

## PharmaForum 2009, am 3. November in Frankfurt

### 1. Company

Across Barriers GmbH, Saarbruecken

- 37 Employees (pharmacists, chemists, biologists)
- Foundation by Prof. C.-M. Lehr and Dr. E. Haltner in 1998



- Contact person: Dr. Udo Bock (CTO)  
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phone 0681 959 18 800, [www.acrossbarriers.de](http://www.acrossbarriers.de)

### 2. Core competences

Across Barriers GmbH provides its customers services and consulting in the fields of preclinical and pharmaceutical technological development. Starting with analytical and physicochemical characterization followed by in vitro testing of active compound properties on in vitro models for the feasibility for bioavailability and bioequivalence, and also customer oriented consultancy for drug formulation makes it possible for Across Barriers GmbH to offer its customers as a competent partner a complete service package for each questions during the lifetime of the costumer's product.

Across Barriers is certified in three GLP categories (in vitro, physicochemistry and analytics) as well as for GMP. Therefore, every project is performed under the common quality guidances but can also be conducted as a GLP or GMP study, which is highly accepted at national and international regulatories. With a team of well-educated and experienced co-workers and a superb equipped facility accomplishes the profile of Across Barriers GmbH.

Thus our customers are capable to pursue a more efficient path to make drug development and profiling timesaving at optimal costs. The compendious conclusion is equivalent to Across Barriers' vision: Intelligent drug profiling.

### **3. Cooperation's offered and requested**

We have cooperations with various partners from industry and also academic institutes. In research projects we collaborate e.g. with MFD Diagnostics GmbH or Matesy GmbH. Other partners of Across Barriers GmbH are Dr. Regenold GmbH or Harke Pharma. We also cooperate with universities, e.g. Saarland University, University of Valencia, University of Tübingen, etc. We can offer R&D collaborations or educational training of students in Master, Diploma or PhD thesis.

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## Education

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- 1993-1996 Department of Pharmacy - Saarland University Saarbrücken  
**Conferral of doctorate at Department of Pharmaceutical Chemistry**
- 1987-1993 Department of Chemistry - Saarland University Saarbrücken  
**Diploma in Chemistry**

## Training and Work Experience

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- since 2007 Across Barriers GmbH Saarbrücken  
**Chief Technical Officer (CTO)**
- since 2005 Across Barriers GmbH  
**Head of Sales & Customer Consulting**
- 2003 - 2005 Across Barriers GmbH  
**Head of Cell & Tissue based Systems**
- 1998 - 2003 Across Barriers GmbH  
**Head of Dermal Systems**
- 1996 - 1998 Saarland University in cooperation with Saarbrücken/  
Mucos-Pharma, Geretsried Geretsried  
**Postdoctorate at Department of Pharmaceutical Technology and Biopharmaceutics**

## Equipment Skills

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- Inorganic and organic analytics, in particular Chromatographic methods (HPLC with different detection methods), HPTLC, GC, gel electrophoresis, <sup>1</sup>H-/<sup>13</sup>C-NMR, UV, MS, FTIR), ELISA, MALDI-TOF, Confocal Laser Scanning Microscopy

## Memberships

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- GDCh Gesellschaft Deutscher Chemiker / German Chemical Society, Germany
- GD Gesellschaft für Dermopharmazie e.V. / Society for Dermopharmacy, Germany  
Member of the Board Risk Assessment and Regulatory Affairs
- APV Arbeitsgemeinschaft für Pharmazeutische Verfahrenstechnik /  
International Association for Pharmaceutical Technology, Germany

## Publications

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- Eixarch H, Haltner E, Beisswenger C, Bock U. Drug delivery to the lung: permeability and physicochemical characteristics of drugs as the basis for a pulmonary biopharmaceutical classification system (pBCS), *Journal of Epithelial Biology & Pharmacology. Journal of Epithelial Biology & Pharmacology*, 2009 accepted.
- Kaca M, Bock U, Jalal T.M, Harms M, Hoffmann C, Müller-Goymann C, Netzlaff F, Schäfer U, Lehr CM, Haltner E. The physicochemical parameters of marker compounds and vehicles for use in in vitro percutaneous absorption studies, *Altern Lab Anim.*; 36(2): 189-200, 2008.
- Schäfer-Korting M, Bock U, Diembeck W, Düsing HJ, Gamer A, Haltner E, Hoffmann C, Kaca M, Kamp H, Kersen S, Kietzmann M, Korting HC, Krächter HU, Lehr CM, Liebsch M, Mehling A, Müller-Goymann C, Netzlaff F, Niedorf F, Rübhelke MK, Schäfer U, Schmidt E, Schreiber S, Spielmann H, Vuia A, Weimer M. The use of reconstructed human epidermis for skin absorption testing: Results of the validation study. *Altern Lab Anim.*; 36(2): 161-87, 2008.
- Hiller C, Bock U, Balsler S, Haltner E, Dahm M. Establishment and validation of an ex vivo human cervical tissue model for local delivery studies. *Eur J Pharm Biopharm.*; 68(2): 390-9, 2008.
- Netzlaff F, Kaca M, Bock U, Haltner E, Meiers P, Lehr CM, Schaefer UF. Permeability of the reconstructed human epidermis model Episkin in comparison to various human skin preparations. *Eur J Pharm Biopharm.*; 66(1): 127-34, 2007.
- Schäfer-Korting M, Bock U, Gamer A, Haberland A, Haltner E, Kaca M, Kamp H, Kietzmann M, Korting HC, Krächter HU, Lehr CM, Liebsch M, Mehling A, Netzlaff F, Niedorf F, Rübhelke MK, Schäfer U, Schmidt E, Schreiber S, Schröder KR, Spielmann H.Vuia A. Reconstructed human epidermis for skin absorption testing: results of the German prevalidation study. *Altern Lab Anim.*; 34(3): 283-94, 2006.
- Taetz S, Baldes C, Mürdter TE, Kleideiter E, Piotrowska K, Bock U, Haltner E, Mueller J, Huwer H, Schaefer UF, Klotz U, Lehr CM. Biopharmaceutical characterization of the telomerase inhibitor BRACO19. *Pharm Res.*; 23(5): 1031-7, 2006.
- Schreiber S, Mahmoud A, Vuia A, Rübhelke MK, Schmidt E, Schaller M, Kandárová H, Haberland A, Schäfer UF, Bock U, Korting HC, Liebsch M, Schäfer-Korting M. Reconstructed epidermis versus human and animal skin in skin absorption studies. *Toxicol In Vitro.*; 19(6): 813-22, 2005.

## **Publications (cont'd)**

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- Bock U, Krause W, Otto J, Haltner E. [Comparative in vitro and in vivo studies on the permeation and penetration of ketoprofen and ibuprofen in human skin]. *Arzneimittelforschung.*; 54(9): 522-9, 2004
- Bock U, Flötotto T, Haltner E. Validation of cell culture models for the intestine and the blood-brain barrier and comparison of drug permeation. *ALTEX.*; 21 Suppl 3: 57-64, 2004
- Gindorf C, Steimer A, Lehr CM, Bock U, Schmitz S, Haltner E. Marker transport across biological barriers in vitro: comparison of cell culture models for the gastrointestinal barrier, the blood-brain barrier and the alveolar epithelium of the lung. *ALTEX.*; 18(3): 155-64, 2001
- Bock U, Kolac C, Borchard G, Koch K, Fuchs R, Streichhan P, Lehr CM. Transport of proteolytic enzymes across Caco-2 cell monolayers. *Pharm Res.*; 15(9): 1393-400, 1998