Curriculum Vitae

Krisztina Köröskényi

E-mail: kkriszti@med.unideb.hu
Tel: +36 30 791 4773
Address: Láng u. 39.
Hajdúsámson, 4251
Hungary

Personal Profile

Name	Krisztina Köröskényi
Date of birth	13th March, 1979
Place of Birth	Nyíregyháza, Hungary
Marital status	married
Nationality	Hungarian

Current Appointment(s)

Assistant lecturer (from October 1, 2011-)

Faculty:	Faculty of Dentistry
University:	University of Debrecen
Department:	Department of Dental Biochemistry

administration coordinator (from January 1, 2013-)

Doctoral School of Dental Sciences, University of Debrecen

Languages

Hungarian	native
English	IELTS 6.0, academic/ State Exam, Intermediate Level
Russian	basic

Education

M.Sc. in Molecular Biology *{Biochemistry specialization}*

Faculty:	Faculty of Sciences
University:	University of Debrecen
Grade:	excellent
Year of Passing:	7th February, 2007
Nr:	T-30/2007

{Title of thesis: The effects of tissue transglutaminase on pro-inflammatory cytokine production of macrophages, (in Hungarian); Advisor: Zsuzsa Szondy, M.D., Ph.D., DSc.}

Ph.D degree in Clinical Medicine

Faculty:	Faculty of Medicine
University:	University of Debrecen
Grade:	cum laude
Year of Passing:	9th December, 2011
Nr:	FI 17198

{Title of thesis: Influence of tissue transglutaminase and adenosine/A_{2A} receptor on the inflammatory response of macrophages (in English); Advisor: Zsuzsa Szondy, M.D., Ph.D., DSc.}

Other Educations

Advanced training course in radiation safety
{on the basis of 16/2000 (VI.8.) statue, 2nd point of appendix .nr4; Ministry of Health, Hungary}

Nr: 322/2003
Date: 19th November, 2003

Laboratory animal science and experimental design, C-level
{conform with the 2nd paragraph of the 86/609/EEC of European Union}

Nr: 066/2007
Date: 5th December, 2007

Experience Abroad

EF Language School & University of Auckland, Auckland, New-Zealand

Date: Sept. 2004 - May. 2005

EF Language School, Cambridge, England, United Kingdom

Date: May-June, 2005

Chung Shan Medical University, Taichung, Taiwan

Date: Nov-Dec., 2009
Department: Institute of Immunology
Advisor: Prof. Gregory J. Tsay, M.D., Ph.D. DSc.

Current Memberships in Professional Societies

Hungarian Biochemical Society {member since 2006}

European Cell Death Organization {member since 2008}

Hungarian Immunological Society {member 2009}

Awards

1st prize in the Cell Biology

Cell Biology Section of XXVIII. National Scientific Student Conference, Debrecen, Hungary, 2007

Research Activity

Studies on the role of tissue transglutaminase (TG2) and adenosine A_{2A} receptor in the anti-inflammatory effect of apoptotic cell uptake in mouse macrophage system

- as undergraduate student (2003-2007); as Ph.D. student (2007-)

{Apoptosis Signaling Research Laboratory (Leader: Zsuzsa Szondy, M.D., Ph.D. DSc.) Department of Biochemistry and Molecular Biology, Medical and Health Science Center, University of Debrecen}

Studies on the role of adenosine A_{2A} receptor in the LPS-induced inflammatory responses of mouse macrophages

- as Ph.D. student (2007-); as postdoc (2011-)

{Apoptosis Signaling Research Laboratory (Leader: Zsuzsa Szondy, M.D., Ph.D. DSc.) Department of Biochemistry and Molecular Biology, Medical and Health Science Center, University of Debrecen}

Studies on the role of Nur77 orphan nuclear receptor in the anti-inflammatory effect of apoptotic cell uptake in mouse macrophage system

- as postdoc (2011-2013)

{Apoptosis Signaling Research Laboratory (Leader: Zsuzsa Szondy, M.D., Ph.D. DSc.) Department of Biochemistry and Molecular Biology, Medical and Health Science Center, University of Debrecen}

Studies on the role of tissue transglutaminase (TG2) in the Ca^{2+} signalling of pancreatic β-cells.

- as postdoc (2011-2012)

{Apoptosis Signaling Research Laboratory (Leader: Zsuzsa Szondy, M.D., Ph.D. DSc.) Department of Biochemistry and Molecular Biology, Medical and Health Science Center, University of Debrecen}

Generation of mouse embryonal stem cell line (gene knock-in/knock-down).

- as postdoc (2011-2012)

{Apoptosis Signaling Research Laboratory (Leader: Zsuzsa Szondy, M.D., Ph.D. DSc.) Department of Biochemistry and Molecular Biology, Medical and Health Science Center, University of Debrecen}

Identification of potential biomarkers in the tear samples of patients diagnostized with Systemic Sclerosis.

- as postdoc (2013-)

{Department of Ophthalmology, University of Debrecen}

The potential role of defective apoptotic cell clearance in the development of chronic inflammatory diseases and obesity related type 2 diabetes.

- as postdoc (2015-)

{Apoptosis Signaling Research Laboratory (Leader: Zsuzsa Szondy, M.D., Ph.D. DSc.) Department of Biochemistry and Molecular Biology, Medical and Health Science Center, University of Debrecen}

Technical experiences

Immunology: ELISA, Flow cytometry, membrane-based and multiplex bead-based cytokine assay/array, NO/ROS quantification,
Molecular biology: Wester blot, RT-qPCR, protein/RNA/genomic and plasmid DNA/miRNA isolation, RNA interference, gene delivery (with siRNA, virus-delivered shRNA)
In vivo animal experiments (mouse model)
Cell culturing (cell lines, primer cells, embrional stem cells)

Publications

2009

Sarang Z, Tóth B, Balajthy Z, **Köröskényi K**, Garabuczi E, Fésüs L, Szondy Z ***Some lessons from the tissue transglutaminase knockout mouse.*** *Amino Acids. 2009 Apr; 36(4):625-31.*

2011

Sarang Z, **Köröskényi K**, Pallai A, Duró E, Melino G, Griffin M, Fésüs L, Szondy Z. ***Transglutaminase 2 null macrophages respond to lipopolysaccharide stimulation by elevated proinflammatory cytokine production due to an enhanced $\alpha_v\beta_3$ integrin-induced Src tyrosine kinase signaling.*** *Immunol Lett. 2011 Jul; 138(1):71-8.*

Köröskényi K, Duró E, Pallai A, Sarang Z, Kloor D, Ucker DS, Beceiro S, Castrillo A, Chawla A, Ledent CA, Fésüs L, Szondy Z; ***Involvement of Adenosine A_{2A} Receptors in Engulfment-Dependent Apoptotic Cell Suppression of Inflammation.***
J Immunol. 2011 Jun 15; 186(12):7144-55.

2012

Szondy Z, Garabuczi É, Tóth K, Kiss B, **Köröskényi K**. ***Thymocyte death by neglect: contribution of engulfing macrophages.*** *Eur J Immunol. 2012 Jul; 42(7):1662-7.*

2014

Mihály J, Marosvölgyi T, Szegedi A, **Köröskényi K**, Lucas R, Törőcsik D, Garcia AL, Decsi T, Rühl R. **Increased FADS2-derived n-6 PUFAs and reduced n-3 PUFAs in plasma of atopic dermatitis patients.** *Skin Pharmacol Physiol. 2014; 27(5):242-8.*

Duró E, Pallai A, **Köröskényi K**, Sarang Z, Szondy Z. **Adenosine A_3 receptors negatively regulate the engulfment-dependent apoptotic cell suppression of inflammation.** *Immunol Lett. 2014 Jul 3. pii: S0165-2478(14)00127-8.*

2015

Yen JH, Lin LC, Chen MC, Sarang Z, Leong PY, Chang IC, Hsu JD, Chen JH, Hsieh YF, Pallai A, **Köröskényi K**, Szondy Z, Tsay GJ.**The metastatic tumor antigen 1-transglutaminase -2 pathway is involved in self-limitation of monosodium urate crystal-induced inflammation by upregulating TGF-beta1.** *Arthritis Res Ther. 2015 Mar 19;17(1):65.*

Rentka A, Hársfalvi J, Berta A, **Köröskényi K**, Szekanecz Z, Szűcs G, Szodoray P,Kemény-Beke A. **Vascular Endothelial Growth Factor in Tear Samples of Patients with Systemic Sclerosis.** Mediators Inflamm. 2015;2015:573681.

2016

Köröskényi K, Kiss B, Szondy Z **Adenosine A2A receptor signaling attenuates LPS-induced pro-inflammatory cytokine formation of mouse macrophages by inducing the expression of DUSP1.** *Biochim Biophys Acta. 2016 Apr 9;1863(7 Pt A):1461-1471.*

Rentka A, Harsfalvi J, Szucs G, Szekanecz Z, Szodoray P, **Koroskenyi K**, Kemeny-Beke A. **Membrane array and multiplex bead analysis of tear cytokines in systemic sclerosis.** *Immunol Res. 2016 Apr;64(2):619-26. doi: 10.1007/s12026-015-8763-9.*

Lectures on International and National Conferences

Köröskényi K: Adenosine **acting via A_{2A} receptor takes a part in the anti-inflammatory effect of apoptotic cell uptake and in this way in the termination of inflammatory response.** (in Hungarian)
{Annual Meeting of the Hungarian Immunological Society 2010, October 29-30, Harkány, Hungary}

Köröskényi K: **The role of adenosine A_{2A} receptor in the anti-inflammatory effect of apoptotic cell engulfment.** (in Hungarian)
{3rd Meeting of the Signal Transduction Section of Hungarian Biochemical Society, October 4-6, 2012, Esztergom, Hungary}

Posters on International Conferences

Tóth B, Sarang Z, **Köröskényi K**, Garabuczi E, Aeschlimann D, Vereb G, Fésüs L, Szondy Z: ***Roles of tissue transglutaminase in the phagocytosis of apoptotic cells.***
{5th Euroconference on Apoptosis, October 26-31, 2007, Portoroz, Slovenia}

Köröskényi K, Sarang Z, Duró E, Fésüs L, Szondy Z: ***Adenosine A_{2A} receptors mediate the anti-inflammatory phenotype of macrophages exposed to apoptotic cells.***
{16th Euroconference on Apoptosis, September 6-9, 2008, Bern, Switzerland}

Köröskényi K, Sándor K, Pallai A, Duró E, Sarang Z, Fésüs L, Szondy Z ***Involvement of Adenosine A_{2A} receptors in Apoptotic Cell Induced Suppression of Inflammation.***
{Gordon Research Conference on Apoptotic Cell Recognition & Clearance, July 17-22, 2011, Lewiston, USA}

Keresztesi E, **Köröskényi K**, Fésüs L, Szondy Z: ***Adenosine as a mediator of the anti-inflammatory effects of apoptotic cell uptake.***
{FEBS 3+ Meeting, June 13 – 16, 2012, Opatija, Croatia}

Köröskényi K, Sándor K, Pallai A, Duró E, Sarang Z, Fésüs L, Szondy Z*:* ***Involvement of adenosine A_{2A} receptors in engulfment-dependent apoptotic cell suppression of inflammation***
{FEBS 3+ Meeting, June 13 – 16, 2012, Opatija, Croatia}

Köröskényi K, Sándor K, Pallai A, Duró E, Sarang Z, Szilágyi K, Fésüs L, Szondy Z: ***Involvement of Adenosine A_{2A} Receptors in Apoptotic Cell Induced Suppression of Inflammation***
{European Macrophage and Dendritic Cell Society 2012 Meeting, September 1-3, 2012, Debrecen, Hungary}

Köröskényi K, Keresztesi E, Szondy Z: ***Adenosine, as a mediator of the anti-inflammatory effect of apoptotic cell uptake***
{21st ECDO Euroconference on Apoptosis, September 25-28, 2013, Paris, France}

Posters on National Conferences

Köröskényi K, Sarang Z, Fésüs L, Szondy Z: ***Studies on anti-inflammatory effect of apoptotic cells in wild type and tissue transglutaminase (TG2) deficient macrophages.*** *(in Hungarian)*
{Annual meeting of the Hungarian Biochemical Society 2006, August 30-September 2, Pécs, Hungary}

Köröskényi K, Sarang Zs, Fésüs L, Szondy Zs: **The regulatory role of tissue transglutaminase (TG2) in the pro-inflammatory cytokine production of macrophages.** *(in Hungarian)*
{Annual meeting of the Hungarian Biochemical Society 2007, August 26–29, Debrecen, Hungary}

Köröskényi K, Sarang Z, Duró E, Fésüs L, Szondy Z: ***Adenosine A_{2A} receptors mediate partially the anti-inflammatory phenotype of macrophages exposed to apoptotic cells.*** *(in English)*
{Annual meeting of the Hungarian Biochemical Society 2008, August 31–September 3, 2008, Szeged, Hungary}

Köröskényi K, Pallai A, Fésüs L, Szondy Z: ***Adenosine acting via A_{2A} receptors of macrophages takes a part in the anti-inflammatory effect of apoptotic cell uptake and in this way in the termination of inflammatory response.*** *(in English)*
{Annual meeting of the Hungarian Biochemical Society 2009, August 23–26, 2009, Budapest, Hungary}

Köröskényi K, Sándor K, Sarang Zs, Szondy Zs: ***The role of adenosine A_{2A} receptor in the anti-inflammatory effect of apoptotic cell engulfment.*** (in Hungarian)
{Annual meeting of the Hungarian Biochemical Society 2010, August 25–28, Budapest, Hungary}
{Annual meeting of the Hungarian Immunological Society 2010, November 3–5, 2007, Szeged, Hungary}

Szilágyi K, Szundi C, ***Köröskényi K****, Fésüs L, Szondy Z:* ***The role of adenosine A_{2A} receptor in the modulation of LPS-induced inflammatory responses of macrophages.*** *(in English)*
{6th Molecular Cell and Immune Biology (MCIB) Winter School, January 8-11, 2013, Galyatető, Hungary}

Lectures on Other Meetings

Köröskényi K.: ***Inhibition of pro-inflammatory cytokine production of macrophages by apoptotic cells.*** *(in English)*
{1st Molecular Cell and Immune Biology (MCIB) Winter School, January 8-11, 2008, Krompachy, Slovakia}
Köröskényi K.: ***Adenosine is a soluble mediator of immune down-regulation induced by apoptotic cells.*** *(in English)*
{2nd Molecular Cell and Immune Biology (MCIB) Winter School, January 6-9, 2009, Krompachy, Slovakia}

Köröskényi K.: ***Adenosine is a soluble mediator to regulate part of the anti-inflammatory responses induced in macrophages by apoptotic cells.*** *(in English)*
{3rd Molecular Cell and Immune Biology (MCIB) Winter School, January 7-10, 2010, Mariazell, Austria}

Köröskényi K.: ***Involvement of adenosine A_{2A} receptors in engulfment-dependent apoptotic cell suppression of inflammation.*** *(in English)*
{4th Molecular Cell and Immune Biology (MCIB) Winter School, January 11-14, 2011, Galyatető, Hungary}

Köröskényi K.: ***Adenosine inhibits pro-inflammatory cytokine production of LPS-induced macrophages.*** *(in English)*
{5th Molecular Cell and Immune Biology (MCIB) Winter School, January 4-7, 2012, Galyatető, Hungary}
Köröskényi K.: ***The involvement of Nur77 in the immune responses triggered by apoptotic cells.*** *(in English)*
{6th Molecular Cell and Immune Biology (MCIB) Winter School, January 8-11, 2013, Galyatető, Hungary}
Köröskényi K.: ***How does adenosine inhibit LPS-induced pro-inflammatory cytokine formation in macrophages?*** *(in English)*
{7th Molecular Cell and Immune Biology (MCIB) Winter School, January 7-10, 2014, Galyatető, Hungary}

Köröskényi K.: ***DUSP1 is an essential target of anti-inflammatory signaling initiated by adenosin/A_{2A} receptor?*** *(in English)*
{8th Molecular Cell and Immune Biology (MCIB) Winter School, January 8-10, 2015, Debrecen, Hungary}

International Courses and Meetings

5th Training Course on "Concepts and Methods in Programmed Cell Death".
{Bern, Switzerland, September 6., 2008, ECDO}

Teaching Experience

Biochemistry practice	in Hungarian/in English *(2nd year general medicine/dentist students)* *{since 2007; Medical and Health Science Center, University of Debrecen}*
Molecular biology practice	in Hungarian/in English *(1st year general medicine/dentist students)* *{since 2007; Medical and Health Science Center, University of Debrecen}*
Biochemistry of apoptosis course	in Hungarian/in English *(general medicine/dentist/MSc/PhD. Students)* *{since 2011; Medical and Health Science Center, University of Debrecen}*
Biochemistry seminar/lecture	in Hungarian/in English *(2nd year general medicine/dentist/pharmacy students)* *{since 2012; Medical and Health Science Center, University of Debrecen}*
Molecular biology seminar	in Hungarian/in English *(1st year general medicine/dentist students)* *{since 2012; Medical and Health Science Center, University of Debrecen}*

Associate supervisor in the following diploma works:

- **Kiss B**: (molecular biology MSc): Soluble mediators in the anti-inflammatory effect of apoptotic cell uptake.
  {Faculty of Sciences, University of Debrecen, Hungary; 2007}
- **Duró E**: (molecular biology MSc): Adenosine as a regulatory element in the anti-inflammatory effect of apoptotic cell uptake.
  {Faculty of Sciences, University of Debrecen, Hungary; 2009}
- **Pallai A**: (molecular biology MSc): Adenosine A_{2A} receptor as a negative regulatory element in the inflammatory responses of macrophages.
  {Faculty of Sciences, University of Debrecen, Hungary; 2010}

- **Sándor K**: (molecular biology MSc): The anti-inflammatory signal mediated by adenosine/A_{2A} receptor system affects the MIP-2 production by the regulation of nitric oxide release during the clearance of apoptotic cells.
  {Faculty of Medicine, University of Debrecen, Hungary; 2011}
- **Szilágyi K**: (molecular biology MSc): The role of adenosine A_{2A} receptor in the modulation of LPS-induced inflammatory responses of macrophages.
  {Faculty of Medicine, University of Debrecen, Hungary; 2013}
- **Farkas V**: (biology BSc): DUSP1 as a potential target of anti-inflammatory signaling pathway initiated by adenosine A2A receptor in LPS-activated macrophages.
  {Faculty of Sciences, University of Debrecen, Hungary; 2014}
- **Kelemen F**: (biology BSc): The role of adenosine A_{2A} receptor signaling pathway in the regulation of LPS-induced activation of MAPK cascade.
  {Faculty of Sciences, University of Debrecen, Hungary; 2015}
- **Dorottya H**: (biology BSc): The role of DUSP1 phosphatase in the inflammatory response of macrophages.
  {Faculty of Sciences, University of Debrecen, Hungary; 2015}