

# CURRICULUM VITAE

## PERSONAL AND WORK INFORMATION

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Name Konstantin Alexander Krychtiuk  
Address Gumpendorferstraße 95/14, 1060 Vienna, Austria  
Email konstantin.krychtiuk@meduniwien.ac.at  
born October 6<sup>th</sup>, 1985 in Vienna  
Nationality Austrian  
ORCID-iD <https://orcid.org/0000-0001-7792-2837>  
Research Institution Department of Internal Medicine II, Medical University of Vienna

## ACADEMIC MILESTONES

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**Habilitation** Venia docendi in Internal Medicine (Privat-Dozent) June 2019  
University teaching thesis: Innate Immune Mechanisms in Cardiovascular Disease and Critical Illness

**PhD** Medical University of Vienna (N094), March 2016  
Thesis: Effects of Levosimendan on Inflammation and Coagulation in Vitro

**MD (Dr. med. univ.)** Medical University of Vienna (N202), August 2011  
Thesis: CD59 Expression in Monocyte Subsets and its Association to Coronary Artery Disease

## EDUCATION

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05/2014 - Resident in Internal Medicine, Department of Internal Medicine II, Division of Cardiology, Medical University of Vienna

10/2011 – 03/2016 PhD Program (N094) "Vascular Biology", MedUniWien

2005 – 2011 Study of Medicine, Medical University of Vienna

2004 Training for Paramedic („Rettungssanitäter), St. John's Ambulance

16.6.2004 Matriculation Examination with Merit GRG19 Billrothstraße, Vienna

1996 – 2004 General Secondary Academic School GRG19 Billrothstraße 1190 Vienna

1992 – 1996 Elementary School, VS Scheibenbergstraße 63, 1180 Vienna

## PUBLICATIONS

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33 original publications in journals with peer review, 11 as first author

h-Index 12, > 400 citations

## MAIN FIELD OF RESEARCH

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Inflammatory processes in stable atherosclerosis, dyslipidemia and acute cardiovascular disease

Mechanisms of acute heart failure and cardiogenic shock

Cardio-pulmonary resuscitation

Familial hypercholesterolemia

Lipoprotein(a)

## GRANTS/AWARDS

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02/2018 Research grant by “Österreichischer Herzfonds” for the project “Immuno-Activation in Familial Hypercholesterolemia”

01/2017 Research grant by the Austrian Society of Cardiology for the project “Association of circulating microRNAs and coronary plaque composition assessed by coronary CT angiography”

01/2017 “Researcher of the Month” of the Medical University of Vienna (January 2017)

05/2016 Research grant by Medical-Scientific Fund of the Mayor of Vienna for the project “Proteomic Profiling to Reveal Novel Diagnostic Markers for Intestinal Complications in Critical Ill Patients”

03/2016 Young Investigator Fellowship, European Atherosclerosis Society

10/2012 Young Investigator Award of the Acute Cardiovascular Care Association of the European Society of Cardiology

04/2012 Poster award 1<sup>st</sup> place, category “Excitation-contraction coupling, cardiomyopathy”, ESC FCVB 2012, London, UK

04/2012 Travel Grant European Society of Cardiology

4x Scholarships for outstanding academic achievement (“Leistungsstipendium”);

## MEMBERSHIPS

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2020 - Working group “Biomarker” of the ESC Acute Cardiovascular Care Association

2018 - Board member (ex-officio) of the ESC Acute Cardiovascular Care Association (2018-2020)

2018 - Co-Chair of the ESC Acute Cardiovascular Care Association Conference Program Committee

2018 – 2020 Chair of development of <https://www.healthy-heart.org/>

2017 – 2018 Course director ACCA Hands On Critical Cardiovascular Care Course

2015-2017 ESC Acute Cardiovascular Care Organizing Committee

Austrian Society of Cardiology

Nucleus Member of “Cardiologists of Tomorrow” and “Cardiovascular Biology and Thrombosis Research” Scientific Advisory Board of the Young Scientists Association of the Medical University of Vienna

#### REVIEWER

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European Heart Journal: Acute Cardiovascular Care

Cardiovascular Research

Thrombosis and Haemostasis

Circulation: Cardiovascular Quality and Outcomes

PLOS One

Wiener Klinische Wochenschrift

JACC: Case Reports

#### EDITORIAL BOARDS

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JACC: Case Reports

Austrian Journal of Cardiology

#### LECTURE WORK

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10/2009 - ongoing > 10 different lectures and seminars at the Medical University of Vienna:  
Topics: Cardiology, CPR, Internal Medicine

**Peer-reviewed publications of the last 5 years:**

Lipoprotein(a) is not associated with survival after acute coronary syndromes

Christian Roth, Daniel Dalos, Clemens Gangl, **Konstantin A. Krychtiuk**, Lore Schrutka, Klaus Distelmaier, Johann Wojta, Christian Hengstenberg, Rudolf Berger, Walter S. Speidl  
PLOS One, accepted December 16, 2019

Neutrophil extracellular traps and monocyte subsets at the culprit lesion site of myocardial infarction patients

Andreas Mangold, Thomas M. Hofbauer, Anna S. Ondracek, Tyler Artner, Thomas Scherz, Walter S. Speidl, **Konstantin A. Krychtiuk**, Roela Sadushi-Kolici, Johannes Jakowitsch, Irene M. Lang  
Scientific Reports, accepted 22.10.2019 doi: 10.1038/s41598-019-52671-y

Toll-Like receptor-2 and -9 expression on circulating neutrophils is associated with increased mortality in critically ill patients

Max Lenz, Dominik F. Draxler, Chao Zhang, Mona Kassem, Stefan P. Kastl, Alexander Niessner, Kurt Huber, Johann Wojta, Gottfried Heinz, Walter S. Speidl, **Konstantin A. Krychtiuk**  
Shock, accepted 27.9.2019 doi: 10.1097/SHK.0000000000001467

Growth Differentiation Factor-15 predicts poor survival after cardiac arrest

Bernhard Richter, Thomas Uray, **Konstantin A. Krychtiuk**, Christoph Schriefl, Max Lenz, Alexander Nürnberger, Stefan P. Kastl, Johann Wojta, Gottfried Heinz, Michael Schwameis, Walter S. Speidl  
Resuscitation. 2019 Aug5;143:22-28 doi: 10.1016/j.resuscitation.2019.07.028

Barbara Thaler, Philipp Hohensinner, Johanna Baumgartner, Patrick Haider, **Konstantin A. Krychtiuk**, Christian Schörghofer, Bernd Gilma, Lena Hell, Michael Fischer, Kurt Huber, Christian Hengstenberg, Walter S. Speidl, Johann Wojta

Protease-activated receptors 1 and 3 are differently expressed on human monocyte subsets and are upregulated by lipopolysaccharide ex vivo and in vivo

Thrombosis and Haemostasis, accepted April 29<sup>th</sup> 2019 doi: 10.1055/s-0039-1692219

Florian J. Mayer, Christoph J. Binder, **Konstantin A. Krychtiuk**, Martin Schillinger, Erich Minar, Matthias Hoke

The prognostic value of serum amyloid A for long-term mortality among patients with subclinical carotid atherosclerosis

European Journal of Clinical Investigation, accepted February 26, 2019 doi: 10.1111/eci.13095

**Konstantin A. Krychtiuk\***, Raphael Wurm\*, Sarah Ruhittel, Max Lenz, Kurt Huber, Johann Wojta, Gottfried Heinz, Martin Hülsmann, Walter S. Speidl

Release of mitochondrial DNA is Associated With Mortality in Severe Acute Heart Failure

Eur Heart J Acute Cardiovasc Care, accepted December 17, 2018 doi: 10.1177/2048872618823405

\*contributed equally

Richard Pentz, Christoph Kaun, Barbara Thaler, Stefan Stojkovic, Max Lenz, **Konstantin A. Krychtiuk**, Andreas Zuckermann, Kurt Huber, Johann Wojta, Philipp Hohensinner, Svitlana Demyanets

Cardioprotective cytokine interleukin-33 is upregulated by statins in human cardiac tissue

Journal of Cellular and Molecular Medicine, accepted August 8, 2018 doi: 10.1111/jcmm.13891

Stefan P. Kastl, **Konstantin A. Krychtiuk**, Max Lenz, Klaus Distelmaier, Georg Goliash, Kurt Huber, Johann Wojta, Gottfried Heinz, Walter S. Speidl  
Intestinal fatty acid binding protein is associated with mortality in patients with acute heart failure or cardiogenic shock  
Shock. 2018 May 29. doi: 10.1097/SHK.0000000000001195.

Max Lenz, **Konstantin A. Krychtiuk**, Georg Goliash, Klaus Distelmaier, Johann Wojta, Gottfried Heinz, Walter S. Speidl  
N-terminal pro-brain natriuretic peptide and high sensitive troponin T exhibit additive prognostic value for the outcome of critically ill patients  
Eur Heart J Acute Cardiovasc Care. 2018 Apr 1:2048872618768088. doi: 10.1177/2048872618768088

Hong Qi, Lourdes Soto-Gonzalez, **Konstantin A. Krychtiuk**, Sarah Ruhittel, Christoph Kaun, Walter Speidl, Attila Kiss, Bruno Podesser, Shanglong Yao, Klaus Markstaller, Klaus U. Klein, Verena Tretter  
Pretreatment with argon protects human cardiac myocyte-like progenitor cells from oxygen glucose deprivation-induced cell death by activation of Akt and differential regulation of MAPKinases  
Shock. 2018 May;49(5):556-563. doi: 10.1097/SHK.0000000000000998.

**Konstantin A. Krychtiuk\***, Stefan Stojkovic\*, Max Lenz, Mira Brekalo, Kurt Huber, Johann Wojta, Gottfried Heinz, Svitlana Demyanets, Walter S. Speidl  
Predictive value of low interleukin-33 in critically ill patients  
Cytokine. 2018 Mar;103:109-113. doi: 10.1016/j.cyto.2017.09.017  
\* both authors contributed equally

Philipp J. Hohensinner, Nikol Takacs, Christoph Kaun, Barbara Thaler, **Konstantin A. Krychtiuk**, Stefan Pfaffenberger, Arezu Aliabadi, Andreas Zuckermann, Kurt Huber, Johann Wojta  
Urokinase plasminogen activator protects cardiac myocytes from oxidative damage and apoptosis via hOGG1 induction.  
Apoptosis. 2017 Aug;22(8):1048-1055. doi: 10.1007/s10495-017-1388-9

**Konstantin A. Krychtiuk**, Christoph Kaun, Philipp J. Hohensinner, Stefan Stojkovic, Jacqueline Seigner, Stefan P. Kastl, Andreas Zuckermann, Wolfgang Eppel, Sabine Rauscher, Rainer de Martin, Gerald Maurer, Kurt Huber, Johann Wojta, Walter S. Speidl  
Anti-thrombotic and pro-fibrinolytic effects of levosimendan in human endothelial cells in vitro  
Vascul Pharmacol. 2017 Mar;90:44-50 doi: 10.1016/j.vph.2017.02.003

**Konstantin A. Krychtiuk**, Maria C. Honeder, Max Lenz, Gerald Maurer, Johann Wojta, Gottfried Heinz, Kurt Huber, Walter S. Speidl  
Copeptin predicts mortality in critically ill patients  
PLoS One. 2017 Jan 24;12(1):e0170436 doi: 10.1371/journal.pone.0170436

**Konstantin A. Krychtiuk**, Max Lenz, Lorenz Koller, Maria C. Honeder, Lisa Wutzlhofer, Chao Zhang, Lijian Chi, Gerald Maurer, Alexander Niessner, Kurt Huber, Johann Wojta, Gottfried Heinz, Walter S. Speidl  
Monocyte subset distribution is associated with mortality in critically ill patients.  
Thromb Haemost. 2016 Oct 28;116(5):949-957 doi: 10.1160/TH16-05-0405

Christina Hafner, Jing Wu, Akos Tiboldi, Moritz Hess, Goran Mitulovic, Christoph Kaun, **Konstantin A. Krychtiuk**, Johann Wojta, Roman Ullrich, Eva V. Tretter, Klaus Markstaller, Klaus U. Klein  
Hyperoxia Induces Inflammation and Cytotoxicity in Human Adult Cardiac Myocytes  
Shock. 2017 Apr;47(4):436-444 doi: 10.1097/SHK.0000000000000740

Barbara Thaler, Philipp J. Hohensinner, **Konstantin A. Krychtiuk**, Peter Matzneller, Lorenz Koller, Mira Brekalo, Gerald Maurer, Kurt Huber, Markus Zeitlinger, Bernd Jilma, Johann Wojta, Walter S. Speidl

Differential in vivo activation of monocyte subsets during low-grade inflammation through experimental endotoxemia in humans.

Sci Rep. 2016 Jul 22;6:30162. doi: 10.1038/srep30162

Stefan Stojkovic, Christoph Kaun, Jose Basilio, Sabine Rauscher, Lena Hell, **Konstantin A. Krychtiuk**, Cornelia Bonstingl, Rainer de Martin, Marion Gröger, Cihan Ay, Wolfgang Holnthoner, Wolfgang Eppel, Christoph Neumayer, Ihor Huk, Kurt Huber, Svitlana Demyanets, Johann Wojta  
Tissue factor is induced by interleukin-33 in human endothelial cells: a new link between coagulation and inflammation

Sci Rep. 2016 May 4;6:25171. doi: 10.1038/srep25171

Anna Wonnerth, **Konstantin A. Krychtiuk**, Florian Mayer, Erich Minar, Johann Wojta, Martin Schillinger, Renate Koppensteiner, Matthias Hoke

Red cell distribution width and mortality in carotid atherosclerosis

Eur J Clin Invest. 2016 Feb;46(2):198-204. doi: 10.1111/eci.12584

Katharina M. Katsaros, Walter S. Speidl, Svitlana Demyanets, Stefan Kastl, **Konstantin A. Krychtiuk**, Anna Wonnerth, Gerlinde Zorn, Ioannis Tentzeris, Serdar Farhan, Gerald Maurer, Kurt Huber  
G-CSF predicts cardiovascular events in patients with stable coronary artery disease

PLoS One. 2015 Nov 10;10(11):e0142532. doi: 10.1371/journal.pone.0142532.

Jing Wu, Christina Hafner, Johannes P. Schramel, Christoph Kaun, **Konstantin A. Krychtiuk**, Johann Wojta, Stefan Boehme, Roman Ullrich, Eva V. Tretter, Klaus Markstaller, Klaus U. Klein  
Cyclic and Constant Hyperoxia Cause Inflammation, Apoptosis and Cell Death in Human Umbilical Vein Endothelial Cells

Acta Anaesthesiol Scand. 2016 Apr;60(4):492-501. doi: 10.1111/aas.12646

**Konstantin A. Krychtiuk**, Sarah Ruhittel, Philipp J. Hohensinner, Lorenz Koller, Christoph Kaun, Max Lenz, Benedikt Bauer, Lisa Wutzlhofer, Dominik F. Draxler, Gerald Maurer, Kurt Huber, Johann Wojta, Gottfried Heinz, Alexander Niessner, Walter S. Speidl

Mitochondrial DNA and Toll-Like Receptor-9 are Associated with Mortality in Critically Ill Patients

Crit Care Med. 2015 Dec;43(12):2633-41. doi: 10.1097/CCM.0000000000001311

**Konstantin A. Krychtiuk**, Stefan P. Kastl, Sebastian L. Hofbauer, Anna Wonnerth, Georg Goliash, Maria Ozsvar-Kosma, Katharina M. Katsaros, Gerald Maurer, Kurt Huber, Elisabeth Dostal, Christoph J. Binder, Stefan Pfaffenberger, Stanislav Oravec, Johann Wojta, Walter S. Speidl

Monocyte Subset Distribution in Patients with Stable Atherosclerosis and Elevated Levels of Lipoprotein(a)

Journal of Clinical Lipidology, 2015 Jul-Aug;9(4):533-541 doi: 10.1016/j.jacl.2015.04.005

**Konstantin A. Krychtiuk**, Stefan P. Kastl, Stefan Pfaffenberger, Thomas Pongratz, Sebastian L. Hofbauer, Anna Wonnerth, Katharina M. Katsaros, Georg Goliash, Ludovit Gaspar, Kurt Huber, Gerald Maurer, Elisabeth Dostal, Stanislav Oravec, Johann Wojta, Walter S. Speidl

Association of small dense LDL serum levels and circulating monocyte subsets in stable coronary artery disease

PLoS One. 2015 Apr 7;10(4):e0123367 doi: 10.1371/journal.pone.0123367

**Konstantin A. Krychtiuk**, Lukas Watzke, Christoph Kaun, Elisabeth Buchberger, Renate Hofer-Warbinek, Svitlana Demyanets, Julia Pisoni, Stefan P. Kastl, Sabine Rauscher, Marion Gröger, Arezu Aliabadi, Andreas Zuckermann, Gerald Maurer, Rainer de Martin, Kurt Huber, Johann Wojta, Walter S. Speidl

Levosimendan exerts anti-inflammatory effects on cardiac myocytes and endothelial cells *in vitro*  
Thromb Haemost. 2015 Feb;113(2):350-62 doi: 10.1160/TH14-06-0549.

**Non-peer-reviewed publications of the last 5 years:**

**Konstantin A. Krychtiuk**, Kurt Huber, Sergio Leonardi

Acute Cardiovascular Care 2019

Eur Heart J. 2019 Jun 21;40(24):1903-1906 doi: 10.1093/eurheartj/ehz399

**Konstantin A. Krychtiuk**, Walter S. Speidl

Prevention is back in the spotlight – highlights from AHA Scientific Sessions 2018

Eur J Prev Cardiol, accepted December 4, 2018 doi: 10.1177/2047487318820977

**Konstantin A. Krychtiuk**, Roberto Martin Asenjo, Hector Bueno

Hands-on training in acute cardiac care: report from the first ever Acute Cardiovascular Care School in Madrid, Spain, November 2017

Eur Heart J. 2018 Jul 14; 39(27):2521-2524 doi: 10.1093/eurheartj/ehy324

**Konstantin A. Krychtiuk**, Walter S. Speidl

Familial hypercholesterolemia – epidemiology, diagnostics and therapy

Austrian Journal of Cardiology 2017; 24(7-8): 153-159

**Konstantin A. Krychtiuk**, Stefan P. Kastl, Walter S. Speidl

Monoclonal antibodies and antisense technology on the rise – The future of cardiovascular therapy?

Austrian Journal of Cardiology 2017; 24 (11-12): 261-271

**Konstantin A. Krychtiuk**, Stefan P. Kastl, Johann Wojta, Walter S. Speidl

Inflammation in Atherosclerosis – Update 2015

Austrian Journal of Cardiology 2015; 22(1-2):6-14