

CURRICULUM VITAE

Name ERNEUX Christophe
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STUDIES AND DIPLOMAS OBTAINED

- 1971-1975 Licence en Sciences Chimiques (section biochimie) (BSc Biochemistry) Université Libre de Bruxelles, Belgium
Graduated with "grande distinction" (magna cum laude)
Undergraduate project: "Contribution à l'étude de l'hydrolyse des nucléotides cycliques dans la glande thyroïde" (Contribution to the study of the hydrolysis of cyclic nucleotides in the thyroid gland).
- March 1981 Docteur en Sciences Chimiques (section biochimie) (PhD Biochemistry) Université Libre de Bruxelles, Belgium
Graduated with "la plus grande distinction" (summa cum laude)
Doctoral thesis: "Contribution à l'étude des phosphodiesterases dans la glande thyroïde" (Contribution to the study of phosphodiesterases in the thyroid gland).
- July 1985 Agrégé de l'Enseignement Supérieur en Biochimie et Pharmacologie (Qualification as teacher at university level of biochemistry and pharmacology) Université Libre de Bruxelles
Project for certification: "Le système des phosphodiesterases des nucléotides cycliques: enzymologie et rôle physiologique" (Cyclic nucleotide phosphodiesterases: their enzymology and physiological role).

MILITARY SERVICE

- 1982-1983 Temporary Professor in Basic Sciences, Ecole Royale des Cadets.

ACADEMIC CAREER

- 1986-1991 "Premier Assistant", Université Libre de Bruxelles
- 1991-1993 "Chef de Travaux", Université Libre de Bruxelles
- 1993-2002 "Chargé de cours associé temps plein".
- 2002 -2009 "Chargé de cours à l'ULB".
- 1-10-2009 "Professeur à l'ULB".

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SCIENTIFIC AWARD

Prix Auguste Slosse 1990

Prix Glaxo-SmithKline (1998-2000) together with Stéphane Schurmans

UNIVERSITY EXPERIENCE IN RESEARCH

- Purification and characterization of multiple forms of phosphodiesterases in the thyroid - study of the metabolism and the role of cyclic nucleotides in this tissue (1975-1985). Purification and characterization of the enzymes involved in the catabolism and metabolism of inositol phosphates and phosphoinositides. Study of the metabolism of inositol 1,4,5-trisphosphate in the brain, the thyroid and in endothelial cells in culture (from 1985). Assay of the various inositol phosphates and phosphoinositides in intact cells following cell labelling and HPLC techniques. Study of the biochemical roles of various enzymes derived from the inositol 1,4,5-trisphosphate metabolism.
- Phosphorylation of purified enzymes by cAMP dependent protein kinase, protein kinase C and calmodulin kinase II.
- First reported molecular cloning of:
 - rat and human inositol 1,4,5-trisphosphate 3-kinase in brain, thyroid and placenta (isoenzymes A , B and C),
 - human inositol/phosphatidylinositol 5-phosphatases (the inositol 1,4,5-trisphosphate 5-phosphatase type I, the SH2 domain containing inositol phosphatase referred to as SHIP1 and a new SH2-domain-containing protein closely related to SHIP referred to as SHIP2).
- Experimentation using genetic engineering to obtain recombinant isoenzymes expressed in bacteria or mammalian cells (from 1985).
- Responsible for undergraduate, doctoral and post-doctoral projects in Biochemistry: Dominique Couchie, Françoise Miot, Isabelle Foucart, Hémoisa Passareiro, Anne Delvaux, Kazunaga Takazawa, Christian Marschal, Benoît Verjans, Manuela Lemos, David Communi, Valérie Vanweyenbergh, Frédérick Hollande, Clive D'Santos, Florence De Smedt, Hafida Hazouri, Xavier Pesesse, S. Bendahmane, Lyndsay A Drayer, Daniel Blero, Valérie Dewaste, Eric Muraille, Alex Orduz Serrano, Nathalie Paternotte, Katrien Backers, Jing Zhang, Fabrice Vandeput, Alexandre Leyman, Alionka Bostan, Laurence Deneubourg, Williams Elong Edimo, Asli Ergun (Erasmus student), Xiao-Jun Choi.
- Supervision of doctoral theses presented at Université Libre de Bruxelles:
Faculty of Sciences:
D. Couchie (1983), "Contribution à la caractérisation d'un système de plusieurs formes enzymatiques: les phosphodiesterases".
F. Miot (1986), "Contribution à l'étude des mécanismes de contrôle négatif de l'accumulation d'AMPC par stimulation de l'activité phosphodiesterase".
H. Passareiro (1990), "Contribution à la caractérisation biochimique des protéines du cytosquelette".

B. Verjans (1993), "Etude du métabolisme des inositols phosphates sur cellule intacte et enzymes purifiées".

D. Communi (1995), "Etude de la relation structure/fonction de l'enzyme de synthèse de l'inositol 1,3,4,5-tetrakisphosphate: l'inositol 1,4,5-trisphosphate 3-kinase".

V. Vanweyenberg (1996). "Mise en évidence d'une hétérogénéité biochimique et moléculaire de l'inositol 1,4,5-trisphosphate 3-kinase".

X. Pesesse (2000). "Clonage moléculaire et caractérisation de SHIP2, une nouvelle inositol et phosphatidylinositol polyphosphate 5-phosphatase qui contrôle la voie de signalisation de la PI 3-kinase".

V. Dewaste (2002) "Clonage moléculaire des isoformes B et C de l'inositol 1,4,5-trisphosphate 3-kinase et influence de leur surexpression sur la réponse calcique".

N. Paternotte (2005) « Contribution à l'étude biochimique de SHIP2 dans la signalisation intracellulaire : son interaction avec la Vinexine et son rôle dans l'adhérence cellulaire ».

Faculty of Medicine:

A. Delvaux (1990), "Contribution à la caractérisation biochimique du métabolisme de l'inositol 1,4,5-trisphosphate".

F. De Smedt (1997), "Etude du rôle fonctionnel de l'inositol 1,4,5-trisphosphate 5-phosphatase de type I".

N. Markadiou (as co promotor with Prof Renaud Beauwens, 2005), "Etude du rôle de la phosphatidylinositol 3-kinase dans la réabsorption du sodium par un modèle de tubule distal et collecteur du rein".

D. Blero (2006), "Contribution à la caractérisation d'une nouvelle phosphatidylinositol 3,4,5 trisphosphate 5-phosphatase appelée SHIP2".

J. Zhang (2007), "The role of SHIP2 in response to serum and oxydative stress".

- Member of the Biochemical Journal's Editorial Advisory Panel from 1997.

Regular referee of:

Science,
PNAS,
Biochem J,
Oncogene,
J. Biol. Chem.,
J. Cell. Science,
J. Cellular Physiology,
FEBS letters,
FEBS J.,
Biochem. Biophys. Res. Commun.,
Biochemistry,
BMC Biochemistry,
ChemBioChem.
Biochem Pharmacology,
J. Cellular and Molecular Medicine.

- Member of the FWO commission Medical Biochemistry from 10/10/2006 to 30/09/2009.

- Member of Jury of thesis of PhD students :

ULB faculty of Sciences and Medicine, several times
UCL faculty of Medicine, two times (Drs Johan Deprez and Véronique Mouton).
KUL faculty of Medicine (Drs Kasri, Benoit Devogelaere and Karen Swarenpoel)
Université de Groningen, faculty of Biochemistry (Holland),
Université d'Amiens, faculty of Biochemistry (France),
Institut Curie à Paris (France),
Université de Toulouse, faculty of Medicine (France), three times (Drs Sylvie Giuriato,
Carole Pendaries, Sonia Severin),
Université de Marseille (France),
Université de Dundee, faculty of Biochemistry (UK).

- Member and President of the "collège de chimie biochimie" from 2008 Faculty of Medicine, Free University of Brussels (ULB).

UNIVERSITY TEACHING

- General Biochemistry course given to second year Dentistry students (from 1991 together with Prof. Dumont and from 1996 responsible for this teaching at the faculty of Medicine ULB). BMOL-G-201 – Biochimie – TH 6 ECTS – TP 2 ECTS – BA2 en sciences dentaires.
- Intracellular signalling course given to last year Medical Biochemistry students from 2000 at the faculty of Medicine ULB. From 2007, this course is given together with with Isabelle Pirson and Bernard Robaye BMOL-G-401 – TH 5 ECTS.
- Invited to participate in a signaling course as "educational special lecturer" in The 4th Japan-Korea Conference on Cellular Signaling for Young Scientists » 12-14 July 2005 Kyushu University in Kukuoka Japan.
- Invited to present seminars in both Belgium and foreign universities (UCL, University of Gent, University of Toulouse, Marseille, London, Groningen, Bremem, NIH, Vanderbilt University, etc).

PATENT

Screening methods using Src-Homology Inositol Phosphatase-2 (SHIP2)

US patent 6,703,215 (together with Stéphane Schurmans) 9/3/04.

NATIONAL COLLABORATIONS

- Collaborations within IRIBHM: Drs. G. Vassart, JE Dumont, J Van Sande, F. Miot, D. Communi, S. Schurmans, Pierre Vanderhaeghen, I. Pirson, F. Libert, A. Lefort.
- Microsequencing of rat brain inositol 1,4,5-trisphosphate 3-kinase, type I inositol 5-phosphatase and the SH2 containing inositol 5-phosphatase (Prof J. Vanderkerckhove, University of Gent).
- Protein phosphorylation and insulin signalling (Profs Louis Hue and Mark Rider, Université Catholique de Louvain).
- Ca²⁺ measurements in inositol phosphate kinase and phosphatase transfected cells (Prof L. Missiaen, Katholieke Universiteit Leuven).
- Inositol phosphate metabolism in yeast *S. cerevisiae* (Profs E. Dubois and F. Messenguy, Université Libre de Bruxelles).
- Simulations of the inositol phosphate/Ca²⁺ metabolism (Dr Geneviève Dupont, Université Libre de Bruxelles).
- Signalling of the proto oncogene cKIT (Dr Jean-Marie Vanderwinden, Université Libre de Bruxelles).
- Signalling of the Na⁺ current in insulin stimulated renal cells (Prof Renaud Beauwens, Université Libre de Bruxelles).
- Signalling of the oxidative stress in human T lymphocytes (Prof Jacques Piette, Université of Liège).
- Phosphorylation studies on SHIP2 (Prof Etienne Waelkens, Joseph Goris Katholieke Universiteit Leuven).
- Signalling via PDK/PKB axis in heart (Dr. Luc Bertrand, Université Catholique de Louvain).
- Role of connexin channels in the propagation of cell death (Prof Luc Leybaert, University of Gent).

INTERNATIONAL COLLABORATIONS

- Pharmacology of phosphodiesterases (Profs J.G. Hardman et J. Wells, Vanderbilt University, USA). Invited for 2 months in 1978 (FNRS grant).
- Physiological regulation of phosphodiesterases (1978, Prof. W. Butcher, Houston University, USA).
- Work carried out with cyclic nucleotide analogs (1981-1988, Prof. B. Jastorff, Bremen University, Germany).
- Work on the purified EGF receptor (Profs S. Cohen and D. Garbers, Vanderbilt University, USA). Invited for 6 months in 1982 ("Chargé de Recherches FNRS").
- Study of the interaction between calmodulin and microtubules (Prof. J. Nunez, Université de Paris, France).

- Metabolism of inositol trisphosphate and phosphoinositides in *Dictyostelium discoideum* (Prof. P. van Haastert, Groningen University, The Netherlands).
- Study of the role of inositol 1,4,5-trisphosphate 3-kinase by microinjection of antisense RNA in neuronal cells and localisation of the A-isoform in spines (Prof. R. Irvine, Cambridge, U.K.).
- Metabolism of highly phosphorylated inositol polyphosphates leading to the first report describing an inositol 1,4,5,6-tetrakisphosphate 3-kinase activity (Dr. S. Shears, USA).
- Pharmacology of the inositol 1,4,5-trisphosphate receptor (Prof. Nahorski, University of Leicester, U.K)
- Pharmacology of the inositol 1,4,5-trisphosphate 3-kinase, 5-phosphatase and SHIP using inositol phosphate analogs (Prof. Hirata, Kyushu University, Japan and Prof. Barry Potter, University of Bath, UK). Role of PRIP-1, a novel Ins(1,4,5)P₃ binding protein in Ins(1,4,5)P₃- mediated Ca²⁺ signaling.
- Study of the metabolism of phosphatidylinositol 3,4,5-trisphosphate by recombinant 5-phosphatases (Prof. Parker Imperial Cancer Research Fund, London, U.K.).
- Study of the metabolism of phosphatidylinositol 3,4,5-trisphosphate in human platelets stimulated by thrombin, dependence of SHIP phosphatases (Prof Hugues Chap. and Dr. Bernard Payrastre INSERM U. 326 University of Toulouse, France).
- Structural Studies by X ray cristallography (Dr Vincent Villeret, director of research CNRS, Lille, France).
- Study of the Ca²⁺ oscillations between connected hepatocytes (Dr. Laurent Combettes. INSERM U442, UPS, bât 443, 91405 Orsay).
- Study of inositol(1,4,5)P₃ 3-kinase B distribution (Dr. George Banting, University of Bristol, UK).
- Study of the inositol phosphate metabolism in the nucleus (Dr. Lucio Cocco, University of Bologna, Italy).
- Pharmacology of inositol 1,4,5-trisphosphate 3-kinase, 5-phosphatase type I and SHIP2 by means of phosphorylated benzene molecules (Prof Barry Potter, University of Bath, UK).
- Effect of Analogues of phosphatidylinositol 3,4,5-trisphosphate (Prof Glenn D. Prestwich, University of Utah, USA).
- Study of PTEN inhibitors (Dr. Rüdiger Woscholski Division of Cell and Molecular Biology, Imperial College London, Exhibition Road, London SW7 2AZ, UK).
- Protein partners of ARAP3-SHIP2 (Dr. Johannes L. Bos, University of Utrecht, Holland).
- Study of transgenic mice with Type I 5-phosphatase Prof Phil Haydon, Director, Center for Dynamic Imaging of Nervous System Function, Department of Neuroscience University of Pennsylvania School of Medicine (USA).
- Study of inositol phosphate multikinase in ES cells John D. York, Investigator, Howard Hughes Medical Institute. Department of Pharmacology and Cancer Biology Duke University Medical Center, USA
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PRESENTATIONS GIVEN AT INTERNATIONAL SCIENTIFIC MEETINGS (BY INVITATION)

- First Symposium on Cyclic Nucleotide Phosphodiesterases, Houston, USA March 1982. "Cyclic nucleotide derivatives as probes of phosphodiesterase catalytic and regulatory sites".
- 15th FEBS Meeting, Brussels, Belgium June 1983. "Multiple forms of cyclic nucleotide phosphodiesterase".
- Hormones and Cell regulation, Saint Odile, France October 1984. "The control mechanisms of cyclic nucleotide phosphodiesterase activities: regulation potential of cAMP catabolism".
- cGMP Action Workshop, Miami, USA November 1987. "Effect of cGMP analogs of cGMP-binding phosphodiesterase".
- Regional Meeting of the International Union of Physiological Sciences, Prague, Czechoslovakia July 1991. "Intracellular control of inositol phosphates by their metabolizing enzymes".
- Calcium signalling Limburgs Universitair Centrum, LUC Diepenbeek, Belgium "inositol phosphates kinase and phosphatases in brain", May 1993.
- 4th "International Union of Biochemistry and Molecular Biology" (IUBMB) Conference in Edinburgh "The Life and Death of the Cell" 14-17 July 1996 "inositol 1,4,5-trisphosphate metabolism"
- First meeting of the Belgium Society for Neuroscience May 1996 "inositol 1,4,5-trisphosphate metabolism".
- Hormones and Cell Regulation, Saint Odile, France September 1996. "The metabolism of inositol 1,4,5-trisphosphate in brain".
- Second meeting of the Belgium Society for Neuroscience May 1997 "cloning and expression of an SH2 containing inositol phosphate phosphatase SHIP".
- Spring meeting 1998 of the Belgian Society for Cell Biology "The control mechanisms of inositol 1,4,5-trisphosphate by its own metabolism"
- Annual Meeting of the German Society of Biochemistry and Molecular Biology September 1999 in Hamburg "The diversity and possible functions of the inositol polyphosphate 5-phosphatases"
- Haria International Forum 2000 (HIF 2000) November 1-5 2000 in Harima Science Garden City, Hyogo, Japan "The diversity and possible functions of the inositol polyphosphate 5-phosphatases"
- Kyushu University for Collaborative Research International Conference November 6 2000 Japan "The diversity and possible functions of the inositol polyphosphate 5-phosphatases"
- American Diabetes Association ADA 61st Scientific Session June 22-26 2001 Philadelphia USA « SHIP2 : molecular cloning, tissue distribution and potential role in

insulin sensitivity »

- Keystone Symposium « Regulation of Cellular responses by lipid mediators » February 1-6, 2002 Taos, New Mexico « The lipid phosphatase SHIP2 controls insulin sensitivity »
- 43 International Symposium on Regulation of Enzyme Activity and Synthesis in Normal and Neoplastic Tissues « The lipid phosphatase SHIP2 controls insulin sensitivity » Chairman of the Symposium George Weber. September 23-24, 2002.
- FEBS meeting Brussels, Belgium: Chairman and Lecturer workshop phosphatidylinositol/inositol phosphate July 3-8, 2003.
- 60th Harden Conference – Inositol Phosphates and Lipids – Regulation and Functions. St Martin's College, Ambleside, Lake District, UK 13-18 August 2005 « PtdIns(3,4,5)P₃ modulation in SHIP2 deficient MEF cells ».
- 46 International Symposium on Regulation of Enzyme Activity and Synthesis in Normal and Neoplastic Tissues « PtdIns(3,4,5)P₃ modulation in SHIP2 deficient MEF cells » Chairman of the Symposium Lucio Cocco. October 3-4, 2005.
- Abruzzo Symposia meeting "Phosphoinositides on the slopes" 17th 20th March 2007. "The control of inositol phosphates and phosphoinositides by phosphatases".
- Inositide Signaling Symposia, November 4-7, 2007, at Janelia Farm organized by John York. "The deactivation of I(1,4,5)P₃ and phosphoinositides by I(1,4,5)P₃ 3-kinases and phosphatases".
- Hormones and Cell Regulation, Obernai, France 15-18 September 2009 "the control mechanisms of SHIP phosphatases".
- 50 International Symposium on Regulation of Enzyme Activity and Synthesis in Normal and Neoplastic Tissues Chairman of the Symposium Lucio Cocco. October 3-4, 2009.

LIST OF PUBLICATIONS

Scientific work published in international journals

PubMed reveals 175 publications Feb 2010

I. With selection comitee

1) First or last author

1977-1980

1. **Erneux C.**, Van Sande J., Dumont J.E. and Boeynaems J.M. Cyclic nucleotides hydrolysis in the thyroid gland. Eur.J.Biochem. 1977 72: 137-147.
IF 3.5
2. **Erneux C.**, Couchie D. and Dumont J.E. Characterization of horse thyroid cyclic nucleotide phosphodiesterases. Eur.J.Biochem. 1980 104: 297-304.
IF 3.5
3. **Erneux C.**, Boeynaems J.M. and Dumont J.E. Theoretical analysis of the consequences of cyclic nucleotide phosphodiesterase negative cooperativity. Biochem.J. 1980 192: 241-246.
IF 4.2

1981-1985

4. **Erneux C.**, Couchie D., Dumont J.E., Stec W.J., Garcia Abbad E., Petridis G. and Jastorff B. Specificity of cyclic GMP activation of a multi-substrate cyclic nucleotide phosphodiesterase from rat liver. Eur.J.Biochem. 1981 115: 503-510.
IF 3.5
5. Miot F. and **Erneux C.** Characterization of the soluble cyclic nucleotide phosphodiesterases in *Xenopus laevis* oocytes: evidence for a calmodulin-dependent enzyme. Biochim.Biophys.Acta 1982 701: 253-259.
IF 2.5
6. **Erneux C.**, Miot F., Boeynaems J.M. and Dumont J.E. Paradoxical stimulation by 1-methyl-3-isobutylxanthine of rat liver cyclic AMP phosphodiesterase activity. FEBS Lett. 1982 142: 251-254.
IF 3.8
7. Miot F., Dumont J.E. and **Erneux C.** The involvement of a calmodulin-dependent phosphodiesterase in the negative control of carbamylcholine on cyclic AMP levels in dog thyroid. FEBS Lett. 1983 151: 273-276.
IF 3.8
8. **Erneux C.**, Cohen S. and Garbers D.L. The kinetics of tyrosine phosphorylation by the purified epidermal growth factor kinase of A-431 cells. J.Biol.Chem. 1983 258: 4137-4142.
IF 7.4
9. Couchie D., Petridis C., Jastorff B. and **Erneux C.** Characterization of phosphodiesterase catalytic sites by means of cyclic nucleotide derivatives. Eur.J.Biochem. 1983 136: 571-575.
IF 3.5

10. **Erneux C.**, Passareiro H. and Nunez J. Interaction between calmodulin and microtubule-associated proteins prepared at different stages of brain development. *FEBS Lett.* 1984 172: 315-320.
IF 3.8
11. Miot F., Van Haastert P. and **Erneux C.** Specificity of cGMP binding to a purified cGMP-stimulated phosphodiesterase from bovine adrenal tissue. *Eur.J.Biochem.* 1985 149: 59-65.
IF 3.5
12. **Erneux C.**, Miot F., Van Haastert P. and Jastorff B. The binding of cyclic nucleotide analogs to a purified cGMP-stimulated phosphodiesterase in bovine adrenal tissue. *J. Cycl. Nucl. Prot. Phosphoryl. Res.* 1985 10: 463-472.
13. **Erneux C.**, Van Sande J., Miot F., Cochaux P., Decoster C. and Dumont J.E. A mechanism in the control of intracellular cAMP level: the activation of a calmodulin-sensitive phosphodiesterase by a rise of intracellular free calcium. *Mol.Cell Endocrinol.* 1985 43: 123-143.
IF 2.6

1986-1990

14. **Erneux C.**, Van Sande J., Jastorff B. and Dumont J.E. Modulation of cyclic AMP action in the dog thyroid by its agonist and antagonist Sp- and Rp-adenosine 3',5'-monophosphorothioate. *Biochem.J.* 1986 243: 193-197.
IF 4.2
15. **Erneux C.**, Delvaux A., Moreau C. and Dumont J.E. Characterization of D-myo-inositol 1,4,5-trisphosphate phosphatase in rat brain tissue. *Biochem.Biophys.Res.Comm.* 1986 194: 351-358.
IF 3.2
16. Delvaux A., Dumont J.E. and **Erneux C.** The metabolism of inositol 4-monophosphate in rat mammalian tissues. *Biochem.Biophys.Res.Comm.* 1987 145: 59-65.
IF 3.2
17. **Erneux C.**, Delvaux A., Moreau C. and Dumont J.E. The dephosphorylation pathway of D-myo-inositol 1,3,4,5-tetra-kisphosphate in rat brain. *Biochem.J.* 1987 247: 635-639.
IF 4.2
18. Boeynaems J.M., Piroton S., Van Coevorden A., Raspé E., Demolle D. and **Erneux C.** P2-purinergic receptors in vascular endothelial cells: from concept to reality. *J.Receptor Res* 1988 8: 121-132.
IF 1.5
19. Takazawa K., Passareiro H., Dumont J.E. and **Erneux C.** Ca⁺⁺/calmodulin-sensitive inositol 1,4,5-trisphosphate 3-kinase in rat and bovine brain tissue. *Biochem.Biophys.Res.Comm.* 1988 153: 632-641.
IF 3.2
20. **Erneux C.**, Lemos M., Verjans B., Vanderhaeghen P., Delvaux A. and Dumont J.E. Soluble and particulate InsP3/InsP4 5-phosphate in bovine brain. *Eur.J.Biochem.* 1989 181: 317-322.
IF 3.5

21. Lemos M., Dumont J.E. and **Erneux C.** Identification of the bovine brain Ins(1,4,5)P₃ 5-phosphatase after SDS-polyacrylamide gel electrophoresis. FEBS Lett. 1989 249: 321-323.
IF 3.8
 22. Takazawa K., Passareiro H., Dumont J.E. and **Erneux C.** Purification of bovine brain inositol 1,4,5-trisphosphate 3-kinase. Biochem.J. 1989 261: 485-488.
IF 4.2
 23. Takazawa K. and **Erneux C.** Inhibition of inositol 1,4,5-trisphosphate 3-kinase by heparin. Basal and Ca²⁺/calmodulin assay conditions. Biochem.J. 1989 261: 1059.
IF 4.2
 24. Delvaux A., Dumont J.E. and **Erneux C.** The kinetics of inositol 1,4-bisphosphate 1-phosphatase in bovine brain. Second Messengers Phosphoproteins 1989 12: 281-288.
 25. Takazawa K., Lemos M., Delvaux A., Lejeune C., Dumont J.E. and **Erneux C.** Rat brain InsP₃ 3-kinase: purification, calcium sensitivity and antibody production. Biochem.J. 1990 268: 213-217.
IF 4.2
 26. Delvaux A., Lemos M., Moreau C. and **Erneux C.** Regeneration of enzymatic activity after sodium dodecyl sulfate/polyacrylamide gel electrophoresis and zinc acetate staining: the example of inositol 1,4,5-trisphosphate 5-phosphatase. Anal.Biochem. 1990 188: 219-221.
IF 2
 27. Takazawa K., Vandekerckhove J., Dumont J.E. and **Erneux C.** Cloning and expression in Escherichia coli of a rat brain cDNA encoding a Ca²⁺/calmodulin-sensitive inositol 1,4,5-trisphosphate 3-kinase. Biochem.J. 1990 272: 107-112.
IF 4.2
 28. Verjans B., Hollande F., Moreau C., Lejeune C. and **Erneux C.** Soluble and particulate inositol 1,4,5-trisphosphate 5-phosphatases show common antigenic determinants. Cell Signal. 1990 2: 595-599.
IF 2.1
 29. Takazawa K., Perret J., Dumont J.E. and **Erneux C.** Human brain inositol 1,4,5-trisphosphate 3-kinase cDNA sequence. Nucleic.Acids.Res. 1990 18: 7141.
IF 4.2
- 1991-1995
30. Van Haastert P., Janssens P., and **Erneux C.** Sensory transduction in eukaryotes. A comparison between Dictyostelium and vertebrate cells. Eur.J.Biochem. 1991 195: 289-303.
IF 3.5
 31. Takazawa K., Perret J., Dumont J.E. and **Erneux C.** Molecular cloning and expression of a human brain inositol 1,4,5-trisphosphate 3-kinase. Biochem.Biophys.Res.Commun. 1991 174: 529-535.
IF 3.2
 32. **Erneux C.** and Takazawa K. Intracellular control of inositol

- phosphates by their metabolizing enzymes. Trends.Pharmacol.Sci. 1991 12: 174-176.
IF 17.6
33. Piroton S., Verjans B., Boeynaems J.M. and **Erneux C.** Metabolism of inositol phosphates in ATP-stimulated vascular endothelial cells. Biochem.J. 1991 277: 103-110.
IF 4.2
 34. Takazawa K., Perret J., Dumont J.E. and **Erneux C.** Molecular cloning and expression of a new putative inositol 1,4, 5-trisphosphate 3-kinase isoenzyme. Biochem.J. 1991 278: 883-886.
IF 4.2
 35. Hollande F., Verjans B. and **Erneux C.** Regeneration of soluble and particulate inositol 1,4,5-trisphosphate 5-phosphatase after SDS/PAGE. Biochem.J. 1991 277: 293-294.
IF 4.2
 36. Takazawa K. and **Erneux C.** Identification of residues essential for catalysis and binding of calmodulin in rat brain inositol 1,4,5-trisphosphate 3-kinase. Biochem.J. 1991 280: 125-129.
IF 4.2
 37. Verjans B., Lecocq R., Moreau C. and **Erneux C.** Purification of bovine brain inositol-1,4,5-trisphosphate 5-phosphatase. Eur.J.Biochem. 1992 204: 1083-1087.
IF 3.5
 38. **Erneux C.**, Roeckel N., Takazawa K., Mailleux P., Vassart G. and Mattei A. Localization of the genes for human inositol 1,4,5-trisphosphate 3-kinase A (8TPKA) and B (8TPKB) to chromosome regions 15q14-15q21 and 1q41-q43, respectively by in situ hybridization. Genomics 1992 14: 546-547.
IF 4.0
 39. Mailleux P., Mitchell F., Vanderhaeghen J.J., Milligan G. and **Erneux C.** Immunohistochemical distribution of neurons containing the G-proteins Gq α /G11 in the adult rat brain. Neuroscience 1992 51: 311-316.
IF 4.3
 40. Communi D., Takazawa K. and **Erneux C.** Lys-197 and Asp-414 are critical residues for binding of ATP/Mg²⁺ by rat brain inositol 1,4,5-trisphosphate 3-kinase. Biochem.J. 1993 291: 811-816.
IF 4.2
 41. **Erneux C.**, Moreau C., Vandermeers A. and Takazawa K. Interaction of calmodulin with a putative calmodulin-binding domain of inositol 1,4,5-trisphosphate 3-kinase. Effects of synthetic peptides and site-directed mutagenesis of Trp165. Eur.J.Biochem. 1993 214: 497-501.
IF 3.5
 42. Communi D., Vanweyenberg V., **Erneux C.** Purification and biochemical properties of a high molecular weight inositol 1,4,5-trisphosphate 3-kinase isoenzyme in human platelets. Biochem. J. 1994 298: 669-673.
IF 4.2
 43. D'Santos C., Communi D., Ludgate M., Vanweyenberg V., Takazawa K., **Erneux C.** Identification of high molecular weight forms of inositol 1,4,5-trisphosphate 3-kinase in

- rat thymus and human lymphocytes. *Cell. Signalling* 1994 6: 335-344.
IF 2.1
44. Verjans B., Desmedt F., Lecocq R., Vanweyenberg V., Moreau C., **Erneux C.** Cloning and expression in *Escherichia coli* of a dog thyroid cDNA encoding an inositol 1,4,5-trisphosphate 5-phosphatase. *Biochem. J.* 1994 300: 85-90.
IF 4.2
45. Verjans B., Moreau C., **Erneux C.** The control of intracellular signal molecules at the level of their hydrolysis: the example of inositol 1,4,5-trisphosphate 5-phosphatase. *Mol. Cell. Endocrinol.* 1994 98: 167-171.
IF 2.6
46. De Smedt F., Verjans B., Maillieux P., **Erneux C.** Cloning and expression of human brain type I inositol 1,4,5-trisphosphate 5-phosphatase: high levels of mRNA in cerebellar Purkinje cells. *FEBS Lett.* 1994 347: 69-72.
IF 3.8
47. Vanweyenberg V., Communi D., D'Santos C., **Erneux C.** Tissue and cell specific expression of inositol 1,4,5-trisphosphate 3-kinase isoenzymes. *Biochem. J.* 1995 306: 429-435.
IF 4.2
48. Communi, D., Vanweyenberg, V., **Erneux, C.** Molecular study and regulation of D-myo-inositol 1,4,5-trisphosphate 3-kinase *Cell. Signalling* 1995 7: 643-650.
IF 2.1
49. Communi D., Lecocq R., Vanweyenberg V., **Erneux C.** Active site labeling of D-myo-inositol 1,4,5-trisphosphate 3-kinase A by phenylglyoxal *Biochem. J.* 1995 310: 109-115.
IF 4.2
50. **Erneux, C.**, De Smedt, F., Moreau, C., Rider, M., Communi, D. Production of recombinant human brain Type I inositol 1,4,5-trisphosphate 5-phosphatase in *Escherichia coli*: lack of phosphorylation by protein kinase C. *Eur. J. Biochem.* 1995 234: 598-602.
IF 3.5
- 1996-2000*
51. De Smedt, F., Boom, A., Pesesse, X., Schiffmann, S.N., **Erneux, C.** Post-translational modification of human brain Type I inositol 1,4,5-trisphosphate 5-phosphatase by farnesylation *J. Biol. Chem.* 1996 271: 10419-10424.
IF 7.4
52. Communi, D., Lecocq R., **Erneux, C.** Arg-343 and Arg-350 are two active residues involved in substrate binding by human Type I D-myo-inositol 1,4,5-trisphosphate 5-phosphatase. *J. Biol. Chem.* 1996 271: 10676-10683.
IF 7.4
53. Drayer, A.L., Pesesse, X., De Smedt, F., Woscholski, R., Parker, P., **Erneux, C.** Cloning and expression of a human placenta inositol 1,3,4,5-tetrakisphosphate and phosphatidylinositol 3,4,5-trisphosphate 5-phosphatase *Biochem. Biophys. Res. Commun.* 1996 225: 243-249.
IF 3.2

54. Fauq, A.H., Zaidi, J.H., Wilcox, R.A., Varvel, G., Nahorski, S.R., Kozikowski, A.P., **Erneux, C.** Tetrahedron Letts. 1996 37: 1917-1920.
IF 2.6
55. Communi, D., **Erneux, C.** Identification of an active site cysteine residue in human Type I Ins(1,4,5)P₃ 5-phosphatase by chemical modification and site-directed mutagenesis. Biochem. J. 1996 320: 181-186.
IF 4.2
56. Drayer, L., Pesesse, X., De Smedt, F., Communi, D., Moreau, C., **Erneux, C.** The family of inositol and phosphatidylinositol polyphosphate 5-phosphatases Biochem. Soc. Transactions 1996 24: 1001-1005.
IF 1.3
57. Communi, D., Vanweyenberg, V., **Erneux, C.** D-myo-inositol 1,4,5-trisphosphate 3-kinase-A is activated by receptor activation by a calcium:calmodulin-dependent protein kinase II phosphorylation mechanism EMBO J. 1997 16: 1943-1952.
IF 13.5
58. De Smedt, F., Missiaen, L., Parys, J. B., Vanweyenberg, De Smedt, J, **Erneux, C.** Isoprenylated human brain type I inositol 1,4,5-trisphosphate 5-phosphatase controls Ca²⁺ oscillations induced by ATP in Chinese Hamster Ovary cells J. Biol. Chem. 1997 272: 17367-17375.
IF 7.4
59. Dupont, G., **Erneux, C.** Simulations of the effect of inositol 1,4,5-trisphosphate 3-kinase and 5-phosphatase activities on Ca²⁺ oscillations Cell Calcium 1997 22: 321-331.
IF 3.4
60. Pesesse, X., Deleu, S., De Smedt, F., Drayer, L., **Erneux, C.** Identification of a second SH2-domain-containing protein closely related to the phosphatidylinositol polyphosphate 5-phosphatase SHIP Biochem. Biophys. Res. Commun. 1997 239: 697-700.
IF 3.2
61. Pesesse, X, Moreau, C., Drayer, L., Woscholski, R., Parker, **Erneux, C.** The SH2 domain inositol 5-phosphatase SHIP2 displays phosphatidylinositol 3,4,5 trisphosphate and inositol 1,3,4,5 tetrakisphosphate FEBS lett. 1998 437: 301-303.
IF 3.6
62. **Erneux, C.**, Govaerts, C., Communi, D, Pesesse, X. The diversity and possible functions of the inositol polyphosphate 5-phosphatases Biochim. Biophys Acta 1998, 1436/1-2: 185-1997
IF 2.5
63. Muraille, E., Pesesse, X, Kuntz, C., **Erneux, C.** Distribution of the Src-homology-2-domain-containing inositol 5-phosphatase SHIP-2 in both non-haemopoietic and haemopoietic cells and possible involvement of SHIP-2 in negative signaling of B-cells Biochem. J. 1999 342: 697-705.
IF 4.2
64. Communi, D., Dewaste, V., **Erneux, C.** Calcium:calmodulin-dependent protein kinase II and protein kinase C-mediated phosphorylation and activation of D-myo-inositol 1,4,5-trisphosphate 3-kinase B in astrocytes J. Biol Chem. 1999 274: 14734-14742.
IF 7.4
65. Bruyns, C., Pesesse, X., Moreau, C., Blero, D., **Erneux, C.** The two SH2 domain

containing inositol 5-phosphatases SHIP1 and SHIP2 are coexpressed in human T lymphocytes *Biological Chemistry* 1999 380: 969-974.

IF 1.6

66. Muraille, E., Bruyns, P., Pesesse, X., Daëron, M. **Erneux, C.** The SH2 domain containing inositol 5-phosphatase SHIP2 associates to the immunoreceptor tyrosine-based inhibition motif of Fc γ RIIB in B cells under negative signaling *Immunology letters* 2000 72 : 7-15.

IF 1.2

67. Dewaste, V., Pouillon, V., Moreau, C., Shears, S., Takazawa, K. , **Erneux, C.** Cloning and expression of a cDNA encoding human inositol 1,4,5 trisphosphate 3-kinase C *Biochem. J.* 2000 352, 343-351.

IF 4.2

2001-2005

68. Blero, D, De Smedt, F., Pesesse, X., Dewaste, V., Moreau, C., Payrasytre, B and **Erneux, C.** The SH2 domain containing inositol 5-phosphatase SHIP2 controls phosphatidylinositol 3,4,5-trisphosphate levels in CHO-IR cells stimulated by insulin *Biochem. Biophys. Res. Commun.* 2001 282, 839-843.

IF3.2

69. Pesesse, X., Dewaste, V., De Smedt, F., Laffargue, M., Giuriato, S., Moreau, C., Payrastre, B. and **Erneux, C.** The SH2 domain containing inositol 5-phosphatase SHIP2 is recruited to the EGF receptor and dephosphorylates phosphatidylinositol 3,4,5-trisphosphate in EGF stimulated COS-7 cells *J. Biol. Chem.* 2001 276, 28348-28355.

IF 7.4

70. Communi, D., Gevaert, K. , Demol, H., Vandekerckhove, J., and **Erneux, C** A novel receptor-mediated regulation mechanism of type I inositol polyphosphate 5-phosphatase by calcium:calmodulin-dependent protein kinase II phosphorylation *J. Biol. Chem.* 2001 276, 38738-38747.

IF 7.4

71. Dewaste, V., Roymans, D. Moreau, C., and **Erneux, C.** Cloning and expression of a full-length cDNA encoding human inositol 1,4,5-trisphosphate 3-kinase B *Biochem. Biophys. Res. Commun.* 2002 291, 400-405.

IF 3.2

72. Giuriato, S., Blero, D., Robaye B., Bruyns, C., Payrastre, P. and **Erneux C.** SHIP2 overexpression strongly reduces the proliferation rate of K562 erythroleukemia cell line *Biochem. Biophys. Res. Commun.* 2002 296, 106-110.

IF 3.2

73. Backers, K., Blero, D., Paternotte, N. and **Erneux, C.** The termination of PI3K signalling by SHIP1 and SHIP2 inositol 5-phosphatases *Adv Enzyme Regulation* 2003 43, 15-28.

IF 2.4

74. Dewaste, V., Moreau, C., De Smedt, F., Bex, F., De Smedt, H., Wuytack, F, Missiaen, L. and **Erneux C** The three isoenzymes of human inositol 1,4,5-trisphosphate 3-kinase show specific intracellular localization but comparable Ca²⁺ responses upon transfection in COS-7 cells *Biochem. J.* 2003 374, 41-49.

IF 4.2

75. Hascakova-Bartova, R., Pouillon, V., Dewaste, V., Moreau, C., Jacques, C., Banting, G., Schurmans, S., and **Erneux, C.** Identification and subcellular distribution of endogenous Ins(1,4,5)P₃ 3-kinase B in mouse tissues *Biochem. Biophys. Res. Commun* 2004 323, 920-925.
IF 3.2
76. Blero, D., Zhang, J., Pesesse, X., Payrastra, B., Dumont, J.E., Schurmans, S. and **Erneux, C.** Phosphatidylinositol 3,4,5-trisphosphate modulation in SHIP2-deficient mouse embryonic fibroblasts *FEBS J.* 2005 272, 2512-2522.
IF 3.3
77. Pesesse, X., Leyman, A., Luyten, T., Missiaen, L. and **Erneux, C.** Hyperosmotic stress stimulates inositol 1,4,5-trisphosphate and inositol 1,3,4,5-tetrakisphosphate formation independently of bisdiphosphoinositol tetrakisphosphate modulation *Biochem. Biophys. Res. Commun.* 2005 336, 157-162.
IF 3.2
78. Paternotte, N., Zhang, J., Vandenbroere, I., Backers, K., Blero, D., Kioka, N., Vanderwinden, JM, Pirson, I. and **Erneux, C.** SHIP2 interaction with the cytoskeletal protein Vinexin *FEBS J.* 2005 272, 6052-6066.
IF 3.3
79. Poinas, A., Backers, K., Riley, A., Mille, S., Moreau, C., Potter, B.V.L. and **Erneux, C.** Interaction of the catalytic domain of Ins(1,4,5)P₃ 3-kinase A with inositol phosphate analogues *BioChemBio* 2005 6, 1449-1457.
IF 3.99
- 2006-2010*
80. Vanderwinden, J.M., Wang, D., Paternotte, N., Mignon, S., Isozaki, K. and **Erneux, C.** Differences in activated signaling pathways and in expression level of the phosphoinositides phosphatase SHIP1 between two oncogenic mutants of the receptor tyrosine kinase KIT *Cellular Signalling* 2006 18, 661-669.
IF 5.1
81. Van Sande, J., Dequanter, D., Massart, C., Lothaire, P., Dumont, J. E. and **Erneux, C.** TSH stimulates the generation of inositol 1,4,5-trisphosphate in human thyroid cells *J Clin Endocrinology & Metabolism* 2006 91, 1099-1107.
IF 5.8
82. Vandeput, F., Backers, K., Villeret, V., Pesesse, X., **Erneux, C.** The influence of anionic lipids on SHIP2 phosphatidylinositol 3,4,5-trisphosphate 5-phosphatase activity *Cellular Signalling* 2006 18, 2193-2199.
IF 4.9
83. Pesesse X., Backers, K., Moreau, C., Zhang, J., Blero, D., Paternotte, N., **Erneux, C.** the SH2-containing inositol 5-phosphatases SHIP1 and SHIP2: interaction with tyrosine phosphorylated peptides *Adv Enzyme Regulation* 2006 46, 142-153.
IF 2.4
84. Vandeput F., Combettes L., Stephen J. Mills, Katrien Backers, Alexandre Wohlkonig, Jan B. Parys, Humbert De Smedt, Ludwig Missiaen, Geneviève Dupont, Potter B.V.L.

and **Erneux, C.**

Biphenyl 2,3',4,5',6-pentakisphosphate, a novel inositol polyphosphate surrogate, modulates Ca²⁺ responses in rat hepatocytes FASEB J 2007 21, 1481-1491.
IF 7.1

85. Blero, D., Payrastra, B., Schurmans, S., **Erneux, C.** Phosphoinositide phosphatases in a network of signalling reactions Pflugers Archiv-European Journal of Physiology 2007 Pflugers Arch. 2007 455(1), 31-44.
IF 3.6
86. Deneubourg, L., Vanderwinden, JM and **Erneux, C.** Regulation of SHIP2 function through membrane interaction Adv Adv Enzyme Regulation 2009 (in press).

2) Co-author

1980-1985

1. Van Sande J., **Erneux C.** and Dumont J.E. Negative control of TSH action by iodide and acetylcholine: mechanism of action in intact thyroid cells. J. Cyclic Nucl. Res. 1977 3: 335-345.
2. Pochet R., Van Sande J., **Erneux C.** and Dumont J.E. Inhibition by iodide of thyroid adenylate cyclase. FEBS Lett. 1977 83: 33-36.
IF 3.8
3. Couchie D., **Erneux C.** and Dumont J.E. Characterization of a rat liver cyclic GMP-activated phosphodiesterase by hexyl-agarose. Biochem.J. 1981 199: 441-446.
IF 4.2
4. Delbeke D., Van Sande J., Swillens S., **Erneux C.** and Dumont J.E. Cooling enhances adenosine 3',5' monophosphate accumulation in thyrotropin stimulated dog thyroid slices. Metabolism 1982 31: 797-803.
IF 1.8
5. Miot F., **Erneux C.**, Wells J.N. and Dumont J.E. The effect of alkylated xanthines on cyclic AMP accumulation in dog thyroid slices exposed to carbamylcholine. Mol.Pharmacol. 1984 25: 261-266.
IF 6.6
6. Unger J., Ketelbant C., **Erneux C.**, Mockel J. and Dumont J.E. Mechanisms of cholinergic inhibition of dog thyroid secretion in vitro. Endocrinology 1984 114: 1266-1272.

IF 4.7

1985-1990

7. Brauman T., **Erneux C.**, Petridis C., Stoher W.D. and Jastorff B. Hydrolysis of cyclic nucleotides by a purified cGMP-stimulated phosphodiesterase: structural requirements for hydrolysis. *Biochim.Biophys.Acta* 1986 871: 199-206.
IF 2.5
8. Delvaux A., **Erneux C.**, Moreau C. and Dumont J.E. Enzymic dephosphorylation of D-myo-inositol 1,4-bisphosphate in rat brain. *Biochem.J.* 1987 242: 193-198.
IF 4.2
9. Graff I., Mockel J., Laurent E., **Erneux C.** and Dumont J.E. Carbachol and sodium fluoride but not TSH, stimulate the generation of inositol phosphates in the dog thyroid. *FEBS Lett.* 1987 210: 204-210.
IF 3.8
10. Pirotton S., **Erneux C.** and Boeynaems J.M. Dual role of GTP-binding proteins in the control of endothelial prostacyclin. *Biochem.Biophys.Res.Comm.* 1987 147: 1113-1120.
IF 3.2
11. Pirotton S., Raspé E., Demolle D., **Erneux C.** and Boeynaems J.M. Involvement of inositol 1,4,5-trisphosphate and calcium in the action of adenine nucleotides on aortic endothelial cells. *J.Biol.Chem.* 1987 262: 17461-17466.
IF 7.4
12. Miot F., Keppens S., **Erneux C.**, Dumont J.E., Wells J.N. and De Wulf H. Involvement of a plasma membrane phosphodiesterase in the cyclic AMP decrease provoked by vasopressin in rat hepatocytes challenged with glucagon. *Biochem.Pharmacol.* 1988 37: 3447-3453.
IF 2.4
13. Van Lookeren M., Van Eyk R., **Erneux C.** and Van Haastert P. Two dephosphorylation pathways of inositol 1,4,5-trisphosphate in *Dictyostelium* homogenates. *Biochem.J.* 1988 254: 343-350.
IF 4.2
14. Van Haastert P., De Vries M.J., Penning L.C., Roovers E., Van der Kaaj J., **Erneux C.** and Van Lookeren M. Chemoattractant and guanosine 5' thiotrisphosphate induce the accumulation of inositol 1,4,5-trisphosphate in *Dictyostelium* cells that are labelled with ³H inositol by electroporation. *Biochem.J.* 1989 258: 577-586.
IF 4.2
15. Laurent E., Mockel J., Takazawa K., **Erneux C.** and Dumont J.E. Stimulation of generation of inositol phosphates by carbamoylcholine and its inhibition by phorbol esters and iodide in dog thyroid cells. *Biochem.J.* 1989 263: 795-801.
IF 4.2
16. Passareiro H., **Erneux C.** and Nunez J. Interaction of the two structural domains of calmodulin with mature and immature rat brain microtubules. *J.Neurochem.* 1990 55: 1683-1689.
IF 4.9

1991-1995

17. Maillieux P., Takazawa K., **Erneux C.** and Vanderhaeghen J.J. Inositol 1,4,5-trisphosphate 3-kinase distribution in the rat brain. High levels in the hippocampal CA1 pyramidal and cerebellar Purkinje cells suggest its involvement in some memory processes. *Brain Res.* 1991 539: 203-210.
IF 2.7
18. Maillieux P., Takazawa K., **Erneux C.** and Vanderhaeghen J.J. Inositol 1,4,5-trisphosphate 3-kinase mRNA: high levels in the rat hippocampal CA1 pyramidal and dentate gyrus granule cells and in cerebellar Purkinje cells. *J.Neurochem.* 1991 56: 345-347.
IF 4.9
19. Verjans B., **Erneux C.**, Raspe E. and Dumont J.E. Kinetics of inositol 1,4,5-trisphosphate and inositol 1,3,4,5-tetrakisphosphate generation in dog-thyroid primary cultured cells stimulated by carbachol. *Eur.J.Biochem.* 1991 196: 43-49.
IF 3.5
20. Raspé E., Laurent E., Corvilain B., Verjans B., **Erneux C.** and Dumont J.E. Control of the intracellular Ca²⁺ concentration and the inositol phosphate accumulation in dog thyrocyte primary culture. *J.Cell.Physiol.* 1991 146: 242-250.
IF 3.0
21. Maillieux P., Takazawa K., Albala N., **Erneux C.** and Vanderhaeghen, J.J. Comparison of neuronal inositol 1,4,5-trisphosphate 3-kinase and IP₃ receptor mRNA in the human brain. by in situ hybridization histochemistry *Neurosci.Lett.* 1992 137: 69-71.
IF 2.3
22. Maillieux P., Takazawa K., **Erneux C.** and Vanderhaeghen J.J. Comparison of neuronal inositol 1,4,5-trisphosphate 3-kinase and receptor mRNA distributions in the adult rat brain using in situ hybridization histochemistry. *Neuroscience* 1992 49: 577-590.
IF 4.3
23. Maillieux P., Takazawa K., Albala N., **Erneux C.** and Vanderhaeghen J.J. Astrocytic localization of the messenger RNA encoding the isoenzyme B of inositol 1,4,5 3-kinase in the human brain. *Neurosci.Lett.* 1992 148: 177-180.
IF 2.3
24. Maillieux P., Takazawa K., **Erneux C.** and Vanderhaeghen J.J. Distribution of the neurons containing inositol 1,4,5-trisphosphate 3-kinase and its messenger RNA in the developing rat brain. *J. Comparative Neurology* 1993 327: 618-629.
IF 3.6
25. Go M., Uchida T., Takazawa K., Endo T., **Erneux C.**, Maillieux P. and Onaya T. Inositol 1,4,5-trisphosphate 3-kinase highest levels in the dendritic spines of cerebellar Purkinje cells and hippocampal CA1 pyramidal cells. A pre- and post-embedding immunoelectron microscopic study. *Neuroscience* 1993 158: 135-138.
IF 4.3
26. Craxton A., **Erneux C.** and Shears S.B. Inositol 1,4,5,6-tetrakisphosphate is phosphorylated in rat liver by a 3-kinase that is distinct from inositol 1,4,5-trisphosphate 3-kinase. *J. Biol. Chem.* 1994 269: 4337-4342.
IF 7.4

27. Van Dijken P., Lammers A.A., Ozaki S., Potter B.V.L., **Erneux C.**, Van Haastert P.J.M. Phosphorylation of inositol 1,4,5-trisphosphate analogues by 3-kinase and dephosphorylation of inositol 1,3,4,5-tetrakisphosphate analogues by 5-phosphatase Eur. J. Biochem. 1994 226: 561-566.
IF 3.5
 28. Wilcox R., **Erneux, C.**, Gigg, R., Nahorski, S.R. 2-Hydroxyethyl α -D-Glucopyranoside 2,3',4'-trisphosphate a novel metabolically resistant adenophostin A and *myo*-inositol 1,4,5-trisphosphate analogue potently interacts with the *myo*-inositol 1,4,5-trisphosphate receptor Mol Pharmacol 1995 47: 1204-1211.
IF 6.6
 29. Cho M.H., Tan Z., **Erneux C.**, Shears S.B., Boss W.F. The effects of mastoporan on the carrot cell plasma membrane phospholipase C Plant Physiol. 1995 107: 845-856.
IF 3.8
 30. Takazawa K., Endo T., **Erneux C.**, Onaya T. Inositol 1,4,5-trisphosphate 3-kinase activity in FRTL-5 cells: regulation of activity by TSH J. of Endocrinology 1995 144: 527-532.
IF 2.6
 31. Van Dijken, P., De Haas, J.R., Craxton, A., **Erneux, C.**, Shears, S.B., Van Haastert, P.J.M. A novel, phospholipase C-independent pathway of Ins(1,4,5)P₃ formation in *Dictyostelium* and rat liver. J. Biol.Chem. 1995 270: 29724-29731.
IF 7.4
 32. Lecocq R., Lamy F., **Erneux C.**, Dumont J.E. Purification and identification of calcyphosine, a Ca²⁺ binding protein phosphorylated by protein kinase A Biochem. J. 1995 306: 147-151.
IF 4.2
- 1996-2000
33. Giuriato, S., Payrastra, B., Drayer, L., Plantavid, M., Woscholski, R., Parker, P., **Erneux, C.**, Chap, H. Tyrosine phosphorylation and relocation of SHIP are integrin-mediated in thrombin-stimulated human blood platelets J. Biol. Chem. 1997 272: 26857-26863.
IF 7.4
 34. Togashi, S., Takazawa, K., Endo, T., **Erneux, C.**, Onaya, T. Structural identification of the *myo*-inositol 1,4,5-trisphosphate-binding domain in rat brain inositol 1,4,5-trisphosphate 3-kinase Biochem. J. 1997 326: 221-225.
IF 4.2
 35. Yoshimura, K., Watanabe, Y., **Erneux, C.**, Hirata, M. Use of phosphorofluoridate analogues of D-*myo*inositol 1,4,5-trisphosphate to assess the involvement of ionic interactions in its recognition by the receptor and metabolizing enzymes Cell Signaling 1999 11, 117-125.
IF 2.09
 36. De Smet, P., Parys, J. B., Callewaert, G., Weidema, A. F., Hill, E., De Smedt, H., **Erneux, C.**, Sorrentino, V. en Missiaen, L. (1999) Xestospongine C is an equally potent inhibitor of the inositol 1,4,5-trisphosphate receptor and the endoplasmic-reticulum Ca²⁺ pumps. Cell Calcium 1999 26, 9-13.
IF 4.1
 37. Takeuchi, H., Oike, M., Paterson, H.F., Allen, V., Kanematsu, T., **Erneux, C.**, Ito, Y.,

Katan, M., Hirata, M. Involvement of p130, PLC-related catalytically inactive protein, in regulation of inositol 1,4,5-trisphosphate signalling: critical role of the p130PH domain *Biochem. J.* 2000 349, 357-368.

IF 4.2

38. Giuriato, S., Bodin, S., **Erneux, C.**, Woscholski, R., Plantavid, M., Chap, H. , Payrastra B. Pp60^{c-src} associates with the Src-homology-2-containing inositol 5-phosphatase SHIP1 and is involved in its tyrosine phosphorylation downstream α lib β 3 integrin in human platelets *Biochem. J.* 2000 348, 107-112.

IF 4.2

39. Dubois, E, Dewaste, V., **Erneux, C.** Messenguy, F Inositol polyphosphate kinase activity of Arg82/ArgR111 is not required for the regulation of the arginine metabolism in yeast. *FEBS Letters* 2000 486, 300-304.

IF3.8

2001-2005

40. Clément, S., Krause, K, De Smedt, F., Tanti, J.F., Behrends, J., Pesesse, X., Sasaki, T., Penninger, J., Doherty, M., Malaisse, W., Dumont, J.E., Yannick Le Marchand-Brustel, Y., **Erneux, C.**, Hue, L, and Schurmans, S The Lipid Phosphatase SHIP2 Controls Insulin Sensitivity *Nature* 2001 409, 92-97. Corrigendum: The lipid phosphatase SHIP2 controls insulin sensitivity.

Nature. 2004 Oct 14;431(7010):878.

IF 27

40. Muraille, E. Dassesse, D., Vanderwinden, J.M., Cremer, H., **Erneux, C.**, Schiffmann, S.N. The SH2 domain containing 5-phosphatase SHIP2 is expressed in the germinal layers of embryo and adult mouse brain : increased expression in N-CAM-deficient mice *Neuroscience* 2001 105, 1019-1030.

IF 3.5

41. Clair, C., Chalumeau, C., Tordjmann, T., Poggioli, J., **Erneux, C.**, Dupont, G. and Combettes, L Investigation of the roles of Ca(2+) and InsP(3) diffusion in the coordination of Ca(2+) signals between connected hepatocytes. *J Cell Sci.* 2001 114,1999-2007.

IF 6.0

42. Schell, M.J., **Erneux, C.** and Irvine, R.F. Ins(1,4,5)P₃ 3-Kinase A Associates with Dendritic Spines and F-Actin via its N-Terminus *J. Biol. Chem.* 2001 276, 37537-37546.

IF 7.4

43. Missiaen, L., Vanoevelen, J., Parys, J.B., Raeymaekers, L., De Smedt, H., Callewaert, G., **Erneux, C.** and Wuytack, F. Ca²⁺ uptake and release properties of a thapsigargin-insensitive non- mitochondrial Ca²⁺ store in A7r5 and 16 HBE14o-cells *J. Biol. Chem.* 2002 277, 6898-6902.

IF 7.4

44. Kasri, N. , Bultinck, G., Sienart, I., Callewaert, G., **Erneux, C.**, Missiaen, L., Parys, J., and De Smedt, H. The role of calmodulin for inositol 1,4,5-trisphosphate receptor function *Biochim. Biophys. Acta* 2002 1600, 19-31.

IF 2.5

46. Looovers, H, M., Veenstra, K., Snippe, H., Pesesse, X., **Erneux, C.**, van Haastert, P.J.M. A diverse family of phosphatidyl inositol 5-phosphatases playing a role in growth and development in *Dictyostelium discoideum* *J. Biol. Chem.* 2003 278, 5652-

5658.
IF 7.4
47. Vandebroere, I., Paternotte, N., Dumont J.E., **Erneux, C.**, Pirson I. The c_Cbl associated protein and c-Cbl are two new partners of the SH2-containing inositol polyphosphate 5-phosphatase SHIP2 Biochem. Biophys. Res. Commun. 2003 300, 494-500.
IF 3.2
48. Dupont, G. , Koukoui, O. Clair, **Erneux, C.**, Swillens, S.and Combettes, L. Ca²⁺ oscillations in hepatocytes do not require the modulation of InsP₃ 3-kinase activity by Ca²⁺ Febs Letters 2003 534, 101-105.
IF 3.8
49. Giuriato, S, Pesesse, X, Bodin, S, Sasaki, T, Viala, C., Marion, E., Penninger, J., Schurmans, S., **Erneux, C.**, and Payrastra, B. SH2 domain containing inositol 5-phosphatases 1 and 2 in blood platelets: interaction and respective role in the control of phosphatidylinositol 3,4,5-trisphosphate level Biochem. J. 2003 376, 199-207.
IF 4.2
50. Pouillon, V, Hascakova-Bartova, R, Pajak, B, Adam, E, Bex, F, Dewaste, V, Van Lint, C, Leo, O, **Erneux, C**, Schurmans, S Inositol 1,3,4,5-tetrakisphosphate is essential for T lymphocyte development Nat Immunol. 2003 11, 1136-1143.
IF 27.8
51. Mills, S., Backers, K., **Erneux, C.**, Potter, B.V.L. Synthesis od D- and L- myo-inositol 1,2,4,6 tetrakisphosphate regioisomers of myo-inositol 1,3,4,5 tetrakisphosphate : activity against Ins(1,4,5)P₃ binding proteins Org. Biomol. Chem. 2003 1, 3456-3556.
52. Claes P, Van Kolen K, Roymans D, Blero D, Vissenberg K, **Erneux, C**, Verbelen JP, Esmans EL, Slegers H. Reactive blue 2 inhibition of cyclic AMP-dependent differentiation of rat C6 glioma cells by purinergic receptor-independent inactivation of phosphatidylinositol 3-kinase Biochem. Pharmacol. 2004 67, 1489-1498.
IF 2.99
53. Markadieu, N., Blero, D., Boom, A., **Erneux, C.** and Beauwens, R. Phosphatidylinositol 3,4,5-trisphosphate : an early mediator of the insulin-stimulated sodium transport in A6 cells Am J. Physiol Renal Physiol 2004 287, F319-F328.
IF 4.3
54. Harada, K., Takeuchi, H., Oike, M., Matsuda, M., Katenatsu, T., Yagisawa, H., Nakayama, K.I., Maeda, K., **Erneux, C.** and Hirata, M. Role of PRIP-1, a novel Ins(1,4,5)P₃ binding protein in Ins(1,4,5)P₃ – mediated Ca²⁺ signaling J Cell Physiol 2005 202, 422-433.
IF4.8
55. Markadieu, N, Crutzen, R, Blero, D., **Erneux, C**, Beauwens, R. Hydrogen peroxide and epidermal growth factor activate phosphatidylinositol 3-kinase and increase sodium transport in A6 cell monolayers Am J. Renal Physiol 2005 288(6):F1201-12.
IF 4.3

2006-2010

56. Theodoropoulou, M. , Zhang J., Laupheimer, S., Paez-Pereda, M., **Erneux, C.**, Florio, T., Pagotto, U. Stalla, G.K. Octreotide, a Somatostatin Analogue, Mediates Its Antiproliferative Action in Pituitary Tumor Cells by Altering Phosphatidylinositol 3-Kinase Signaling and Inducing Zac1 Expression *Cancer Research* 2006 66, 1576-1582.
IF 8.6
57. Gloire, G., Charlier, E., Rhamouni, S., Volanti, C., Chariot, A., **Erneux, C.**, Piette, J. Restoration of SHIP-1 activity in human leukemic cells modify NF- κ B activation pathway and cellular survival upon oxidative stress treatment *Oncogene* 2006 25(40):5485-4594.
IF 6.3
58. Mills, SJ, Dozol, H., Vandeput, F., Backers, K., Thymoty Woodman, T., **Erneux, C.**, Spiess, B., Potter, B.V.L. 3-Hydroxybenzene 1,2,4-Trisphosphate, a Novel Second Messenger Mimic and unusual Substrate for Type-I myo-Inositol 1,4,5-Trisphosphate 5-Phosphatase: Synthesis and Physicochemistry *ChemBioChem* 2006 11;7(11):1696-1706.
IF 3.99
59. Zhang, H., Markadiou, N., **Erneux, C.**, Prestwich, G.D. Synthesis and Biological Activity of PTEN-Resistant Analogues of Phosphatidylinositol 3,4,5-trisphosphate *J. Am. Chem. Soc. (Communication)* 2006 128:16464-16465.
IF 7.4
60. Rosivatz E., Matthews J. G., McDonald N. Q., Mulet X., Ho K. K., Lossi N., Schmid A. C., Mirabelli M., Pomeranz K. M., **Erneux C.**, Lam E. W., Vilar R., Woscholski R. A Small-Molecule Inhibitor for Phosphatase and Tensin Homologue Deleted on Chromosome 10 (PTEN) 2007 *ACS Chem. Biol.* 1 (12), 780–790.
61. Leyman, A., Valérie Pouillon, Alionka Bostan, Stéphane Schurmans, **Erneux, C.**, Pesesse X. The absence of expression of the three isoenzymes of the inositol 1,4,5-trisphosphate 3-kinase does not prevent the formation of inositol pentakisphosphate and hexakisphosphate in mouse embryonic fibroblasts *Cell Signal* 2007 19(7), 1497-1504.
IF 4.9
62. Raaijmakers JH, Deneubourg L, Rehmann H, de Koning J, Zhang Z, Krugmann S, **Erneux C**, Bos JL The PI3K effector Arap3 interacts with the PI(3,4,5)P(3) phosphatase SHIP2 in a SAM domain-dependent manner. *Cellular Signalling* 2007 *Cell Signal.* 2007, 19(6):1249-57.
IF 4.9
63. Gloire, G., **Erneux, C.**, Piette, J. The role of SHIP1 in T-lymphocyte life and death. *Biochem Soc Trans.* 2007, 35, 277-280.
IF 3.1
64. Wohlkönig, A., Magalie Sénéchal, Frédérique Dewitte, Katrien Backers, **Erneux, C.** Villeret, V. Expression and purification in high yield of a functionally active recombinant human Type I inositol(1,4,5)P3 5-phosphatase (in press) *Protein Expression and Purification, Protein Expr Purif.* 2007, 55(1):69-74.
IF 1.55

65. Onnockx, S., De Schutter, J., Blockmans, M., Xie, J., Jacobs, C., Vanderwinden, J.M., **Erneux, C.**, Pirson, I The association between the SH2-containing inositol polyphosphate 5-phosphatase 2 (SHIP2) and the adaptor protein APS has an impact on biochemical properties of both partners *Journal of Cellular Physiology J Cell Physiol.* 2008 214(1), 260-72.
IF 3.6
66. Zhang, J., Liu, Z, Rasschaert, J., Blero, D., Deneubourg, L., Schurmans, S., **Erneux, C.**, Pesesse, X. SHIP2 controls PtdIns(3,4,5)P₃ levels and PKB activity in response to oxidative stress *Cell Signal* 2007 19(10), 2194-21200.
IF 4.9
67. Maréchal Y, Pesesse X, Jia Y, Pouillon V, Pérez-Morga D, Daniel J, Izui S, Cullen PJ, Leo O, Luo HR, **Erneux C**, Schurmans S. Inositol 1,3,4,5-tetrakisphosphate controls proapoptotic Bim gene expression and survival in B cells *Proc Natl Acad Sci U S A* 2007 104(35), 13978-13983.
IF 9.8
68. Jia Y, Subramanian KK, **Erneux C**, Pouillon V, Hattori H, Jo H, You J, Zhu D, Schurmans S, Luo HR. Inositol 1,3,4,5-Tetrakisphosphate Negatively Regulates Phosphatidylinositol-3,4,5- Trisphosphate Signaling in Neutrophils. *Immunity* 2007 27(3), 453-67.
IF 18.3
69. Zhang, H., Yong Xu, Nicolas Markadieu, Beauwens, R., **Erneux C** and Prestwich G.D. Synthesis and Biological Activity of Phosphatidylinositol 3, 4, 5-Trisphosphorothioate *Bioorg. Med. Chem. Lett.* 2008 18(2), 762-766.
70. Jonghui Jia, Loison, F., Hattori, H., Li, Y., **Erneux, C.**, Park, S-Y., Gao, C., Chai, L., Silberstein, L. E., Schurmans, S., Luo HR Inositol trisphosphate 3-kinase B (InsP3KB) as a physiological modulator of myelopoiesis. *Proc Natl Acad Sci U S A* 2008 105(12):4739-44.
IF 9.8
71. Xie J, Onnockx S, Vandenbroere I, Degraef C, **Erneux C**, Pirson I The docking properties of SHIP2 influence both JIP1 tyrosine phosphorylation and JNK activity *Cellular Signalling* 2008 8, 1432-1441.
IF 4.9
72. Mills SJ, Vandeput F, Trusselle MN, Safrany ST, **Erneux C**, Potter BV. Benzene Polyphosphates as Tools for Cell Signalling: Inhibition of Inositol 1,4,5-Trisphosphate 5-Phosphatase and Interaction with the PH Domain of Protein Kinase B alpha. *Chembiochem.* 2008 Jun 23;9(11):1757-1766.
IF 3.99
73. Markadieu N, Crutzen R, Boom A, **Erneux C.**, Beauwens R Inhibition of insulin-stimulated hydrogen peroxide production prevents stimulation of sodium transport in A6 cell monolayers *Am J. Renal Physiol* 2009 Jun;296(6):F1428-38.
IF 4.3
74. Gromova, P., Ralea, S., Lefort, A., Libert, F., Rubin, B. P., **Erneux, C.**, Vanderwinden, JM Kit K641E oncogenic mutant upregulates Sprouty homolog 4 and Trophoblast glycoprotein in interstitial cells of Cajal in a murine model of gastrointestinal stromal

- tumors. *J of Cellular and Molecular Medicine* 2009 Aug;13(8A):1536-48.
IF 6.8
75. Onnockx S, Xie J, Degraef C, **Erneux C**, Pirson I. Insulin increase in MAP kinase phosphorylation is shifted to early time-points by overexpressing APS, while Akt phosphorylation is not influenced. *Exp Cell Res.* 2009 Sep 10;315(15):2479-86.
IF 3.7
76. Zwaenepoel, K., Goris, J, **Erneux, C.**, Peter J. Parker, P.J., Janssens, V. The Protein Phosphatase 2A PR130/B α 1 subunit binds to the SH2 domain-containing Inositol Polyphosphate 5-Phosphatase 2 and prevents Epidermal Growth Factor-induced EGF receptor degradation sustaining EGF-mediated signaling. *Faseb J* 2010 Feb;24(2):538-47.
IF 7.05
77. DeSchutter, J., Guillabert, A., Imbault, V., Degraef, C., **Erneux, C.**, Communi, D., Pirson, I. SHIP2 (SH2 domain-containing inositol phosphatase 2) SH2 domain negatively controls SHIP2 monoubiquitination in response to EGF *J. Biol. Chem* 2010 284, 36062-36076.
IF 5.8
78. Zhang H, He J, Kutateladze TG, Sakai T, Sasaki T, Markadiou N, **Erneux C**, Prestwich, GD. 5-Stabilized Phosphatidylinositol 3,4,5-Trisphosphate Analogues Bind Grp1 PH, Inhibit Phosphoinositide Phosphatases, and Block Neutrophil Migration *ChemBioChem* 2010 11(3):388-395.
IF 3.99
79. E Charlier , C Cond[eacute] , J Zhang , L Deneubourg , E Di Valentin , S Rahmouni , A Chariot , P Agostinis , P-C Pang , S M Haslam , A Dell , J Penninger , C Erneux , J Piette & G Gloire Leukemia (in press)

II Review publications

1. **Erneux, C.**, Vanweyenberg V., De Smedt F., Communi D. Implication des inositols lipides et de leurs produits d'hydrolyse dans la signalisation cellulaire *Médecine/Sciences* 1995 2: 240-246.
2. **Erneux, C.** L'entrée de phosphatases agissant sur des phosphoinositides dans la voie de signalisation de Ras. *Médecine/Sciences* 1996 12: 1417-1420.
3. Giuriato, S., Payrastra, B., Gratacap, MP., Chap, H. **Erneux, C.** Des ITIM(s) du lymphocyte aux intégrines de la plaquette: SHIP une protéine à la croisée des chemins ? *Médecine/Sciences* 1998 14: 698-703.
4. **Erneux C.**, Giuriato, S. Pesesse, X. The inositol polyphosphate 5-phosphatases *Encyclopedia of Molecular Medicine Wiley Encyclopedia of Molecular Medicine*, John Wiley and Sons, Inc. October 2001. New York, NY. volume 3, pages 1755-1758.
5. Dewaste, V., **Erneux, C.** Inositol 1,4,5-trisphosphate 3-kinase and 5-phosphatase *Handbook of Cellular Signaling*, volume 2, 2003 11-13.