

Tenascin C and extracellular remodeling



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Tenascin C is a matricellular protein that is expressed during the fetal period only, responsible for de-adhesion and matrix degradation. However, also during wound healing processes, post myocardial infarction, in aortic valve stenosis and in heart failure, Tenascin C is upregulated again. This lecture tries to address this observation and correlates it to different cardiovascular diseases.

Curriculum Vitae

Prof. Dr. Bruno Karl Podesser

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Personal Data

Date of Birth: 21st December 1964

Place of Birth: Lienz

Nationality: Austria

Education

1984-1991 Medical School, University of Vienna

Graduation 13th March 1991

1983-1984 Military service

1976-1983 Grammar School in Lienz, Austria

Career History

Since 1st Oct 2014 Professor for Laboratory Animal and Biomedical Research,
Head, Department for Biomedical Research, Medical University of Vienna, Austria

June/July 2007 Visiting Professor, Brigham and Women's Hospital, Harvard Medical
University

Since 1st October 2006 Director, Ludwig Boltzmann Cluster for Cardiovascular Research,
Medical University of Vienna

Since 1st October 2005 Visiting Professor, University of Verona (IT) and University of
Krakow (PL)

Since 1st October 2001 Associate Professor of Surgery and Cardiac Surgery, Medical
University of Vienna

26th September 2001 "Habilitation" in Surgery at the Medical University of Vienna

Since 1st October 1998 Attending/Staff Surgeon, Dept. Cardiac Surgery, Universitätsklinikum St. Pölten, Austria

1996-1997 Fellow at the Cardiac Muscle Research Lab, Boston University, Max Kade Fellowship

1991-1998 Fellow at Dept. Cardiothoracic Surgery, Medical University of Vienna

May/June 1991 Postdoc at the PENN State University, Austrian Science Fond Fellowship

Main research areas

Basic:

Remodelling, Extracellular Matrix, Heart Failure, Myocardial protection

Clinical:

Extracorporeal circulation, Myocardial protection

Aortic Valve Surgery: Long-term follow-up, rapid deployment valves and TAVI

Mitral Valve Surgery: Minimal-invasive techniques, Endocarditis

Total IMPACT Points: 201,5

Scientific awards

Apstein Prize 2006, 2007, 2008, 2010 (Cardiovascular Research Days; D-A-CH Societies of Cardiothorac Surgery and Cardiology)

Hancock Prize 2004 (German Society for Cardiothorac. Surgery)

Billroth Prize 2003 (Austrian Society of Surgery)

Innovation Award 2002 (ESAO)

Membership

College of Physicians in Vienna

European Association for Cardiothoracic Surgery

Austrian Society of Surgery

Austrian Society of Cardiothoracic and Vascular Surgery (Board 2008-2011)

Austrian Society of Surgical Research (Board 2006 until today, President 2008)

Austrian Society of Cardiology, Nucleus experimental cardiology, (Board 2007 until today, President 2009)

Reviewer/Editorial work

European Surgery (Guest Editor)

European J Cardio-Thoracic Surgery

Interactive J Cardiothoracic and Vascular Surgery (Associate Editor since 1st Jan 2015)

Cardiovascular Research

J Thoracic Cardiovasc Surgery

Circulation

Most important publications:

Trescher K, Gleiss A, Boxleitner M, Dietl W, Kassal H, Holzinger C, **Podesser BK**. Short-term clinical outcomes between intermittent cold versus intermittent warm blood cardioplegia in 2200 adult cardiac surgery patients. J Cardiovasc Surg (Torino). 2015 Feb 12. [Epub ahead of print]. PMID: 25673099

Balogh A, Santer D, Pasztor T, Toth A, Czuriga D, **Podesser BK**, Trescher K, Jaquet K, Erdo´di F, E´des I, Papp Z: Myofilament protein carbonylation contributes to the contractile dysfunction in the infarcted LV region of mouse hearts. Cardiovascular Research 2014; 101, 108-119 doi:10.1093/cvr/cvt236

Liao, R; **Podesser, BK**; Lim, CC; The Continuing Evolution of the Langendorff and Ejecting Murine Heart: New Advances in Cardiac Phenotyping. Am J Physiol Heart Circ Physiol, 2012 303: H156-H167, 2012.

Pomper, G; Trescher, K; Santer, D; Hasun, M; Baumgartner, A; Adelman, K; Inci, M; Dietl, W; Zuckermann, AO; **Podesser, BK**; Introducing a mouse model of brain death. J Neurosci Methods, 2010 192: 1 pp.70-74. [SCI: ISI:000283477500008]

Ankersmit, HJ; Hoetzenecker, K; Dietl, W; Soleiman, A; Horvat, R; Wolfsberger, M; Gerner, C; Hacker, S; Mildner, M; Moser, B; Lichtenauer, M; **Podesser, BK**; Irradiated cultured apoptotic peripheral blood mononuclear cells regenerate infarcted myocardium. Eur J Clin Invest, 2009 39: 6 pp.44-56

Podesser, BK; Hallström, S; Nitric oxide homeostasis as a target for drug additives to cardioplegia. Br J Pharmacol, 2007 151: 7 pp.93-40

Hallström, S; Franz, M; Gasser, H; Vodrazka, M; Semsroth, S; Losert, UM; Haisjackl, M; **Podesser, BK**; Malinski, T; S-nitroso human serum albumin reduces ischaemia/reperfusion injury in the pig heart after unprotected warm ischaemia. Cardiovasc Res, 2008 77: 3 pp.506-514

Semsroth, S; Fellner, B; Trescher, K; Bernecker, OY; Kalinowski, L; Gasser, H; Hallström, S; Malinski, T; **Podesser, BK**; S-nitroso human serum albumin attenuates ischemia/reperfusion injury after cardioplegic arrest in isolated rabbit hearts. J Heart Lung Transplant, 2005 24: 12 pp.2226-2234

Trescher, K; Bernecker, O; Fellner, B; Gyöngyösi, M; Krieger, S; Demartin, R; Wolner, E; **Podesser, BK**; Adenovirus-mediated overexpression of inhibitor kappa B-alpha attenuates postinfarct remodeling in the rat heart. Eur J Cardiothorac Surg, 2004 26: 5 pp.960-967

Podesser, BK; Schirnhofner, J; Bernecker, OY; Kröner, A; Franz, M; Semsroth, S; Fellner, B; Neumüller, J; Hallström, S; Wolner, E; Optimizing ischemia/reperfusion in the failing rat heart--improved myocardial protection with acute ACE inhibition. Circulation, 2002 106: 12 Suppl 1 pp.I277-I283

Book:

New solutions for the heart- an update in advanced perioperative protection

B.K.Podesser and D.J.Chambers editors.

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