

PUBLICATIONS (>160 in total, >7500 citations, 20 papers cited >100 times, H-index=50)
--

10 Major Publications:

- Hartzell, H. C. & **Fischmeister, R.** (1986). Opposite effects of cyclic GMP and cyclic AMP on Ca²⁺ current in single heart cells. *Nature* **323**, 273-275. [PMID: 2429189](#)
- Méry, P. F., Brechler, V., Pavoine, C., Pecker, F. & **Fischmeister, R.** (1990). Glucagon stimulates the cardiac Ca²⁺ current by activation of adenylyl cyclase and inhibition of phosphodiesterase. *Nature* **345**, 158-161. [PMID: 2159595](#)
- Méry, P. F., Lohmann, S. M., Walter, U. & **Fischmeister, R.** (1991). Ca²⁺ current is regulated by cyclic GMP-dependent protein kinase in mammalian cardiac myocytes. *Proc. Natl. Acad. Sci. USA* **88**, 1197-1201. [PMID: 1705030](#)
- Hartzell, H. C., Méry, P. F., **Fischmeister, R.** & Szabo, G. (1991). Sympathetic regulation of cardiac calcium current is due exclusively to cAMP-dependent phosphorylation. *Nature* **351**, 573-576. [PMID: 1710784](#)
- Jurevičius, J. & **Fischmeister, R.** (1996). Cyclic AMP compartmentation is responsible for a local activation of cardiac Ca²⁺ channels by b-adrenergic agonists. *Proc. Natl. Acad. Sci. USA* **93**, 295-299. [PMID: 8552625](#)
- Vandecasteele, G., Eschenhagen, T., Scholz, H., Stein, B., Verde, I. & **Fischmeister, R.** (1999). Muscarinic and β-adrenergic regulation of heart rate, force of contraction and Ca²⁺ current is preserved in mice lacking endothelial nitric oxide synthase. *Nature Medicine* **5**, 331-334. [PMID: 10086391](#)
- Castro, L. R. V., Verde, I., Cooper, D. M. F. & **Fischmeister, R.** (2006). Cyclic guanosine monophosphate compartmentation in rat cardiac myocytes. *Circulation* **113**, 2221-2228. [PMID: 16651469](#)
- Skeberdis, V. A., Gendviliene, V., Zablockaitė, D., Treinys, R., Macianskiene, R., Bogdelis, A., Jurevičius, J. & **Fischmeister, R.** (2008). β₃-adrenergic receptor activation increases human atrial tissue contractility and stimulates the L-type Ca²⁺ current. *J Clin Invest* **118**, 3219-3227. [PMID: 18704193](#)
- Molina, C. E., Leroy, J., Xie, M., Richter, W., Lee, I.-O., Maack, C., Rucker-Martin, C., Donzeau-Gouge, P., Verde, I., Hove-Madsen, L., Barriga, M., Conti, M., Vandecasteele, G. & **Fischmeister, R.** (2012). Cyclic AMP phosphodiesterase type 4 protects against atrial arrhythmias. *J Am Coll Cardiol* **59**, 2182-2190. [PMID: 22676938](#)
- Mehel[#], H., Emons[#], J., Vettel, C., Wittköpper, K., Seppelt, D., Dewenter, M., Lutz, S., Sossalla, S., Maier, L. S., Lechêne, P., Leroy, J., Lefebvre, F., Varin, A., Eschenhagen, T., Nattel, S., Dobrev, D., Zimmermann, W.-H., Nikolaev, V. O., Vandecasteele, G., **Fischmeister, R.*** & El-Armouche, A. * (2013). Phosphodiesterase-2 is upregulated in human failing hearts and blunts β-adrenergic responses in cardiomyocytes. *J Am Coll Cardiol* **62**, 1596-1606 ([#]*equal contributions). [PMID: 23810893](#)

Articles

1. Fischmeister, R. & Vassort, G. (1981) The electrogenic Na-Ca exchange and the cardiac electrical activity. I- Simulation on Purkinje fibre action potential. *J Physiol (Paris)* **77**, 705-709.
2. Fischmeister, R. & Horackova, M. (1982) Slow inward Ca current in frog heart: theoretical evidence against a voltage-dependent inactivation. *Can. J. Physiol. Pharmacol.* **60**, 1185-1192.
3. Fischmeister, R., Mentrard, D. & Vassort, G. (1982) Limitations of voltage clamp studies of the slow inward current using the double sucrose gap. *Gen. Physiol. Biophys.* **1**, 319-348.
4. Fischmeister, R. & Horackova, M. (1983) Variation of intracellular Ca²⁺ following Ca²⁺ current in heart. A theoretical study of ionic diffusion inside a cylindrical cell. *Biophys. J.* **41**, 341-348.
5. Clusin, W.T., Fischmeister, R. & DeHaan, R. L. (1983) Caffeine-induced current in embryonic heart cells: time course and voltage dependence. *Am. J. Physiol. (Heart Circ. Physiol.)* **245**, H528-H532.
6. Mentrard, D., Vassort, G. & Fischmeister, R. (1984) Calcium-mediated inactivation of the calcium conductance in cesium-loaded frog heart cells. *J. Gen. Physiol.* **83**, 105-131.
7. Fischmeister, R., DeFelice, L. J., Ayer, R. K. Jr., Levi, R. & DeHaan, R. L. (1984) Channel currents during spontaneous action potentials in embryonic chick heart cells. The action potential patch clamp. *Biophys. J.* **46**, 267-272.
8. Mentrard, D., Vassort, G. & Fischmeister, R. (1984) Changes in external Na induce a membrane current related to the Na-Ca exchange in cesium-loaded frog heart cells. *J. Gen. Physiol.* **84**, 201-220.
9. Fischmeister, R., Brocas-Randolph, M., Lechêne, P., Argibay, J. A. & Vassort, G. (1986). A dual effect of cardiac glycosides on Ca current in single cells of frog heart. *Pflügers Arch.* **446**, 340-342.
10. Hartzell, H. C. & Fischmeister, R. (1986). Opposite effects of cyclic GMP and cyclic AMP on Ca²⁺ current in single heart cells. *Nature* **323**, 273-275.
11. Fischmeister, R. & Hartzell, H. C. (1986). Mechanism of action of acetylcholine on calcium current in single cells from frog ventricle. *J. Physiol. (London)* **376**, 183-202.
12. Fischmeister, R., Ayer, R. K. Jr. & DeHaan, R. L. (1986). Some limitations of the cell-attached patch clamp technique: a two-electrode analysis. *Pflügers Arch.* **406**, 73-82.
13. Fischmeister, R. & Hartzell, H. C. (1987). Cyclic guanosine 3',5'-monophosphate regulates the calcium current in single cells from frog ventricle. *J. Physiol. (London)* **387**, 453-472.
14. Hartzell, H. C. & Fischmeister, R. (1987). Effect of forskolin and acetylcholine on calcium current in single isolated cardiac myocytes. *Mol. Pharmacol.* **32**, 639-645.

15. Argibay, J. A., Quinonez, M., Larralde, L., Fischmeister, R. & Gonzalez, F. (1987). A whole-cell patch clamp study of ionic currents in single atrial cells of the tropical toad. *Acta Cientifica Venezolana* **38**, 164-169.
16. Gisbert, M. P. & Fischmeister, R. (1988). The atrial natriuretic factor regulates the calcium current in frog isolated cardiac cells. *Circ. Res.* **62**, 660-667.
17. Argibay, J. A., Fischmeister, R. & Hartzell, H. C. (1988). Inactivation, reactivation and pacing dependence of calcium current in frog cardiocytes: correlation with current density. *J. Physiol. (London)* **401**, 201-226.
18. Gisbert, M. P., Méry, P. F. & Fischmeister, R. (1988). A patch-clamp study of the effect of cicletanine on whole-cell Ca current in ventricular myocytes. *Drugs Exp. Clin. Res.* **14**, 109-115.
19. Levi, R. C., Alloatti, G. & Fischmeister, R. (1989). Cyclic GMP regulates the Ca channel current in guinea pig ventricular myocytes. *Pflügers Arch.* **413**, 685-687.
20. Fischmeister, R. & Shrier, A. (1989). Interactive effects of isoprenaline, forskolin and acetylcholine on Ca²⁺ current in frog ventricular myocytes. *J. Physiol. (London)* **417**, 213-239.
21. Méry, P. F., Brechler, V., Pavoine, C., Pecker, F. & Fischmeister, R. (1990). Glucagon stimulates the cardiac Ca²⁺ current by activation of adenyl cyclase and inhibition of phosphodiesterase. *Nature* **345**, 158-161.
22. Fischmeister, R. & Hartzell, H. C. (1990). Regulation of calcium current by low-Km cyclic AMP phosphodiesterases in cardiac cells. *Mol. Pharmacol.* **38**, 426-433.
23. Boutjdir, M., Méry, P. F., Hanf, R., Shrier, A. & Fischmeister, R. (1990). High affinity forskolin inhibition of L-type Ca²⁺ current in cardiac cells. *Mol. Pharmacol.* **38**, 758-765.
24. Méry, P. F., Lohmann, S. M., Walter, U. & Fischmeister, R. (1991). Ca²⁺ current is regulated by cyclic GMP-dependent protein kinase in mammalian cardiac myocytes. *Proc. Natl. Acad. Sci. USA* **88**, 1197-1201.
25. Fischmeister, R. & Hartzell, H. C. (1991). Cyclic AMP phosphodiesterases and Ca²⁺ current regulation. *Life Sci.* **48**, 2365-2376.
26. Hartzell, H. C., Méry, P. F., Fischmeister, R. & Szabo, G. (1991). Sympathetic regulation of cardiac calcium current is due exclusively to cAMP-dependent phosphorylation. *Nature* **351**, 573-576.
27. Méry, P. F., Lechêne, P. & Fischmeister, R. (1992). A loud speaker-driver system for rapid and multiple solution exchanges in patch-clamp experiments. *Pflügers Arch.* **420**, 529-535.
28. Brechler, V., Pavoine, C., Hanf, R., Garbarz, E., Fischmeister, R. & Pecker, F. (1992). Inhibition by glucagon of the cGMP-inhibited low-Km cAMP phosphodiesterase in heart is mediated by a Pertussis toxin-sensitive G protein. *J. Biol. Chem.* **267**, 15496-15501.
29. Hanf, R., Li, Y., Szabo, G. & Fischmeister, R. (1993). Agonist-independent effects of muscarinic antagonists on Ca²⁺ and K⁺ currents in frog and rat cardiac cells. *J. Physiol. (London)* **461**, 743-765.
30. Frace, A. M., Méry, P. F., Fischmeister, R. & Hartzell, H. C. (1993). Rate-limiting steps in the β -adrenergic stimulation of cardiac calcium current. *J. Gen. Physiol.* **101**, 337-353.
31. Méry, P.-F., Frace, A. M., Hartzell, H. C. & Fischmeister, R. (1993). A comparative analysis of the time course of cardiac Ca²⁺ current response to rapid applications of β -adrenergic and dihydropyridine agonists. *Naunyn-Schmied. Arch. Pharmacol.* **348**, 197-206.
32. Méry, P. F., Pavoine, C., Belhassen, L., Pecker, F. & Fischmeister, R. (1993). Nitric oxide regulates cardiac Ca²⁺ current. Involvement of cGMP-inhibited and cGMP-stimulated phosphodiesterases through guanylyl cyclase activation. *J. Biol. Chem.* **268**, 26286-26295.
33. Li, Y., Hanf, R., Fischmeister, R. & Szabo, G. (1994). Differential effects of pertussis toxin on the muscarinic regulation of Ca²⁺ and K⁺ currents in frog cardiac myocytes. *J. Gen. Physiol.* **104**, 941-960.
34. Kirstein, M., Rivet-Bastide, M., Hatem, S., Bénardeau, A., Mercadier, J. J. & Fischmeister, R. (1995). Nitric oxide regulates the calcium current in isolated human atrial myocytes. *J. Clin. Invest.* **95**, 794-802.
35. Méry, P. F., Pavoine, C., Pecker, F. & Fischmeister, R. (1995). Erythro-9-(2-hydroxy-3-nonyl)adenine inhibits cyclic GMP-stimulated phosphodiesterase in isolated cardiac myocytes. *Mol. Pharmacol.* **48**, 121-130.
36. Méry P.F., Hove-Madsen L., Chesnais J.M., Hartzell H.C. & Fischmeister R. (1996). Nitric oxide synthase does not participate in the negative inotropic effect of acetylcholine in frog heart. *Am. J. Physiol.* **270**, H1178-H1188.
37. Jurevičius, J. & Fischmeister, R. (1996). Cyclic AMP compartmentation is responsible for a local activation of cardiac Ca²⁺ channels by β -adrenergic agonists. *Proc. Natl. Acad. Sci. USA* **93**, 295-299.
38. Jurevičius, J. & Fischmeister, R. (1996). Acetylcholine inhibits Ca²⁺ current by acting exclusively at a site proximal to adenyl cyclase in frog cardiac myocytes. *J. Physiol. (London)* **491**, 669-675.
39. Méry P.F., Hove-Madsen L., Mazet J.L., Hanf R. & Fischmeister R. (1996). Binding constants determined from Ca²⁺ current responses to rapid applications and washouts of nifedipine in frog cardiac myocytes. *J. Physiol. (London)* **494**, 105-120.
40. Rivet-Bastide, M., Vandecasteele, G., Hatem, S., Bénardeau, A., Mercadier, J. J. & Fischmeister, R. (1997). cGMP-stimulated cyclic nucleotide phosphodiesterase regulates the basal calcium current in human atrial myocytes. *J. Clin. Invest.* **99**, 2710-2718.
41. Skeberdis, V. A., Jurevičius, J. & Fischmeister, R. (1997). β 2-adrenergic activation of Ca²⁺ current is mediated by cAMP-dependent phosphorylation in frog, rat and human cardiac myocytes. *J. Pharmacol. Exp. Ther.* **283**, 452-461.
42. Skeberdis, V. A., Jurevičius, J. & Fischmeister, R. (1997). Pharmacological characterisation of the receptors involved in

- the β -adrenergic stimulation of the L-type Ca^{2+} current in frog ventricular myocytes. *Br. J. Pharmacol.* **121**, 1277-1286.
43. Abi Gerges, N., Eschenhagen, T., Hove-Madsen, L., Fischmeister, R. & Méry, P. F. (1997). Methylene blue is a muscarinic antagonist in cardiac myocytes. *Mol. Pharmacol.* **52**, 482-490.
 44. Blondel, O., Vandecasteele, G., Gastineau, M., Leclerc, S., Dahmoune, Y., Langlois, M. & Fischmeister, R. (1997). Molecular and functional characterization of a 5-HT₄ receptor cloned from human atrium. *FEBS Lett.* **412**, 465-474.
 45. Abi Gerges, N., Hove-Madsen, L., Fischmeister, R. & Méry, P. F. (1997). A comparative study of the effects of three guanylyl cyclase inhibitors on the L-type Ca^{2+} and muscarinic K^+ currents in frog cardiac myocytes. *Br. J. Pharmacol.* **121**, 1369-1377.
 46. Jurevičius, J. & Fischmeister, R. (1997). Longitudinal distribution of Na^+ and Ca^{2+} channels and β -adrenoreceptors on the sarcolemmal membrane of frog cardiomyocytes. *J. Physiol. (London)* **503**, 471-477.
 47. Legssyer, A., Hove-Madsen, L., Hoerter, J. A. & Fischmeister, R. (1997). Sympathetic modulation of the effect of nifedipine on myocardial contraction and Ca current in the rat. *J. Mol. Cell. Cardiol.* **29**, 579-591.
 48. Vandecasteele, G., Eschenhagen, T. & Fischmeister, R. (1998). Role of the NO/cGMP pathway in the muscarinic regulation of the L-type Ca^{2+} current in human atrial myocytes. *J. Physiol. (Lond.)* **560**, 653-663.
 49. Blondel, O., Gastineau, M., Dahmoune, Y., Langlois, M. & Fischmeister, R. (1998). Cloning, expression and pharmacology of four human 5-hydroxytryptamine₄ receptor isoforms produced by alternative splicing in the carboxyl terminus. *J. Neurochemistry* **70**, 2252-2261.
 50. Blondel, O., Gastineau, M., Langlois, M. & Fischmeister, R. (1998). The 5-HT₄ receptor antagonist ML10375 inhibits the constitutive activity of human 5-HT_{4(c)} receptor. *Br. J. Pharmacol.* **125**, 595-598.
 51. Vandecasteele, G., Eschenhagen, T., Scholz, H., Stein, B., Verde, I. & Fischmeister, R. (1999). Muscarinic and β -adrenergic regulation of heart rate, force of contraction and Ca^{2+} current is preserved in mice lacking endothelial nitric oxide synthase. *Nature Medicine* **5**, 331-334.
 52. Verde, I., Vandecasteele, G., Lezoualc'h, F. & Fischmeister, R. (1999). Characterisation of the cyclic nucleotide phosphodiesterase subtypes involved in the regulation of the L-type Ca^{2+} current in rat ventricular myocytes. *Br. J. Pharmacol.* **127**, 65-74.
 53. Chesnais, J.-M., Fischmeister, R. & Méry, P.-F. (1999). Positive and negative inotropic effects of NO-donors in atrial and ventricular fibres of the frog heart. *J. Physiol. (London)* **518**, 449-461.
 54. Abi-Gerges, N., Tavernier, B., Mebazaa, A., Faivre, V., Paqueron, X., Payen, D., Fischmeister, R. & Méry, P. F. (1999). Sequential changes in cardiac contraction and L-type Ca^{2+} current after in vivo endotoxin injection in the rat. *Am. J. Resp. Crit. Care Med.* **160**, 1196-1204.
 55. Chesnais, J. M., Fischmeister, R., Méry, P. F. (1999) Peroxynitrite is a positive inotropic agent in atrial and ventricular fibres of the frog heart. *J. Physiol. (Lond.)* **521**, 375-388.
 56. Abi-Gerges, N., Ji, G. J., Lu, Z., Fischmeister, R., Hescheler, J., & Fleischmann, B. K. (2000) Functional expression and regulation of the hyperpolarization activated non selective current in embryonic stem cell-derived cardiomyocytes. *J. Physiol. (Lond.)* **523**, 377-389.
 57. Mialet, J., Dahmoune, Y., Lezoualc'h, F., Berque-Bestel, I., Eftekhari, P., Hoebeke, J., Sicsic, S., Langlois, M., & Fischmeister, R. (2000) Exploration of the ligand binding site of the human 5-HT₄ receptor by site-directed mutagenesis and molecular modeling. *Br. J. Pharmacol.* **130**, 527-538.
 58. Curtet, S., Soulier, J.L., Zahradnik, I., Giner, M., Berque-Bestel, I., Mialet, J., Lezoualc'h, F., Donzeau-Gouge, P., Sicsic, S., Fischmeister, R., Langlois, M. (2000) New arylpiperazine derivatives as antagonists of the human cloned 5-HT₄ receptors isoforms. *J. Med. Chem.* **43**, 3761-3769.
 59. Eftekhari, P., Sallé, L., Lezoualc'h, F., Mialet, J., Gastineau, M., Briand, J.P., Isenberg, D.A., Fournié, G., Argibay, J., Fischmeister, R., Muller, S., Hoebeke, J. (2000) Anti-SSA/Ro52 antibodies blocking the cardiac 5-HT₄ serotonergic receptor: implications for neonatal lupus congenital heart block. *Eur. J. Immunol.* **30**, 2782-2790.
 60. Lefebvre, H., Cartier, D., Duparc, C., Contesse, V., Lihmann, I., Delarue, C., Vaudry, H., Fischmeister, R. & Kuhn, J. M. (2000) Effect of serotonin₄ (5-HT₄) receptor agonists on aldosterone secretion in idopathic hyperaldosteronism. *Endocrine Res.* **26**, 583-587.
 61. Mialet, J., Berque-Bestel, I., Eftekhari, P., Gastineau, M., Giner, M., Dahmoune, Y., Donzeau-Gouge, P., Hoebeke, J., Langlois, M., Sicsic, S., Fischmeister, R., Lezoualc'h, F. (2000) Isolation of the serotonergic 5-HT_{4(e)} receptor from human heart and comparative analysis of its pharmacological profile in C6-glia and CHO cell lines. *Br. J. Pharmacol.* **129**, 771-781.
 62. Mialet, J., Berque-Bestel, I., Sicsic, S., Langlois, M., Fischmeister, R., Lezoualc'h, F. (2000) Pharmacological characterisation of the human 5-HT_{4(d)} receptor splice variant stably expressed in Chinese hamster ovary cells. *Br. J. Pharmacol.* **131**, 827-835.
 63. Abi-Gerges, N., Fischmeister, R., Méry, P.F. (2001) G-protein mediated inhibitory effect of a nitric oxide donor on the L-type Ca^{2+} current in rat ventricular myocytes. *J. Physiol. (Lond.)* **531**, 117-130.
 64. Dittrich, M., Jurevičius, J., Georget, M., Rochais, F., Fleischmann, B. K., Hescheler, J., Fischmeister, R. (2001) Response of cardiac L-type Ca^{2+} current on local application of NO. *J. Physiol. (Lond.)* **534**, 109-121.
 65. Eftekhari, P., Roegel, J.C., Lezoualc'h, F., Fischmeister, R., Imbs, J.L., Hoebeke, J. (2001) Neonatal lupus induced in pups of mice immunized with synthetic peptides derived from amino acid sequences of the serotonergic 5-HT₄ receptor. *Eur.*

- J. Immunol.* **31**, 573-579.
66. Goaillard, J.M., Vincent, P., Fischmeister, R. (2001) Simultaneous measurements of intracellular cAMP and L-type Ca^{2+} current in single frog ventricular myocytes. *J. Physiol. (Lond.)* **530**, 79-91.
 67. Vandecasteele, G., Verde, I., Rücker-Martin, C., Donzeau-Gouge, P., Fischmeister, R. (2001) Cyclic GMP regulation of the L-type Ca^{2+} channel current in human atrial myocytes. *J. Physiol. (Lond.)* **533**, 329-340.
 68. Medhurst, A. D., Lezoualc'h, F., Fischmeister, R., Middlemiss, D. N. & Sanger, G. J. (2001). Quantitative mRNA analysis of five C-terminal splice variants of the human 5-HT₄ receptor in the central nervous system by TaqMan real time RT-PCR. *Mol. Brain Res.* **90**, 125-134.
 69. Robert, S. J., Zugaza, J. L., Fischmeister, R., Gardier, A. M. & Lezoualc'h, F. (2001). The human serotonin 5-HT₄ receptor regulates secretion of non-amyloidogenic precursor protein. *J. Biol. Chem.* **276**, 44881-44888.
 70. Abi-Gerges, N., Szabo, G., Otero, A. S., Fischmeister, R. & Méry, P. F. (2002). NO donors potentiate the β -adrenergic stimulation of $I_{\text{Ca,L}}$ and the muscarinic activation of $I_{\text{K,ACH}}$ in rat cardiac myocytes. *J. Physiol. (Lond.)* **540**, 411-424.
 71. Lefebvre, H., Cartier, D., Duparc, C., Lihmann, I., Contesse, V., Delarue, C., Godin, M., Fischmeister, R., Vaudry, H. & Kuhn, J. M. (2002). Characterization of serotonin₄ receptors in adrenocortical aldosterone-producing adenomas : *in vivo* and *in vitro* studies. *J. Clin. Endocrinol. Met.* **87**, 1211-1216.
 72. Moser, P. C., Bergis, O. E., Jegham, S., Lochead, A., Duconseille, E., Terranova, J. P., Caille, D., Berque-Bestel, I., Lezoualc'h, F., Fischmeister, R., Dumuis, A., Bockaert, J., George, P., Soubrie, P. & Scatton, B. (2002). SL65.0155, a novel 5-hydroxytryptamine₄ receptor partial agonist with potent cognition-enhancing properties. *J. Pharmacol. Exp. Ther.* **302**, 731-741.
 73. Georget, M., Mateo, P., Vandecasteele, G., Jurevičius, J., Lipskaia, L., Defer, N., Hanoune, J., Hoerter, J. & Fischmeister, R. (2002). Augmentation of cardiac contractility with no change in L-type Ca^{2+} current in transgenic mice with a cardiac-directed expression of the human adenylyl cyclase type 8 (AC8). *FASEB J.* **16**, 1636-1638 (express article 10.1096/fj.02-0292fje).
 74. Belmadani, S., Poüs, C., Ventura-Clapier, R., Fischmeister, R. & Méry, P. F. (2002). Post-translational modifications of cardiac tubulin during chronic heart failure in the rat. *Mol. Cell. Biochem.* **237**, 39-46.
 75. Ziyat, A., Mekhfi, H., Bnouham, M., Tahri, A., Legssyer, A., Hoerter, J. & Fischmeister, R. (2002). *Arbutus unedo* induces endothelium-dependent relaxation of the rat isolated aorta. *Phytotherapy Res.* **16**, 572-575.
 76. Legssyer, A., Ziyat, A., Mekhfi, H., Bnouham, M., Tahri, A., Serhrouchni, M., Hoerter, J. & Fischmeister, R. (2002). Cardiovascular effects of *Urtica dioica L.* in isolated rat heart and aorta. *Phytotherapy Res.* **16**, 503-507.
 77. Sartiani, L., Bochet, P., Cerbai, E., Mugelli, A. & Fischmeister, R. (2002). Functional expression of the hyperpolarization-activated non selective cation current I_f in immortalized HL-1 cardiomyocytes. *J. Physiol. (Lond.)* **545**, 81-92.
 78. Bozon, V., Di Scala, E., Eftekhari, P., Hoebeke, J., Lezoualc'h, F., Fischmeister, R. & Argibay, J. (2002). Agonist-like activity of antibodies directed against the second extracellular loop of the human cardiac serotonin 5-HT_{4(e)} receptor in transfected COS-7 cells. *Receptors & Channels* **8**, 113-121.
 79. Mialet, J., Fischmeister, R. & Lezoualc'h, F. (2003). Characterization of human 5-HT_{4(d)} receptor desensitization in CHO cells. *Br J Pharmacol* **138**, 445-452.
 80. Georget, M., Mateo, P., Vandecasteele, G., Lipskaia, L., Defer, N., Hanoune, J., Hoerter, J., Lugnier, C. & Fischmeister, R. (2003). Cyclic AMP compartmentation due to increased cAMP-phosphodiesterase activity in transgenic mice with a cardiac-directed expression of the human adenylyl cyclase type 8 (AC8). *FASEB J.* **17**, 1380-1391.
 81. Mailliet, M., Robert, S. J., Cacquevel, M., Gastineau, M., Vivien, D., Bertoglio, J., Zugaza, J. L., Fischmeister, R. & Lezoualc'h, F. (2003). A new cross-talk between Rap1 and Rac that regulates sAPP α secretion. *Nat. Cell Biol.* **5**, 633-639.
 82. Jurevičius, J., Skeberdis, V. A. & Fischmeister, R. (2003). Role of cyclic nucleotide phosphodiesterase isoforms in cAMP compartmentation following β_2 -adrenergic stimulation of $I_{\text{Ca,L}}$ in frog ventricular myocytes. *J. Physiol. (Lond.)* **551**, 239-252.
 83. Belmadani, S., Poüs, C., Fischmeister R. & Méry, P.-F. (2004). Post-translational modifications of tubulin and microtubule stability in adult rat ventricular myocytes and immortalized HL-1 cardiomyocytes. *Mol. Cell. Biochem.* **258**, 35-48.
 84. Qu, Z., Fischmeister, R. & Hartzell, H. C. (2004). Mouse bestrophin-2 is a bona fide Cl⁻ channel: Identification of a residue important in anion binding and conductance. *J. Gen. Physiol.* **123**, 327-340.
 85. Garnier, A., Bendall, J. K., Fuchs, S., Escoubet, B., Rochais, F., Hoerter, J., Nehme, J., Ambroisine, M. L., De Angelis, N., Morineau, G., D'Estienne, P., Fischmeister, R., Heymes, C., Pinet, F. & Delcayre, C. (2004). Cardiac specific increase in aldosterone production induces coronary dysfunction in aldosterone synthase-transgenic mice. *Circulation* **110**, 1819-1825.
 86. Rivail, L., Giner, M., Gastineau, M., Berthouze, M., Soulier, J. L., Fischmeister, R., Lezoualc'h, F., Maigret, B., Sicsic, S. & Berque-Bestel, I. (2004). New insights into the human 5-HT₄ receptor binding site: exploration of a hydrophobic pocket. *Br J Pharmacol* **143**, 361-370.
 87. Rochais, F., Vandecasteele, G., Lefebvre, F., Lugnier, C., Lum, H., Mazet, J.L., Cooper, D.M., & Fischmeister, R. (2004). Negative feedback exerted by PKA and cAMP phosphodiesterase on subsarcolemmal cAMP signals in intact cardiac myocytes. An *in vivo* study using adenovirus-mediated expression of CNG channels. *J. Biol. Chem.* **279**, 52095-52105.
 88. Legssyer, A., Ziyat, A., Mekhfi, H., Bnouham, M., Herrenknecht, C., Roumy, V., Fourneau, C., Laurens, A., Hoerter, J. & Fischmeister, R. (2004). Tannins and catechin gallate mediate the vasorelaxant effect of *Arbutus unedo* on the rat isolated

- aorta. *Phytother. Res.* **18**, 889-894.
89. Fischmeister, R. & Hartzell, C. (2005). Volume-sensitivity of the bestrophin family of chloride channels. *J. Physiol.* **562**, 477-491.
 90. Mailliet, M., Gastineau, M., Bochet, P., Asselin-Labat, M.-L., Morel, E., Laverriere, J. N., Lompré, A. M., Fischmeister, R. & Lezoualc'h, F. (2005). Functional studies of the 5'-untranslated region of the human cardiac 5-HT₄ receptor mRNA. *Biochem. J.* **387**, 463-471.
 91. Robert, S., Mailliet, M., Morel, E., Launay, J. M., Fischmeister, R., Mercken, L. & Lezoualc'h, F. (2005). Regulation of the amyloid precursor protein ectodomain shedding by the 5-HT₄ receptor and Epac. *FEBS Lett* **579**, 1136-1142.
 92. Berthouze, M., Ayoub, M., Russo, O., Rivail, L., Sicsic, S., Fischmeister, R., Berque-Bestel, I., Jockers, R. & Lezoualc'h, F. (2005). Constitutive dimerization of human serotonin 5-HT₄ receptors in living cells. *FEBS Lett.* **579**, 2973-2980.
 93. Castro, L., Mialet-Perez, J., Guillemeau, A., Stillitano, F., Zolk, O., Eschenhagen, T., Lezoualc'h, F., Bochet, P. & Fischmeister, R. (2005). Differential functional effects of two 5-HT₄ receptor isoforms in adult cardiomyocytes. *J. Mol. Cell. Cardiol.* **39**, 335-344.
 94. Soulier, J.-L., Russo, O., Giner, M., Rivail, L., Berthouze, M., Ongerri, S., Maigret, B., Fischmeister, R., Lezoualc'h, F., Sicsic, S. & Berque-Bestel, I. (2005). Design and synthesis of specific probes for human 5-HT₄ receptor dimerization studies. *J. Med. Chem.* **48**, 6220-6228.
 95. Rochais, F., Abi-Gerges, A., Horner, K., Lefebvre, F. Cooper, D. M. F, Conti, M., Fischmeister, R. & Vandecasteele, G. (2006). A specific pattern of phosphodiesterases controls the cAMP signals generated by different G_s-coupled receptors in adult rat ventricular myocytes. *Circ. Res.* **98**, 1081-1088.
 96. Castro, L. R. V., Verde, I., Cooper, D. M. F. & Fischmeister, R. (2006). Cyclic guanosine monophosphate compartmentation in rat cardiac myocytes. *Circulation* **113**, 2221-2228.
 97. Marchant, D., Yu, K., Bigot, K., Roche, O., Germain, A., Bonneau, D., Drouin-Garraud, V., Schorderet, D. F., Schmidt, D., Le Neindre, P., Marsac, C., Ménasché, M., Dufier, J. L., Fischmeister, R., Hartzell, C. & Abitbol, M. (2007). New VMD2 gene mutations identified in patients affected by Best Vitelliform Macular Dystrophy. *J Med Genet* **44**, e70 (<http://www.jmedgenet.com/cgi/content/full/44/3/e70>)
 98. Berthouze, M., Rivail, L., Lucas, A., Ayoub, M. A., Russo, O., Sicsic, S., Fischmeister, R., Berque-Bestel, I., Jockers, R. & Lezoualc'h, F. (2007). Two transmembrane Cys residues are involved in 5-HT₄ receptor dimerization. *Biochem Biophys Res Commun* **356**, 642-647.
 99. Lezoualc'h, F., Steplewski, K., Sartiani, L., Mugelli, A., Fischmeister, R. & Bril, A. (2007). Quantitative mRNA analysis of serotonin 5-HT₄ receptor isoforms, calcium handling proteins and ion channels in human atrial fibrillation. *Biochem Biophys Res Commun* **357**, 218-224.
 100. Kamel, R., Garcia, S., Lezoualc'h, F., Fischmeister, R., Muller, S., Hoebeker, J. & Eftekhari, P. (2007). Immunomodulation by maternal autoantibodies of the fetal serotonergic 5-HT₄ receptor and its consequences in early BALB/c mouse embryonic development. *BMC Dev Biol.* **7**, 34.
 101. Pereira, L., Métrich, M., Fernández-Velasco, M., Lucas, A., Leroy, J., Perrier, R., Morel, E., Fischmeister, R., Richard, S., Bénitah, J.-P., Lezoualc'h, F. & Gómez, A. M. (2007). The cAMP binding protein Epac modulates Ca²⁺ sparks by Ca²⁺/calmodulin kinase signalling pathway in rat cardiac myocytes. *J Physiol* **583**, 685-694.
 102. Leroy, J., Abi-Gerges, A., Nikolaev, V. O., Richter, W., Lechêne, P., Mazet, J.-L., Conti, M., Fischmeister, R. & Vandecasteele, G. (2008). Spatiotemporal dynamics of β-adrenergic cAMP signals and L-type Ca²⁺ channel regulation in adult rat ventricular myocytes: Role of phosphodiesterases. *Circ Res* **102**, 1091-1100.
 103. Skeberdis, V. A., Gendviliene, V., Zablockaitė, D., Treinys, R., Macianskiene, R., Bogdelis, A., Jurevičius, J. & Fischmeister, R. (2008). β₃-adrenergic receptor activation increases human atrial tissue contractility and stimulates the L-type Ca²⁺ current. *J Clin Invest* **118**, 3219-3227.
 104. Abi-Gerges, A., Richter, W., Lefebvre, F., Matéo, P., Varin, A., Heymes, C., Samuel, J.-L., Lugnier, C., Conti, M., Fischmeister, R. & Vandecasteele, G. (2009). Decreased expression and activity of cAMP phosphodiesterases in cardiac hypertrophy and its impact on β-adrenergic cAMP signals. *Circ Res* **105**, 784-792.
 105. Belmokhtar, M. Bouanani, N.A., Ziyat, A., Mekhfi, H., Bnouham, M., Aziz, M., Matéo, P., Fischmeister, R., Legssyer, A. (2009). Antihypertensive and endothelium-dependent vasodilator effects of aqueous extract of *Cistus ladaniferus*. *Biochem Biophys Res Commun* **389**, 145-149.
 106. Szabo-Fresnais, N., Lefebvre, F., Germain, A., Fischmeister, R. & Pomérance, M. (2010). A new regulation of IL-6 production in adult cardiomyocytes by β-adrenergic and IL-1β receptors and induction of cellular hypertrophy by IL-6 trans-signalling. *Cellular Signalling* **22**, 1143-52.
 107. Castro, L.R.V., Schittl, J. & Fischmeister, R. (2010). Feedback control through cGMP-dependent protein kinase contributes to differential regulation and compartmentation of cGMP in rat cardiac myocytes. *Circ Res* **107**, 1232-1240.
 108. Pernot, M., Couade, M., Mateo, P., Crozatier, B., Fischmeister, R. & Tanter, M. (2011). Real-time assessment of myocardial contractility using shear wave imaging. *J Am Coll Cardiol* **58**, 65-72.
 109. Leroy, J., Richter, W., Mika, D., Castro, L. R. V., Abi-Gerges, A., Xie, M., Scheitrum, C., Lefebvre, F., Schittl, J., Westenbroek, R., Catterall, W. A., Charpentier, F., Conti, M., Fischmeister, R. & Vandecasteele, G. (2011). Phosphodiesterase 4B in the cardiac L-type Ca²⁺ channel complex regulates Ca²⁺ current and protects against ventricular arrhythmias. *J Clin Invest* **121**, 2651-61.

110. Shanmugam, M., Molina, C. E., Gao, S., Severac-Bastide, R., Fischmeister, R. & Babu, G. J. (2011). Decreased sarcolipin protein expression and enhanced sarco(endo)plasmic reticulum Ca^{2+} uptake in human atrial fibrillation. *Biochem Biophys Res Commun* **410**, 97-101.
111. Molina, C. E., Leroy, J., Xie, M., Richter, W., Lee, I.-O., Maack, C., Rucker-Martin, C., Donzeau-Gouge, P., Verde, I., Hove-Madsen, L., Barriga, M., Conti, M., Vandecasteele, G. & Fischmeister, R. (2012). Cyclic AMP phosphodiesterase type 4 protects against atrial arrhythmias. *J Am Coll Cardiol* **59**, 2182-2190.
112. Ghigo, A., Perino, A., Mehel, H., Zahradnikova, A. J., Morello, F., Leroy, J., Nikolaev, V. O., Damilano, F., Cimino, J., De Luca, E., Richter, W., Westenbroek, R., Catterall, W. A., Zhang, J., Yan, C., Conti, M., Gomez, A. M., Vandecasteele, G., Hirsch, E.* & Fischmeister, R*. (2012). PI3K γ protects against catecholamine-induced ventricular arrhythmia through PKA-mediated regulation of distinct phosphodiesterases. *Circulation* **126**, 2073-1083 (*equal contributions).
113. Zhai, K., Hubert, F., Nicolas, V., Ji, G., Fischmeister, R. & Leblais, V. (2012). β -Adrenergic cAMP signals are predominantly regulated by phosphodiesterase type 4 in cultured adult rat aortic smooth muscle cells. *PLoS One* e47826. doi:10.1371/journal.pone.0047826.
114. Courilleau*, D., Bissierier*, M., Jullian, J.-C., Lucas, A., Bouyssou, P., Fischmeister, R., Blondeau, J.-P. & Lezoualc'h, F. (2012). Identification of a tetrahydroquinoline analog as a pharmacological inhibitor of the cAMP-binding protein Epac. *J Biol Chem* **287**, 44192-44202. (*equal contributions).
115. Mehel[#], H., Emons[#], J., Vettel, C., Wittköpper, K., Seppelt, D., Dewenter, M., Lutz, S., Sossalla, S., Maier, L. S., Lechêne, P., Leroy, J., Lefebvre, F., Varin, A., Eschenhagen, T., Nattel, S., Dobrev, D., Zimmermann, W.-H., Nikolaev, V. O., Vandecasteele, G., Fischmeister*, R. & El-Armouche*, A. (2013). Phosphodiesterase-2 is upregulated in human failing hearts and blunts β -adrenergic responses in cardiomyocytes. *J Am Coll Cardiol* **62**, 1596-1606 ([#]*equal contributions).
116. Mika, D., Bobin, P., Poméranche, M., Lechêne, P., Westenbroek, R., Catterall, W. A., Vandecasteele, G., Leroy, J. & Fischmeister, R. (2013). Differential regulation of cardiac excitation-contraction coupling by cAMP phosphodiesterase subtypes. *Cardiovasc Res* **100**, 336-346.
117. Courilleau, D., Bouyssou, P., Fischmeister, R., Lezoualc'h, F. & Blondeau, J.-P. (2013). The (R)-Enantiomer of CE3F4 is a preferential inhibitor of human exchange protein directly activated by cyclic AMP isoform 1 (Epac1). *Biochem Biophys Res Commun* **440**, 443-448.
118. Zhai, K., Chang, Y., Wei, B., Liu, Q., Leblais, V., Fischmeister, R. & Ji, G. (2014). Phosphodiesterase type 3 and 4 regulate the phasic contraction of neonatal rat bladder smooth myocytes via distinct mechanisms. *Cell Signaling* **26**, 1001-1010.
119. Molina, C. E., Johnson, D. M., Mehel, H., Spätjens, R. L. H. M. G., Mika, D., Algalarrondo, V., Haj Slimane, Z., Lechêne, P., Abi-Gerges, N., van der Linde, H. J., Leroy, J., Volders, P. G. A., Fischmeister, R. & Vandecasteele, G. (2014). Interventricular differences in β -adrenergic responses in the canine heart: Role of pPhosphodiesterases. *J Am Heart Ass (JAHA)* **3**(3), pii: e000858. doi: 10.1161/JAHA.114.000858.
120. Haj Slimane, Z., Bedioune, I., Lechêne, P., Varin, A., Lefebvre, F., Mateo, P., Domergue-Dupont, V., Dewenter, M., Richter, W., Conti, M., El-Armouche, A., Zhang, J., Fischmeister, R. & Vandecasteele, G. (2014). Control of cytoplasmic and nuclear protein kinase A activity by phosphodiesterases and phosphatases in cardiac myocytes. *Cardiovasc Res* **102**, 97-106.
121. Hubert, F., Belacel-Ouari, M., Manoury, B., Zhai, K., Domergue-Dupont, V., Mateo, P., Joubert, F., Fischmeister, R. & Leblais, V. (2014). Alteration of vascular reactivity in heart failure: Role of phosphodiesterases type 3 and 4. *Br J Pharmacol* **171**, 5361-5375.
122. Algalarrondo, V., Wahbi, K., Sebag, F., Gourdon, G., Beldjord, C., Azibi, K., Balse, E., Coulombe, A., Fischmeister, R., Eymard, B., Duboc, D. & Hatem, S. N. (2015). Abnormal sodium current properties contribute to cardiac electrical and contractile dysfunction in a mouse model of Myotonic Dystrophy type 1. *Neuromuscular Disorders* **25**, 308-20.

Reviews, Chapters, etc.:

123. Vassort, G., Mentrard, D. & Fischmeister, R. (1984). Na-Ca exchange in muscular preparations. In: *Colloque INSERM/CNRS: Régulations calciques dans les muscles lisses/Calcium regulation in smooth muscles* vol. 124, pp. 133-142.
124. Chesnais, J.-M., Fischmeister, R., Vassort, G. & Sauviat, M. P. (1987). Electrophysiologie de préparations cardiaques isolées. In: *Expérimentation Animale en Cardiologie*, B Swynghedauw, Ed, Editions INSERM/Médecine-Sciences, Flammarion (Paris), pp. 105-114.
125. Hartzell, H. C., Simmons, M. A. & Fischmeister, R. (1988). Regulation of the trans sarcolemmal calcium current in isolated cardiac myocytes by acetylcholine and cyclic GMP. In: *International Symposium on Muscarinic Cholinergic Mechanisms*. M. Sokolovsky and S. Cohen, Eds. Freund Publishing House, Ltd., London, pp. 149-159.
126. Lechêne, P. & Fischmeister R. (1988). Description d'un système d'acquisition et d'analyse de signaux électrophysiologiques. *Cahiers de l'Atelier de Grenoble* **3**, 141-155.
127. Fischmeister, R., Méry, P.-F., Shrier, A., Pavoine, C., Brechler, V. & Pecker, F. (1990). Hormonal and non-hormonal regulation of Ca^{2+} current and adenylate cyclase in cardiac cells. In: *'Subcellular Basis of Contractile Failure'*, Eds. B. Korecky and N. S. Dhalla, Kluwer Academic Press, Boston, pp. 39-54.
128. Hartzell, H. C., Méry, P. F., Fischmeister, R. & Szabo, G. (1991). Channel control. *Nature* **354**, 363-364.
129. Lohmann, S. M., Fischmeister, R. & Walter, U. (1991). Signal transduction by cGMP in heart. *Basic Res. Cardiol.* **86**,

- 503-514.
130. Hartzell, H. C. & Fischmeister, R. (1992). Direct regulation of cardiac Ca channels by G proteins: neither proven nor needed? *Trends Pharmacol. Sci.* **13**, 380-385.
 131. Fischmeister, R., Méry, P.-F., Hartzell, H. C. & Szabo, G. (1992). Participation of a fast G protein pathway in the β -adrenergic regulation of cardiac calcium channels: Neither proven nor needed. In: *NATO ASI Series "Intracellular Regulation of Ion Channels"*, Eds. M. Morad & Z. Agus, Springer-Verlag Berlin Heidelberg, vol. H60, pp. 129-139.
 132. Méry, P. F. & Fischmeister, R. (1993). Régulation neuroendocrinienne de l'activité des canaux calciques des cellules myocardiques. *Réalités Cardiologiques* **48**, 25-32.
 133. Fischmeister, R., Méry, P. F. & Hanf, R. (1994). Régulation du courant calcique cardiaque par les phosphorylations. *JAMA* **12**-17.
 134. Fischmeister, R., Hove-Madsen, L., Méry, P.-F., Jurevičius, J. & Skeberdis, A. V. (1995). Control of cardiac calcium channels by cyclic AMP. *Lithuanian J. Cardiol.* **2**, 65-74.
 135. Fischmeister, R., Hanf, R., Li, Y. & Szabo, G. (1995). Differential regulation of cardiac Ca^{2+} and K^+ currents by muscarinic receptors. *Heart Vessels Suppl.* **9**, 41-43.
 136. Fischmeister, R. & Méry, P. F. (1996). Régulation du courant calcique par la voie du GMPc/NO. *C.R. Soc. Biol.* **190**, 181-206.
 137. Hove-Madsen, L., Méry, P.-F., Jurevičius, J., Skeberdis, A. V. & Fischmeister, R. (1996). Regulation of myocardial calcium channels by cyclic AMP metabolism. *Basic Res. Cardiol.* **91**(Suppl. 2), 1-8.
 138. Méry, P. F., Pavoine, C., Pecker, F. & Fischmeister, R. (1996). EHNA as an Inhibitor of PDE2: Evidences from a pharmacological and biochemical study in cardiac myocytes. In: *Phosphodiesterase Inhibitors* (C. Schudt, G. Dent, K.F. Rabe, Eds.), Academic Press, London (*The Handbook of Immunopharmacology* 1996:1), pp. 81-88.
 139. Fischmeister, R. & Méry, P. F. (1996). Regulation of cardiac Ca^{2+} channels by cGMP and NO. In: *Molecular Physiology & Pharmacology of Cardiac Ion Channels & Transporters* (M. Morad, Ed.), Kluwer Academic Publishers, pp. 93-105.
 140. Méry, P. F., Abi-Gerges, N., Vandecasteele, G., Jurevičius, J., Eschenhagen, T. & Fischmeister, R. (1997). Muscarinic regulation of the L-type calcium current in isolated cardiac myocytes. *Life Sci.* **60**, 1113-1120.
 141. Skeberdis, V. A., Jurevicius, J. & Fischmeister, R. (2002). Effect of S16257 on L-type calcium current in frog and rat ventricular myocytes. *Acta Medica Lituanica* **9**, 69-75.
 142. Gendviliene, V., Macianskiene, R., Skeberdis, A., Kanaporis, G., Zablockaitė, D., Jurevicius, J. & Fischmeister, R. (2002). Effect of nonconventional beta-adrenoceptor agonist CGP 12177 on L-type calcium current and contraction force in human myocardium. *Biomedicine* **2**, 46-50.
 143. Langlois, M. & Fischmeister, R. (2003). 5-HT₄ receptor ligands: applications and new prospects. *J. Med. Chem.* **46**, 319-344.
 144. Fischmeister, R., Rochais, F., Vandecasteele, G. & Jurevicius, J. (2004). The old and new faces of cyclic AMP. Lessons from cAMP compartmentation in isolated myocytes. *Korean J. Physiol. Pharmacol.* **8**, Suppl. II, S7-S9.
 145. Fischmeister, R. (2004) Un cerveau en fuite... temporaire. *Le Monde*, édition of March 9 (dated March 10), 2004.
 146. Fischmeister, R. (2004) Du plus lointain de mes rêves... américains. *L'Humanité*, édition of March 9, 2004.
 147. Fischmeister, R. (2004) Le rêve américain, hélas... http://www.arborescience.net/forum/textes/texte_025.php, March 16, 2004
 148. Fischmeister, R., Castro, L., Abi-Gerges, A., Rochais, F., Vandecasteele, G. (2005) Species- and tissue-dependent effects of NO and cyclic GMP on cardiac ion channels. *Comp. Biochem. Physiol.* **142**, 136-143.
 149. Fischmeister, R. (2006) Is cAMP good or bad? Depends on where it's made. *Circ. Res.* **98**, 582-584.
 150. Vandecasteele, G., Rochais, F., Abi-Gerges, A. & Fischmeister, R. (2006). Functional localization of cAMP signalling in cardiac myocytes. *Biochem Soc Trans* **34**, 484-4888.
 151. Fischmeister, R., Castro, L. R. V., Abi-Gerges, A., Rochais, F., Jurevičius, J., Leroy, J. & Vandecasteele, G. (2006). Compartmentation of cyclic nucleotide signaling in the heart: The role of cyclic nucleotide phosphodiesterases. *Circ Res* **99**, 816-828.
 152. Abi-Gerges, A., Castro, L. R. V., Rochais, F., Vandecasteele, G. & Fischmeister, R. (2007). Role of phosphodiesterases in cyclic nucleotide compartmentation in cardiac myocytes. In: *Cyclic Nucleotide Phosphodiesterases in Health and Disease*, S. Francis, J.A. Beavo, M.D. Houslay (Eds), CRC Press, Taylor & Francis Group. Chapter 20, pp. 395-414.
 153. Fischmeister, R. & Vandecasteele, G. (2007). Récepteurs, voies de signalisation et régulation de la contraction des myocytes cardiaques et vasculaires: Myocytes cardiaques. In: *Cardiologie et Maladies Vasculaires*, J.-Y. Artigou & J.-J. Monsuez (Eds), Elsevier-Masson SAS, Paris, pp. 31-34.
 154. Fischmeister, R. & Vandecasteele, G. (2008). Mécanismes de signalisation dans le coeur. In: *Biologie et Pathologie du Coeur et des Vaisseaux*. Eds. F. Pinet, D. Babuty, L. Carrier, A. Duperray, A. Grynberg, G. Loirand & J-L Samuel, John Libbey Eurotext, Paris, pp. 134-139.
 155. Vandecasteele, G. & Fischmeister, R. (2009). Compartmentation of cAMP in cardiomyocytes. In: *Handbook of Cell Signaling - 2nd ed.* (R. Bradshaw & E. Dennis, eds.), Elsevier, pp. 1581-1588.
 156. Rochais, F. & Fischmeister, R. (2010). Acute cardiac effects of Neuregulin-1/ErbB signaling. *Cardiovasc Res* **88**, 393-4.
 157. Castro, L. R. V., Schittl, J. & Fischmeister, R. (2011). Response to Letter by Hamilton et al. *Circulation Research* **108**, e5.

158. Quinn, T. A., Granite, S., Allesie, M. A., Antzelevitch, C., Bollensdorff, C., Bub, G., Burton, R. A., Cerbai, E., Chen, P. S., Delmar, M., Difrancesco, D., Earm, Y. E., Efimov, I. R., Egger, M., Entcheva, E., Fink, M., Fischmeister, R., Franz, M. R., Garny, A., Giles, W. R., Hannes, T., Harding, S. E., Hunter, P. J., Iribe, G., Jalife, J., Johnson, C. R., Kass, R. S., Kodama, I., Koren, G., Lord, P., Markhasin, V. S., Matsuoka, S., McCulloch, A. D., Mirams, G. R., Morley, G. E., Nattel, S., Noble, D., Olesen, S. P., Panfilov, A. V., Trayanova, N. A., Ravens, U., Richard, S., Rosenbaum, D. S., Rudy, Y., Sachs, F., Sachse, F. B., Saint, D. A., Schotten, U., Solovyova, O., Taggart, P., Tung, L., Varro, A., Volders, P. G., Wang, K., Weiss, J. N., Wettwer, E., White, E., Wilders, R., Winslow, R. L. & Kohl, P. (2011). Minimum Information about a Cardiac Electrophysiology Experiment (MICEE): Standardised reporting for model reproducibility, interoperability, and data sharing. *Prog Biophys Mol Biol* **107**, 4-10.
159. Mika, D., Leroy, J., Vandecasteele, G. & Fischmeister, R. (2012). PDEs create local domains of cAMP signaling. *J Mol Cell Cardiol* **52**, 323-329.
160. Mika, D., Leroy, J., Vandecasteele, G. & Fischmeister, R. (2012). Rôle des phosphodiesterases des nucléotides cycliques dans la compartimentation subcellulaire de l'AMP cyclique des myocytes cardiaques. *Biologie Aujourd'hui* **206**, 11-24.
161. Leroy, J. & Fischmeister, R. (2013). Ca_v1.2 and β-adrenergic regulation of cardiac function. In: *Cardiac Electrophysiology, from Bench to Bedside*, 6th Edition, Eds. Zipes & Jalife, Elsevier. **Chapter 37**, pp. 371-381.
162. Mika, D., Leroy, J., Fischmeister, R. & Vandecasteele, G. (2013). Rôle des phosphodiesterases des nucléotides cycliques de type 3 et 4 dans le couplage excitation-contraction et les arythmies cardiaques. *Med/Sci* **29**, 617-622.
163. Guellich, A., Mehel, H. & Fischmeister, R. (2014). Cyclic AMP synthesis and degradation in the normal and failing heart. *Pflügers Arch* **466**, 1163-1175.
164. Wang, Z., Nicolas, C., Fischmeister, R. & Brenner, C. (2015). Enzymatic assay for probing mitochondrial apoptosis. *Methods Mol Biol* **1265**, 407-414.
165. Hrabovska, A., Hervé, J.-C., Argibay, J. A. & Fischmeister, R. (2015). Muscarinic regulation of the heart. *Physiol Rev* (invited review).

PATENTS

- INSERM Patent (FR 97 15 037; WO 99/28456): *Splice variants for human 5-HT₄ serotonin receptors and their applications, in particular for screening.*
- CEREP/CNRS Patent (FR 01 02 431 ; WO 02/068399) : *Aryl carbamate derivatives, preparation and use thereof.*
- INSERM Patent (PCT/EP2013/069298, WO2014053315): *Tetrahydroquinoline derivatives and their use as Epac inhibitors.*