

# BERNARD GALLEZ



**Birth:** Mons (Belgium), April 5, 1964

**Nationality:** Belgian

**Civil status:** Married (with Muriel Geurts), two children (Fanny and Arthur)

**Private address:** Avenue Grand Peine 79, 1428 Lillois, Belgium

**Professional address:**

Biomedical Magnetic Resonance Research Group, Louvain Drug Research Institute, Université Catholique de Louvain  
Avenue Mounier 73.08, B-1200 Brussels, Belgium

Tel: 32 2 7647391 - Fax: 32 2 7647390 - e-mail : [bernard.gallez@uclouvain.be](mailto:bernard.gallez@uclouvain.be)

**Qualifications:**

1988: Pharmacist *grande distinction*  
1990 : Master of Sciences (in Radioprotection and Application of Ionizing Radiations) *la plus grande distinction*  
1993 : PhD (Pharmaceutical Sciences) *la plus grande distinction avec les félicitations du jury*

**Certifications:**

1990 : Industry Pharmacist  
1992: Radiopharmacist

**Positions and Employment**

1988-1993: Teaching Assistant at the Department of Pharmaceutical Sciences, Catholic University of Louvain.  
Research in the Laboratory of Medicinal Chemistry.

1993-1994: Research at the EPR Research Center, Department of Radiology, Dartmouth Medical School, Hanover, NH, USA

1994-1996: Senior Research Assistant of the Belgian National Fund for Scientific Research at the Laboratory of Medicinal Chemistry, Catholic University of Louvain.

1996-1999: Assistant Professor, Research in the Laboratory of Medicinal Chemistry and Radiopharmacy, Catholic University of Louvain

1999-2006: Associate Professor, Catholic University of Louvain

1999-present: Principal Investigator at the Biomedical Magnetic Resonance Unit, Catholic University of Louvain

1999-present: Adjunct Assistant Professor of Radiology, Dartmouth Medical School, Hanover, NH, USA

2006-2010: Professor, Catholic University of Louvain

2010-present: **Full Professor, Catholic University of Louvain**

2010-present: Member of the Direction Committee of the Louvain Drug Research Institute

**Teaching activities:**

Biophysics Applied to Pharmaceutical Sciences - Principles and Applications of Magnetic Resonance (NMR and EPR) in Biomedical Research - Methodology of Radioactive Measurements in Pharmaceutical and Biomedical Research - Radiochemistry, Radiotoxicology and Radiopharmacy - Inorganic Pharmaceutical Chemistry - Use of Radioisotopes and Labelled Molecules in Biology - Non Invasive Methods to Assess the Effect and the Pharmacokinetics of Drugs - Introduction to Instrumental Analysis in Biomedical Sciences  
Coordinator of the Master Theses (Research) in Pharmaceutical Sciences

## **Honor and Awards:**

*National Prizes* : Biennial prize of the Belgian Society of Pharmaceutical Sciences (1994-1995), Alumni Prize of the Belgian University Foundation (1998), Prize Paul Van de Velde (New diagnostic and therapeutic tools) (2000), Prize Léopold et Marthe Delsaux-Champy (2004) (Prevention and treatment of cardiovascular and cancer diseases), Prize of the Belgian Academy of Sciences (5<sup>th</sup> section: Pharmaceutical sciences) (2007), Prize of the Fournier-Majoie Foundation (Cancer Biomarkers and Functional Imaging) (2012)

*International prizes*: Young Investigator Award of the International EPR Society (2000), Sylvia Sorkin Greenfield Award (American Association of Medical Physicists) (2010)

## **Invited Reviewer**

Analytical Chemistry	Journal of Materials Chemistry
Brain Research	Magnetic Resonance in Medicine
Cancer Research	Magnetic Resonance Materials in Physics, Medicine, and Biology
Contrast Media and Molecular Imaging	Medical Physics
Current Organic Chemistry	Molecular Cancer Therapeutics
European Journal of Lipid Science and Technology	Molecular Imaging
European Journal of Medicinal Chemistry	Neoplasia
European Journal of Nuclear Medicine and Molecular Imaging	NeuroImage
European Journal of Pharmaceutics and Biopharmaceutics	NMR in Biomedicine
Experimental Dermatology	Nutrition Research
Free Radical in Biology and Medicine	Pharmaceutical Research
International Journal of Radiation Oncology, Biology and Physics	Physics in Medicine and Biology
Investigative Radiology	PlosOne
Journal of Biomedical Nanotechnology	Radiation and Environmental Biophysics
Journal of Cerebral Blood Flow and Metabolism	Radiation Research
Journal of Controlled Release	Radiotherapy and Oncology
Journal of Magnetic Resonance	Talanta

## **Reviewer for foreign grant proposals**

- France : Agence d'Evaluation de la Recherche et des établissements d'Enseignement Supérieur (AERES), ANR (Association Nationale de la Recherche), Equipexx (Large infrastructure), Labex, International Center for Frontier Research in Chemistry, Plan Cancer (Inserm), Fondation pour la recherche médicale
- Israel: Israel Science Foundation
- United Kingdom: Cancer Research UK, Wellcome Trust Foundation
- The Netherlands : ZonMw (Nederlandse organisatie voor gezondheidsonderzoek en zorginnovatie)

## **Member of Advisory Board:**

Institut Curie, Orsay (France)

**Bibliometrics** (on January 30, 2014; 20 years of career since the PhD thesis):

B. Gallez is author of **190 international published peer-reviewed publications** (published), 5 publications in press. He is also author of 6 book chapters and 7 publications in the French language. He is author of 3 patents.

**Number of citations:** 5005 (Google Scholar)

**h-index:** 37 (Google Scholar)

### Director of PhD theses

Defended (10): P. Danhier (2013), Q. Godechal (2012), C. Diepart (2010), K. Radermacher (2010), N. Charlier (2008), R. Ansiaux : (2006), N. Crockart (2006), P. Levêque : (2006), C. Baudelet (2003), B. Jordan (2002)

Ongoing (8): L. Karmani (2014), AC. Fruytier (2014), D. Jacobs (2014), V. Marchand (2014), , G. Depreter (2015), A. Ly Binh Tran (2015), MA Neveu (2016), C. Desmet (2016)

### Co-Director of PhD theses

Defended (2): L. Hamtiaux (2012), B. Driesschaert (2013)

Ongoing (2): F. Colliez (2015), T. Cao Pham (2016)

### Plenary/Invited lectures in International Meetings

1999: Pharmaceutical applications of in vivo EPR. 22nd International EPR symposium, 41st Rocky Mountain Conference on Analytical Chemistry, **Denver** (USA), August 1-5.

1999: Packaging of paramagnetic materials in oximetry and other applications. International workshop on techniques and bio-medical applications of in vivo EPR and PEDRI, **Aberdeen** (UK), september 12-17.

2003: EPR studies on tumor oxygenation. 11<sup>th</sup> Meeting of the International Society for Magnetic Resonance in Medicine, **Toronto** (Canada), May 10-16.

2005 : Oxymétrie par RPE in vivo : principes et applications en oncologie. Réunion annuelle de l'association française de Résonance Paramagnétique Electronique. **Autrans** (F), December 12-14

2006 : EPR and NMR characterization of the tumor micro-environment: a view that may guide cancer treatment. Congrès du Groupe français d'études de résonance magnétique (GERM). **Blankenberge** (B), March 19-22.

2008 : Chimie des chélates de gadolinium. Intérêt pour la clinique. Société Française de Radiologie. **Paris** (F), October 24-28.

2008: Monitoring and Manipulation of the Tumor Micro-Environment: Magnetic Resonance Techniques as Predictive Markers of the Therapeutic Response. 8th Annual UT Southwestern *In Vivo* Cancer Cellular and Molecular Imaging Symposium. **Dallas** (USA), November 13.

2010 : IRM du fluor-19 pour caractériser le micro-environnement tumoral. Journée thématique-Réseau Français du fluor. **Chatenay Malabry** (F), November 25

2011: Improving radiation outcomes with oxygenation imaging. 19<sup>th</sup> Meeting of the International Society for Magnetic Resonance in Medicine. **Montreal** (Canada), May 7-13

2011: Modulation of the tumor micro-environment to optimize cytotoxic treatments. Groupe thématique de recherche sur la vectorisation. **Brussels** (B), December 5-7

2012: Pre-Clinical Magnetic Resonance Imaging Biomarkers in Cancer Research. Belgian Association of Cancer Research. **Brussels** (B), February 4

2012: Modulation of the tumor microenvironment to optimize the response to therapies. European Congress of Radiology ECR2012. **Vienna** (Austria), March 1-5

2012: Monitoring tumor hypoxia to improve the radiation outcome. International Society on Oxygen Transport to Tissue (ISOTT). **Bruges** (B), August 19-23.

2012: EPR oximetry: from in vitro cellular studies to applications in live animals. Illustrative applications in oncology. 34<sup>th</sup> meeting of the magnetic resonance group of the german chemical society (GDCh FGMR). **Halle** (D), September 17-20

2012: Incorporation of molecular imaging of hypoxia in clinical radiation oncology. European Association of Nuclear Medicine (EANM 2012). **Milan** (I), October 27-31.

2013: MOBILE (Mapping of Oxygen By Imaging Lipid relaxation Enhancement): A new approach to imaging hypoxia by MRI. European Cancer Congress (ECCO), **Amsterdam** (NL), September 27-October 1st.

## **Publications**

### **1988**

1. **B.Gallez**, P.Osinski, J.Adline and P.Dumont,  
Rapid and precise micro-methods for quantitating active components in commercial bone scintigraphy kits - I. Stannous tin ,  
*Appl.Radiat.Isot.* 39, 7, 705-708, **1988**. IF : 1.114

2. **B.Gallez**, P.Osinski, J.Adline and P.Dumont,  
Rapid and precise micro-methods for quantitating active components in commercial bone scintigraphy kits - II. Diphosphonates ,  
*Appl.Radiat.Isot.* 39, 9, 1011-1014, **1988**. IF : 1.114

### **1989**

3. P.Osinski, J.Poupaert, **B.Gallez**, J.Adline and P.Dumont,  
Stoichiometric complexes tin-methylenediphosphonate : composition, biodistribution and elements of structure,  
*J.Label.Comp.Radiopharm.* 27, 5, 515-531, **1989**. IF : 0.698

### **1992**

4. **B.Gallez**, R.Demeure, R.Debuyst, D.Leonard, F.Dejehet and P.Dumont,  
Evaluation of non-ionic nitroxyl lipids as potential organ-specific contrast agents for magnetic resonance imaging,  
*Magn.Reson.Imaging*, 10, 445-455, **1992**. IF : 1.871

5. **B.Gallez**, C.De Meester, R.Debuyst, F.Dejehet, and P.Dumont,  
Mutagenicity of nitroxyl compounds : structure-activity relationships,  
*Toxicol. Letters.*, 63, 35-45, **1992**. IF : 3.249

### **1993**

6. D.M.Lambert, L.Neuvens, F.Mergen, **B.Gallez**, J.H.Poupaert, J.Ghysel-Burton, J.-M.Maloteaux, and P.Dumont,  
1,3-Diacylaminopropan-2-ols and corresponding 2-acyl derivatives as drug carriers : unexpected pharmacological properties,  
*J.Pharm.Pharmacol.*, 45, 186-191, **1993**. IF : 1.847

7. **B.Gallez**, R.Debuyst, R.Demeure, F.Dejehet, C.Grandin, B.Van Beers, H.Taper, J. Pringot, and P.Dumont,  
Evaluation of nitroxyl fatty acid as liver contrast agent for magnetic resonance imaging,  
*Magn. Reson. Med.*, 30, 592-599, **1993**. IF : 3.449

### **1994**

8. **B.Gallez**, V.Lacour, R.Demeure, R.Debuyst, F.Dejehet, J.-L.De Keyser, and P.Dumont,  
Evaluation of a spin labelled arabinogalactan as MRI contrast agent,  
*Magn. Reson. Imaging*, 12, 61-69, **1994**. IF : 1.871

9. **B.Gallez**, R.Debuyst, F.Dejehet, J.-L. De Keyser, V.Lacour, R.Demeure, and P.Dumont,  
Relaxivity and molecular dynamics of spin labelled polysaccharides,  
*MAGMA* 2, 61-68, **1994**. IF : 1.844

10. O. Kocian, K.W.C. Chiu, R. Demeure, **B. Gallez**, C.J. Jones, J. Thornback,  
Syntheses and characterization of new polyethylenoxy substituted salicyladimine Schiff-bases and some corresponding reduced tetra- and penta-aza ligand and their Gd(III) complexes. New potential contrast agents in Magnetic Resonance Imaging.  
*J. Chem. Soc. Perkin Trans.1*, 5, 527-535, **1994**. IF : 2.420

11. I.Mottet, R.Demeure, B.Gallez, C.Grandin, B.Van Beers, J.Pringot,  
Experimental <sup>31</sup>P NMR study of the influence of the ionic strength on the apparent dissociation constant of MgATP,  
*MAGMA*, 2, 101-107, **1994**. IF : 1.844

### **1995**

12. D.Grucker, T.Guiberteau, B.Eclancher, J. Chambron, R.Chiarelli, A.Rassat, G.Subra, and B.Gallez,  
Dynamic nuclear polarization with nitroxides dissolved in biological fluids,  
*J. Magn. Reson. B*, 106, 101-109 , **1995** IF : 2.438

13. D.M. Lambert, G.K.E. Scriba, B. Gallez, J.H. Poupaert, P. Dumont,  
Glyceride conjugates as drug carriers,  
*Curr. Med. Chem.*, 1, 376-391, **1995**. IF : 4.823

14. D.M. Lambert, B. Gallez, J.H. Poupaert  
Synthesis and distribution of N-benzoyloxycarbonyl-[<sup>14</sup>C]-glycine, a lipophilic derivative of glycine  
*J. Label. Comp. Radiopharm.*, 36 , 397-406, **1995**. IF : 0.698

15. B. Gallez, J.-L. De Keyser, R. Debuyst, F. Dejehet, L. Neuvens, P. Dumont  
The effects of pasteurisation on albumin : an EPR binding assay for polymeric albumin,  
*J. Pharm. Biomed. Anal.* , 13, 1449-1452, **1995**. IF : 2.629

### **1996**

16. B. Gallez, G. Bacic, F. Goda, J.J. Jiang, J.A. O'Hara, J.F. Dunn , and H.M. Swartz,  
Use of nitroxides for assessing perfusion, oxygenation, and viability of tissues. In-vivo EPR and MRI studies,  
*Magn. Reson. Med.*, 35, 97-106, **1996**. IF : 3.449

17. K. Mader, B. Gallez, K.J. Liu, H.M. Swartz,  
Noninvasive *in vivo* characterization of release processes in biodegradable polymers by low frequency Electron  
Paramagnetic Resonance spectroscopy,  
*Biomaterials* 17, 459-463, **1996**. IF : 6.646

18. B. Gallez, G. Bacic, H.M. Swartz,  
Evidence for the dissociation of the hepatobiliary contrast agent Mn-DPDP,  
*Magn. Reson. Med.*, 35, 14-19, **1996**. IF : 3.449

19. V. Charbon, I. Latour, D.M. Lambert, P. Buc-Calderon, L. Neuvens, J.-L. De Keyser, and B. Gallez.  
Targeting of drugs to the hepatocytes by fatty acids. Influence of the carrier (albumin or galactosylated albumin) on the  
fate of the fatty acids and their analogs.  
*Pharm. Res.*, 13, 27-31, **1996**. IF : 4.025

20. B.Gallez, K. Mader, H.M. Swartz.  
New non-invasive technique for measuring the pH inside the gut using pH-sensitive nitroxides. An in-vivo EPR study,  
*Magn. Reson. Med.* 36, 694-697, **1996**. IF : 3.449

21. K. Mader, B. Gallez, H.M. Swartz,  
In vivo EPR; an effective new tool for studying pathophysiology, physiology, and pharmacology  
*Appl.Radiat.Isot.* 47, 1663-1667, **1996** IF : 1.114

22. F. Goda, G. Bacic, J. A. O'Hara, B. Gallez, H.M. Swartz, J. F. Dunn.  
The relationship between pO<sub>2</sub> and perfusion in two murine tumors after X-ray irradiation: a combined Gd-DTPA  
dynamic MRI and EPR oximetry study.  
*Cancer Res.*, 56, 3344-3349, **1996** IF : 7.514

23. F. Goda, B. Gallez, H.M Swartz.  
Pharmacokinetics of the nitroxide PCA measured by *in vivo* EPR  
*Res. Chem. Intermediat.* 22, 491-498, **1996** IF : 0.514

24. B. Gallez, C. Baudelet, J. Adline, V. Charbon, D.M. Lambert.  
The uptake of Mn-DPDP by the hepatocytes is not mediated by the facilitated transport of pyridoxine.  
*Magn. Reson. Imaging* 14, 1191-1195, **1996**. IF : 1.871

25. B. Gallez, R. Debuyst, K.J. Liu, R. Demeure, H.M. Swartz.  
Development of biocompatible implants of fusinite for in vivo EPR oximetry  
*MAGMA* 4, 71-75, **1996** IF : 1.844
26. D.M. Lambert, B. Masereel, B. Gallez, M. Geurts, G.K.E. Scriba,  
Bioavailability and anticonvulsant activity of 2-cyanoguanidinophenytol, a structural analog of phenytoin.  
*J. Pharm. Sci.* 85, 1077-1081, **1996**. IF : 2.996
27. D.M. Lambert and B. Gallez  
Synthesis and distribution of tritiated N,N'-dibenzoyl-1,3,-diaminopropan-2-ol  
*J. Label. Comp. Radiopharm.* 38, 897-905, **1996**. IF : 0.698

### **1997**

28. B. Van Beers, B. Gallez, J. Pringot  
Contrast-enhanced MR imaging of the liver  
*Radiology*, 203, 297-306, **1997**. IF : 5.996
29. B. Gallez, C. Baudelet, J. Adline, M. Geurts, N. Delzenne  
Accumulation of manganese in the brain of mice after intravenous injection of manganese-based contrast agents  
*Chem. Res. Toxicol.* 10, 360-363, **1997**. IF : 3.491

### **1998**

30. B. Gallez, R. Debuyst, K.J. Liu, F. Goda, T. Walczak, R. Demeure, H.M. Swartz.  
Small particles of fusinite and carbohydrate chars coated with aqueous soluble polymers: preparation and applications for in vivo EPR oximetry.  
*Magn. Reson. Med.* 40, 152-159, **1998** IF : 3.449
31. B. Gallez, D.M. Lambert  
Checking the integrity of albumin after pasteurisation: a fluorescent assay for quantitating monomeric albumin using anthroyloxy-fatty acids analogs.  
*J. Biochem. Biophys Methods* 37, 5-9, **1998** IF : 1.994
32. B. Gallez, C. Baudelet, M. Geurts  
Regional distribution of manganese found in the brain after injection of a single-dose of manganese-based contrast agents  
*Magnetic Resonance Imaging* 16, 1211-1215, **1998** IF : 1.871
33. B. Jordan, C. Baudelet, and B. Gallez  
Carbon-centered radicals as oxygen sensors for in vivo Electron Paramagnetic Resonance: Screening for an optimal probe among commercially available charcoals  
*MAGMA* 7, 121-129, **1998**. IF : 1.844
34. P. Leveque and B. Gallez  
Qualitative method for assessing the <sup>14</sup>C labelling position in [<sup>14</sup>C]-dimethylaminoantipyrine (aminopyrine)  
*J. Label. Comp. Radiopharm.* 41, 959-963, **1998**. IF : 0.698

### **1999**

35. B. Gallez, B.F. Jordan, C. Baudelet  
Charcoal as oxygen sensors for in vivo Electron Paramagnetic Resonance Oximetry. The loss of responsiveness to pO<sub>2</sub> observed with some unstable charcoals is prevented by the microencapsulation of the particles using pyroxylin  
*Magn. Reson. Med.* 42, 193-196, **1999**. IF : 3.449
36. C. Baudelet, R. Demeure, A. Frois, B. Masereel, J.-F. Goudemant, C. Ritter and B. Gallez  
Evidence for a neuroprotective effect of pyrid-3-yl-sulfonylurea in photochemically induced focal ischemia in rats: MRI evaluation  
*J. Pharm. Pharmacol.* 51, 967-970, **1999**. IF : 1.847
37. B. Gallez, B. Jordan, C. Baudelet, P.-D. Misson  
Pharmacological modifications of the partial pressure of oxygen in tumors. Evaluation using in vivo EPR oximetry.  
*Magn. Reson. Med.* 42, 627-630, **1999** IF : 3.449

## **2000**

38. B. Gallez and K. Mäder  
Accurate and sensitive measurements of pO<sub>2</sub> in vivo using low frequency EPR spectroscopy: how to confer biocompatibility to the oxygen sensors  
*Free Rad. Biol. Med.* 29, 1078-1084, **2000**. IF : 5.632
39. B. Gallez, C. Baudelet, R. Debuyst  
Free radicals contained in licorice-flavored sweets can be detected non invasively after oral administration to mice using low-frequency Electron Paramagnetic Resonance  
*J. Nutrition* 130, 1831-1833, **2000** IF : 3.647
40. B. Jordan, P.-D. Misson, R. Demeure, C. Baudelet, N. Beghein, and B. Gallez  
Changes in tumor oxygenation/perfusion induced by NO donors in comparison with carbogen: monitoring by EPR and MRI  
*Int. J. Radiat. Oncol. Biol. Phys.* 48, 565-570, **2000** IF : 4.639

## **2001**

41. P. Levêque, D. Labar, E. de Hoffmann, and B. Gallez  
Assesment of [<sup>18</sup>F]-fluoroethylflumazenil metabolites using HPLC and tandem mass spectrometry  
*J. Chromatog. B.* 754, 35-44, **2001** IF : 2.500
42. B. Gallez, R. Demeure, C. Baudelet, N. Abdelahouab, N. Beghein, B. Jordan, M. Geurts, H. Roels.  
Non invasive quantification of manganese deposits in the rat brain by local measurement of spin-lattice relaxation times  
*Neurotoxicology* 22, 387-392, **2001** IF : 2.409
43. B. Gallez, R. Debuyst  
Detection of glass foreign bodies in soft tissues using low frequency EPR spectroscopy  
*Appl. Magn. Reson.* 20, 579-582, **2001** IF : 0.748
44. J. He, N. Beghein, P. Ceroke, R.B. Clarkson, H.M. Swartz, and B. Gallez  
Development of biocompatible films holding paramagnetic carbon particles: evaluation of their performance and stability in EPR oximetry  
*Magn. Reson. Med.* 46, 610-614, **2001** IF : 3.449
45. P. Levêque, D. Labar, B. Gallez  
Biodistribution, binding specificity and metabolisation of [<sup>18</sup>F]fluoroethylflumazenil in rodents  
*Nucl. Med. Biol.* 28, 809-814, **2001** IF : 2.685
46. J. He, N. Beghein, R.B. Clarkson, H.M. Swartz, and B. Gallez  
Microencapsulation of carbon particles used as oxygen sensors in EPR oximetry to stabilize their responsiveness to oxygen in vitro and in vivo  
*Phys Med Biol* 46, 3323-3329, **2001** IF : 2.784

## **2002**

47. M. Zdravkova, A. Wieser, N. El-Faranawy, B. Gallez, R. Debuyst  
An in vitro L-Band electron paramagnetic resonance study of highly irradiated whole teeth  
*Radiat. Protection Dosimetry*, 101, 497-502, **2002** IF : 0.951
48. C. Daubioul, N. Rousseau, R. Demeure, B. Gallez, H. Taper, B. Declerck, and N. Delzenne  
Dietary fructans, but not cellulose, decrease triglyceride accumulation in the liver of obese Zucker Fa/Fa rats  
*J. Nutr.* 132, 967-973, **2002** IF : 3.647
49. R. J. Demeure, B. F. Jordan, Q.X. Yang, N. Beghein, M.B. Smith, V. Grégoire, and B. Gallez  
Removal of local field gradient artefacts in BOLD contrast imaging of head and neck tumors  
*Phys. Med. Biol.* 47, 1819-1825, **2002** IF : 2.784

50. B.F. Jordan, V. Grégoire, R. J. Demeure, P. Sonveaux, O. Feron, J. O'Hara, V. Vanhulle, N. Delzenne, and B. Gallez  
Insulin increases the sensitivity of tumors to irradiation: Involvement of an increase in tumor oxygenation mediated by a nitric oxide dependent decrease of the tumor cells oxygen consumption  
*Cancer Res.* 62, 3555-3561, **2002** IF : 7.514
51. C. Baudelet and B. Gallez  
How Blood Oxygen Level Dependent (BOLD) contrast is correlated to the oxygen partial pressure of oxygen in tumors?  
*Magn. Reson. Med.* 48, 980-986, **2002**. IF : 3.449
52. M. Zdravkova, JM Denis, B. Gallez and R. Debuyst  
Sensitivity of whole human teeth to fast neutrons and gamma-rays estimated by L-Band EPR spectroscopy.  
*Radiat. Measurements* 35, 603-608, **2002** IF : 1.267
53. B. Gallez and N. Beghein  
Non invasive *in vivo* EPR monitoring of the methyl methacrylate polymerization during the bone cement formation : A feasibility study.  
*Biomaterials* 23, 4701-4704, **2002** IF : 6.646
54. P. Sonveaux, C. Dessy, A. Brouet, B. Jordan, V. Grégoire, B. Gallez, JL Balligand, and O. Feron  
Modulation of the tumor vasculature functionality by ionizing radiation accounts for tumor radio-sensitization and promotes gene delivery.  
*FASEB J* 16, 1979-1981, **2002** IF : 7.049
- 2003**
55. B.F. Jordan, P. Sonveaux, O. Feron, V. Grégoire, N. Beghein, and B. Gallez  
Nitric oxide mediated increase in tumor blood flow and oxygenation of tumors implanted in muscles stimulated by electric pulses  
*Int. J. Radiat. Oncol. Biol. Phys.* 55, 1066-1073, **2003** IF : 4.639
56. B.F. Jordan, N. Beghein, M. Aubry, V. Grégoire, and B. Gallez  
Potentiation of radiation-induced regrowth delay by isosorbide dinitrate in FSa II murine tumors  
*Int. J. Cancer* 103,138-141, **2003**. IF : 4.734
57. P.E. Mahy, M. De Bast, B. Gallez, J. Gueulette, C.J. Koch, P. Scalliet, V. Grégoire  
In vivo colocalization of 2-nitroimidazole EF5 fluorescence intensity and electron paramagnetic resonance oximetry in mouse tumors.  
*Radiother Oncol.* 67,53-61, **2003**. IF : 3.990
58. C. Baudelet and B. Gallez  
A cluster analysis of fMRI times series in tumors to study the heterogeneity of hemodynamic response to treatments  
*Magn. Reson. Med.* 49, 985-990, **2003** IF : 3.449
59. M. Zdravkova, A. Wieser, N. El-Faranawy, D. Ivanov, B. Gallez, and R. Debuyst  
An in vitro L-Band EPR study with whole human teeth in a surface coil resonator  
*Radiat. Meas.* 37, 347-353, **2003** IF : 1.267
60. M. Zdravkova, N. Crockart, F. Trompier, B. Asselineau, B. Gallez, E. Gaillard-Lecanu, and R. Debuyst  
Retrospective dosimetry after criticality accidents using low-frequency EPR : a study of whole human teeth irradiated in a mixed neutron and gamma-radiation field  
*Radiat. Res.* 160, 168-173, **2003** IF : 3.043
61. P. Levêque, S. Sanabria-Bohorquez, A. Bol, D. Labar, A. De Volder, D. Van Rijckervorsel, and B. Gallez  
Quantification of human brain benzodiazepine receptors using [<sup>18</sup>F]fluoroethylflumazenil : a first report in volunteers and epileptic patients  
*Eur. J. Nucl. Med. Mol. Imaging* 30, 1630-1636, **2003** IF : 4.532

## **2004**

62. B.F. Jordan, P. Sonveaux, O. Feron, V. Grégoire, N. Beghein, C. Dessy, and B. Gallez  
Nitric oxide as radiosensitizer : evidence for an intrinsic role additive to its effect on oxygen delivery and consumption  
*Int. J. Cancer* 109, 768-773, **2004** IF : 4.734
63. P. Sonveaux, C. Dessy, P. Martinive, X. Havaux, B.F. Jordan, B. Gallez, V. Grégoire, J.L. Balligand, and O. Feron  
Endothelin-1 is a critical mediator of myogenic tone in tumor arterioles : implications for cancer treatment  
*Cancer Res.* 64, 3209-3214, **2004** IF: 7.514
64. M. Lan, N. Beghein, N. Charlier, and B. Gallez  
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