

Curriculum Vitae

1. Personal Data

Name/Title: Dr. Dr. h.c. Christoph Borner
Academic Status: Full Professor (C4/W3), PhD
Date of birth: 20.05.1960
Nationality: Swiss
Origin: Hägendorf/SO
Language Knowledge: German, English, French, Kiswahili
Home Address: Largitzenstrasse 90, CH-4056 Basel
Office Address: Institute of Molecular Medicine and Cell Research
Albert Ludwigs University Freiburg
Stefan-Meier-Strasse 17
D-79104 Freiburg, Germany
Tel: +49-761-203-9618
Fax: +49-761-203-9620
E-mail: christoph.borner@uniklinik-freiburg.de
Internet: www.mol-med.uni-freiburg.de/mom/cb, www.sgbm.uni-freiburg.de



2. Career History

1979 **Matura**, high school certificate, Gymnasium Olten: Price for the best Matura of the year
1979-1984 **Studies in Biology II**, Biocenter, University of Basel
Diploma thesis in Biochemistry - Supervisors: Prof. M. M. Burger, Biocenter and Dr. F. M. Berger, New York. Topics: (i) Purification of Protodyne, a Protein-Aceous Host Resistance Increasing Substance Isolated from the Cytoplasm of *B. subtilis*; (ii) Purification of Protein Kinase C from Pig Brain
1984 **Master** (diploma) degree in Biology II, University of Basel
1985-1988 **PhD thesis** in Biochemistry, University Medical School, Basel, under the direction of Profs. K. Kirschner and U. Eppenberger. Topic: Immunological and Biochemical Characterization of Protein Kinase C in Human Breast Cancer Cells
1988 **PhD degree, magna cum laude**
1988-1991 **Postdoctoral research fellow** in the lab of Prof. I. B. Weinstein, Columbia University, New York, USA
Topic: The Role of Protein Kinase C Isoforms in Cell Growth and Transformation of Rat Fibroblasts
1991-1993 **Postdoctoral research fellow** (91-92: premier assistant, 92-93: maître assistant) in the lab of late Prof. J. Tschopp, Institute of Biochemistry, Epalinges, Switzerland
Topic: Function of the cell survival factor Bcl-2
1993-2000 **Assistant Professor** (START fellow)/Research group leader, Institute of Biochemistry, University of Fribourg, Fribourg, Switzerland
2000-2005 **Associate Professor** (C3), Institute of Molecular Medicine and Cell Research, Professor in Medical Cell Research, Albert Ludwigs University Freiburg, Germany
2006-present **Full Professor in Medical Cell Research**, Institute of Molecular Medicine and Cell Research, Albert Ludwigs University Freiburg, Germany
2006-present **Director of the Spemann Graduate School of Biology and Medicine (SGBM)** of the Excellence Initiative for the Advancement in Science, Freiburg Germany
2007-2010 **Deputy Director of the International Graduate Academy (IGA)** of the University of Freiburg in the frame of the Excellence Initiative Germany
2008-present **Executive Board Member** of the Excellence Cluster BIOSS-1 and BIOSS-2 (Centre of Biological Signaling Studies) in the frame of the Excellence Initiative Germany
2009-2010 **Study Dean of Molecular Medicine**, Albert Ludwigs University Freiburg, Germany
2013- **Professor and Tutor in Biology, Psychology and Environmental Sciences** for the Business and Administration study track of the California Miramar University (CMU) in Nairobi, Kenya (50% lectures, 50% online/e-learning tutoring).
2014- **Director of the International Master Program in Medical and Biological Sciences (IMBS)** between the Universities of Buenos Aires and Freiburg

3. Awards and Nominations

1988-1990	Postdoctoral Fellowship Stipend of the Swiss National Science Foundation (SNF)
1993-1998	Award "Swiss Talents in Academic Research and Teaching (START)" of the SNF
1997-1998	Award from the "Foundation for aging research" (AETAS), Geneva, for a PhD fellowship
1998	"Venia legendi" (Privatdozent) in Biochemistry, University of Fribourg, Switzerland <u>Topic:</u> Biochemistry of signal transduction and programmed cell death in eukaryotes
2000	Nomination for an Associate Professor position at the Department of Pharmacology, University Medical School Rochester, New York, USA, 1 st place, declined
2000	Nomination for a C4 Full Professorship at the Department of Biochemistry, University of Graz, Austria, 1 st place, declined
2000	Nomination for C4 Full Professorship at the Institute of Molecular Medicine, Albert Ludwigs University Freiburg, Germany, 3 rd place
2004	Nomination for C4 Full Professorship at the Zentrum für Molekulare Biologie (ZMBH), University of Heidelberg, Germany, 3 rd place
2004	Nomination for Member of the Medical Research Council (MRC) Toxicology Unit, Leicester, UK, 1 st place, declined
2005	Listed for Full Professorship and Director of the Institute of Molecular Medicine, Johann Wolfgang Goethe University Frankfurt a. Main, Germany, 1 st place, declined Listed for Full Professorship in Biochemistry III (Molecular Medicine) at the Faculties of Medicine and Chemistry and Pharmacy, University of Tübingen, Germany, 3 rd place
2007-present	FACULTY 1000 Member
2008	Prize of the Wissenschaftsgesellschaft Freiburg (5000 EURO) for obtaining the funds for the Spemann Graduate School in the frame of the Excellence Initiative
2012-present	Member of the European Research Institute for Integrated Cellular Pathology (ERI-ICP), Paris
2013	Doctor honoris causa (Dr. h.c.) of the University of Buenos Aires, Argentina

4. Conference Organization

1998	Organizer and scientific director of an international conference on "The Life and Death of a Cell", Sept 17/18, Hotel Golden Tulip, Fribourg, Switzerland
1999	Co-organizer of the 1 st Apoptosis Conference in Bucine, Tuscany, Italy, Aug. 28 - Sept 2, with Dr. Burkhard Jansen, Vienna
2001	Organizer of the Annual Meeting of the ZBMZ at the ZKF, Albert Ludwigs University Freiburg, Germany, June 28
2003	Organizer of the 2 nd Apoptosis Conference in Sarteano-Siena, Tuscany, Italy, Aug. 25 - Sept 1. Organizer of the 3 rd Conference on "Cancer Biology: from its birth to its death" in Sarteano-Siena, Tuscany, Italy, Aug. 9-16
2005	Organizer of the 4 th Conference on "Cancer: from birth to death" in Sarteano-Siena, Tuscany, Italy, Aug. 20-27
2007	Organizer of the 5 th Conference on "Genetic profiling, resistance mechanism and novel treatment concepts in cancer" in Sarteano-Siena, Tuscany, Italy, Aug. 18-25 Presentation of Spemann Graduate School of Biology and Medicine (SGBM) Freiburg at Jiao Tong and Fudan Universities in Shanghai and Chinese Academy of Sciences, Peking University in Beijing, Oct. 21-27
2008	Co-organizer and invited speaker to EMBO workshop on Cytotoxicity, Cell Death and Immunity, Zaragoza, Spain, Sept 17-20
2009-2017	Organizer of the 6 th - 10 th Conference on "Genetic profiling, resistance mechanism and novel treatment concepts in cancer" in Sarteano-Siena, Tuscany, Italy, Aug. 8-15, 2009, Aug. 6-13, 2011, Aug. 3-10, 2013, Aug. 1-8, 2015, Aug. 5-12, 2017.

5. Managerial Experience

- 1993-present** **Group leader** of a research group of 5-7 PhD students (3-4 years each), 2-3 diploma students (9 months each), 3 technicians. Responsible for lab organisation, supervision, accounting, budgeting
Referee for scientific journals such as Mol. Cell, Mol. Cell Biol., EMBO J., J. Biol. Chem., J. Cell Biol., Cell Death and Differentiation, Exp. Cell Res., Nature Medicine, Science, Proc. Natl. Acad. Sci. USA, Biochem. Biophys. Acta (BBA), FACULTY 1000 member/contributor
Referee for grant agencies such as the Swiss National Science Foundation, the German Research Foundation (DFG), the Cancer Research UK, England, the Biotechnology and Biological Sciences Research Council (BBSRC), England, Wellcome Trust, England, Science Foundation Ireland, Danish Cancer Society and the SFBs (Sonderforschungsbund) of Germany and Austria
Organizer of seminar series at the Institute of Biochemistry, University of Fribourg, Switzerland, and at the Institute of Molecular Medicine and Cell Research, University of Freiburg, Germany
- 99-02/04-06/08-2001-present** **Editorial Board** of "Cell Death and Differentiation"
2001-present **Editorial Board** of "Biochimica et Biophysica Acta (BBA), Molecular Cell Research"
2005 **1-day training course in "Leadership and Management Responsibilities of University Professors"**, Albert Ludwigs University of Freiburg, Germany, Oct. 14
2005 **Founding member** of the International Max Planck Research School (IMPRS): Immunobiology and Development, Freiburg, Germany
2006-present **Director of the Spemann Graduate School of Biology and Medicine (SGBM)**, funded by the Excellence Initiative Germany. Responsible for the selection of national and international graduate students (26 countries), the quality control of thesis supervision, the organization of methods and soft skill courses, exchange programs with other universities and graduate schools worldwide, setting up of an MD/PhD program, fast-track master/PhD program, the collaboration with industrial partners and the implementation of gender/child care, internationalization, database/e-learning/booking and career programs as well as public relation initiatives
- 2009** **1-day training course in "Leadership within a Mix of Generations"**, University Clinic Freiburg, Germany, Oct. 19, 2009



6. Teaching Experience

- 1990-1991** **Lectures** in "Signal Transduction" at the University of Connecticut Health Center in Farmington, CT, and at the Polytechnicum in Brooklin, NY, USA, for Medicine and Biology students (once a year, 2 h)
- 1991-1993** **Lectures** in "Signal Transduction Across Membranes" for Biochemistry students in the Diploma year, University of Lausanne, Switzerland (once a year, 2 h)
Supervision of Practicum "Molecular Cloning and PCR" for Biochemistry students in the Diploma year, University of Lausanne (once a year, 2 days)
- 1993-2000** **Supervision of Practicum** in Biochemistry for medical students, University of Fribourg, Switzerland (2 weeks per year)
Excercises in Biochemistry for students in Biochemistry, Chemistry, Pharmacy and Biology, University of Fribourg (during 1 semester/year, 1 h per week)
Lectures in "Signal Transduction, Cell Death and Proteolytic Systems", Chapitres choisis, for students in Biochemistry, Chemistry, Pharmacy and Biology, 18 h per year, University of Fribourg
Lectures in Basic Biochemistry (Voet textbook) for students in Biochemistry, Chemistry, Pharmacy and Biology, 16 h per year, University of Fribourg
Examinator of oral diploma exams in Biochemistry, University of Fribourg (once a year)

- 1994-present** **Direct supervision of 23 diploma/master theses, 19 PhD and 3 MD theses and co-directing 15 PhD theses in Germany, Switzerland, France, England, Ireland and Italy**
- 1997-2000** **Lecture** in Immunology (Apoptosis in the immune system) for students in Medicine and Biochemistry, University of Berne, Switzerland (once a year, 2 h)
- 2000** **Assistance in setting up a new Molecular Medicine study track** (Diploma) at the Albert Ludwigs University, Freiburg, Germany (till then Mol Med existed only in Erlangen)
- 2000-2003** **Literature seminar** for medical students (1 h/week during winter and summer semester), University of Freiburg, Germany
- 2000-present** **Teaching for students in Molecular Medicine** (Diploma, since 2008 Bachelor, since 2010 Master) every year, Albert Ludwigs University Freiburg, Germany
1) Propaedeutikum in Cell Biology, Alberts et al., 3 h/week during winter and summer semester, with 4 oral testat examinations and a final oral exam (since 2007 Bachelor exam)
2) Lecture on the Molecular Mechanisms of Apoptosis, 6 h during winter semester
3) Literature seminar to teach how to read and critically assess scientific papers, 3 h/week, reviews in the winter, original publications in the summer semester
4) Planning and supervision of practicum in Cell Biology for Mol Med students in the 6th semester, 2 weeks in the winter semester, total of 60 h
5) 6-weeks practical lab courses (3-4 per year) in my own laboratory for Vordiplom-, later Bachelor students
- 2002-present** **Lecture** on the "Molecular Mechanisms of Apoptosis" in the frame of the "Weiterbildungsprogramm zur Anerkennung als Fachtoxikologe/in DGPT", Helmholtz Centre, GSF, Munich, each year in February, 2 h
- 2004-present** **Seminar** in Molecular Medicine for medical students in the 2nd semester: Topics: Cancer, Heart and Cardiovascular Diseases, Neurodegeneration, University of Freiburg, Germany, 4 h/week during summer semester
- 2007-present** **Lecture** in "Cancer Biology", including tutorial of an original publication, at the Max Planck Institute for Immunobiology, Freiburg, Germany, in the frame of the education of graduate students of the International Max Planck Research School, once a year, 4 h
- 2007-present** **Teaching supervision courses on the topic "How to successfully recruit and supervise doctoral students"** in various PhD programs of the Albert Ludwigs University Freiburg, Germany
- 2008-2011** **Assistance in changing the Diploma study track Molecular Medicine to Bachelor and Master tracks according to Bologna rules**, University of Freiburg, Germany
- 2008** **1-day training course (8 h) in "Effective Presentations and Lectures: How to transmit scientific content in an understandable way?"**, Competence Centre for University Didactics in Medicine Baden-Württemberg, University of Tübingen, July 2
- 2009-present** **Planning and supervision of practicum in Cell Biology** for master students of the International Master in Biomedical Sciences (IMBS) between the Universities of Freiburg and Buenos Aires, Argentina, 1 week in the summer semester, total of 30 h, including a lecture on Apoptosis for 2 h
Master thesis defense and examination of 15 IMBS master students in at the University of Buenos Aires (each year in Oct or Nov. for 1 week)
- 2009-present** **High school/Gymnasium student training:**
1) 1-week practical lab courses (1-2 per year) ("Schnupperkurse") in my own laboratory for finishing high school students of various gymnasia in Freiburg, Germany.
2) Lectures at TecDays for high school pupils (aged 13–19), organized by the Schweizerische Akademie der Technischen Wissenschaften (SATW) at various gymnasia in Switzerland. 2-3 x 90 min lectures per day on the topic "No life without death" with practical microscopy teaching (30 min). My module is very popular and among the most chosen, i.e. from 200 – 250 interested pupils, only 40 – 60 can attend my lectures. 2009: Liestal, 2010: Wohlen (with TecNight for adults, 2 modules à 40 min), 2011: Trogen, 2012: Davos, Oberwil and Olten, 2013: Sarnen, Stans (with TecNight), Genève (in French), Zürich Hohe Promenade, 2014: Zofingen, Lausanne, Urdorf and Locarno, 2015: Thun, Basel, Carouge, Neuchâtel, 2016: Chur, Bülach, Zürich Freies Gymnasium, Bellinzona, Wohlen, 2017: Willisau, Genève (in French), Lausanne (in French), Uster, Aarau, Fribourg

2013-present **Online teaching in Biology, Psychology and Environmental Sciences** for the Business and Administration study track of the California Miramar University (CMU) in Nairobi, Kenya (50% lectures, 50% online/e-learning tutoring).

7. Publications

Total Citations: 8446 (Scopus)

Cited Publications: 115

h-Index: 46, i10-index: 86

Reviews

1. **Borner, C.** and Andrews, D. W. (2014)
The apoptotic pore on mitochondria: are we breaking through or still stuck? (Editorial)
Cell Death Differ 21, 187-191.
2. **Borner, C.** and Häcker G. (2011)
Mitochondria: the deadly organelle (Guest editor, editorial)
Biochemical Biophysical Acta (BBA) 1813, 507.
3. **Borner, C.** (2006) In memoriam of a prominent composer of the Bcl-2 family symphony (Editorial)
Cell Death Differ 13, 1248-1249.
4. **Borner, C.** (2004). Bcl-2 family members: integrators of survival and death signals in physiology and pathology (Guest editor, editorial).
Biochemical Biophysical Acta (BBA) 1644, 71-72.
5. **Borner, C.** (2003). The Bcl-2 protein family: Sensors and checkpoints for life-or-death decisions.
Mol Immunol 39, 615-647.
6. **Borner, C.** and Monney, L. (1999)
Apoptosis without caspases: an inefficient molecular guillotine
Cell Death Differ 6, 497-507.
7. **Borner, C.**, Monney, L., Olivier, R., Rossé, T., Häcki, J. and Conus, S. (1999)
Life and death in a medieval atmosphere: Meeting report of the 1st International Conference on "Life and Death of a Cell", Fribourg, Switzerland, Sept 17/18, 1998.
Cell Death Differ 6, 201-206.
8. **Borner, C.** and Fabbro, D. (1992)
PKC and Cellular Transformation
In: ***Protein kinase C: Current concepts and perspectives*** (R. Epand and D. Lester, eds)
Ellis Horwood Publisher, Sussex, England, pp. 296-352.
9. Peintner, L and **Borner, C** (2017) **(peer-reviewed)**
Role of apoptosis in the development of autosomal dominant polycystic kidney disease (ADPKD).
Cell Tissue Res 369, 27-39.
10. Neumann, S., El Maadidi, S., Faletti, L., Haun, F., Labib, S., Schejtman, A., Maurer, U. and **Borner C.** (2015) **(peer-reviewed)**
How do viruses control mitochondria-mediated apoptosis?
Virus Res 209, 45-55.
11. Huai, J., Jöckel, L., Schrader K. and **Borner, C.** (2010)
Role of caspases and non-caspase proteases in cell death
F1000 Biol Rep 2, 48, DOI 10.3410/B2-48
12. Schrader, K., Huai, J., Jöckel, L., Oberle, C. and **Borner, C.** (2010)
Non-caspase proteases: Triggers or amplifiers of apoptosis?
Cell Mol Life Sci 67, 1607-1618.
13. Vogel, S., Kiefer, T., Raulf, N., Sterz, K., Manoharan, A. and **Borner, C.** (2009)
Mechanisms of Bax/Bak activation: is there any light at the end of the tunnel?
Gastroenterology and Hepatology from Bed to Bench 2, S11-S18.

14. Manoharan, A., Kiefer, T., Leist, S., Schrader, K., Urban, C., Walter, D., Maurer, U. and **Borner, C.** (2006) **(peer-reviewed)**
Identification of a 'genuine' mammalian homolog of nematodal CED-4: is the hunt over or do we need better guns? (News and Commentary)
Cell Death Differ 13, 1310-1317.
15. Schinzel, A., Kaufmann, T. and **Borner, C.** (2004) **(peer-reviewed)**
Bcl-2 family members: Intracellular targeting, membrane insertion and changes in subcellular localization
In: Bcl-2 family members: integrators of survival and death signals in physiology and pathology (Guest editor: C. Borner)
Biochem Biophys Acta 1644, 95-105.
16. Kaufmann, T., Schinzel, A. and **Borner, C.** (2004) **(peer-reviewed)**
Bcl-w(eding) with mitochondria
Trends Cell Biol (Research Focus) 14, 8-12.
17. Fabbro, D. and **Borner, C.** (1993)
Protein kinase C.
Human protein data EMBL (A. Haeberli, ed.) VHC Verlags GmbH, Weinheim
18. Groten, J., **Borner, C.**, and Mertelsmann, R. (2016)
Understanding and controlling cancer: The hallmark concept revisited – chance, evolution and entropy
JOSHA 7, DOI: 10.17160/josha.3.7.252
19. Lindenboim, L., **Borner, C.** and Stein, R. (2011) (peer-reviewed)
Nuclear proteins acting on mitochondria
In: Mitochondria: the deadly organelle (Guest editors: C. Borner and G. Häcker)
Biochem Biophys Acta 1813, 584-596.
20. Weinstein, I. B., **Borner, C.**, Guadagno Nichols, S., O'Driscoll, K., Cacace, A. and Fabbro, D. (1993)
The roles of specific isoforms of protein kinase C (PKC) in growth control, oncogene-induced cell transformation, and differentiation.
In: **The pharmacology of cell differentiation** (R. A. Rifkind, ed)
Elsevier Science Publishers, B. V., pp. 15-23.
21. Schlatter, R., Schmich, K., **Borner, C.**, Ederer, M. and Merfort, I. (2012)
Systems biology of cell death in hepatocytes
In: **Systems Biology of Apoptosis** (I. Lavrik, ed)
Springer Book series, DOI 10.1007/978-1-4614-4009-3
22. Anel, A., Bleackley, C., **Borner, C.**, Golstein, P., Krammer, P. H., Müllbacher, A., Pardo, J., Simon, M. M. and Trapani, J. A. (2009)
EMBO Workshop on cytotoxicity, cell death and the immune system (Meeting report Zaragoza, Spain, 17 – 20 September 2008)
Cell Death Differ 16, 790-793.
23. O'Driscoll, K. R., Kahn, S. M., **Borner, C. M.**, Jiang, W. and Weinstein, I. B. (1992)
Studies on the role of protein kinase C in multistage carcinogenesis and their relevance to risk extrapolation.
In: **Oncogene and transgenic correlates of cancer risk assessments** (C. Zervos, ed).
Plenum Press, New York, pp. 43-59.
24. Leprivier, G., Rufini, A., Garcia-Saez, A. H., **Borner, C.** and Barak R. (2012)
7th Tuscany retreat on cancer research: genetic profiling, resistance mechanism and novel treatment concepts in cancer.
Cell Death Differ 19, 546-548 (meeting report).

25. Pardo, J., Aguilo, J. I., Anel, A., **Borner, C.**, Wallich, R., Froelich, C. J. and Simon, M. M. (2009) The biology of cytotoxic cell granule exocytosis pathway: granzymes have evolved to induce cell death and inflammation.
Microbes and Infection 11, 452-459.
26. Peintner, L., Novelli, F., Smirnov, A., Stein, R., Maurer, U., **Borner, C.** and von Karstedt, S. (2016) 9th Tuscany Retreat on Cancer Research: Genetic profiling, resistance mechanisms and novel treatment concepts in cancer.
Cell Death Differ 23, 183-184.
27. Galluzzi, L., Abrams, J., Alnemri, E. S., Baehrecke, E. H., Blagosklonny, M. V., **Borner C.**, Brenner, C. et al. (2009) Guidelines for the use and interpretation of assays for monitoring cell death in higher eukaryotes.
Cell Death Differ 16, 1093-1107.
28. Krauss, R. S., Housey, G. M., Hsiao, W.-L. W., Johnson, M. K., Rotenberg, S. A., **Borner, C.** and Weinstein, I. B. (1990) The role of protein kinase C in signal transduction and cellular transformation.
Prog Clin Biol Res 340D, p. 175-182.
29. Godoy, P., Hewitt, N. J., Albrecht, U., Andersen, M. E., Ansari, N., Bhattacharya, S., Bode, J. G., Bolleyn, J., **Borner, C.** et al. (2013) Recent advances in 2D and 3D in vitro systems using primary hepatocytes, alternative hepatocyte sources and non-parenchymal liver cells and their use in investigating mechanisms of hepatotoxicity, cell signaling and ADME.
Arch Toxicol 87, 1315-1530.
30. Kroemer, G., Martinon, F., Lippens, S., Green, D. R., Knight, R., Vandenabeele, P., Piantentini, M., Nagata, S., **Borner, C.**, Simon, H.-U., Krammer, P. and Melino, G. (2011) (Obituary) Jürg Tschopp – 1951-2011 – an immortal contribution.
Cell Death Differ 18, 1087-1088.
31. Galluzzi, L., Bravo-San Pedro, J. M., Vitale, I., Aaronson, S. A., Abrams, J. M., Adam, D., Alnemri, E. S., Altucci, L., Andrews, D., Annicchiarico-Petruzzelli, M., Baehrecke, E. H., Bazan, N. G., Bertrand, M. J., Bianchi, K, Blagosklonny, M. V., Blomgren, K., **Borner, C.** et al. (2015) Essential versus accessory aspects of cell death: recommendations of the NCCD 2015.
Cell Death Differ 22, 58-73.
32. Galluzzi, L., Vitale, I., Aaronson, S. A., Abrams, J. M., Adam, D., Agostinis, P., Alnemri, E. S., Altucci, L., Amelio, I., Andrews, D. W., Annicchiarico-Petruzzelli, M., Arama, E., Baehrecke, E. H., Bazan, N. G., Bertrand, M. J. M., Bianchi, K., Blagosklonny, M. V., Bolmgren, K., **Borner, C.** et al. (2017) Molecular mechanisms of cell death: Recommendations of the Nomenclature Committee on Cell Death 2018.
Cell Death Differ submitted

Original publications

1st authorship

33. **Borner, C.**, Schlagbauer-Wadl, H., Selzer, E., Polteraue, P. and Jansen, B. (1999)
Activated N-Ras enhances the chemoresistance of human melanoma by upregulating Bcl-2.
Melanoma Res 9, 347-350.
34. **Borner, C.** (1996)
Diminished cell proliferation associated with the death-protective activity of Bcl-2.
J. Biol. Chem. 271, 12695-12698.
35. **Borner, C.**, Ueffing, M., Jaken, S., Parker, P. J. and Weinstein, I. B. (1995)
Two closely related isoforms of protein kinase C produce reciprocal effects on the growth of rat fibroblasts: possible molecular mechanisms.
J Biol Chem 270, 78-86.
36. **Borner, C.**, Olivier, R., Martinou, I., Mattmann, C., Tschopp, J. and Martinou, J.-C. (1994)
Dissection of functional domains in Bcl-2a by site-directed mutagenesis.
Biochem Cell Biol 72, 463-469.
37. **Borner, C.**, Martinou, I., Mattmann, C., Irmeler, M., Schaerer, E., Martinou, J.-C. and Tschopp, J. (1994)
The protein bcl-2 α does not require membrane attachment, but two conserved domains to suppress apoptosis.
J Cell Biol 126, 1059-1068.
38. **Borner, C.**, Guadagno Nichols, S., Fabbro, D. and Weinstein, I. B. (1992)
Expression of four protein kinase C isoforms in rat fibroblasts: I. Distinct subcellular distribution and regulation by calcium and phorbol esters.
J Biol Chem 267, 12892-12899.
39. **Borner, C.**, Guadagno Nichols, S., Hsiao, W.-L. W, Fabbro, D., Barr, M. and Weinstein, I. B. (1992)
Expression of four protein kinase C isoforms in rat fibroblasts: II. Differential alterations in ras, src- and fos-transformed cells.
J Biol Chem 267, 12900-12910.
40. **Borner, C.**, Filipuzzi, I., Weinstein, I. B. and Imber, R. (1991)
Failure of wild-type or a mutant form of protein kinase C- α to transform fibroblasts.
Nature 353, 78-80.
41. **Borner, C.**, Guadagno Nichols, S., Hsieh, L.-L., Hsiao, W.-L. W. and Weinstein, I. B. (1990)
Transformation by a ras oncogene causes increased expression of protein kinase C- α and decreased expression of protein kinase C- ϵ .
Cell Growth and Differ 1, 653-660.
42. **Borner, C.**, Filipuzzi, I., Wartmann, M., Eppenberger, U. and Fabbro D. (1989)
Biosynthesis and posttranslational modifications of protein kinase C in human breast cancer cells.
J Biol Chem 264, 13902-13909.
43. **Borner, C.**, Eppenberger, U., Wyss, R. and Fabbro, D. (1988)
Continuous synthesis of two inactive protein kinase C-related proteins after down-regulation of the active kinase by phorbol esters.
Proc Natl Acad Sci USA 85, 2110-2114.
44. **Borner, C.**, Eppenberger, U., Wyss, R., Regazzi, R. and Fabbro, D. (1987)
Immunological quantitation of phospholipid/Ca²⁺-dependent protein kinase of human mammary carcinoma cells: Inverse relationship to estrogen receptors.
Int J Cancer 40, 344-348.

Last authorship

45. Faletti, L., Peintner, L., Sandler, S., Grabinger, T., McNelly, S., Merfort, I., Heinzmann, F., Huang C. H., Brunner, T., Lowe, S., Zender, L., and **Borner, C.** (2017)
TNF α sensitizes hepatocytes to FasL-induced apoptosis by NF κ B-mediated Fas upregulation.
Hepatology, submitted.
46. Haun, F., Neumann, S., Peintner, L., Wieland, K., Schwan, C., Koczorowska, M., Biniossek, M., Kist, M., Davis, R. J., Maurer, U., Schilling, O., Aktories, K., and **Borner, C.** (2017)
Identification of a novel anoikis signaling pathway using the fungal pathogen gliotoxin
Proc. Natl. Acad. Sci. USA, submitted.
47. Papaiani, E., El Maadidi, S., Schejtman, A., Neumann, S., Maurer, U., Marino-Merlo, F., Mastino, A. and **Borner, C.** (2015)
Phylogenetically distant viruses use the same BH3-only protein Puma to trigger Bax/Bak-dependent apoptosis of infected mouse and human cells.
PLoS One Jun 1;10(6):e0126645. doi: 10.1371/journal.pone.0126645. eCollection 2015.
48. El Maadidi, S., Faletti, L., Berg, B., Wenzl, C., Wieland, K., Chen, Z. J., Maurer, U. and **Borner, C.** (2014)
A novel mitochondrial MAVS/caspase-8 platform links RNA virus-induced innate antiviral signaling to Bax/Bak-independent apoptosis.
J Immunol 192, 1171-1183.
49. Huai, J., Vögtle, F.-N., Jöckel, L., Li, Y., Kiefer, T. Ricci, J.-E. and **Borner, C.** (2013)
TNF α -induced lysosomal membrane permeability (LMP) is downstream of MOMP and triggered by caspase-mediated p75 cleavage and ROS formation
J Cell Sci 126, 4015-4025.
50. Geissler, A., Haun, F., Frank, D., Wieland, K., Simon, M., Idzko, M., Davis, R., Maurer, U. and **Borner, C.** (2013)
Apoptosis induced by the fungal pathogen gliotoxin requires a triple phosphorylation of Bim by JNK.
Cell Death Differ 20, 1317-1329.
51. Jöckel, L. T., Wallich, R., Froelich, C., Simon, M. M. and **Borner C.** (2012)
The IL-1R pathway is essential for induction of proapoptotic CD8 T cells, viral clearance and pathology during lymphocytic choriomeningitis virus infection in mice.
J Virol 86 (16), 8713-8719.
52. Sá Ferreira, K., Kreutz, C., MacNelly, S., Neubert, K., Haber, A., Bogyo, M., Timmer, J. and **Borner C.** (2012)
Caspase-3 feeds back on caspase-8, Bid and XIAP in type I Fas signaling in primary mouse hepatocytes
Apoptosis 17 (5), 503-515.
53. Vogel, S., Raulf N., Bregenhorn, S., Biniossek, M., Maurer, U., Czabotar, P. and **Borner, C.** (2012). Cytosolic Bax: does it require binding proteins to keep its pro-apoptotic activity in check?
J Biol Chem 287, 9112-9127.
54. Oberle, C., Huai, J., Reinheckel, T., Tacke, M., Rassner, M., Ekert, P., Buellesbach, J. and **Borner C.** (2010). Lysosomal membrane permeabilization and cathepsin release is a Bax/Bak-dependent amplifying event in apoptosis.
Cell Death Differ 17, 1167-1178.
55. Walter, D., Schmich, K., Vogel, S., Pick, R., Kaufmann, T., Hochmuth, F. C., Haber, A., Neubert, K., McNelly S., von Weizsäcker, F., Merfort, I., Maurer, U., Strasser, A. and **Borner, C.** (2008)
Switch from type II to I Fas/CD95 death signaling upon in vitro culturing of primary hepatocytes.
Hepatology 48, 1942-1953.

56. Urban, C., Rhême, C., Maerz, S., Berg, B., Pick, R., Nitschke, R. and **Borner, C.** (2008)
Apoptosis induced by Semliki Forest Virus (SFV) is RNA replication dependent and mediated via Bak
Cell Death Differ 15, 1396-1407.
57. Schinzel, A., Kaufmann, T., Schuler, M., Martinalbo, J., Grubb, D. and **Borner, C.** (2004)
Conformational control of Bax localization and apoptotic activity by Pro168.
J Cell Biol 164, 1021-1032. **(evaluated by F1000)**
58. Egger, L., Schneider J., Rhême, C., Tapernoux, M., Häcki, J. and **Borner, C.** (2003)
Serine proteases mediate apoptosis-like cell death and phagocytosis under caspase inhibiting conditions
Cell Death Differ 10, 1188-1203.
59. Kaufmann, T., Schlipf, S., Sanz, J., Neubert, K. Stein, R. and **Borner, C.** (2003)
Characterization of the signal that directs Bcl-xL, but not Bcl-2, to the mitochondrial outer membrane.
J Cell Biol 160, 53-64. **(evaluated by F1000)**
60. Häcki, J., Egger, L., Monney, L., Conus, S., Rossé, T., Fellay, I. and **Borner, C.** (2000)
Apoptotic crosstalk between the endoplasmic reticulum and mitochondria controlled by Bcl-2
Oncogene 19, 2286-2295.
61. Conus, S., Kaufmann, T., Fellay, I., Otter, I., Rossé, T. and **Borner, C.** (2000)
Bcl-2 is a monomeric protein: Prevention of homodimerization by structural constraints
EMBO J 19, 1534-1544.
62. Conus, S., Rossé, T. and **Borner, C.** (2000)
Failure of Bcl-2 family members to interact with Apaf-1 in normal and apoptotic cells
Cell Death Differ 7, 947-954.
63. Rossé, T., Olivier, R., Monney, L., Rager, M., Conus, S., Fellay, I., Jansen, B. and **Borner, C.** (1998)
Bcl-2 prolongs cell survival after Bax-induced release of cytochrome c
Nature 391, 496-499.
64. Grandgirard, D., Studer, E., Monney, L., Fellay, I., Michel, M. R. and **Borner, C.** (1998)
Alphaviruses induce apoptosis in Bcl-2-overexpressing cells: evidence for a caspase-mediated proteolytic inactivation of Bcl-2.
EMBO J 17, 1268-1278.
65. Monney, L., Otter, I., Olivier, R., Ozer, H. L., Haas, A. L., Omura, S. and **Borner, C.** (1998)
Defects in the ubiquitin pathway induce caspase-independent apoptosis blocked by Bcl-2.
J Biol Chem 273, 6121-6131.
66. Otter, I., Conus, S., Ravn, U., Rager, M., Olivier, R., Monney, L. and **Borner, C.** (1998)
The binding properties and biological activities of Bcl-2 and Bax during apoptotic stresses
J Biol Chem 273, 6110-6120.
67. Monney, L., Olivier, R., Otter, I., Jansen, B., Poirier, G. G. and **Borner, C.** (1998)
Role of an acidic compartment in TNF- α -induced production of ceramide, activation of caspase-3 (CPP32) and apoptosis.
Eur J Biochem 251, 295-303.
68. Olivier, R., Otter, I., Monney, L., Wartmann, M. and **Borner, C.** (1997)
Bcl-2 does not require Raf kinase activity for its death-protective function
Biochem J 324, 75-83.
69. Monney, L., Otter, I., Olivier, R., Ravn, U., Mirzasaleh, H., Fellay, I., Poirier, G. G., and **Borner, C.** (1996)
Bcl-2 overexpression blocks activation of the death protease CPP32/Yama/apopain.
Biochem Biophys Res Commun 221, 340-345.

2nd authorship

70. Lindenboim, L., **Borner, C.** & Stein, R. (2001)
Bcl-x_S can form homodimers and heterodimers and its apoptotic activity requires localization of Bcl-x_S to the mitochondria and its BH3 and loop domains.
Cell Death Differ 8, 933-942.
71. Peitsch, M., **Borner, C.** and Tschopp, J. (1993)
Sequence similarity of phospholipase A2 activating protein and the G-protein β-subunits: a new concept of effector protein activation in signal transduction?
Trends Biochem Sci 18, 292-293.
72. Guadagno Nichols, S., **Borner, C.** and Weinstein, I. B. (1992)
Altered regulation of a major substrate of protein kinase C in rat 6 fibroblasts overproducing PKCβI.
J Biol Chem 267, 2697-2707.
73. Weinstein, I. B., **Borner, C.**, Krauss, R., O'Driscoll K., Choi, P., Moritomi, M., Hoshina, S., Hsieh, L.-L., Tchou-Wong, K.-M., Guadagno Nichols S., Ueffing, M. & Guillem, J. (1990)
Pleiotropic effects of protein kinase C and the concept of carcinogenesis as a progressive disorder in signal transduction
Adv in Second Messenger and Phosphoprotein Res. 26, 182-196.

3rd authorship

74. Lindenboim, L., Fernando-May, E., **Borner, C.** and Stein, R. (2013)
Non-canonical function of Bax on stress-induced nuclear protein redistribution
Cell Mol Life Sci 70, 3013-3017.
75. Lindenboim, L., Blacher, E., **Borner, C.** and Stein, R. (2010)
Regulation of stress induced nuclear protein redistribution: a novel function of Bax and Bak uncoupled from Bcl-x_L.
Cell Death Differ 17, 346-359.
76. Thakar, J., Schleinkofer, K., **Borner, C.** and Dandekar, T. (2006)
RIP death domain structural interactions implicated in TNF-mediated proliferation and survival
Proteins, Structure, Function and Bioinformatics 63, 413-423.
77. Foyouzi-Youssefi, R., Arnaudeau, S., **Borner, C.**, Kelley, W. L., Tschopp, J., Lew, D. P., Demaurex, N. and Krause, K.-H. (2000)
Bcl-2 decreases the free Ca²⁺ concentration within the endoplasmic reticulum.
Proc Natl Acad Sci USA 97, 5723-5728.
78. Schröter, M., Lowin, B., **Borner, C.** and Tschopp, J. (1995)
Regulation of Fas (Apo-1/CD95)- and perforin-mediated lytic pathways of primary cytotoxic T lymphocytes by the protooncogene bcl-2.
Eur J Immunol 25, 3509-3513.
79. Kahn, S. M., O'Driscoll, K., **Borner, C.**, Bang, D., Jiang, W., Blackwood, A., Nomoto, K. and Weinstein, I. B. (1993)
Inhibition of diacylglycerol production in rat 6 cells that stably express only the regulatory domain of protein kinase CβI.
In: Advances in polyunsaturated fatty acid research (T. Yasugi, H. Nakamura, and M. Soma, eds) Elsevier Science Publishers, B. V., pp. 45-50.
80. Kahn, S. M., Jiang, W., **Borner, C.**, O'Driscoll, K. & Weinstein, I. B. (1990)
Construction of defined deletion mutants by thermal cycled fusion: Applications to protein kinase C.
Technique 2, 27-30.

81. Rotenberg, S. A., Krauss, R. S., **Borner, C.** and Weinstein, I. B. (1990)
Characterization of a specific form of protein kinase C overproduced by a C3H 10T1/2 cell line.
Biochem J 266, 173-178.
82. Fabbro, D., Mazurek, N., **Borner, C.**, Conscience, J.-F. and Erne, P. (1988)
Role of protein kinase C (PKC) in short- and long-term cellular responses. Inhibition of agonist-mediated calcium transients and down-regulation of PKC.
J Cardiovasc Pharmacol 12 (Suppl.5), S73-S79.
83. Erne, P., Mazurek, N., **Borner, C.**, Conscience, J.-F., Eppenberger, U. and Fabbro, D. (1987)
Translocation of protein kinase C is not required to inhibit the antigen-induced increase of cytosolic calcium in a mast cell line.
Biochem Biophys Res Commun 143, 252-259.
84. Mazurek, N., Regazzi, R., **Borner, C.**, Wyss, R., Conscience, J.-F., Eppenberger, U. and Fabbro, D. (1987)
Altered protein kinase C in a mast cell variant defective in exocytosis.
Proc Natl Acad Sci USA 84, 1277-1281.
85. Fabbro, D., Wyss, R., **Borner, C.** and Regazzi, R. (1986)
Epidermal growth factor receptor and calcium/phospholipid-dependent protein kinase activities in human mammary tumor cells.
In: S. Eckhardt, J. H. Holzner, G. A. Nagel (eds); Contributions to Oncology:
Endocrine Therapy of Breast Cancer 23, 33-44, Karger, Basel.

4th authorship

86. Groten, J., Georg, M., Worm, O., **Borner, C.** and Mertelsmann, R. (2016)
Towards stimulating carcinogenesis: Modeling and stimulating carcinogenesis, hematopoietic tissue homeostasis and leukemogenesis.
JOSHA 7(3), DOI: 10.17160/josha.3.7.253.
87. Lindenboim, L., Sasson, T., Worman, H. J., **Borner, C.** and Stein, R. (2014).
Cellular stress induces Bax-regulated nuclear bubble budding and rupture followed by nuclear protein release
Nucleus 5, 527-541.
88. Weber, M., Gawanbacht, A., Habjan, M., **Borner, C.**, Kochs, G., Garcia-Sastre, A. and Weber, F. (2013).
Activation of RIG-I by incoming RNA virus nucleocapsids containing a 5'-triphosphorylated genome.
Cell Host Microbe 13, 336-46.
89. Shen, Z.-J., Esnault, S., Schinzel, A., **Borner, C.** & Malter, J. S. (2009)
Pin1 mediates GM-CSF and IL-5 prosurvival signaling in eosinophils by suppressing Bax activation and mitochondrial targeting
Nat Immunol 10, 257-264.
90. Lindenboim, L., Kringel, S., Braun, T., **Borner, C.** & Stein, R. (2005)
Bak but not Bax is essential for Bcl-x_s-induced apoptosis
Cell Death Differ 12, 713-723.
91. Lindenboim, L., Schlipf, S., Kaufmann, T., **Borner, C.** & Stein, R. (2004)
Bcl-x_s induces an NGF-inhibitable cytochrome c release
Exp Cell Res 297, 392-403.
92. Vieira, O., Escargueil-Blanc, I., Jürgens, G., **Borner, C.**, Almeida, L., Salvayre R. & Negre-Salvayre, A. (2000)
Oxidized LDLs alter the activity of the ubiquitin-proteasome pathway: potential role in oxidized LDL-induced apoptosis.
FASEB J 14, 532-542.

93. Ye, Q., Wei, Y., Fischer, R., **Borner, C.** & Berchtold, M. W. (1997)
Expression of calmodulin and calmodulin binding proteins in rat fibroblasts stably transfected with protein kinase C and oncogenes.
Biochim Biophys Acta 1359(1), 89-96.
94. Pourzand, C., Rossier, G., Reelfs, O., **Borner, C.** & Tyrrell, R. M. (1997)
The overexpression of Bcl-2 inhibits UVA-mediated immediate apoptosis in rat 6 fibroblasts: evidence for the involvement of Bcl-2 as an antioxidant.
Cancer Res 57, 1405-1411.
95. Weinstein, I. B., Kahn, S. M., O'Driscoll, K., **Borner, C.**, Bang, D., Jiang, W., Blackwood, A. & Nomoto K. (1997)
The role of protein kinase C in signal transduction, growth control and lipid metabolism.
Adv Exp Med Biol 400A, 313-321.
96. Zhang, J., Alter, N., Reed, J. C., **Borner, C.**, Obeid, L. M. & Hannun, Y. A. (1996)
Bcl-2 interrupts the ceramide-mediated pathway of cell death
Proc. Natl. Acad. Sci. USA 93, 5325-5328.
97. Kahn, S. M., O'Driscoll, K. R., Jiang, W., **Borner, C.**, Xu, D. B., Blackwood, M. A., Zhang, Y.-J., Nomoto, K. & Weinstein, I. B. (1994)
Suppression of mitogenic activity by stable expression of the regulatory domain of PKC β .
Carcinogenesis 15, 2919-2925.
98. Fabbro, D., Küng, W., Costa, S. D., **Borner, C.**, Regenass, U. & Eppenberger, U. (1992)
Involvement of protein kinase C in the growth regulation of human breast cancer cells.
Cancer Treat Res 61, 229-248.
99. Fabbro, D., Küng, W., Costa, S. D., **Borner, C.**, Regenass, U. & Eppenberger, U. (1991)
Involvement of protein kinase C in the growth regulation of human breast cancer cells.
In: Genes, Oncogenes, and Hormones: Advances in Cellular and Molecular Biology of Breast Cancer, R. B. Dickson & M. E. Lippman (eds) Kluwer Academic Publishers, Boston, pp. 229-248.
100. Wyss, R., Fabbro, D., Regazzi, R., **Borner, C.**, Takahashi, A. & Eppenberger, U. (1987)
Phorbol ester and epidermal growth factor receptors in human breast cancer.
Anticancer Res. 7, 721-728.
101. Fabbro, D., Regazzi, R., Costa, S. D., **Borner, C.** & Eppenberger, U. (1987)
Protein kinase C desensitization by phorbol esters and its impact on growth of human breast cancer cells.
Year Book of Cancer, 545-546.
102. Regazzi, R., Fabbro, D., Costa, S. D., **Borner, C.** & Eppenberger, U. (1986)
Effects of tumor promoters on growth and on cellular redistribution of phospholipid/Ca²⁺-dependent protein kinase in human breast cancer cells.
Int. J. Cancer 37, 731-737.
103. Fabbro, D., Regazzi, R., Costa, S. D., **Borner, C.** & Eppenberger, U. (1986)
Protein kinase C desensitization by phorbol esters and its impact on growth of human breast cancer cells.
Biochem Biophys Res Commun 135, 65-73.

≥ 5th authorship

104. Schubert, F., Rapp, J., Brauns-Schubert, P., Schlicher, P., Stock, K., Wissler, M., Weiß, M., Charvet, C., **Borner, C.** and Maurer, U. (2017)
Requirement of GSK-3 for PUMA induction upon loss of pro-survival PI3K signaling
Cell Death Differ, submitted
105. Rex, J., Lutz, A., Faletti, L. E., Albrecht, U., Thomas, M., Bode, J. G., **Borner, C.**, Sawodny, O., and Merfort, I. (2017)
IL-1 β and TNF α differentially influence NF κ B activity and FasL-induced apoptosis in primary murine hepatocytes during LPS-induced inflammation.
Frontiers, submitted.
106. Brauns-Schubert, P., Schubert, F., Wissler, M., Weiss, M., Schlicher, L., Bessler, S., Safavi, M., Miething, C., **Borner, C.**, Brummer, T., and Maurer, U. (2017)
CDK9-mediated Tip60 phosphorylation controls its interaction with the transcriptional machinery.
EMBO Rep in press.
107. Kumar Singh, P., Roukounakis, A., Frank, D. O., Kirschnek, S., Kumar Das, K., Neumann, S., Madl, J., Römer, W., Zorzin, C., **Borner, C.**, Haimovici, A., Garcia-Saez, A., Weber, A. and Häcker, G. (2017)
Dynein light chain 1 induces assembly of large Bim complexes on mitochondria that stabilize Mcl-1 and regulate apoptosis
Genes Dev 31, 1754-1769.
109. Schlicher, L., Wissler, M., Preiss, F., Brauns-Schubert, P., Jakob, C., Dumit, V., **Borner C.**, Dengjel, J., and Maurer, U. (2016)
SPATA2 promotes CYLD activity and regulates TNF-induced NF- κ B signaling and cell death.
EMBO Rep 17, 1485-1497.
110. Marino-Merlo, F., Papaiani, E., Medici, M. A., Macchi, B., Grelli, S., Mosca, C., **Borner, C.** & Mastino, A. (2016)
Functional NF kappa B signaling restricts both virus replication and apoptosis in monocytic cells infected by HSV-1.
Cell Death Dis 7, e2354
111. De Ford, C., Heidersdorf, B., Murillo, R., Friedrich, T., **Borner C.** & Merfort, I. (2016)
The clerodane diterpene casearin J induces apoptosis in T-ALL cells through SERCA inhibition, oxidative stress, and interference with Notch1 signaling.
Cell Death Dis 7, e2070.
112. Lutz, A., Sanwald, J., Thomas, M., Feuer, R., Sawodny, O., Ederer, M., **Borner, C.**, Humar, M. & Merfort, I. (2014)
Interleukin-1 β enhances FasL-induced caspase-3/-7 activity without increasing apoptosis in primary mouse hepatocytes.
PLoS One, Dec 31, 9(12): e115603.
113. Lindner, S. E., Wissler, M., Gründer, A., Aumann, K., **Borner, C.**, Charvet, C., Villunger, A., Pahl, H. & Maurer, U. (2014)
Increased leukocyte survival and accelerated onset of lymphoma in the absence of MCL-1 S159-phosphorylation.
Oncogene 33, 5221-5224.
114. Jo, J., Bengsch, B., Seigel, B., Rau, S. J., Schmidt, J., Bisse, E., Aichele, P., Aichele, U., Joeckel, L., Royer, C., Sá Ferreira, K., **Borner C.**, Baumert, T. F., Blum, H. E., Lohmann, V., Fischer, R. & Thimme, R. (2012)
Low perforin expression of early differentiated in HCV-specific CD8⁺ T cells limits their hepatotoxic potential.
J Hepatology 57, 9-16.

115. Schlatter, R., Philippi, N., Wangorsch, G., Pick, R., Sawodny, O., **Borner, C.**, Timmer, J., Ederer, M. & Dandekar, T. (2011)
Integration of Boolean models exemplified on hepatocyte signal transduction.
Briefings in Bioinformatics 13, 365-376.
116. Joeckel, L. T., Wallich, R., Martin, P., Sanchez-Martinez, D., Weber, F. C., Martin, S. F., **Borner, C.**, Pardo, J., Froelich, C. & Simon, M. M. (2011)
Mouse granzyme K has pro-inflammatory but no cytolytic activity.
Cell Death Differ 18, 1112-1119.
117. Schmich, K., Schlatter, R., Corazza, N., Sa Ferreira, K., Ederer, M., Brunner, T., **Borner, C.** & Merfort, I. (2011)
Tumor necrosis factor α sensitizes primary murine hepatocytes to Fas/CD95-induced apoptosis in a Bim- and Bid-dependent manner.
Hepatology, 53, 282-292.
118. Charvet, C., Wissler, M., Tang, Y, Wang, S.-J., Brauns-Schubert, P., Wang, S.-J., Tang, Y., Sigloch, F. C., Mellert, H., Brandenburg, M., Lindner, S., Breit, B., Green, D. R., McMahon, S. B., **Borner, C.**, Gu, W. & Maurer, U. (2011)
Phosphorylation of Tip60 by GSK-3 determines the induction of PUMA and apoptosis by p53.
Mol Cell 42, 584-596.
119. Jabbour, A. M., Daunt, C. P., Green, B. D., Vogel, S., Gordon, L., Lee, R., Silke, N., Pearson, R. B., Vandenberg, C. J., Kelly, P. N., Nutt, S. L., Strasser, A., **Borner, C.** & Ekert, P. G. (2010)
Myeloid progenitor cells lacking p53 exhibit delayed upregulation of Puma and prolonged survival after cytokine deprivation.
Blood 115, 344-352.
120. Schlatter, R., Schmich, K., Avalos Vizcarra, I., Scheurich, P., Sauter, T., **Borner C.**, Ederer, M., Merfort, I. & Sawodny O. (2009)
ON/OFF and beyond – a Boolean model of apoptosis.
PLoS Comp. Biol. 5(12), e1000595. Epub
121. Philippi, N., Walter D., Schlatter, R., Ferreira K., Ederer, M., Sawodny, O., Timmer, J., **Borner C.** & Dandekar T. (2009) Modeling system states in liver cells: Survival, apoptosis and their modifications in response to viral infection.
BMC Systems Biology 3, 97, doi:10.1186/1752-0509-3-97.
122. Jost, P. J., Grabow, S., Gray, D., McKenzie, M. D., Nachbur, U., Huang, D. C., Bouillet, P., Thomas, H. E., **Borner, C.**, Silke J., Strasser, A. & Kaufmann T. (2009)
XIAP loss converts Fas-induced apoptosis signaling in hepatocytes from type II to type I
Nature 460, 1035-1039.
123. Pardo J., Wallich, R., Martin, P., Urban, C., Rongvaux, A., Flavell, R. A., Müllbacher, A., **Borner C.** & Simon, M. M. (2008) Granzyme B induced cell death exerted by *ex vivo* CTL: discriminating requirements for cell death and some of its signs.
Cell Death Differ 15, 567-579.
124. Sanjuan Szklarz, L. K., Kozjak, V., Vögtle, N., Chacinska, A., Milenkovic, D., Vogel, S., Guiard, B., Martinou, J.-C., **Borner, C.**, Pfanner, N. & Meisinger, C. (2007)
Preprotein transport machineries of yeast mitochondrial outer membrane are not required for Bax-induced release of intermembrane space proteins.
J Mol Biol 368, 44-54.
125. Ekert, P. G., Jabbour, A. M., Manoharan, A., Heraud, J. E., Yu, J., Pakusch, M., Michalak, E. M., Kelly, P. N., Callus, B., Kiefer, T., Verhagen, A., Silke, J., Strasser, A., **Borner, C.** & Vaux, D. L. (2006)
Cell death provoked by loss of interleukin-3 signaling is independent of Bad, Bim, and PI3 kinase/AKT, but depends in part on Puma.
Blood 108, 1461-1468.

126. Sciortino, M. T., Perri, D., Medici, M. A., Grelli, S., Serafino, A., **Borner, C.** & Mastino, A. (2006) Role of Bcl-2 expression for productive herpes simplex virus 2 replication. ***Virology*** 356, 136-146.
127. Pardo, J., Urban, C., Galvez, E. M., Ekert, P. G., Müller U., Kwon-Chung, J., Lobigs, M., Müllbacher, A., Wallich, R., **Borner, C.** & Simon, M. (2006) The mitochondrial protein Bak is pivotal for gliotoxin-induced apoptosis and a critical host factor of *A. fumigatus* virulence in mice ***J Cell Biol*** 174, 509-519.
128. Klingmüller, U., Bauer, A., Bohl, S., Nickel, P. J., Breitkopf, K., Dooley, S., Zellmer, S., Kern, C., Merfort, I., Sparna, T., Donauer, J., Walz, G., Geyer, M., Kreutz, C., Hermes, M; Götschel, F., Hecht, A., Walter, D., Egger, L., Neubert, K., **Borner, C.**, Brulport, M., Schormann, W., Sauer, C., Baumann, F., Preiss, R., MacNelly, S., Godoy, P., Wiercinska, E., Ciucan, L., Illes, P., Zeilinger, K., Heinrich, M., Zanger, U. M., Reuss, M., Bader, A., Gebhardt, R., Maiwald, T., Timmer, J., von Weizsäcker, F. and Hengstler, J. G. (2006) Primary mouse hepatocytes for systems biology approaches: a standardized in vitro system for modelling of signal transduction pathways. ***IEE Proc Systems Biology*** 153, 433-447.
129. Loop, T., Dovi-Akue, D., Frick, M., Roesslein, M., Egger, L., Musshoff, F., Humar, M., Hoetzel, A., Schmidt, R., Geiger, K. K., Pahl, H. L, **Borner, C.** & Pannen, B. H. J. (2005) Volatile anesthetics induce caspase-dependent, mitochondria-mediated apoptosis in human T lymphocytes in vitro. ***Anesthesiology*** 102, 1147-1157.
130. Huber, T. B., Hartleben, B., Kim, J., Schmidts, M., Schermer, B., Keil, A., Egger, L., Lecha, R. L., **Borner, C.**, Pavenstädt, H., Shaw, A. S., Walz, G. & Benzing, T. (2003) Nephrin and CD2AP associate with phosphoinositide 3-OH kinase and stimulate AKT-dependent signaling. ***Mol. Cell Biol.*** 23, 4917-4928.
131. Gianinazzi, C., Grandgirard, D., Imboden, H., Egger, L., Meli, D. N., Bifrare, Y.-D., Joss, P. C., Täuber, M. G., **Borner, C.** & Leib, S. L. (2003) Caspase-3 mediates hippocampal apoptosis in Pneumococcal Meningitis. ***Acta Neuropathol*** 105, 499-507.
132. Schempp, C. M., Kirkin, V., Simon-Haarhaus, B., Kersten, A., Kiss J., Termeer, C. C., Gilb, B., Kaufmann, T., **Borner, C.**, Sleeman, J. P. & Simon, J. C. (2002) Inhibition of tumour cell growth by hyperforin, a novel anticancer drug from St. John's wort that acts by induction of apoptosis. ***Oncogene*** 21, 1242-1250.
133. Sugimoto, C., Fujieda, S., Seki, M., Sunaga, H., Fan, G.-K., Tsuzuki, H., **Borner, C.**, Saito, H. & Matsukawa, S. (1999) Apoptosis-promoting gene (bax) transfer potentiates sensitivity of squamous cell carcinoma to cisplatin *in vitro* and *in vivo*. ***Int. J. Cancer*** 82, 860-867.
134. Tulchin, N., Ornstein, L., Harpaz, N., Guillem, J., **Borner, C.**, & O'Toole, K. (1992) c-myc protein distribution: Neoplastic tissues of the human colon. ***Am. J. Path.*** 140, 719-729.