

# **OPEN CALL**



**Abstract Selection  
Committee  
Member-  
Basic Science  
2015-2018**



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## APPLICATION FORM

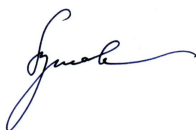
for Abstract Selection Committee Member (representing Basic Science) of the European Pancreatic Club (EPC)

1	<b>Personal data</b>	Name: <b>Richard Szmola MD, PhD</b> Username ( <a href="http://www.e-p-c.org">www.e-p-c.org</a> ): <b>szmola</b> Country: <b>Hungary</b> National Society: <b>Hungarian Pancreatic Society</b>
2	<b>Membership</b>	List of years when the applicant was member of EPC (if applicable): <b>2007, 2009, 2012</b>  List of years when the applicant attended the annual EPC meeting (if applicable): <b>2007, 2009, 2012</b>  List of years when the applicant had communication(s) at the annual main or satellite EPC meeting: <b>2007 - 2014</b>
3	<b>Publications</b>	List of the best 5 original/review papers in international journals:  <b>Szmola R</b> and Sahin-Toth M. (2007) Chymotrypsin C (caldecrin) promotes degradation of human cationic trypsin: Identity with Rinderknecht's enzyme Y. <i>Proc. Natl. Acad. Sci. U.S.A.</i> <b>104</b> , 11227-11232  Rosendahl J*, Witt H*, <b>Szmola R*</b> , Bhatia E, Ozsvári B, Landt O, Schulz HU, Gress TM, Pfützer R, Löhr M, Kovacs P, Blüher M, Stumvoll M, Choudhuri G, Hegyi P, te Morsche RH, Drenth JP, Truninger K, Macek M Jr, Puhl G, Witt U, Schmidt H, Büning C, Ockenga J, Kage A, Groneberg DA, Nickel R, Berg T, Wiedenmann B, Bödeker H, Keim V, Mössner J, Teich N, Sahin-Tóth M. (2008) Chymotrypsin C (CTRC) variants that diminish activity or secretion are associated with chronic pancreatitis. <i>Nat Genet.</i> <b>40(1)</b> , 78-82  <b>Szmola R</b> , Sahin-Tóth M. (2010) Pancreatitis-associated chymotrypsinogen C (CTRC) mutant elicits endoplasmic reticulum stress in pancreatic acinar cells. <i>Gut.</i> <b>59(3)</b> , 365-72.  <b>Szmola R</b> , Bence M, Carpentieri A, Szabó A, Costello CE, Samuelson J, Sahin-Tóth M. (2011) Chymotrypsin C is a co-activator of human pancreatic procarboxypeptidases A1 and A2. <i>J Biol Chem.</i> <b>286(3)</b> , 1819-27.  Witt H, Beer S*, Rosendahl J*, Chen JM*, Chandak GR*, Masamune A*, Bence M*, <b>Szmola R*</b> és mtsai. (2013) Variants in CPA1 are strongly associated with early-onset chronic pancreatitis. <i>Nat Genet.</i> <b>45(10)</b> , 1216-20.

4	<b>Previous positions at EPC or UEG</b>	None (Session Chair at EPC yearly meetings)
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The applicant confirms that she/he

- has read the Open call for Abstract Selection Committee Member (Basic Science) position and fully accept its content
- has adequate time resources for volunteer work
- has good command of spoken and written English



**RICHARD SZMOLA**  
Name

**April 30, 2014**  
Date

# *Curriculum Vitae: Richard Szmola*

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**Name:** Richard Szmola, M.D., Ph.D.

**Work Address:** Department of Interventional Gastroenterology,  
National Institute of Oncology  
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Budapest, H-1122, Hungary  
Phone: (011-36)-20-825-0531  
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## **Education**

**1998 – 2005.** MD Degree, Semmelweis University of Medicine

**2004 – 2008.** PhD Degree, Pathobiochemistry Program, Semmelweis University of Medicine, Budapest, Hungary

**2005 – 2011.** Board Certification in Gastroenterology, 2nd Dept. of Internal Medicine, Semmelweis University of Medicine, Budapest, Hungary

## **Workplaces**

**2005 – 2006.** Semmelweis University, 2nd Department of Internal Medicine

Position: resident physician (gastroenterology program)

**2006 – 2008.** Department of Molecular and Cell Biology, Boston University Medical Center, Boston, USA

Position: postdoctoral research fellow in the laboratory of Prof. Sahin-Toth

**2008 – 2009.** Department of Molecular and Cell Biology, Boston University Medical Center, Boston, USA

Position: research associate in the laboratory of Prof. Sahin-Toth

Description: Partly funded by a research grant from the National Pancreas Foundation

**2009 – 2011.** Semmelweis University, 2nd Department of Internal Medicine

Position: postdoctoral research and clinical fellow

Description: Postdoctoral Fellowship funded by EEA grants/Norway grants

**2011 – Principle Investigator, 2nd Dept. of Medicine, Semmelweis University, Budapest, Hungary**

**2013 – Assistant Professor, Department of Interventional Gastroenterology, National Institute of Oncology, Budapest, Hungary**

## **Study trips**

**2003 (10 month).** Department of Molecular and Cell Biology, Boston University Medical Center, Boston, USA

Sponsor: Professor Miklós Sahin-Tóth

Research topic: The role of mesotrypsin (PRSS3) and its disease associated mutations in the pathogenesis of chronic pancreatitis.

**2005 (6 month).** Göttingen University Hospital, Göttingen, Germany

Sponsor: Erasmus

Purpose: clinical training in gastroenterology and hepatology.

**2006 (40 month).** Department of Molecular and Cell Biology, Boston University Medical Center, Boston, USA

Sponsor: Professor Miklós Sahin-Tóth

Research topic: The role of digestive proteases (chymotrypsinogen C) and their disease associated mutations in the pathogenesis of chronic pancreatitis.

### **Role in scientific community**

**2003** - EPC (European Pancreatic Club), member, session chair at yearly meetings

**2003** - Hungarian Pancreatic Club, member, session chair at yearly meetings

**2003** - APA (American Pancreatic Association), member

**2003** - IAP (International Association of Pancreatology), member

**2004** - Hungarian Association of Gastroenterology, member

**2006** - Hungarian Working Group of Young Gastroenterologists, member

**2007 – 2009.** AGA (American Gastroenterological Association), trainee member

**2009 – 2012.** Pancreas 2000 research program

### **Prizes and awards**

**2003. National Pancreas Foundation Travel Scholarship for the 4th International Symposium on Inherited Diseases of the Pancreas**

by: National Pancreas Foundation

Achievement: abstract prize

**2005. "Mindentudás Egyeteme" Presentation Award (Life Sciences Category)**

by: Hungarian Academy of Sciences

Achievement: presentation prize

**2006. Travel Scholarship for the 27th Annual Meeting of the German Pancreatic Club**

by: German Pancreatic Club

Achievement: abstract prize

**2007. Travel Scholarship for the 39th Meeting of the European Pancreatic Club**

by: European Pancreatic Club

Achievement: abstract prize

**2008. Travel Scholarship for the 39th Meeting of the American Pancreatic Association**

by: American Pancreatic Association

Achievement: abstract prize

**2008. NATIONAL PANCREAS FOUNDATION RESEARCH GRANT**

by: NPF

Achievement: funded research proposal

**2009. MAGYARY ZOLTÁN POSTDOCTORAL FELLOWSHIP**

by: EEA grants/Norway grants

Achievement: Postdoctoral fellowship and research support helping the mobility of internationally known young researchers back to their native.

**2009. Best Poster Award, Science Day, Boston University**

by: Boston University

Achievement: best poster

**2009. Travel Scholarship for the 41st Meeting of the European Pancreatic Club**

by: European Pancreatic Club

Achievement: abstract prize

**2010. JUNIOR PRIMA PRIZE, Category: science**

by: Magyar Fejlesztési Bank Zrt.

Achievement: To acknowledge the accomplishment of the currently best and in many ways unique young researchers in Hungary.

### **2010. Madaus prize**

by: Hungarian Association of Gastroenterology

Achievement: publication prize (Gut. 59(3), 365-72.)

### **2011. Bolyai János Research Fellowship**

by: Hungarian Academy of Sciences

Achievement: award for outstanding postdoctoral researchers.

## **Professional interests**

Molecular biology and genetics of pancreatic diseases, interventional endoscopy

**Languages** English, German

# **Publications**

## **Abstracts (oral presentations\*):**

\***R. Szmola**: The role of the evolutionary G198R mutation in the function of human mesotrypsin, 4<sup>th</sup> International Symposium on Inherited Diseases of the Pancreas, 2003, Chicago, USA

**R. Szmola**, Z. Kukor and M. Sahin-Tóth: Cathepsin B preferentially activates mesotrypsinogen of the three human trypsinogen isoforms, 4<sup>th</sup> International Symposium on Inherited Diseases of the Pancreas, 2003, Chicago, USA; *Pancreatology* **3**, 434

Z. Kukor, **R. Szmola** and M. Sahin-Tóth: Human mesotrypsin rapidly degrades trypsin inhibitors, 4<sup>th</sup> International Symposium on Inherited Diseases of the Pancreas, 2003, Chicago, USA; *Pancreatology* **3**, 434

**R. Szmola**, Z. Kukor and M. Sahin-Tóth: The evolutionary G198R mutation is responsible for the inhibitor resistance and substrate restriction of human mesotrypsin, 4<sup>th</sup> International Symposium on Inherited Diseases of the Pancreas, 2003, Chicago, USA; *Pancreatology* **3**, 433-434

\***R. Szmola**, Z. Kukor and M. Sahin-Tóth: The role of the evolutionary G198R mutation in the biological function of human mesotrypsin, 46<sup>th</sup> Meeting of the Hungarian Society of Gastroenterology, 2004, Balatonaliga, Hungary

**R. Szmola** and M. Sahin-Tóth: The hunt for the mysterious Enzyme Y: A progress report. 37<sup>th</sup> Annual Meeting of the American Pancreatic Association and 13<sup>th</sup> Meeting of the International Association of Pancreatology, 2006, Chicago, USA; *Pancreas*, **33** (4), 500

\***R. Szmola**, B. Ózsvári and M. Sahin-Tóth: Chymotrypsin C Regulates Degradation of Human Cationic Trypsin, Digestive Disease Week, 2007, Washington DC, USA; *Gastroenterology*, **132** (4), Suppl 2, A-31

**R. Szmola**, B. Ózsvári and M. Sahin-Tóth: Chymotrypsin C (caldecrin) promotes degradation of human cationic trypsin, 39<sup>th</sup> Meeting of the European Pancreatic Club, 2007, NewcastleGateshead, UK; *Pancreatology* **7**, 290

J. Rosendahl, H. Witt, \***R. Szmola**, N. Teich, M. Sahin-Tóth: Genetic Defects in the Trypsin Degrading Enzyme Chymotrypsin C (CTRC) are associated with Chronic Pancreatitis, Digestive Disease Week, 2008, San Diego, USA; *Gastroenterology*, **133** (4), Suppl 1, A-10

M.H.M. Derikx, M. Sahin-Toth, R.H.M. te Morsche, **R. Szmola**, S. Sundaresan, A. Chacko, J.P.H. Drenth: Chymotrypsinogen C (CTRC) variants as genetic susceptibility factors in tropical calcific pancreatitis, Joint Meeting of the European Pancreatic Club and the International Association of Pancreatology, 2008, Lodz, Poland; *Pancreatology* **8**, 285-400

E. Kereszturi, **R. Szmola**, Z. Kukor, P. Simon, F.U. Weiss, M.M. Lerch, M. Sahin-Tóth: Hereditary pancreatitis caused by mutation induced misfolding of human cationic trypsinogen – a novel disease mechanism. 39<sup>th</sup> Annual Meeting of the American Pancreatic Association, 2008, Chicago, USA

**R. Szmola** and M. Sahin-Tóth: A pancreatitis-associated chymotrypsinogen C mutant elicits endoplasmic reticulum stress and apoptosis. 39<sup>th</sup> Annual Meeting of the American Pancreatic Association, 2008, Chicago, USA

\***R. Szmola** and M. Sahin-Tóth: A pancreatitis-associated chymotrypsinogen C mutant elicits endoplasmic reticulum stress and apoptosis. 51st Meeting of the Hungarian Society of Gastroenterology, 2009, Tihany, Hungary; *Z Gastroenterol* **47**, 483

\***R. Szmola** and M. Sahin-Tóth: A Chronic Pancreatitis-Associated Chymotrypsinogen C (CTRC) Mutant Elicits Endoplasmic Reticulum Stress in Pancreatic Acinar Cells. 41st Meeting of the European Pancreatic Club, 2009, Szeged, Hungary; *Pancreatology* **9**, 429

**R. Szmola**, M. Bence, A. Carpentieri, J. Samuelson, C.E. Costello and M. Sahin-Tóth. Chymotrypsin C is required for the full activation of human procarboxypeptidases A1 and A2. 41st meeting of the American Pancreatic Association, 2010, Chicago, USA; *Pancreas* **39**(8), 1350

**R. Szmola**, M. Bence, A. Carpentieri, A. Szabo, C.E. Costello, J. Samuelson and M. Sahin-Tóth. Chymotrypsin C is a co-activator of human pancreatic procarboxypeptidases A1 and A2. International Research Workshop on Acute Pancreatitis, 2011, Szeged, Hungary

**Invited speaker:**

**R. Szmola:** Loss-of-function human anionic trypsinogen mutations G191R and G83R promote autodegradation through different mechanisms, 27<sup>th</sup> Annual Meeting of the German Pancreatic Club, 2006, Greifswald, Germany

**R. Szmola:** The role of chymotrypsin C in trypsin degradation, Meeting of the Hungarian Academy of Sciences, Section Hepato-gastroenterology, 2006, Szeged, Hungary

**R. Szmola:** Regulation of trypsin activity in the pathomechanism of chronic pancreatitis, Invited Seminar Speaker, Department of Molecular and Cell Biology, Boston University Medical Center, 2008, Boston, USA

**R. Szmola:** Advances in the Genetics of Chronic Pancreatitis, 3<sup>rd</sup> National Pancreas Foundation Fellow Symposium, 2008, Chicago, USA

**R. Szmola:** The role of chymotrypsin C (CTRC) in chronic pancreatitis, MD Anderson Cancer Center, 2008, Houston, USA

**R. Szmola:** Genetics of pancreatic diseases. 1st Conference of the Hungarian Pancreatic Study Group, 2012, Szeged, Hungary

### **Peer-Reviewed Publications**

**Szmola R\***, Kukor Z\*, Sahin-Toth M. (2003) Human mesotrypsin is a unique digestive protease specialized for the degradation of trypsin inhibitors. *J Biol Chem.* **278**, 48580-48589

Ronai Z, Szantai E, **Szmola R**, Nemoda Z, Szekely A, Gervai J, Guttman A and Sasvari-Szekely M. (2004) A novel A/G SNP in the -615<sup>th</sup> position of the dopamine D4 receptor promoter region as a source of misgenotyping of the -616 C/G SNP. *American Journal of Medical Genetics Part B (Neuropsychiatric Genetics).* **126B**, 74-78

Szantai E\*, **Szmola R\***, Sasvari-Szekely M, Guttman A, Ronai Z. (2005) The polymorphic nature of the human dopamine D4 receptor gene: a comparative analysis of known variants and a novel 27 bp deletion in the promoter region. *BMC Genet.* **6 (1)**, 39

**Szmola R** and Sahin-Toth M. (2007) Chymotrypsin C (caldecrin) promotes degradation of human cationic trypsin: Identity with Rinderknecht's enzyme Y. *Proc. Natl. Acad. Sci. U.S.A.* **104**, 11227-11232

Rosendahl J\*, Witt H\*, **Szmola R\***, Bhatia E, Ozsvári B, Landt O, Schulz HU, Gress TM, Pfützer R, Löhr M, Kovacs P, Blüher M, Stumvoll M, Choudhuri G, Hegyi P, te Morsche RH, Drenth JP, Truninger K, Macek M Jr, Puhl G, Witt U, Schmidt H, Büning C, Ockenga J, Kage A, Groneberg DA, Nickel R, Berg T, Wiedenmann B, Bödeker H, Keim V, Mössner J, Teich N, Sahin-Tóth M. (2008) Chymotrypsin C (CTRC) variants that diminish activity or secretion are associated with chronic pancreatitis. *Nat Genet.* **40(1)**, 78-82

Kereszturi E, **Szmola R**, Kukor Z, Simon P, Weiss FU, Lerch MM, Sahin-Tóth M. (2009) Hereditary pancreatitis caused by mutation induced misfolding of human cationic trypsinogen – a novel disease mechanism. *Hum Mut.* **30(4)**, 575-582

**Szmola R** and Whitcomb CD. (2009) Molecular Genetics of Chronic Pancreatitis. *Encyclopedia of Life Sciences (ELS)*. John Wiley & Sons, Ltd: Chichester. <http://www.els.net/> [DOI: 10.1002/9780470015902.a0021481]

Medveczky P, **Szmola R** and Sahin-Tóth M. (2009) Proteolytic activation of human pancreatitis associated protein is required for peptidoglycan binding and bacterial aggregation. *Biochem J.* **420(2)**, 335-343



Derikx MH\*, **Szmola R\***, te Morsche RH, Sunderasan S, Chacko A, Drenth JP. (2009) Tropical Calcific Pancreatitis and its association with CTRC and SPINK1 (p.N34S) variants. *Eur J Gastroenterol Hepatol.* **21(8)**, 889-94

**Szmola R**, Sahin-Tóth M. (2010) Pancreatitis-associated chymotrypsinogen C (CTRC) mutant elicits endoplasmic reticulum stress in pancreatic acinar cells. *Gut.* **59(3)**, 365-72.

**Szmola R**, Sahin-Tóth M. (2010) Uncertainties in the classification of human cationic trypsinogen (PRSS1) variants as hereditary pancreatitis-associated mutations. *J Med Genet.* **47(5)**, 348-50.

Rosendahl J, Teich N, Kovacs P, **Szmola R**, Blüher M, Gress TM, Hoffmeister A, Keim V, Löhr M, Mössner J, Nickel R, Ockenga J, Pfützer R, Schulz HU, Stumvoll M, Wittenburg H, Sahin-Tóth M, Witt H. (2010) Complete analysis of the human mesotrypsinogen gene (PRSS3) in patients with chronic pancreatitis. *Pancreatology.* **10(2-3)**, 243-9.

**Szmola R**, Bence M, Carpentieri A, Szabó A, Costello CE, Samuelson J, Sahin-Tóth M. (2011) Chymotrypsin C is a co-activator of human pancreatic procarboxypeptidases A1 and A2. *J Biol Chem.* **286(3)**, 1819-27.

**Szmola R**, Rácz K, Tulassay Z, Miheller P. (2012) Endoscopic solutions for stricturing Crohn's disease. *Interventional Medicine & Applied Science.* **4(2)**, 74-44.

Witt H, Beer S\*, Rosendahl J\*, Chen JM\*, Chandak GR\*, Masamune A\*, Bence M\*, **Szmola R\*** és mtsai. (2013) Variants in CPA1 are strongly associated with early-onset chronic pancreatitis. *Nat Genet.* **45(10)**, 1216-20.

## Research Support

### I. CURRENT SUPPORT:

2011–2014. Hungarian Scientific Research Fund (OTKA PD-101808)

*The role of microRNAs in the diagnosis and pathogenesis of chronic pancreatitis*

**€100,000**

### II. PAST SUPPORT:

2009–2011. EEA grants/Norway grants (R.Szmola, PI)

*The role of carboxypeptidase A1 gene mutations in the pathomechanism of chronic pancreatitis*

**€31,000**

2008–2009. Research Grant (R. Szmola, PI)

National Pancreas Foundation

*Chymotrypsin C Secretion Defects in Chronic Pancreatitis*

**€40,000**

Budapest, 2014-05-01