

# OPEN CALL



**Council  
member  
2013-2016**



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## APPLICATION FORM

for General Councillor (representing Basic Science) of the European Pancreatic Club  
 (EPC)

|   |   |   |
|---|---|---|
| 1 | <b>Personal data</b>                    | Name: Tepikin<br>Username ( <a href="http://www.e-p-c.org">www.e-p-c.org</a> ): ATepc<br>Country: UK<br>National Society: Pancreatic Society of Great Britain and Ireland   |
| 2 | <b>Membership</b>                       | List of years when the applicant was member of EPC: 4<br><br>List of years when the applicant attended the annual EPC meeting: 5<br><br>List of years when the applicant submitted (as first or last author) an abstract(s) for the annual EPC meeting: 4   |
| 3 | <b>Publications</b>                     | List of the best 5 original/review papers in international journals:<br><br>Dingsdale H, Okeke E, Awais M, Haynes LP, Criddle DN, Sutton R and Tepikin AV. Saltatory formation, sliding and dissolution of ER-PM junctions in migrating cancer cells. <i>Biochem J.</i> 2013, 451 (part 1): 25-32.<br><br>Voronina SG, Barrow SL, Simpson AW, Gerasimenko OV, da Silva Xavier G, Rutter GA, Petersen OH, Tepikin AV. Dynamic changes in cytosolic and mitochondrial ATP levels in pancreatic acinar cells. <i>Gastroenterology</i> , 2010, 138, 1978-1987<br><br>Gyorgy Lur, Lee P, Haynes, Ian A, Prior, Oleg V, Gerasimenko, Stefan Feske, Ole H. Petersen, Robert D. Burgoyne and Alexei V. Tepikin. Ribosome-free terminals of rough ER allow formation of STIM1 puncta and segregation of STIM1 from IP <sub>3</sub> receptors. <i>Current Biology</i> , 2009, 19(19):1648-53 .<br><br>Sherwood MW, Prior IA, Voronina SG, Barrow SL, Woodsmith JD, Gerasimenko OV, Petersen OH and Tepikin AV. Activation of trypsinogen in large endocytic vacuoles of pancreatic acinar cells. <i>PNAS</i> 2007, 27, 5674-5679<br><br>Chvanow M, Gerasimenko OV, Petersen OH, Tepikin AV. Calcium-dependent release of NO from intracellular S-nitrosothiols. <i>EMBO J.</i> 2006, 25, 3024-3032. |
| 4 | <b>Previous positions at EPC or UEG</b> | No previous positions   |

The applicant confirms that she/he

- has read the Open call for Council Member position and fully accept its content
- has adequate time resources for volunteer work
- has good command of spoken and written English
- is available for two council meetings per year for 3 years

Name            Alexei Tepikin

Date 6 May 2013

A handwritten signature in black ink, appearing to read 'Alexei Tepikin', written over a horizontal line.

## **Mission Statement**

### **Alexei Tepikin.**

I am a professor of physiology (personal chair) in the Department of Cellular and Molecular Physiology at the University of Liverpool and the Director of the Wellcome Trust PhD training Programme in Cellular and Molecular Physiology. My laboratory is a part of Ca<sup>2+</sup> Signalling in Health and Disease research cluster. My current research interests include:

1. *Signalling mechanisms in pancreatitis and pancreatic cancer.*
2. *Calcium signalling, bioenergetics and cell physiology.*
3. *Interacting second messenger cascades.*

I am interested in contributing my research and administrative experience to facilitation of European knowledge exchange in basic research aiming to characterise fundamental cellular mechanisms involved in the development of pancreatitis and pancreatic cancer.

**CURRICULUM VITAE**  
(Full list of publications is included)

**1. Personal Details, Qualifications and Experience.**

1.1. Name: Tepikin, Alexei Valerevich

Date of Birth:

3 June 1961

Present addresses:

Department of Cellular and Molecular Physiology, The Physiological Laboratory,  
University of Liverpool, Crown street, P.O. Box 147, Liverpool L69 3BX, UK

e-mail: [a.tepikin@liv.ac.uk](mailto:a.tepikin@liv.ac.uk)

tel: 0151 794 53 51

fax: 0151 7945327

Nationality:

British Citizen

**1.2 Education**

Undergraduate education at the Moscow Institute of Physics and Technology (1978-1984),  
Faculty of Physical Chemistry, Department of Biophysics. Received B.Sc. in 1984.

Postgraduate education at the Moscow Institute of Physics and Technology and A.A.  
Bogomoletz Institute of Physiology in Kiev (1984 - 1987). Received Ph.D. in 1988.

**1.3 Membership of learned societies.**

Member of The Physiological Society (UK) (February 1994 – ).

Member of the Biochemical Society (UK) (January 1999 – ).

Member of Biophysical Society (US) ( October 2006 – ).

European Pancreatic Club (February 2010 - ).

**1.4 Employment record**

Current positions:

Professor in Physiology, Department of Physiology, University of Liverpool, UK.  
(July 2002 – ).

Director of the Wellcome Trust Ph.D. Training Programme in Cellular and Molecular  
Physiology (2004 – ).

Previous positions:

Reader in Physiology, Department of Physiology, University of Liverpool, UK.  
(January 2000 – June 2002).

Senior Lecturer, Department of Physiology, University of Liverpool, U.K.  
(October 1997-2000).

Lecturer (established lectureship), Department of Physiology, University of Liverpool, U.K.  
(September 1995-October 1997).

Lecturer (PAMS funding - rolling contract), Department of Physiology, University of Liverpool, U.K. (October 1992-September 1995).

Research Associate, Department of Physiology, University of Liverpool, U.K. (October 1991 - October 1992).

Visiting Scientist, Department of Physiology, University of Liverpool, U.K. (1990-1991).

Research Associate, Department of General Physiology of Nervous System, A.A. Bogomoletz Institute of Physiology, Kiev, USSR (1987 -1990 ).

### **1.5 Teaching.**

#### **Lectures and tutorials.**

Lectures for 3<sup>rd</sup> year Honours Students (6 per year, class size approximately 30 students).

Lectures for 1<sup>st</sup> year Health Professions students (2 per year, class size approximately 100 students).

Supervision of Honours Degree students (research projects, 2 students every year).

Tutorials for 3<sup>rd</sup> year Honours Students (2 per year, class size approximately 30 students).

Lectures and tutorials to MRes/Ph.D. students (2 per year, class size approximately 40 students).

Supervision of rotation (approximately 10 weeks) laboratory projects of MRes students (1 project per year).

Supervision of SSM projects (2 projects per year).

#### **Organising teaching modules:**

Module convenor "Data handling" module (1999 -2006 )

Module convenor "Physiology for Health Professions" module (1993-1997).

#### **Supervision of Ph.D. students:**

Served as principal supervisor for 9 Ph.D. students.

Currently supervising 3 Ph.D. students.

#### **Examining Ph.D. students:**

Served as external examiner for Ph.D. students in University College London (2000), University of Cambridge (2001), University of Wales College of Medicine (2002), University of Bristol (2003), University of Manchester (2003), University College London (2005), University of York (2008), University College London (2008), Stazione Zoologica Anton Dohrn, Naples, Italy (2010), University of Cambridge (2010), University College London (2011), University of Manchester (2011).

Served as an internal examiner of approximately 20 PhD students.

### **1.6 Administrative experience.**

Member of the Faculty of 1000 (Cell Signalling Section) (2009 - ).

Advisory Board Member for the Metabolic and Cardiovascular Disease PhD Programme (based in The Medical University of Graz, Austria) (2010 - ).

Advisory board member for Leica Scientific Forum (2009 - ).

Member of the advisory committee for the Gordon Conferences in Calcium Signalling (2003 - ).

Field Editor of the Pflugers Archiv (European Journal of Physiology) (2000 - ).

Editorial Adviser for the Biochemical Journal (1999 - ).

Chairman of the Gordon Conferences in Calcium Signalling (2007-2009).

Member of the council and a trustee of the Physiological Society (2005- 2009).

### 1.7 Contracts and grants awarded

MRC Project Grant “Interaction of endocytic vacuoles with cellular organelles as a trigger for the cell damage in acute pancreatitis”, 1/2/2013-1/2/2016, A. Tepikin (PI), D. Criddle, L.Haynes and R. Sutton £509,000

MRC Equipment grant: "Liverpool Imaging Partnership: Molecular physiology and drug response". PI R.Levi; Co-Is: R. Bearon, D. Bennett, G. Biagini, D. Fernig, A. Hall, M. Jackson, A. Owen, K. Park, I. Prior, S. Rannard, V. See, R. Sutton and A.Tepikin. Approximately £1,200,000

NIHR Grant “*Liverpool NIHR Pancreas Biomedical Research Unit*” to R Beynon, DG Fernig, JP Neoptolemos, K. Park, R Sutton (PI) and A Tepikin, 2012-2017, £6,536,040.

BBSRC / RIKEN PhD studentship “The role of IP<sub>3</sub> receptors and Orai channels in the physiology and pathophysiology of pancreatic acinar cells” for David Collier (to A.Tepikin, R. Sutton and K. Mikoshiba). 2011-2015, £90,000.

From the Wellcome Trust “Interplay between cAMP and Ca<sup>2+</sup> signalling cascades: focus on store-operated Ca<sup>2+</sup> entry”, 1/10/11-1/10/14, (jointly with E. Costello and D. Criddle). Research expenses for Ph.D. project of Mr. T. Parker, £41,690.

From the Wellcome Trust “Store operated Ca<sup>2+</sup> entry in apoptotic cells”, 1/10/11-1/10/14, (jointly with R. Burgoyne and L. Haynes). Research expenses for Ph.D. project of Mr. E. Okeke, £42,572.

Wellcome Trust funded Ph.D.Training Programme in Cellular and Molecular Physiology. A.Tepikin (Programme Director) and R. Burgoyne (Deputy Director). 1/10/2009 –1/10/2013, approximately £3,500,000.

MRC Programme Grant: “Ca<sup>2+</sup> Signalling, Organelle Dysfunction and Pancreatitis ”, 1/10/2008 - 1/10/2011. (jointly with Professor O.H. Petersen, Professor J. Neoptolemos, Professor R. Sutton, Dr. O.G. Gerasimenko, Dr J. V. Gerasimenko, Dr D. Criddle), £1,000,000.

From the Wellcome Trust “Investigation of store operated Ca<sup>2+</sup> entry in pancreatic acinar cells”, (jointly with R. Burgoyne and O.Gerasimenko), 1/10/2007- 30/9/2010.. Research expenses for Ph.D. project of Mr. G. Lur, £37,000.

MRC Programme Grant: “Ion channels and pumps in secretory cells”, 1/10/2003 - 30/9/2008. (jointly with Professor O.H. Petersen, Dr. O.G. Gerasimenko and Prof. J. Neoptolemos). £1,677,017.

Wellcome Trust Collaborative Research Initiative grant: “Calcium signalling in the endoplasmic reticulum of hippocampal neurons”.1 December 2002 – 30 May 2006. (jointly with Dr.P.Belan from Kiev, Ukraine): £150,204.

From the Wellcome Trust: "Transcellular fluxes of Na<sup>+</sup>, K<sup>+</sup> and Cl<sup>-</sup> in intact pancreatic tissue". 1/10/03-1/10/06. (jointly with Dr. O. Gerasimenko and Prof. O. H. Petersen). Research expenses for Ph.D. project of Mark Sherwood. £41,802

Cancer Research UK. Project Grant: "Functional analyses of S100A6 in pancreatic ductal adenocarcinoma". 11/ 2003- 11/ 2005. ( jointly with Dr. E. Costello, Dr. S. Pennington, Prof. J. Neoptolemos, Prof N. Lemoine). £40,538.

From the Wellcome Trust: "Studies of interactions between endoplasmic reticulum and mitochondria in the pancreatic acinar cells" 1/10/2001- 30/9/2004. Research expenses for Ph.D. project of Mr. N. Dolman, £42,519.

From the Wellcome Trust.  
" The resting cytosolic Ca<sup>2+</sup> level and Ca<sup>2+</sup> signal generation in pancreatic acinar cells". 1/10/2001- 30/9/2004. Research expenses for Ph.D. project of K.Yano. (Jointly with Professor O.H. Petersen). £35,880.

North West Cancer Research Grant: "Determination of a possible role for CAPG in pancreatic cancer cell movement and/or invasion". 2/2003 – 2/2004. (jointly with Dr. E. Costello, Dr. E. Thompson, Professor N. Lemoine). £39,509.

Equipment supplements to MRC Programme Grant: "Ion channels and pumps in secretory cells", 1/10/1998 - 30/9/2003. (together with Professor O.H. Petersen and Mr. D.V. Gallacher). £46,109.

Equipment supplements to MRC Programme Grant: "Ion channels and pumps in secretory cells", 1/10/1998 - 30/9/2003. (together with Professor O.H. Petersen and Mr. D.V. Gallacher). £50,720.

From the Wellcome Trust.  
"Calcium release mechanisms in polarized cells" 1/10/1999 – 1/10/2002. (jointly with Professor R.D. Burgoyne). Research expenses for Ph.D. project of Mr.M.Ashby, £45,100.

From the Wellcome Trust.  
"Calcium and calmodulin dependent gene expression in pancreatic acinar cells". 1/10/1999 – 1/10/2002. (jointly with Professor O.H. Petersen and Dr. M. White). Research expenses for Ph.D. project of Miss R. Longbottom. £45,281.

INTAS Grant (EC collaboration grant) "How oscillations spread through cross-talk between signal transduction pathways and metabolic pathways." 1998- 2001. 6700 ECU.  
Host of INTAS sponsored scientist Dr. T. Suchomlin (1998 – 2001).

MRC Programme Grant: "Ion channels and pumps in secretory cells", 1/10/1993 - 30/9/1998. (together with Professor O.H. Petersen and Mr. D.V. Gallacher). £805,378

Wellcome Trust. Supplement for research expenses of Miss M. Craske. 1/10/ 1998. £5020.

The Royal Society collaboration project: " Development of techniques for investigation of transmembrane calcium fluxes in single isolated cells." (1995 – 1997) (together with Dr.P.Belan). £9,000.

MRC Programme Grant: "Ion channels and pumps in secretory cells", 1/10/1998 - 30/9/2003. (together with Professor O.H. Petersen and Mr. D.V. Gallacher). £1,302,868.



Welcome Trust Equipment grant: "Spatiotemporal imaging of cytosolic Ca<sup>2+</sup> by means of confocal laser microscopy", 8/9/93 (together with Mr. D.V. Gallacher and Professors O.H. Petersen, D.A. Eisner and R.D. Burgoyne). £219,036.

## **2. Publications:**

### **Regular papers (Abstracts not included).**

Dingsdale H, Okeke E, Awais M, Haynes LP, Criddle DN, Sutton R and Tepikin AV. Saltatory formation, sliding and dissolution of ER-PM junctions in migrating cancer cells. *Biochem J*. 2013, 451 (part 1): 25-32.

Tian G, Tepikin AV, Tengholm A, Gylfe E cAMP induces stromal interaction molecule 1 (STIM1) Puncta but neither orai1 clustering nor store-operated Ca<sup>2+</sup> entry (SOCE) in islet cells. *J Biol Chem*. 2012, Mar 23;287(13):9862-72.

Ferdek PE, Gerasimenko JV, Peng S, Tepikin AV, Petersen OH, Gerasimenko OV. A novel role for Bcl-2 in regulation of cellular calcium extrusion. *Curr Biol*. 2012, Jul 10;22(13):1241-6.

Dingsdale H, Voronina S, Haynes L, Tepikin A, Lur G. Cellular geography of IP<sub>3</sub> receptors, STIM and Orai: a lesson from secretory epithelial cells. *Biochem Soc Trans*. 2012 Feb 1;40(1):108-11.

Voronina S, Tepikin A. Mitochondrial calcium in the life and death of exocrine secretory cells. *Cell Calcium*. 2012 Jul;52(1):86-92.

György Lur, Mark W Sherwood, Etsuko Ebisui, Lee P Haynes, Stefan Feske, Robert Sutton, Robert Burgoyne, Katsuhiko Mikoshiba, Ole H Petersen and Alexei V Tepikin. IP<sub>3</sub> receptors and Orai channels in pancreatic acinar cells: co-localisation and its consequences. *Biochem J*. 2011, 436(2): 231-239.

Booth DM, Murphy JA, Mukherjee R, Awais M, Neoptolemos JP, Gerasimenko OV, Tepikin AV, Petersen OH, Sutton R, Criddle DN. (2011). Reactive Oxygen Species Induced by Bile Acid Induce Apoptosis and Protect Against Necrosis in Pancreatic Acinar Cells. *Gastroenterology*. 2011, 140(7):2116-25.

Gerasimenko JV, Lur G, Ferdek P, Sherwood MW, Ebisi E, Tepikin AV, Mikoshiba K, Petersen OH, Gerasimenko OV. Calmodulin protects against alcohol-induced pancreatic trypsinogen activation elicited via Ca<sup>2+</sup> release through IP<sub>3</sub> receptors. *Proc Natl Acad Sci USA*, 2011, 108 (14), 5873 – 8.

Voronina SG, Barrow SL, Simpson AW, Gerasimenko OV, da Silva Xavier G, Rutter GA, Petersen OH, Tepikin AV. Dynamic changes in cytosolic and mitochondrial ATP levels in pancreatic acinar cells. *Gastroenterology*, 2010, 138, 1978-1987

Walsh CM, Chvanov M, Haynes LP, Petersen OH, Tepikin AV, Burgoyne RD Role of phosphoinositides in STIM1 dynamics and store-operated calcium entry. *Biochem. J.* 2010, 425(1):159-68.

Walsh CM, Doherty MK, Tepikin AV, Burgoyne RD. Evidence for an interaction between Golgi and STIM1 in store-operated calcium entry. *Biochem J.* 2010 Sep 15;430(3):453-60.

Chvanov M, Petersen OH, Tepikin AV. Pharmacologically directed cell disposal: labeling damaged cells for phagocytosis as a strategy against acute pancreatitis. *Mol Interv.* 2010 Apr;10(2):80-5.

Gyorgy Lur, Lee P. Haynes, Ian A. Prior, Oleg V. Gerasimenko, Stefan Feske, Ole H. Petersen, Robert D. Burgoyne and Alexei V. Tepikin. Ribosome-free terminals of rough ER allow formation of STIM1 puncta and segregation of STIM1 from IP<sub>3</sub> receptors. *Current Biology*, 2009, 19(19):1648-53 .

Nedjadi T, Kitteringham N, Campbell F, Jenkins RE, Park BK, Navarro P, Ashcroft F, Tepikin A, Neoptolemos JP, Costello E. S100A6 binds to annexin 2 in pancreatic cancer cells and promotes pancreatic cancer cell motility. *Br J Cancer*, 2009, 6;101(7):1145-54

Voronina S, Sherwood M, Barrow S, Dolman N, Conant A, Tepikin A. Downstream from calcium signalling: mitochondria, vacuoles and pancreatic acinar cell damage. *Acta Physiol (Oxf)*, 2009, Jan;195(1):161-9.

Petersen OH, Tepikin AV, Gerasimenko JV, Gerasimenko OV, Sutton R, Criddle DN. Fatty acids, alcohol and fatty acid ethyl esters: toxic Ca<sup>2+</sup> signal generation and pancreatitis. *Cell Calcium*. 2009 Jun;45(6):634-42.

Ciara Walsh, Stephanie Barrow, Svetlana Voronina, Michael Chvanov, Ole H. Petersen and Alexei Tepikin. Modulation of calcium signalling by mitochondria. *BBA (Bioenergetics)*, 2009, 1787, 1374 – 1382.

Gerasimenko JV, Lur G, Sherwood MW, Ebisui E, Tepikin AV, Mikoshiba K, Gerasimenko OV & Petersen OH. Pancreatic protease activation by alcohol metabolite depends on Ca<sup>2+</sup> release via acid store IP<sub>3</sub> receptors. *Proc Natl Acad Sci USA (PNAS)*, 2009, 106, 10758-10763.

Baumgartner HK, Gerasimenko JV, Thorne C, Ferdek P, Pozzan T, Tepikin AV, Petersen OH, Sutton R, Watson AJ, Gerasimenko OV. Calcium elevation in mitochondria is the main Ca<sup>2+</sup> requirement for mitochondrial permeability transition pore (mPTP) opening. *J Biol Chem*, 2009, Jul 31;284(31):20796-803.

Nedjadi T, Kitteringham N, Campbell F, Jenkins RE, Park BK, Navarro P, Ashcroft F, Tepikin A, Neoptolemos JP, Costello E. S100A6 binds to annexin 2 in pancreatic cancer cells and promotes pancreatic cancer cell motility. *Br J Cancer*, 2009, 6;101(7):1145-54

Voronina S, Sherwood M, Barrow S, Dolman N, Conant A, Tepikin A. Downstream from calcium signalling: mitochondria, vacuoles and pancreatic acinar cell damage. *Acta Physiol (Oxf)*, 2009, Jan;195(1):161-9.

Petersen OH, Tepikin AV, Gerasimenko JV, Gerasimenko OV, Sutton R, Criddle DN. Fatty acids, alcohol and fatty acid ethyl esters: toxic Ca<sup>2+</sup> signal generation and pancreatitis. *Cell Calcium*. 2009 Jun;45(6):634-42.

Gerasimenko JV, Lur G, Sherwood MW, Ebisui E, Tepikin AV, Mikoshiba K, Gerasimenko OV & Petersen OH. Pancreatic protease activation by alcohol metabolite depends on Ca<sup>2+</sup> release via acid store IP<sub>3</sub> receptors. *Proc Natl Acad Sci USA (PNAS)*, 2009, 106, 10758-10763.

Chvanov M, Walsh CM, Haynes LP, Voronina S.G, Lur Gyorgy, Gerasimenko OV, Barraclough R, Rudland PS, Petersen OH, Burgoyne RD. and Tepikin AV. ATP depletion induces translocation of STIM1 to puncta and formation of STIM1-ORAI1 complexes: translocation and re-translocation of STIM1 does not require ATP. *Pflugers Arch*, 2008, 457: 505-517.

Markova O, Fitzgerald D, Stepanyuk A, Dovgan A, Cherkas V, Tepikin A, Burgoyne RD, Belan P. Hippocalcin signaling via site-specific translocation in hippocampal neurons. *Neurosci Lett*. 2008, 442(2):152-7

Petersen OH and Tepikin AV. Polarized Calcium Signaling in Exocrine Gland Cells. *Annu Rev Physiol*, 2008, 70. 273 - 299

Barrow SL, Voronina SG, da Silva Xavier G, Chvanov MA, Longbottom RE, Gerasimenko OV, Petersen OH, Rutter GA and Tepikin AV. ATP depletion inhibits Ca<sup>2+</sup> release, influx and extrusion in pancreatic acinar cells but not pathological Ca<sup>2+</sup> responses induced by bile. *Pflugers Arch*. 2008, 455(6 ):1025-39.

Sherwood MW, Prior IA, Voronina SG, Barrow SL, Woodsmith JD, Gerasimenko OV, Petersen OH and Tepikin AV. Activation of trypsinogen in large endocytic vacuoles of pancreatic acinar cells. *PNAS* 2007, 27, 5674-5679

Voronina SG, Sherwood MW, Gerasimenko OV, Petersen OH. and Tepikin AV. Visualizing formation and dynamics of vacuoles in living cells using contrasting dextran – bound indicator: endocytic and non-endocytic vacuoles. *Am J Physiol*, 2007 293(6):G1333-8.

Chvanow M, Gerasimenko OV, Petersen OH, Tepikin AV. Calcium-dependent release of NO from intracellular S-nitrosothiols. *EMBO J*. 2006, 25, 3024-3032.

Dolman NJ, Tepikin AV. Calcium microdomains and the Golgi apparatus. *Cell Calcium*. 2006, 40, 505-512.

Criddle DN, Murphy J, Fistetto G, Barrow S, Tepikin AV, Neoptolemos JP, Sutton R, Petersen OH. Fatty acids ethyl esters cause pancreatic calcium toxicity via inositol trisphosphate receptors and loss of ATP synthesis. *Gastroenterology*. 2006, March, 130(3), 781-793.

Gerasimenko JV, Sherwood M, Tepikin AV, Petersen OH, Gerasimenko OV. NAADP, cADPR and IP<sub>3</sub> all release Ca<sup>2+</sup> from the endoplasmic reticulum and an acidic store in the secretory granule area. *J Cell Sci*. 2006, Jan, 119 (2), 226-238.

Voronina SG, Gryshchenko OV, Gerasimenko OV, Green AK, Petersen OH, Tepikin AV. Bile acids induce a cationic current, depolarizing pancreatic acinar cells and increasing the intracellular Na<sup>+</sup> concentration. *J Biol Chem*. 2005, January; 280 (3): 1764-1770

Dolman NJ, Gerasimenko JV, Gerasimenko OV, Voronina SG, Petersen OH, Tepikin AV.

Stable Golgi-mitochondria complexes and formation of Golgi Ca<sup>2+</sup> gradients in pancreatic acinar cells *J Biol Chem.* 2005 , April, 280 (16): 15794 – 15799.

Chvanov M, Petersen OH, Tepikin AV. Free radicals and the pancreatic acinar cells: role in physiology and pathology. *Philos. Trans R Soc Lond B Biol Sci* 2005, Dec, 360 (1464), 2273-2284.

Hasdemir B, Fitzgerald DJ, Prior IA, Tepikin AV, Burgoyne RD. Traffic of Kv4 K<sup>+</sup> channels mediated by KChIP1 is via a novel post-ER vesicular pathway. *J Cell Biol.* 2005, Nov, 171 (3): 459-469.

Gerasimenko O, Tepikin A. How to measure Ca<sup>2+</sup> in cellular organelles? *Cell Calcium.* 2005, Sept, 38 (3-4), 2001-211.

Haynes LP, Tepikin AV, Burgoyne RD. (2004) Calcium-binding Protein 1 Is an Inhibitor of Agonist-evoked, Inositol 1,4,5-Trisphosphate-mediated Calcium Signaling. *J. Biol. Chem.* Jan. , 279(1):547-55.

Burgoyne RD, O'Callaghan DW, Hasdemir B, Haynes LP, Tepikin AV (2004). Neuronal Ca<sup>2+</sup>-sensor proteins: multitasking regulators of neuronal function. *Trends Neurosci.* Apr;27(4):203-9.

Voronina S, Barrow S, Gerasimenko O, Petersen O.H., Tepikin A.V. (2004) Effects of secretagogues and bile acids on mitochondrial membrane potential of pancreatic acinar cells: comparison of different modes of evaluating  $\Delta\psi_m$ . *J Biol Chem.* June 25; 279(26):27327-38.

Criddle DN, Raraty MG, Neoptolemos JP, Tepikin AV, Petersen OH, Sutton R. Ethanol toxicity in pancreatic acinar cells: Mediation by nonoxidative fatty acid metabolites. *Proc Natl Acad Sci U S A.* 2004 Jul 20;101(29):10738-43.

Yano K, Petersen OH, Tepikin AV. Dual sensitivity of sarcoplasmic/endoplasmic Ca<sup>2+</sup>-ATPase to cytosolic and ER Ca<sup>2+</sup> as a mechanism of modulating cytosolic Ca<sup>2+</sup> oscillations. *Biochem J.* 2004 Oct 15;383(Pt 2):353-60.

Ashby MC, Petersen OH, Tepikin AV. (2003) Spatial characteristics of ryanodine-induced calcium release in mouse pancreatic acinar cells. *Biochemical J.*, 369 (3), 441-445.

Johnson PR, Dolman NJ, Pope M, Vaillant C, Petersen OH, Tepikin AV, Erdemli G. (2003). Non-uniform distribution of mitochondria in pancreatic acinar cells. *Cell and Tissue Research.* 313(1), pp37-45.

Gerasimenko JV, Maruyama Y, Yano K, Dolman NJ, Tepikin AV, Petersen OH, Gerasimenko OV. (2003). NAADP mobilizes Ca<sup>2+</sup> from a thapsigargin-sensitive store in the nuclear envelope by activating ryanodine receptors. *J Cell Biol.*, 163 (2):271-82.

Ashby MC, Camello-Almaraz C, Gerasimenko OV, Petersen OH, Tepikin AV. (2003). Long distance communication between muscarinic receptors and Ca<sup>2+</sup> release channels revealed by carbachol uncaging in cell-attached patch pipette. *J.Biol.Chem.* 278, N23 (6), 20860-20864.

O'Callaghan DW, Tepikin AV, Burgoyne RD. (2003) Dynamics and calcium sensitivity

of the Ca<sup>2+</sup>/myristoyl switch protein hippocalcin in living cells. *J. Cell. Biol.* Nov 24;163(4):715-21.

Dolman NJ, Tepikin AV, Petersen OH. (2003) Generation and modulation of cytosolic Ca<sup>2+</sup> signals in pancreatic acinar cells: techniques and mechanisms. *Biochem Soc Trans.* Oct;31(Pt 5):947-9.

Sutton R, Criddle D, Raraty MG, Tepikin A, Neoptolemos JP, Petersen OH. Signal Transduction, Calcium and Acute Pancreatitis. (2003). *Pancreatology.* 3(6):497-505.

Cancela J, Van Coppenolle F, Galione A, Tepikin A.V., Petersen O.H. (2002) Transformation of local Ca<sup>2+</sup> spikes to global Ca<sup>2+</sup> transients: the combinatorial roles of multiple Ca<sup>2+</sup> releasing messengers. *EMBO J.*, 21(5): 909-919.

Gerasimenko J.V., Gerasimenko O.V., Palejwala A, Tepikin A.V., Petersen O.H., Watson A.J. (2002). Manadione-induced apoptosis: role of cytosolic Ca<sup>2+</sup> elevation and the mitochondrial permeability transition pore. *J. Cell. Sci.* 115 (3): 485-497.

Voronina S, Sukhomlin T, Johnson G, Petersen OH, Tepikin A.V. (2002). Correlation of NADH and Ca<sup>2+</sup> signals in mouse pancreatic acinar cells. *J. Physiol.*, 539(1): 41-52.

Gerasimenko OV, Gerasimenko JV, Rizzuto RR, Treiman M, Tepikin AV, Petersen OH. (2002). The distribution of the endoplasmic reticulum in living pancreatic acinar cells. *Cell Calcium.*, 32 (5-6), pp. 261-8.

Voronina S, Longbottom R, Sutton R, Petersen O.H., Tepikin A.V. (2002). Bile acids induce calcium signals in mouse pancreatic acinar cells. Implications for bile-induced pancreatic pathology. *J. Physiol.*, 540(1): 49-55.

Park M, Tepikin A.V., Petersen O.H. (2002). What can we learn about cell signalling by combining optical imaging with patch clamp technique? *Pflugers Arch*, 444, 305-316.

O'Callaghan, Ivings L, Weiss JL., Ashby MC, Tepikin A.V., Burgoyne R.D. (2002). Differential use of myristoyl groups on neuronal calcium sensor proteins as a determinant of spatio-temporal aspects of Ca<sup>2+</sup> signal transduction. *J.Biol.Chem.* 277 (16), 14227-14237.

Ashby M.C, Tepikin A.V. (2002). Polarised calcium and calmodulin signalling in secretory epithelia. *Physiological Reviews.* 82, 701-734.

Lomax R.B, Camello C, Van Coppenolle F, Petersen O.H., Tepikin A.V. (2002). Basal and physiological Ca<sup>2+</sup> leak from the endoplasmic reticulum of pancreatic acinar cells: second messenger-activated channel and translocons. *J.Biol.Chem.*, 277 (29), 26479-26485.

Ashby M. C., Craske M, Park M.K., Gerasimenko O.V., Burgoyne R.D. Petersen O.H., Tepikin A.V. (2002). Localised Ca<sup>2+</sup> uncaging reveals polarised distribution of Ca<sup>2+</sup> - sensitive Ca<sup>2+</sup> release sites: mechanism of unidirectional Ca<sup>2+</sup> waves. *J.Cell. Biol.* 158 (2), 283-292.

Johnson P, Tepikin AV, Erdemli G. (2002) Role of mitochondria in Ca<sup>2+</sup> homeostasis of mouse pancreatic acinar cells. *Cell Calcium*, 32 (2), 59-69.

Camello C, Lomax R, Petersen OH, Tepikin AV. (2002) Calcium leak from intracellular stores-the enigma of calcium signalling. *Cell Calcium.* Nov-Dec;32(5-6):355-61. Invited Review.

Ashby MC, Tepikin AV. (2001) ER calcium and the functions of intracellular organelles. *Semin Cell Dev Biol.* Feb;12(1):11-17. Review.

Park M, Ashby MC, Erdemili G, Petersen O.H, Tepikin A.V. (2001) Perinuclear, perigranular and sub-plasmalemmal mitochondria have distinct functions in the regulation of cellular calcium transport. *EMBO J.* Apr 17;20(8):1863-74.

Petersen OH, Tepikin A.V., Park MK (2001). The endoplasmic reticulum: one continuous or several separate Ca<sup>2+</sup> stores? *Trends Neurosci.* 24(5):271-6.

Park M, Lomax R, Tepikin A.V., Petersen O.H. (2001). Local uncaging of caged Ca<sup>2+</sup> reveals distribution of Ca<sup>2+</sup>-activated Cl<sup>-</sup> channels in pancreatic acinar cells. *PNAS*, 98 (19): 10948-10953.

Cancela M, Gerasimenko O.V., Gerasimenko J, Tepikin A.V. Petersen O.H. (2000) Two different but converging messenger pathways to intracellular Ca<sup>2+</sup> release: the role of nicotinic acid adenine dinucleotide phosphate, cyclic ADP-ribose and inositol trisphosphate. *The EMBO Journal.* 19 (11), 2549-2557.

Park M, Petersen O.H., Tepikin A.V. (2000) The endoplasmic reticulum as one continuous Ca<sup>2+</sup> pool: visualization of rapid Ca<sup>2+</sup> movements and equilibration. *The EMBO Journal.* 19 (21), 5729 – 5739.

Petersen O.H., Burdakov D., Tepikin A.V. (1999). Regulation of store-operated calcium entry: lessons from a polarised cell. *Eur.J.Cell.Biol.* 78, 221-223.

Tinel H, Cancela JM, Mogami H, Gerasimenko JV, Gerasimenko OV, Tepikin AV, Petersen OH. (1999). *EMBO J.* Sep 15;18(18):4999-5008. Active mitochondria surrounding the pancreatic acinar granule region prevent spreading of inositol trisphosphate-evoked local cytosolic Ca<sup>2+</sup> signals.

Craske M, Takeo T, Gerasimenko O, Vaillant C, Torok K, Petersen O.H., Tepikin A.V. (1999) Hormone-induced secretory and nuclear translocation of calmodulin: oscillations of calmodulin concentration with nucleus as an integrator. *PNAS* 96, 4426-4431.

Petersen O. H., Burdakov D, Tepikin A.V. (1999) Regulation of store-operated calcium entry: lessons from a polarized cell. *European Journal of Cell Biology.* 76, 221-223.

Belan P., Gerasimenko O., Petersen O.H., Tepikin A.V. (1998) Isoproterenol evokes extracellular Ca<sup>2+</sup> spikes due to secretory events in salivary gland cells. *J.Biol. Chem.*, 273, 4106-4111.

Petersen O.H., Gerasimenko O.V., Gerasimenko J.V., Mogami H., Tepikin A.V. (1998) The calcium store in the nuclear envelope. *Cell Calcium.*, 23, 87-90.

Mogami H., Tepikin A.V., Petersen O.H. (1998) Termination of cytosolic Ca<sup>2+</sup> signals: Ca<sup>2+</sup> reuptake into intracellular stores is regulated by the free Ca<sup>2+</sup> concentration in the store lumen. *The EMBO Journal.* 17(2), 435-442.

Cancela J.M., Mogami H., Tepikin A.V., Petersen O.H. (1998) Intracellular glucose switches between cyclic ADP-ribose and inositol trisphosphate triggering of cytosolic Ca<sup>2+</sup> spiking. *Current Biology.* 8, 865-868.

Mogami H., Nakano K., Tepikin A.V., Petersen O. H. (1997)  $Ca^{2+}$  flow via tunnels in polarized cells: recharging of apical  $Ca^{2+}$  stores by focal  $Ca^{2+}$  entry through basal membrane patch. *Cell*, 88, 49 - 55.

Tepikin A.V., Petersen O.H. (1997) Functional organization of calcium stores in polarized secretory cells and transcellular calcium transport. *Neurophysiology (Kiev)*, 29, 252-255.

Belan P., Gerasimenko O., Petersen O.H., Tepikin A.V. (1997) Distribution of  $Ca^{2+}$  extrusion sites on the mouse pancreatic acinar cell surface. *Cell Calcium*, 22, 5-10.

Titievsky A.V., Takeo T., Tepikin A.V., Petersen O.H. (1996) Decrease of acidity inside zymogen granules inhibits acetylcholine- or inositol trisphosphate-evoked cytosolic  $Ca^{2+}$  spiking in pancreatic acinar cells. *Pflugers Arch.*, 432, 938 - 940.

Camello P., Gardner J., Petersen O.H., Tepikin A.V. (1996) Calcium dependence of calcium extrusion and calcium uptake in pancreatic acinar cells. *J. Physiol.*, 490, 585 - 593.

Gerasimenko O.V., Gerasimenko J.V., Petersen O.H., Tepikin A.V. (1996) Short pulses of acetylcholine stimulation induce cytosolic  $Ca^{2+}$  signals that are excluded from the nuclear region in pancreatic acinar cells. *Pflugers Arch.*, 432, 1055 - 1061.

Belan P.V., Gerasimenko O.V., Tepikin A.V., Petersen O.H. (1996) Localization of  $Ca^{2+}$  extrusion sites in pancreatic acinar cells. *J. Biol. Chem.*, 271, 7615 - 7619.

Gerasimenko O.V., Gerasimenko J.V., Tepikin A.V., Petersen O.H. (1996) Calcium transport pathways in the nucleus. *Pflugers Arch.* 432, 1-6.

Belan P.V., Gerasimanko O.V., Berry D., Saftenku E., Petersen O.H., Tepikin A.V. (1996) A new technique for assessing the microscopic distribution of cellular calcium exit sites. *Pflugers Arch*, 433, 200 - 208.

Gerasimenko O.V., Gerasimenko J.V., Tepikin A.V., Petersen O.H. (1995) ATP-Dependent Accumulation and Inositol Trisphosphate or Cyclic ADP-ribose Mediated Release of  $Ca^{2+}$  from the Nuclear Envelope. *Cell*, 80, 439 - 444.

Tepikin A.V., Petersen O.H. (1994) Measurement of  $H^+$  and  $Ca^{2+}$  extrusion from single isolated cells. *NATO ASI Series, Subseries H "Cell Biology"*, 89, 297-300.

Tepikin A.V., Llopis J, Snitsarev V.A, Gallacher D.V., Petersen O.H. (1994) The droplet technique: measurement of calcium extrusion from single isolated mammalian cells. *Pflugers Arch.*, 428, 664-670.

Belan P.V., Kostyuk P.G., Snitsarev V.A., Tepikin A.V. (1993). Calcium clamp in isolated neurones of the snail *Helix Pomatia*. *J. Physiol.*, 462, 47-58.

Belan P.V., Kostyuk P.G., Snitsarev V.A., Tepikin A.V. (1993). Calcium clamp in single nerve cells. *Cell Calcium*, 14, 419-425.

Tepikin A.V., Voronina S.G., Gallacher D.V., Petersen O.H. (1992). Acetylcholine-evoked increase in cytoplasmic  $Ca^{2+}$  concentration and  $Ca^{2+}$ -extrusion measured simultaneously in single mouse pancreatic acinar cells. *J. Biol. Chem.*, 267, 3569-3572.

Tepikin A.V., Voronina S.G., Gallacher D.V., Petersen O.H. (1992). Pulsatile Ca<sup>2+</sup> extrusion from single cells during receptor -activated cytosolic Ca<sup>2+</sup> spiking. *J.Biol.Chem.*, 267, 14073-14076.

Tepikin A.V., Petersen O.H. (1992). Mechanisms of cellular calcium oscillation in secretory cells. *Biochim. Biophys. Acta.* 1137, 197-207.

Kostyuk P.G., Belan P.V., Tepikin A.V. (1991). Free calcium transients and oscillations in nerve cells. *Experimental Brain Research* 83, 459-464.

Tepikin A.V., Kostyuk P.G., Snitsarev V.A., Belan P.V. (1991) Extrusion of calcium from a single isolated neuron of the snail *Helix Pomatia* *J. Membrane Biol.*, 123, 43-47.

Gyori J., Kiss T., Shcherbatco A.D., Belan P.V., Tepikin A.V., Osipenko O.N., Shalanki J. (1991) Effect of Ag<sup>+</sup> on membrane permeability of perfused *Helix pomatia* neurones. *J. Physiol.*, 442, 1-13.

Kostyuk P.G., Tepikin A.V. (1991). Calcium signals in nerve cells. *News in Physiological Sciences* 6, 6-10.

Tepikin A.V., Snitsarev V.A., Belan P.V. (1990) Use of antipyrilazo 3 to study calcium extrusion from isolated neurons of *Helix pomatia*. *Biol. Membranes (Moscow)*, 8, (5), 514-521.

Belan P.V., Osipenko O.N., Tepikin A.V. (1990). Inositol-1,4,5 trisphosphate and nonhydrolysable GTP analogue induced calcium release from intracellular stores of *Helix pomatia* neurones. *Comparative Biochemistry and Physiology. C.*, 96 (1), 45-47.

Kostyuk P.G., Mironov S.L., Tepikin A. V., Belan P.V. (1989). Cytoplasmic free Ca in isolated snail neurones as revealed by fluorescent probe fura-2 : mechanisms of recovery after Ca load and Ca release from intracellular stores. *J. Membrane Biol.* 110, 11-18.

Belan P.V., Mironov S.L., Osipenko O.N., Tepikin A.V. (1989). The effect of the iontophoretic injection of cAMP on changes in the intracellular calcium concentration and transmembrane currents in snail neurones. *Neurophysiology (Kiev)*, 21, 396-402.

Belan P.V., Osipenko O.N., Tepikin A.V. (1989). Calcium release from intracellular stores of the neuronal soma of the mollusc induced by inositol trisphosphate and nonhydrolysable GTP analogue. *Neurophysiology (Kiev)*, 21, 707-710.

Belan P.V., Verkhatsky A.N., Pronchuk N.F., Tepikin A.V. (1989). Application of microfluorescent method to measure free calcium in isolated cultured rat cardiac myocytes. *Physiol. Journal (Kiev)*, 35, (6), 40-45.



Verkhatsky A.N., Pronchuk N.F., Tepikin A.V. (1989) The effect of sodium ion extracellular concentration on intracellular calcium ion concentration in single neonatal rat cultured ventricular myocytes.

*Physiol. Journal (Kiev)*, 35, (6), 45-49.

Mironov S.L., Tepikin A.V. (1988). On the nature of cyclic changes in the intracellular concentration of Ca<sup>2+</sup> ions.

*Biol. Membranes (Moscow)*, 5, 528-535.

Belan P.V., Dolgaya E.V., Mironov S.L., Tepikin A.V. (1987). Dependence of the surface potential of murine neuroblastoma cells C1300 on the cell cycle phase.

*Neurophysiology (Kiev)*, 19, 130-133.

Tepikin A.V., Belan P.V., Mironov S.L. (1987). Changes in intracellular Ca<sup>2+</sup> in isolated snail neurons revealed by fluorescent probe fura-2.

*Biol. Membrane (Moscow)*, 4, 882-889.

Kostyuk P.G., Tepikin A.V., Belan P.V., Mironov S.L. (1987). Mechanisms of cytoplasmic Ca<sup>2+</sup> changes in snail neurons mediated by intracellular Ca<sup>2+</sup> stores.

*Biol. Membrane (Moscow)*, 4, 932-936.

Belan P.V., Mironov S.L., Tepikin A.V. (1987). Changes in intracellular Ca<sup>2+</sup> concentration in isolated snail neurones as revealed by chlortetracycline fluorescence.

*Neurophysiology (Kiev)*, 19, 686-688.

Mironov S.L., Tepikin A.V., Grishchenko A.V. (1985). Two calcium currents in somatic membrane of the mollusc neurone .

*Neurophysiology (Kiev)*, 17, 627-633.

### **Book chapters:**

Hayley Dingsdale, Lee Haynes, Gyorgy Lur and Alexei Tepikin. The role of ER and ER junctions with the plasma membrane in the regulation of SOCE. Store-operated Ca<sup>2+</sup> Entry (SOCE) Pathways. Published by Springer (Wien). Edited by Groschner, Graier and Romanin. 2011, pp 137-151

Dingsdale H, Haynes LP, Tepikin AV and Lur G. (2011) "Visualising the endoplasmic reticulum and its contacts with other organelles in live acinar cells" in The Pancreapedia – Exocrine Pancreas Knowledge Base.  
<http://www.lib.umich.edu/spo/panc/tools/methods/visualising-endoplasmic-reticulum-and-its-contacts-with-other-organelles-in-live-acina>  
Research Tools - Methods – Acinar Cell Studies

Dolman NJ, Ashby MC, Park MK, Petersen OH and Tepikin AV. Subcellular compartmentalization of calcium signalling. In *Methods in Calcium Signalling Research* by CRC Press (USA), edited by J.W. Putney. 2005. 417 – 433.

Hasdemir B, Burgoyne R and Tepikin A. Imaging calcium and calcium-binding proteins. In "Cell Imaging: Methods Express". Published by Scion (UK), edited by David Stephens. 2005.

Tepikin A. Measuring calcium extrusion. In "Calcium signalling. Practical Approach". Published by Oxford University Press. 2001, 197- 217.

**Editing experience:**

I edited " Calcium Signalling: A Practical Approach" book, published in 2001 by Oxford University Press.

**3. Invited Lectures and Seminars:**

Invited Speaker at the Gordon Research Conference on Ca<sup>2+</sup> Signalling, Il Ciocco Resort, Italy (2013).

Invited speaker at Pancreatic Club Conference. Zurich, Switzerland (2013).

Invited Plenary Speaker at Practicalities of Cellular Analysis Conference, Newcastle University (2013).

Invited Speaker at Academia Europaea conference Signalling in Physiology and Pathophysiology, Cardiff University (2013).

Invited Speaker at the FASEB Conference on Calcium and Cell Function, Snowmass, USA (2012).

Invited Seminar Speaker (Department of Pharmacology, University of Cambridge ) (2012).

Invited Speaker at the Workshop on Molecular Imaging and System Biology, Tokyo, Japan (2012)

Invited Speaker at the International Congress on Cell Membranes and Oxidative Stress, Isparta, Turkey (2012).

Invited Speaker at the Gordon Research Conference on Ca<sup>2+</sup> Signalling, Colby College, Waterville, USA (2011).

Invited Speaker at International Research Workshop on Acute Pancreatitis, Szeged, Hungary (2011).

Invited Speaker at Signalling 2011: A Biochemical Society Centenary Celebration, Edinburgh, UK (2011).

Invited Speaker, 'State of the Art' lecture at the 43<sup>rd</sup> Meeting of the European Pancreatic Club, Magdeburg, Germany (2011).

Invited Speaker at Metabolic and Cardiovascular Disease Programme meeting (Graz, Austria) (2011).

Invited Speaker / Invited Session Chair (by FASEB Conference on Calcium and Cell Function, USA) (2010)

Invited Speaker (by Brazilian Society of Cell Biology, San Paulo, Brazil) (2010)

Invited Speaker (by Experimental Biology/American Physiological Society Meeting, Anaheim, USA) (2010)

Invited Speaker (by The 2nd Nordic Confocal & Fluorescence Meeting in Sigtuna, Sweden) (2009)

Invited speaker at Gordon Conference on Salivary and Exocrine Secretion (Ventura, USA, 2009).

Invited Seminar Speaker (UCL ) (Nov 2009).

Invited Speaker / Invited Session Chair (by Meeting of European Pancreatic Club, Szeged, Hungary) (2009)

Invited Seminar Speaker (Karolinska Institutet, Stockholm, Sweden) (2009).

Invited speaker at session "Mapping of Signalling Networks" (IUPS Congress, Kyoto, Japan, 2009)

Invited speaker / invited session chair at 2<sup>nd</sup> International Congress on Cell Membranes and Oxidative Stress (Isparta, Turkey 2008).

Invited speaker at Symposium by Royal Danish Academy "Frontiers in Physiology" (Copenhagen, Denmark 2008).

Invited Speaker in "Distinguished Lecture Series" (by University of California, Davis ) (2008)

Invited Seminar Speaker (by Universitaet des Saarlandes) (2008)

Invited Speaker (Advanced Live Cell Microscopy Workshop, Madrid, Spain) (2008)

Invited speaker at Frontiers in Mitochondrial Research (Bertinoro, Italy 2007).

Invited speaker at Advanced Live Cell Microscopy Workshop (Madrid, 2007).

Invited speaker at Pancreatic Club Conference (Newcastle, UK 2007).

Invited seminar speaker (University of Oxford, 2007).

Invited speaker at an international workshop "Pancreatitis and Calcium Signalling" (Liverpool, 2006).

Invited seminar speaker (University of Bern, Switzerland, 2006).

Invited speaker at the FASEB conference on Innovations in Gastrointestinal Tract Research and Therapy (Colorado, USA, 2005).

Invited session chair at the Gordon Conference on Calcium Signalling (Oxford, UK, 2005).

Invited speaker at the Gordon Conference on Salivary and Exocrine Secretion (Ventura, USA, 2005).

Invited speaker at Klaus Tschira Foundation conference "Reactive Oxygen Species in Health and Disease" (Heidelberg, Germany, 2005).

Invited speaker at conference "New light for searching cellular functions and disorders" (Hamamatsu, Japan, 2005).

Invited speaker at the Biochemical Society Conference “Non-vesicular intracellular traffic” (London, 2005).

Invited speaker at 8<sup>th</sup> European Symposium on Calcium Signalling. (Cambridge, July 2004).

Invited speaker at 13<sup>th</sup> European Microscopy Congress. (Antwerp, Belgium, August 2004).

Invited speaker at the International Brain Research Organization conference (Yalta, Ukraine, September 2004).

Invited speaker at the EMBO Workshop on Calcium Signaling in Disease. (Carpi, Italy, September 2004).

Invited Lecturer. “Technique of Local Uncaging.” (Helsinki, Finland, 2004).

UCL (invited seminar presenter) (London, May 2003).

Invited Speaker at XII International Symposium on Calcium Binding Proteins and Calcium Function in Health and Disease, Cavalese, Italy, January 2002.

Invited Lecturer at the Tschira Foundation conference on calcium signalling. Heidelberg, Germany, March, 2002.

University of Bari (invited seminar presenter). Bari, Italy, April 2002.

Invited Speaker at “Signalling the Future” conference, Liverpool, September 2002.

Invited Lecturer at the Conference: “Cellular signalling and metabolism”. Moscow, July 2001.

Invited seminar speaker in the University of Manchester. Manchester, October 2001.

Invited Speaker at the Workshop: “Trends in digital imaging, confocal and research microscopy”. Edinburgh, November 2001.

St. George’s Hospital Medical School (invited seminar speaker), London, February 2000.

Workshop on frontiers in multi-photon and confocal microscopy (invited lecturer), London, February 2000.

NATO advanced research workshop on Ca<sup>2+</sup> signalling (invited speaker and session chairmen). Il Ciocco, Italy, April 2000.

The Physiological Society Workshop “Membranes and Signalling” (lecture) Kiev, Ukraine, September 2000.

UK Calcium Conference, UCL. (lecture), London, September 2000.

Department of Sergey, UWCM (seminar), Cardiff, November 2000.

University of Lille (seminar). Lille, France, December 2000.

Kings College (seminar) (London, February 1999).

“Frontiers in pancreatic physiology” (invited lecture), Luneburg, Germany, July 1999.

Invited speaker at Joint Chilean – UK symposium on calcium signalling, Pucon, Chile, November 1999.

Invited Speaker “Cytosolic Ca<sup>2+</sup> signals and secretion in exocrine and endocrine glands” Liverpool 1998.

Invited speaker at the Meeting of Society of General Physiologists (“New ideas...”, short talk) Woods Hall, USA 1998

Invited speaker at “Babraham Calcium Conference”, Cambridge 1998.

Institute of Biotechnology University of Helsinki (invited lecture), Finland 1998.

EC Spring School on Calcium and Signal Transduction (Co-organiser and Lecturer) (Liverpool 1997).

UCL (seminar) (London, November 1997).

Invited speaker at “IUPS Workshop on Intracellular Signalling”, Kiev, Ukraine 1997

Bio City, Abo Akademi University (invited lecture) (Turku, Finland, 1996).

Invited speaker at Cytokinematics 96. (Hradec Kralove, Czech Republic 1996).

Invited speaker at Joint Korean - UK Symposium on Membrane Transport and Ionic Channels (Seoul, 1995)

Invited speaker at 27 Congress of the Spanish Society of Physiological Sciences in Conjunction with The Physiological Society (Salamanca, Spain, 1995).

Max-Planck-Institute of Biophysical Chemistry (seminar) (Göttingen, Germany 1994).

Physiology Institute of the University of Saarland (seminar) (Homburg/Saar, Germany 1994).

Department of Medical Biochemistry, University of Wales College of Medicine (seminar) (Cardiff, 1994).

Invited speaker at International Workshop (Kiev, Ukraine 1993) “Mechanisms of Ca<sup>2+</sup> homeostasis in excitable cells”.

Invited speaker at International Workshop (York, 1993) “Molecular and cellular mechanisms of H<sup>+</sup> transport”.

Invited speaker at 32-nd International congress of physiology (IUPS) (Glasgow, 1993). Symposium on "Calcium signals in secretory cells"

Department of Physiology (seminar), Albert-Ludwigs University (Freiburg, Germany 1992).

Invited speaker at Mini-Symposium on "Calcium signals in and protein kinase-mediated transduction in cellular stimulation". Physiology Institute of the University of Saarland (Homburg/Saar, Germany 1992).

