

Olivier CUVILLIER, Ph.D  
*Curriculum Vitae*

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### Office address

Institut de Pharmacologie et de Biologie Structurale  
CNRS, UMR 5089  
205 route de Narbonne  
31077 Toulouse Cedex 4  
Phone : (+33) 5.61.17.55.13  
E-mail : [olivier.cuvillier@inserm.fr](mailto:olivier.cuvillier@inserm.fr)

[https://www.researchgate.net/profile/Olivier\\_Cuvillier](https://www.researchgate.net/profile/Olivier_Cuvillier)  
<https://orcid.org/0000-0003-3346-375X>

### Education

#### University of Sciences and Technologies of Lille, France

1990/1994 Ph.D in Biochemistry with distinction  
'Isolation and characterization of glycoconjugates from new-born meconium.  
Relation with tumor associated antigens'  
Supervisors: Drs. Jean-Claude Michalski & Gérard Strecker

### Postdoctoral Training

1995/1999 **Georgetown University, Washington, DC, USA**  
Postdoctoral Fellow  
Research topics: sphingolipid metabolism, signal transduction and apoptosis  
Supervisor: Prof. Sarah Spiegel  
Department of Biochemistry and Molecular Biology

1999/2001 **Inserm U466, CHU Rangueil, Toulouse, France**  
Postdoctoral Fellow  
Research topics: sphingolipid metabolism, signal transduction and apoptosis  
Supervisor: Prof. Thierry Levade

### Professional Appointments

2005-present **Head, Sphingolipids in Cancer & Aging Research Laboratory**  
Research topics: sphingolipid metabolism, signal transduction, cancer, aging  
Institut de Pharmacologie et Biologie Structurale

2003-2009 **Scientific Advisor (Interface Program)**  
Topic: prostate cancer and sphingolipid-based therapies  
Urology Department, Toulouse Hospitals

2001-present **French National Health and Medical Research Institute (INSERM) Investigator**

### Industry Consulting Experience

1997-1999 The Liposome Company, Inc.  
Princeton, NJ, USA  
Expert in liposomal anticancer drugs and apoptosis

### Awards

2010 European Association for Cancer Research Research Award  
2004 Maurice Nicloux Prize from the French Society for Biochemistry and Molecular Biology

### Editorial Activities

2018-present Editorial Board member (kidney cancer group), *Annals of Urologic Oncology*  
2015-present Associate Editor, *Frontiers in Oncology*

2015-present	Associate Editor, <i>Frontiers in Pharmacology</i>
2012-2017	Editorial Board member (urology section), <i>Dataset Papers in Medicine</i>
2012-2016	Editorial Advisory Board member, <i>Biochem. J.</i>
2011-present	Senior Editorial Board member, <i>Am. J. Cancer Res.</i>

## Conference Organization

2013-present	Organizer, Annual Meeting (one-day meeting) of Association pour la Recherche sur les Tumeurs de la Prostate (ARTP), the French prostate cancer charity, Paris, France
2017	Co-Organizer, 7th Annual Meeting of the Société Française d'Angiogenèse, Toulouse, France

## Committees and Study Sections

2012-present	Scientific Evaluation Committee member, Comité National du CNRS (section 24, 'Physiology, Aging, Tumorigenesis')
2012-2015	Scientific Evaluation Committee member, Commissions Nationales de la Ligue contre le Cancer
2011-present	Member and coordinator of the Scientific Evaluation Committee, Board of Directors officer (Treasurer), Webmaster, Association pour la Recherche sur les Tumeurs de la Prostate (ARTP), the French prostate cancer charity
2011-2019	Board of Directors member, French Society of Angiogenesis (SFA)
2011-2014	Steering Committee member, Cancéropôle Grand Sud-Ouest 'Cell signaling and therapeutic targets' (INCa, the French National Cancer Institute)
2011-2014	Board of Directors member, French Society for Biochemistry and Molecular Biology (SFBBM)
2009-present	Study Section, Association Française d'Urologie (AFU)

## Publications

*h* index : 40  
6,397 citations (source : Scopus)

### Original papers

1. Strecker G, Wieruszkeski JM, Cuvillier O, Michalski JC, Montreuil J  
'<sup>1</sup>H and <sup>13</sup>C -NMR assignments for sialylated oligosaccharide-alditols related to mucins. Study of thirteen components from hen ovomucin and swallow nest mucins'  
**Biochimie**, 74 (1992) 39-52
2. Cuvillier O, Alonso C, Wieruszkeski JM, Brassart C, Strecker G, Bouquelet S, Michalski JC  
'First evidence of human meconium glycoasparagines'  
**Glycobiology**, 5 (1995) 281-289
3. Cuvillier O, Pirianov G, Kleuser B, Vanek PG, Coso OA, Gutkind JS, Spiegel S  
'Suppression of ceramide-mediated programmed cell death by sphingosine 1-phosphate'  
**Nature**, 381 (1996) 800-803
4. Cuvillier O, Rosenthal DS, Smulson ME, Spiegel S  
'Sphingosine 1-phosphate inhibits activation of caspases that cleave Poly(ADP-ribose) Polymerase and lamins during Fas- and ceramide-mediated apoptosis in Jurkat T lymphocytes'  
**J. Biol. Chem.**, 273 (1998) 2910-2916
5. Kleuser B, Cuvillier O, Spiegel S  
' $\alpha$ ,25-dihydroxyvitamin D<sub>3</sub> inhibits programmed cell death in HL-60 cells by activation of sphingosine kinase'  
**Cancer Res.**, 58 (1998) 1817-1824
6. Van Brocklyn JR, Lee MJ, Menzeleev R, Olivera A, Edsall L, Cuvillier O, Thomas DM, Coopman PJP, Thangada S, Liu CH, Hla T, Spiegel S  
'Dual actions of sphingosine 1-phosphate: extracellular through the G<sub>i</sub>-coupled orphan receptor EDG-1 and intracellular to regulate proliferation and apoptosis'  
**J. Cell. Biol.**, 142 (1998) 229-240
7. Edsall L, Van Brocklyn JR, Cuvillier O, Kleuser B, Spiegel S

- 'N,N-Dimethylsphingosine is a potent competitive inhibitor of sphingosine kinase but not of protein kinase C: modulation of cellular levels of sphingosine 1-phosphate and ceramide'  
**Biochemistry**, 37 (1998) 12892-12898
8. Spiegel S, Olah Z, Cuvillier O, Edsall L, Janoff AS  
'Differential effects of free and liposome-associated 1-O-octadecyl-2-O-methylglycerophosphocholine on protein kinase C'  
**FEBS Lett.**, 454 (1999) 137-141
  9. Olivera A, Kohama T, Edsall L, Nava V, Cuvillier O, Poulton S, Spiegel S  
'Sphingosine kinase expression increases intracellular sphingosine 1-phosphate and promotes cell growth and survival'  
**J. Cell. Biol.**, 147 (1999) 545-558
  10. Cuvillier O, Mayhew E, Janoff AS, Spiegel S  
'Liposomal ET-18-O-CH3 induces cytochrome c-mediated apoptosis independently of the CD95 (APO-1/Fas) signaling'  
**Blood**, 94 (1999) 3583-3592
  11. Cuvillier O, Edsall L, Spiegel S  
'Involvement of sphingosine in mitochondria-dependent Fas-induced apoptosis of type II Jurkat T cells'  
**J. Biol. Chem.**, 275 (2000) 15691-15700
  12. Nava V, Cuvillier O, Edsall L, Kimura K, Murthy S, Gelmann EP, Spiegel S  
'Sphingosine enhances apoptosis of radiation resistant prostate cancer cells'  
**Cancer Res.**, 60 (2000) 4468-4474
  13. Bezombes C, Ségui B, Cuvillier O, Bruno A, Uro-Coste E, Gouazé V, Andrieu-Abadie N, Carpentier S, Laurent G, Salvayre R, Jaffrézou JP, Levade T  
'Lysosomal sphingomyelinase is not solicited for apoptosis signaling'  
**Faseb J.**, 15 (2001) 297-299
  14. Edsall L, Cuvillier O, Twitty S, Spiegel S, Milstien S  
'Sphingosine kinase expression regulates apoptosis and caspase activation in PC12 cells'  
**J. Neurochem.**, 76 (2001) 1573-1584
  15. Cuvillier O, Nava V, Marthy S, Edsall L, Levade T, Milstien S, Spiegel S  
'Sphingosine mediates doxorubicin-induced apoptosis via cytochrome c release and activation of caspase-7 in MCF-7 breast adenocarcinoma cells'  
**Cell Death Differ.**, 8 (2001) 162-171
  16. Ségui B, Cuvillier O, Adam-Klages S, Garcia V, Malagarie-Cazenave S, Lévêque S, Caspar-Bauguil S, Coudert J, Salvayre R, Krönke M, Levade T  
'Involvement of FAN in tumor necrosis factor-induced apoptosis'  
**J. Clin. Invest.**, 108 (2001) 143-151
  17. Cuvillier O, Levade T  
'Sphingosine 1-phosphate antagonizes apoptosis of human leukemia cells by inhibiting cytochrome c and Smac /DIABLO release from mitochondria'  
**Blood**, 98 (2001) 2828-2836
  18. Boulares AH, Zoltoski AJ, Stoica BA, Cuvillier O, Smulson ME  
'Acetaminophen induces a caspase-dependent and Bcl-xL sensitive apoptosis in human hepatoma cells and lymphocytes'  
**Pharmacol. Toxicol.**, 90 (2002) 38-50
  19. Gouazé V, Andrieu N, Cuvillier O, Malagarie S, Frisach MF, Mirault M, Levade T  
'Glutathione peroxidase-1 protects from CD95-induced apoptosis'  
**J. Biol. Chem.**, 277 (2002) 42867-42874
  20. Guillermet J, Saint-Laurent N, Rochemaix P, Cuvillier O, Levade T, Schally AV, Buscail L, Susini C, Bousquet C  
'Somatostatin sst2 receptor sensitizes human pancreatic cancer cells to death ligand-induced apoptosis'  
**Proc. Natl. Acad. Sci. USA**, 99 (2003) 155-160
  21. Veldman RJ, Mita A, Cuvillier O, Garcia V, Klappe K, Medin J, Campbell J, Carpentier S, Kok JW, Levade T  
'The absence of functional glucosylceramide synthase does not sensitize melanoma cells to anticancer drugs'  
**Faseb J.**, 17 (2003) 1144-1146
  22. Milhas D, Cuvillier O, Therville N, Clavé P, Thomsen M, Levade T, Benoist H, Ségui B  
'Caspase-10 triggers Bid cleavage and caspase cascade activation in FasL-induced apoptosis'

- J. Biol. Chem.**, 280 (2005) 19836-19842
23. Pchejetski D, Golzio M, Bonhoure E, Calvet C, Doumerc N, Garcia V, Mazerolles C, Rischmann P, Teissié J, Malavaud B, Cuvillier O  
‘Sphingosine kinase-1 as a sensor to chemotherapy in prostate adenocarcinoma cell and mouse models’  
**Cancer Res.**, 65 (2005) 11667-11675
  24. Bonhoure E, Pchejetski D, Aouali N, Levade T, Morjani H, Kohama T, Cuvillier O  
‘Overcoming MDR-associated chemoresistance in HL-60 acute myeloid leukemia cells by targeting sphingosine kinase-1’  
**Leukemia**, 20 (2006) 95-102
  25. Betito S, Cuvillier O  
‘Regulation by sphingosine 1-phosphate of Bax and Bad activities during apoptosis in a MEK1/2-dependent manner’  
**Biochem. Biophys. Res. Comm.**, 341(2006) 1273-1277
  26. Pchejetski D, Kundozova O, Dayon A, Calisse D, Seif I, Parini A, Cuvillier O  
‘Oxidative stress-dependent sphingosine kinase-1 inhibition mediates myocardial cell apoptosis induced by MAO-A’  
**Circ. Res.**, 100 (2007) 41-49
  27. Guillermet J, Saint-Laurent N, Davenne L, Rochaix P, Cuvillier O, Culler MD, Pradayrol L, Buscail L, Susini C, Bousquet C  
‘Novel synergistic mechanism for SST2 somatostatin and TNF $\alpha$  receptors to induce apoptosis : crosstalk between NF- $\kappa$ B and JNK pathways’  
**Cell Death Diff.**, 14 (2007) 197-208
  28. Gomez-Brouchet A, Pchejetski D, Brizuela-Madrid L, Garcia V, Altié MF, Maddelein ML, Delisle MB, Cuvillier O  
‘Critical role for sphingosine kinase-1 in regulating survival of amyloid-beta peptide-treated neuroblastoma SH-SY5Y cells’  
**Mol. Pharmacol.**, 72 (2007) 341-349
  29. Bonhoure E, Lauret A, Barnes DJ, Martin C, Malavaud B, Kohama T, Melo JV, Cuvillier O  
‘Sphingosine kinase-1 is a downstream regulator of imatinib-induced apoptosis in chronic myeloid leukemia cells’  
**Leukemia**, 22 (2008) 971-979
  30. Pchejetski D, Doumerc N, Golzio M, Naymark M, Teissié J, Kohama T, Waxman J, Malavaud B, Cuvillier O  
‘Chemosensitizing effect of sphingosine kinase-1 inhibition in prostate cancer cell and animal models’  
**Mol. Cancer Ther.**, 7 (2008) 1836-1845
  31. Ader I, Brizuela L, Bouquerel P, Malavaud B, Cuvillier O  
‘Sphingosine kinase-1 : a new modulator of HIF-1 $\alpha$  during hypoxia in human cancer cells’  
**Cancer Res.**, 68 (2008) 8635-8642
  32. Guillermet J, Davesne L, Pchejetski D, Saint-Laurent N, Brizuela L, Guilbeau-Frugier C, Delisle MB, Cuvillier O, Susini C, Bousquet C  
‘Targeting the sphingolipid metabolism to sensitize pancreatic cancer cell to gemcitabine’  
**Mol. Cancer Ther.**, 8 (2009) 809-820
  33. Sauer L, Nunes J, Salunkhe V, Skalska L, Kohama T, Cuvillier O, Waxman J, Pchejetski D  
‘Sphingosine kinase inhibition sensitizes to hormone-resistant prostate cancer cells to docetaxel’  
**Int. J. Cancer**, 125 (2009) 2728-2736
  34. Dayon A, Brizuela L, Martin C, Mazerolles C, Pirot N, Doumerc N, Nogueira L, Golzio M, Teissié J, Serre G, Rischmann P, Malavaud B, Cuvillier O  
‘Sphingosine kinase-1 is central to androgen-regulated prostate cancer growth and survival’  
**PLoS One**, 4 (2009) e8048
  35. Martin C, Lafosse JM, Malavaud B, Cuvillier O  
‘Sphingosine kinase-1 is a mediator of androgen-induced osteoblast cell growth’  
**Biochem. Biophys. Res. Comm.**, 391 (2010) 669-673
  36. Brizuela L, Dayon A, Doumerc N, Golzio M, Ader I, Izard JC, Hara Y, Malavaud B, Cuvillier O  
‘The sphingosine kinase-1 survival pathway : a potential target for tumor-suppressive tea and wine polyphenols in prostate cancer’  
**Faseb J.**, 24 (2010) 3882-3894

37. Pchejetski D, Boehler T, Sauer L, Doumerc N, Golzio M, Salunkhe V, Teissié J, Malavaud B, Waxman J, [Cuvillier O](#)  
'FTY720 (fingolimod) sensitizes prostate cancer cells to radiotherapy by inhibition of sphingosine kinase-1'  
**Cancer Res.**, 70 (2010) 8651-8661
38. Malavaud B, Pchejetski D, Mazerolles C, Russano de Paiva Silva G, Doumerc N, Calvet C, Pitson S, Rischmann P, [Cuvillier O](#)  
'Increased sphingosine kinase-1 activity and expression in prostate cancer resection specimen'  
**Eur J. Cancer**, 46 (2010) 3417-3424
39. Popa I, Therville N, Carpentier S, Levade T, [Cuvillier O\\*](#), Portoukalian J\*  
'Production of multiple brain-like ganglioside species is dispensable for Fas-induced apoptosis of lymphoid cells'  
**PLoS One**, 6 (2011) e19974 (\*, senior authors)
40. Jensen M, Canning A, Chiba S, Bouquerel P, Trudslev J, Pedersen J, Ostergaard J, [Cuvillier O](#), Sasaki I, Hureau C, Faller P  
'Bifunctional peptide with  $\beta$ -sheet breaker and chelator moieties against Cu-amyloid  $\beta$ '  
**Chemistry**, 18 (2012) 4836-4839
41. Brizuela L, Ader I, Mazerolles C, Bocquet M, Malavaud B, [Cuvillier O](#)  
'First evidence of sphingosine 1-phosphate lyase protein expression and activity down-regulation in human neoplasm. Implication for resistance to therapeutics in prostate cancer'  
**Mol Cancer Ther.**, 11 (2012) 1841-1851
42. Ceccom J, Loukh N, Lawers-Cances V, Touriol C, Nicaise Y, Gentil C, Uro-Coste E, Pitson S, Maurage CA, Duyckers C, [Cuvillier O\\*](#), Delisle MB\*  
'Reduced sphingosine kinase-1 and enhanced sphingosine 1-phosphate lyase expression demonstrate deregulated sphingosine 1-phosphate signaling in Alzheimer's Disease'  
**Acta Neuropathologica Communications**, 2 (2014) 12 (\*, senior authors)
43. Brizuela L, Martin C, Jeannot P, Ader I, Gstalder C, Andrieu G, Bocquet M, Laffosse JM, Gomez-Brouchet A, Malavaud B, Sabbadini RA, [Cuvillier O](#)  
'Identification of osteoblast-derived sphingosine 1-phosphate (S1P) as a key paracrine/autocrine factor to confer resistance to therapeutics in metastatic prostate cancer cells '  
**Mol Oncol.**, 8 (2014) 1181-1195
44. Aliouane L, Chao S, Brizuela L, Pfund E, [Cuvillier O](#), Jean L, Renard PY, Lequeux T  
'Synthesis of fluorinated agonist of sphingosine-1-phosphate receptor'  
**Bioorg Med Chem.**, 22 (2014) 4955-4960
45. Boselli L, Ader I, Carraz M, Hemmert C, [Cuvillier O\\*](#), Gornitzka H\*  
'Synthesis, structures, and anticancer activities of gold(I) complexes involving N-heterocyclic carbene ligands'  
**Eur J Med Chem.**, 85 (2014) 87-94 (\*, senior authors)
46. Andrieu G, Quaranta M, Leprince C, [Cuvillier O](#), Hatzoglou A  
'Gem GTPase acts upstream Gmp/RhoA and regulates actin remodeling and spindle positioning in early mitosis'  
**Carcinogenesis**, 35 (2014) 2503-2511
47. Dirat B, Ader I, Golzio M, Massa F, Mettouchi A, Laurent K, Larbret F, Malavaud B, Cormont M, Lemichez E, [Cuvillier O](#), Tanti JF, Bost F  
'Inhibition of Rac1-GTPase mediates the anti-migratory effects of metformin in prostate cancer cells'  
**Mol Cancer Ther.**, 14 (2015) 586-595
48. Ader I, Bouquerel P, Gstalder C, Golzio M, Andrieu G, Zalvidea S, Richard S, Malavaud B, Sabbadini RA, [Cuvillier O](#)  
'Neutralizing S1P inhibits intratumoral hypoxia, induces vascular remodeling and sensitizes to chemotherapy in prostate cancer '  
**Oncotarget**, 6 (2015) 13803-13821
49. Lunardi P, Beauval JB, Roumigué M, Soulié M, [Cuvillier O](#), Malavaud B  
'Mechanisms of castration resistance: Intratumoral hypoxia stimulates the androgen receptor expression'  
**Prog Urol.**, 26(2016) 159-167
50. Bouquerel P, Gstalder C, Muller D, Laurent J, Brizuela L, Sabbadini RA, Malavaud B, Pyronnet S, Martineau Y, Ader I, [Cuvillier O](#)

- 'Essential role for S1P/S1P1 signaling to regulate hypoxia-inducible factor 2 $\alpha$  expression and activity in cancer'  
**Oncogenesis**, 5 (2016) e209
51. Even L, Bouali O, Roumiguié M, Cuvillier O, Malavaud B, Gamé X  
 'Voiding dysfunction in mice with experimental autoimmune encephalomyelitis, a multiple sclerotic-like disease'  
**World J Nephrol Urol.**, 5 (2016) 4-10
  52. Gstalder C, Ader I, Cuvillier O  
 'FTY720 inhibits HIF1 and HIF2 signaling, promotes vascular normalization and chemosensitizes in renal cell carcinoma animal model'  
**Mol Cancer Ther.**, 15 (2016) 2465-2474
  53. Andrieu G, Ledoux A, Branca S, Bocquet M, Walzer T, Kasahara K, Inagaki M, Sabbadini RA, Cuvillier O\*, Hatzoglou A\*  
 'Sphingosine 1-phosphate signaling through its receptor S1P5 promotes chromosome segregation and mitotic progression'  
**Science Signaling**, 10 (2017) eaah4007 (\*, senior authors)
  54. Dominguez G, Maddelein ML, Pucelle M, Nicaise YY, Maurage CA, Duyckaerts C, Cuvillier Q\*, Delisle MB\*  
 'Neuronal SphK2 subcellular localization is altered in Alzheimer's Disease brain'  
**Acta Neuropathologica Communications**, 6 (2018) 25 (\*, senior authors)
  55. Zhang C, Hemmert C\*, Gornitzka H\*, Cuvillier O\*, Zhang M, Wai-Yin Sun R\*  
 'Cationic and neutral N-Heterocyclic carbene Gold(I) complexes: cytotoxicity, NCI-60 screening, Cellular uptake, Inhibition of mammalian thioredoxin reductase and ROS formation'  
**ChemMedChem**, 13 (2018) 1218-1229 (\*, senior authors)
  56. Zhang C, Maddelein ML, Wai-Yin Sun R, Gornitzka H\*, Cuvillier O\*, Hemmert C\*  
 'Pharmacomodulation on Gold-NHC Complexes for Anticancer Applications – is Lipophilicity the Key Point?'  
**Eur J Med Chem**, 157 (2018) 320-332 (\*, senior authors)
  57. Talmont F, Mouledous L, Baranger M, Gomez-Brouchet A, Zajac JM, Deffaud C, Cuvillier O\*, Hatzoglou A\*  
 'Development and characterization of novel sphingosine-1-phosphate receptor 1 antibodies suitable for cell imaging and biochemical studies of endogenous receptors'  
**PLoS One**, 14 (2019) e0213203 (\*, senior authors)
  58. Gachechiladze M, Tichy T, Kolek V, Grygarkova I, Klein J, Mgebrishvili G, Kharaisvili G, Janikova M, Smickova P, Cierna L, Pitson S, Maddelein ML, Cuvillier O\*, Skarda J\*  
 'Sphingosine kinase-1 predicts overall survival outcome in non-small cell lung cancer patients treated with carboplatin and navelbine'  
**Oncology Letters**, 18 (2019) 1259-1266 (\*, senior authors)
  59. Zhang C, Fortin PY, Barnoin G, Qin X, Wang X, Fernandez-Alvarez A, Bajani C, Maddelein ML, Hemmert C\*, Cuvillier O\*, Gornitzka H\* (\*, senior authors)  
 'Artemisinin-derivative-NHC-gold(I)-Hybrid with enhanced cytotoxic activity and through inhibiting NRF2 transcriptional activity'  
**Angewandte Chem Int Ed (in press)**  
 ChemRxiv. Preprint. <https://doi.org/10.26434/chemrxiv.11629113.v1>
  60. Borel M, Cuvillier O, Magne D, Mebarek S, Brizuela L  
 'Increased phospholipase D activity drives tumorigenesis in prostate cancer cell models'  
**Under revision**
  61. Cherifi C, Latourte A, Vettorazzi S, Tuckermann J, Provot S, Ea HK, Ledoux A, Casas J, Cuvillier O, Rchette P, Hay E, Cohen-Solal M  
 'Inhibition of Sphingosine 1-Phosphate protects chondrocyte catabolism and osteoarthritis'  
**Submitted for publication**

### Reviews and Book Chapters

1. Spiegel S, Burbelo P, Cuvillier O, Edsall L, Fuior E, Kleuser B, Olivera A, Tu X, Wang F  
 'Sphingosine 1-phosphate - a new lipid signaling molecule' in '**Frontiers in Bioactive Lipids**' (Vanderhoek JY, ed.), Plenum Press, New York, NY(1996) 193-202
2. Spiegel S, Cuvillier O, Fuior E, Milstien S

- 'Sphingosine 1-phosphate: member of a new class of lipid second messengers' in '**Sphingolipid-mediated signal transduction**' (Hannun YA, ed.), RG Landes Company, Austin, TX (1997) 121-135
3. Spiegel S, Cuvillier O, Edsall L, Kohama T, Menzeleev R, Olivera A, Thomas D, Van Brocklyn J, Tu X, Wang F  
'Roles of sphingosine 1-phosphate in cell growth, differentiation, and death'  
**Biochemistry (Mosc.)**, 63 (1998) 69-73
  4. Spiegel S, Cuvillier O, Edsall L, Kohama T, Menzeleev R, Olah Z, Olivera A, Pirianov G, Thomas D, Van Brocklyn JR, Tu X, Wang F  
'Sphingosine 1-phosphate in cell growth and cell death'  
**Annals New York Academy of Sciences**, 845 (1998) 11-18
  5. Van Brocklyn JR, Cuvillier O, Olivera A, Spiegel S  
'Sphingosine 1-phosphate: a lipid second messenger regulating cell growth and death'  
**J. Liposome Res.**, 8 (1998) 135-145
  6. Cuvillier O, Olivera A, Van Brocklyn JR, Spiegel S  
'Sphingosine 1-phosphate: a lipid messenger with two faces' (in French)  
**Regard sur la Biochimie**, 3 (1999) 17-22
  7. Cuvillier O, Olivera A, Van Brocklyn JR, Augé N, Levade T, Spiegel S  
'Janus faces of sphingosine 1-phosphate'  
**Recent Res. Devel. Lipids**, 4 (2000) 99-114
  8. Ségui B, Cuvillier O, Levade T, Adam-Klages S, Kronke M  
'A role for FAN (Factor Associated with N-sphingomyelinase) in apoptosis signaling' (in French)  
**Médecine/Sciences**, 17 (2001) 1210-1213
  9. Levade T, Augé N, Veldman RJ, Cuvillier O, Nègre-Salvayre A, Salvayre R  
'Sphingolipid mediators in cardiovascular cell biology and pathology'  
**Circ. Res.**, 89 (2001) 957-968
  10. Ségui B, Cuvillier O, Malagarie S, Lévêque S, Gouazé V, Andrieu N, Levade T  
'Ceramide in apoptosis: the FAN thesis, not a fantasy' in '**Ceramide Signaling**' (Futerman A, ed.), RG Landes Company, Austin, TX (2002) 73-80
  11. Levade T, Gouazé V, Malagarie S, Carpentier S, Tardy C, Betito S, Ségui B, Andrieu N, Cuvillier O  
'Ceramide in signaling apoptosis: a revisited role'  
**Neurochem. Res.**, 27 (2002) 601-607
  12. Malagarie S, Andrieu N, Ségui B, Gouazé V, Cuvillier O, Levade T  
'Sphingolipid signalling: molecular bases and role in TNF-induced cell death'  
**Exp. Rev. Mol. Med**, 20 (2002) <http://www.expertreviews.org/0200546X>
  13. Cuvillier O  
'Sphingosine in apoptosis signaling'  
**Biochem. Biophys. Acta**, 1585 (2002) 153-162
  14. Cuvillier O, Levade T  
'Enzymes of sphingosine metabolism as potential pharmacological targets for therapeutic intervention in cancer'  
**Pharmacol. Res.**, 47 (2003) 439-445
  15. Cuvillier O  
'The mitochondrion in apoptosis regulation' (in French)  
**Hépatogastro**, 10 (2003) 219-226
  16. Cuvillier O, Andrieu N, Ségui B, Malagarie S, Tardy C, Bonhoure E, Levade T  
'Apoptosis signaling pathways regulated by sphingolipids'  
**J. Soc. Biol.**, 197 (2003) 217-221 (in French)
  17. Cuvillier O, Bonhoure E, Dayon A, Martin C, Malavaud B, Pchejetski D, Rischmann P  
'The ceramide/sphingosine 1-phosphate biostat in cancer and the potential role of sphingosine kinase-1 as a therapeutic target'  
in '**Sphingolipids and cell function**' (Albi E, ed.), Transworld Research Network, Trivandrum (2006) 123-136
  18. Cuvillier O  
'Sphingosine kinase-1, a potential therapeutic target in cancer'  
**Anti-cancer Drugs**, 18 (2007) 105-110
  19. Cuvillier O  
'Downregulating sphingosine kinase-1 for cancer therapy'

- Expert Opin Ther Targets**, 12 (2008) 1009-1020
20. Ader I, Malavaud B, Cuvillier O  
 'When the sphingosine kinase-1/sphingosine 1-phosphate pathway meets hypoxia signaling: new targets for cancer therapy'  
**Cancer Res.**, 68 (2009) 3723-3726
  21. Cuvillier O, Ader I, Bouquerel P, Brizuela L, Malavaud B, Mazerolles C, Rischmann P  
 'Activation of sphingosine kinase-1 in cancer : implications for therapeutic targeting'  
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## Patent

1. **PCT/IB2019/000823**  
'Artemisinin N-heterocyclic carbene Gold (I) hybrid complexes'  
Inventors : Cuvillier O, Gornitzka H, Hemmert C, Maddelein ML