

## Curriculum vitae

<b>Name:</b>	Dirk Bumann, Dr. rer. nat.
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### Scientific career

Since 2015 Full Professor; **research focus:** Single-cell Infection Biology and Metabolism of *Salmonella* and *Pseudomonas*

2007-2015 Associate Professor, Focal Area Infection Biology, Biozentrum, University of Basel, Switzerland; **research focus:** Systems Biology of *Salmonella* and *Shigella* infection

2004-2007 independent research group leader, Hannover Medical School, **research focus:** *Salmonella* gene expression and mucosal inflammation

1997-2004 group leader, Max-Planck-Institute for Infection Biology, Berlin (Dept. T.F. Meyer), **research focus:** molecular pathogenesis of *Salmonella enterica* and *Helicobacter pylori*

1995-1997 post-doc, Marine Biological Laboratory, Woods Hole, MA, USA (A. Kuzirian), **research focus:** structure-function relationships in digestive systems of simple invertebrates

1990-1994 Ph.D student, Max-Planck-Institute of Biochemistry, Martinsried (Prof. D. Oesterhelt), **Ph.D. thesis:** Photosystem II of the green algae *Chlamydomonas*. Purification, characterization, crystallization, and mechanism of photoinhibition.

1992 Diploma Degree in Biology; **Diploma thesis title:** Analysis of collective decision making in fish shoals

1989 Diploma Degree in Chemistry; **Diploma thesis title:** Magnetical resonance spectroscopy of photosynthetic reaction center crystals

1985-1989 Freie Universität Berlin, Majors: Chemistry (Dipl.) and Biology (Dipl.)

### Fellowships and awards

2015 elected EMBO member

2015 Pettenkofer-Preis Munich

2007 BMBF Go-Bio award “New antibiotics against resistant pathogens”

2006 BD Research prize, DGHM

2006 EMBO Young Investigator

1990-1991 Kekulé-Fellow, Fonds der Deutschen Chemischen Industrie

1985-1989 Fellowship from the Studienstiftung des deutschen Volkes

## Selected recent publications

**Bumann D.** Heterogeneous host-pathogen encounters: act locally, think globally. *Cell Host Microbe*. 2015;17:13-9.

McEwan DG, Richter B, Claudi B, Wigge C, Wild P, Farhan H, McGourty K, Coxon FP, Franz-Wachtel M, Perdu B, Akutsu M, Habermann A, Kirchof A, Helfrich MH, Odgren PR, Van Hul W, Frangakis AS, Rajalingam K, Macek B, Holden DW, **Bumann D\***, Dikic I\*. PLEKHM1 regulates *Salmonella*-containing vacuole biogenesis and infection. *Cell Host Microbe*. 2015; 17:1–14.

Claudi B, Spröte P, Chirkova A, Personnic N, Zankl J, Schürmann N, Schmidt A, **Bumann D.** Phenotypic variation of *Salmonella* in host tissues delays eradication by antibiotic chemotherapy. *Cell* 2014; 158:722-33.

Kentner D\*, Martano G\*, Callon M\*, Chiquet P, Brodmann M, Burton O, Wahlander A, Nanni P, Delmotte N, Grossmann J, Limenitakis J, Schlapbach R, Kiefer P, Vorholt JA, Hiller S, **Bumann D.** *Shigella* reroutes host cell central metabolism to obtain high-flux nutrient supply for vigorous intracellular growth. *Proc Natl Acad Sci USA* 2014; 111:9929-34.

Mazé A, Glatter T, **Bumann D.** The central metabolism regulator EIIAGlc switches *Salmonella* from growth arrest to acute virulence through activation of virulence factor secretion. *Cell Rep*. 2014; 7: 1426-33.

Burton N, Schürmann N, Casse O, Steeb AK, Claudi B, Zankl J, Schmidt A, **Bumann D.** Disparate impact of oxidative host defenses determines fate of *Salmonella* during systemic infection in mice. *Cell Host Microbe* 2014; 15:72-83.

Steeb B, Claudi B, Burton N, Tienz P, Schmidt A, Farhan H, Mazé A, **Bumann D.** Parallel exploitation of diverse host nutrients enhances *Salmonella* virulence. *PLoS Pathogens* 2013; 9(4):e1003301.

Barat S, Willer Y, Rizos K, Claudi B, Mazé A, Schemmer AK, Kirchhoff D, Schmidt A, Burton N, **Bumann D.** Immunity to intracellular *Salmonella* depends on surface-associated antigens. *PLoS Pathog.* 2012; 8(10):e1002966.

Wild P, Farhan H, McEwan DG, Wagner S, Rogov VV, Brady NR, Richter B, Korac J, Waidmann O, Choudhary C, Dötsch V, **Bumann D,** Dikic I. Phosphorylation of the autophagy receptor optineurin restricts *Salmonella* growth. *Science*. 2011; 333(6039):228-33.