar, Lars Grenacher, Ariane Mehrabi, Hans-Ulrich Kauczor, Peter Hallscheidt. Pancreatology 2011;11: 487-494.

Bildgebende Diagnostik bei Tumoren der ableitenden Harnwege

Peter Hallscheidt, Celine Alt, Micheal Eiers, Keivan Daneshvar, Mojgan Hojjati, Hans-Ulrich Kauczor,

Rofo 2009; 181 - RKSP213_1, DOI: 10.1055/s-0029-1220962

Telemedicine and its clinical applications; a review article, Keivan Daneshvar; Medical journal of Iranian social security organization, June 2005

Poster/ Oral Presentations:

Potential Time Savings In Interventional Radiology From Using ChatGPT For Documentation And Administration, Wolfram A Bosbach, MD PhD, JF Senge, B.

Nemeth, Matthew T Mc Murray, F. Haupt, Claus Beisbart, Philipe Breiding, Keivan Daneshvar, Alois Komarek, Gerd Nöldge, Frank Mosler.

RSNA 2024 Oral Presentation

Cross-Domain Adaptation of Machine Learning-Based Whole-Body MRI Segmentation Framework for Brain Tumor Segmentation

Authors: S. Ramedani, J. T. Heverhagen, H. Von Tengg-Kobligh, K. Daneshvar Ghorbani

SCR 2024 oral Presentation

Establishing the Dynamic Imaging Center for Biodynamic Diagnostics at Siteminsel, Bern University Hospital

Authors: K. Daneshvar, J. T. Heverhagen, A. Ayianger,

SCR 2024 Poster Presentation

Can ChatGPT reduce the time required for administration / documentation in interventional radiology?

W. Bosbach, JF Senge, M. MC Murray, F. Haupt, C. Beisbart, P. Breiding, K. Daneshvar, A. Komarek, G. Nöldge, F. Mosler

SCR 2024 oral presentation

Vascular Trauma in Knee Dislocation: Why Is the Radiologist Important?

S. Von Däniken, R. Egli, K. Daneshvar, A. Komarek, J. Heverhagen, S.E. Anderson

ESSR 2024 Poster Presentation

Distal radius fracture: competent radiology reports generated by ChatGPT integrating RSNA template items and AO classifier.

WA Bosbach MD PhD, JF Senge, B Nemeth, M Mitrakovic, JT Heverhagen, K Daneshvar Ghorbani

RSNA 2023 presentation

Open access AI tools in clinical support roles - an example of shoulder implant recognition.

WA Bosbach MD PhD, B Nemeth, JF Senge, L Ebner, SE Anderson, P Dlotko, K Daneshvar Ghorbani, JT Heverhagen

RSNA 2023 presentation

A Deep Learning-based Fully Automated Approach for Body Composition Analysis in 3D Whole Body Dixon MRI
Saied Ramedani, Majid Ramedani, Hendrik Von Tengg-Kobligh and Keivan Daneshvar Ghorbani
ICCP 2023 (2023 IEEE 19th International Conference on Intelligent Computer Communication and Processing)

Fully automated machine learning-based framework for whole-body composition analysis for Magnetic Resonance Images (MRI).

Oral presentation SCR'23 Davos

An open access AI-based pattern recognition tool for application in MSK imaging – suitability and limitations of resources today

Bosbach, Németh, Zelei, Senge, Pasztor, Ebner, Szabo, Anderson, Szabo, Dlotko, Horvath, Daneshvar, Heverhagen

Poster presentation SCR'23 Davos

Potential role of CHATGPT in Pattern recognition, smart reporting and differential diagnosis in MSK RADIOLOGY: Is CHATGPT the new MSK EXPERT?

Mitrakovic, JT Heverhagen, K Daneshvar

Poster presentation 30th Annual Scientific Meeting of ESSR 2023, Bilbao, Spain

Automated Evaluation of the Whole Body's Muscle-fat Composition by Machine Learning for Magnetic Resonance Images (MRI)

EPOS Post Presentation in ECR 2022

Automatic quantification of fatty infiltration of the supraspinatus from MRI

Hanspeter Hess, Michael Herren, Nicolas Gerber, Olivier Scheidegger, Michael Schär, Keivan Daneshvar, Matthias A. Zumstein and Kate Gerber

oral Presentation

Computer Assisted Orthopaedic Surgery (CAOS) in Brest, France, 8th to 11th June 2022

Automated Evaluation of the Whole Body's Muscle-fat Composition by Machine Learning for Magnetic Resonance Images (MRI)

Ramedani, Saied; Morhard, Christoph; Von Tengg-Kobligh, Hendrik; Daneshvar, Keivan.

Oral presentation in ICTST-MMD, focus: mathematics in medical diagnostics, 23 April Warsaw (online)

Automated Evaluation of the Whole Body's Muscle-fat Composition by Machine Learning for Magnetic Resonance Images (MRI)

Ramedani, Saied; Morhard, Christoph; Von Tengg-Kobligh, Hendrik; Daneshvar, Keivan.

Poster Symposium Uni Bern 2022

Extramedullary Multiple Myeloma

Ana Leban, Johannes Heverhagen, Keivan Daneshvar;
Poster in SGR-SSR 2021

MRI to assess disease severity in Hidradenitis Suppurativa

K. Daneshvar, M. Mazinani, J. T. Heverhagen, M. Jafari, R.
E. Hunger;
Poster in SGR-SSR 2020

MRI to assess local tumor size in Malignant Melanoma with locoregional cutaneous metastases

K. Daneshvar, M. Mazinani, J. T. Heverhagen, M. Jafari, R.
E. Hunger; Poster in SGR-SSR 2020

Integration of a new mobile application for medical

communication in an academic radiology department,
Keivan Daneshvar, Anna Lavrova, Paolo Lombardo,
Johannes Heverhagen, Hendrik von Tengg-Kobligk.
EPOS in ECR 2019

Intrapancreatic Accessory Spleen: Findings on MR Imaging and CT

Keivan Daneshvar, Lars Fischer, Peter Schemmer, Markus
W. Büchler, Hans-Ulrich Kauczor, Lars Grenacher.
Poster in RSNA 2011

Preoperative tumor localization studies using MRI or CT in patients with clinically suspected insulinoma,

K. Daneshvar, L. Grenacher, A. Mehrabi, P. Hallscheidt;
EPOS in ECR 2010