**KLAUS ULRICH KLEIN, MD**

PERSONAL INFORMATION

Name: Assoc. Prof. PD Dr. med. Klaus Ulrich Klein  
Position: Director, Div. of Anesthesia for Orthopedic and Trauma Surgery  
 Department of Anesthesia, General Intensive Care and Pain Management  
 Medical University of Vienna, Währinger Gürtel 18-20, A-1090 Vienna  
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Researcher-ID: <https://orcid.org/0000-0001-7446-0542>

Webpage: <https://anaesthesie.meduniwien.ac.at>

Date of birth 24.02.1975

HIGHER EDUCATION

2015 - 2017 Associate Professor, Medical University of Vienna, Austria  
 Academic Supervisor: Univ.-Prof. Dr. Klaus Markstaller  
09/2013 Venia legend for Anesthesia and Intensive Care Medicine, Medical University of Vienna, Austria  
01/2004 Doctorate of Medicine, Dept. of Social Medicine and Epidemiology, Heidelberg Medical University, Heidelberg, Germany

APPOINTMENTS/ POSITIONS

2015 - 2017 Associate Professor for Anesthesia and Critical Care Medicine

2011 - 2015 Assistant Professor, Div. of General Anesthesia and Intensive Care Medicine, Vienna General Hospital, Medical University of Vienna, Austria

2009 - 2011 Attending Physician, Dept. of Anesthesiology, Johannes Gutenberg- University of Mainz, Germany

2002 - 2004 Rotation as Junior House Officer, Dept. of General Surgery, Torbay Hospital, Torquay; Dept. of Medicine, Derriford Hospital, Plymouth, Dept. of General Surgery, The Royal London Hospital, London, United Kingdom

FELLOWSHIPS AND AWARDS

2017 Patent “Elektromedizinisches Gerät zur Bestimmung der Narkosefähigkeit”   
2015 Gottfried and Vera Weiss Prize, FWF Science Fund, Austria

2014 - 2016 4 Poster Prizes Austrian Society of Anesthesiology

2010 - 2011 Post-doc Position DFG PAK 415 “Novel pathomechanisms of acute lung injury and multiple organ failure”, Dept. of Anesthesiology, Johannes Gutenberg-University Mainz, Germany

2009 - 2011 Mentee Program of the Germany Society of Anesthesiology and Intensive Care Medicine; Supervisor: Univ.-Prof. Dr. Manfred Blobner

2010 Laboratory Animal Science (FELASA-B), Heidelberg, Germany

2008 Klinisch-Wissenschaftlicher Forschungspreis der DGAI e.V.

SELECTED MEMBERSHIPS

2016 - to date American-Austrian Foundation “Anesthesiology / Critical Care Medicine”  
2015 - to date F1000-Specialist in Anesthesia and Critical Care Medicine

2013 - to date Junior Mentor PhD Programme “Cardiovascular and Pulmonary Disease”, Medical University of Vienna, Austria

SELECTED THIRD PARTY FUNDS/ONGOING PROJECTS

2016 - 2018 FWF Science Fund (P28618-B28 as PI)  
2014 - 2018 4 Mayor of the City of Vienna Funds (as PI or Co-PI)  
2014 - 2015 3 Unrestricted / Investigational Research Grants (as PI or Co-PI)

SELECTED COLLABORATION PARTNERS

2016 - to date Univ.-Prof. Dr. Bruno Podesser, Head of Center for Biomedical Research, Medical University of Vienna, Austria

2015 - to date Univ.-Prof. Dr. Eugenijus Kaniusas, Head of Institute of Electrodynamics, Microwave and Circuit Engineering, Technical University of Vienna, Austria

2014 – to date Univ.-Prof. Dr. Johann Wojta, Dept. of Internal Medicine II and Head of Core Facilities, Medical University of Vienna, Austria

PROFESSIONAL AND SCHOLARLY ACTIVITIES

2013 – to date Editorial Board Journal of Neurosurgical Anesthesiology (Rank 5/31)  
2004 – to date Reviewer for 7 Top or Standard Journals

CAREER BREAKS (if applicable)

None

PUBLICATION SUMMARY

45 peer reviewed original publications, H-Index of 9 (webofknowledge), 58 abstracts, 5 book chapters, 1 patent (01/2018)

TOP 10 SELECTED PEER-REVIEWED PUBLICATIONS (\*most relevant to proposal)

1: Kietaibl C, Engel A, Horvat Menih I, Huepfl M, Erdoes G, Kubista B, Ullrich R,

Windhager R, Markstaller K, Klein KU. Detection and differentiation of cerebral

microemboli in patients undergoing major orthopaedic surgery using transcranial

Doppler ultrasound. Br J Anaesth. 2017 Mar 1;118(3):400-406. doi:

10.1093/bja/aex001. PubMed PMID: 28199523.

2: Hafner C, Wu J, Tiboldi A, Hess M, Mitulovic G, Kaun C, Krychtiuk KA, Wojta J,

Ullrich R, Tretter EV, Markstaller K, Klein KU. Hyperoxia Induces Inflammation

and Cytotoxicity in Human Adult Cardiac Myocytes. Shock. 2017 Apr;47(4):436-444.

doi: 10.1097/SHK.0000000000000740. PubMed PMID: 27648689.\*

3: Wu J, Stefaniak J, Hafner C, Schramel JP, Kaun C, Wojta J, Ullrich R, Tretter

VE, Markstaller K, Klein KU. Intermittent Hypoxia Causes Inflammation and Injury

to Human Adult Cardiac Myocytes. Anesth Analg. 2016 Feb;122(2):373-80. doi:

10.1213/ANE.0000000000001048. PubMed PMID: 26505576.\*

4: Klein KU, Johannes A, Brückner M, Thomas R, Matthews S, Frauenknecht K, Leukel

P, Mazur J, Poplawski A, Muellenbach R, Sommer CJ, Thal SC, Engelhard K. Systemic

PaO2 Oscillations Cause Mild Brain Injury in a Pig Model. Crit Care Med. 2016

May;44(5):e253-63. doi: 10.1097/CCM.0000000000001399. PubMed PMID: 26496445.

5: Kampf S, Schramm P, Klein KU. Transcranial doppler and near infrared

spectroscopy in the perioperative period. Curr Opin Anaesthesiol. 2013

Oct;26(5):543-8. doi: 10.1097/01.aco.0000432517.70844.a6. Review. PubMed PMID:

23963230.\*

6: Klein KU, Boehme S, Hartmann EK, Szczyrba M, Heylen L, Liu T, David M, Werner

C, Markstaller K, Engelhard K. Transmission of arterial oxygen partial pressure

oscillations to the cerebral microcirculation in a porcine model of acute lung

injury caused by cyclic recruitment and derecruitment. Br J Anaesth. 2013

Feb;110(2):266-73. doi: 10.1093/bja/aes376. Epub 2012 Oct 26. PubMed PMID:

23103776.

7: Schramm P, Klein KU, Falkenberg L, Berres M, Closhen D, Werhahn KJ, David M,

Werner C, Engelhard K. Impaired cerebrovascular autoregulation in patients with

severe sepsis and sepsis-associated delirium. Crit Care. 2012 Oct 4;16(5):R181.

doi: 10.1186/cc11665. PubMed PMID: 23036135; PubMed Central PMCID: PMC3682283.

8: Klein KU, Fukui K, Schramm P, Stadie A, Fischer G, Werner C, Oertel J,

Engelhard K. Human cerebral microcirculation and oxygen saturation during

propofol-induced reduction of bispectral index. Br J Anaesth. 2011

Nov;107(5):735-41. doi: 10.1093/bja/aer227. Epub 2011 Jul 31. PubMed PMID:

21862494.\*

9: Klein KU, Engelhard K. Perioperative neuroprotection. Best Pract Res Clin

Anaesthesiol. 2010 Dec;24(4):535-49. doi: 10.1016/j.bpa.2010.10.008. Epub 2010

Nov 29. Review. PubMed PMID: 21619865.

10: Klein KU, Glaser M, Reisch R, Tresch A, Werner C, Engelhard K. The effects of

arterial carbon dioxide partial pressure and sevoflurane on capillary venous

cerebral blood flow and oxygen saturation during craniotomy. Anesth Analg. 2009

Jul;109(1):199-204. doi: 10.1213/ane.0b013e3181a800e5. PubMed PMID: 19535711.