

PUBLICATIONS

(March 2024)

Hirsch-index (Google Scholar): 55**Cumulative citations**: > 10200**Original publications** (● highlights)

1. ● **Hilbi, H.**, Dehning, I., Schink, B. & Dimroth, P. (1992) Malonate decarboxylase of *Malonomonas rubra*, a novel type of biotin-containing acetyl enzyme. *Eur. J. Biochem.* 207: 117-123.
2. **Hilbi, H.**, Hermann, R. & Dimroth, P. (1993) The malonate decarboxylase enzyme system of *Malonomonas rubra*: evidence for the cytoplasmic location of the biotin-containing component. *Arch. Microbiol.* 160: 126-131.
3. **Hilbi, H.** & Dimroth, P. (1994) Purification and characterization of a cytoplasmic enzyme component of the Na⁺-activated malonate decarboxylase system of *Malonomonas rubra*: acetyl-S-acyl carrier protein: malonate acyl carrier protein-SH transferase. *Arch. Microbiol.* 162: 48-56.
4. Micklefield, J., Harris, K.J., Groger, S., Mocek, U., **Hilbi, H.**, Dimroth, P. & Floss, H.G. (1995) Stereochemical course of malonate decarboxylation in *Malonomonas rubra*. *J. Am. Chem. Soc.* 117: 1153-1154.
5. Berg, M., **Hilbi, H.** & Dimroth, P. (1996) The acyl carrier protein of malonate decarboxylase of *Malonomonas rubra* contains 2'-(5"-phosphoribosyl)-3'-dephosphocoenzyme A as prosthetic group. *Biochemistry* 35: 4689-4696.
6. Schmid, M., Berg, M., **Hilbi, H.** & Dimroth, P. (1996) Malonate decarboxylase of *Klebsiella pneumoniae* catalyses the turnover of acetyl and malonyl thioester residues on a coenzyme-A-like prosthetic group. *Eur. J. Biochem.* 237: 221-228.
7. Berg, M.*, **Hilbi, H.*** & Dimroth, P. (1997) Sequence of a gene cluster from *Malonomonas rubra* encoding components of the malonate decarboxylase Na⁺ pump and evidence for their function. *Eur. J. Biochem.* 245: 103-115. (* contributed equally)
8. **Hilbi, H.**, Chen, Y., Thirumalai, K. & Zychlinsky, A. (1997) The interleukin 1 β -converting enzyme, caspase-1, is activated during *Shigella flexneri*-induced apoptosis in human monocyte-derived macrophages. *Infect. Immun.* 65: 5165-5170.
9. ● **Hilbi, H.**, Moss, J.E., Hersh, D., Chen, Y., Arondel, J., Banerjee, S., Flavell, R.A., Yuan, J., Sansonetti, P.J. & Zychlinsky, A. (1998) *Shigella*-induced apoptosis is dependent on caspase-1 which binds to IpaB. *J. Biol. Chem.* 273: 32895-32900.
10. **Hilbi, H.**, Puro, R.J. & Zychlinsky, A. (2000) Tripeptidyl peptidase II promotes maturation of caspase-1 in *Shigella flexneri*-induced macrophage apoptosis. *Infect. Immun.* 68: 5502-5508.
11. ● **Hilbi, H.**, Segal, G. & Shuman, H.A. (2001) Icm/Dot-dependent upregulation of phagocytosis by *Legionella pneumophila*. *Mol. Microbiol.* 42: 603-617.
12. **Hilbi, H.**, Jozsa E. & Tomkinson, B. (2002) Identification of the catalytic triad in tripeptidyl-peptidase II through site directed mutagenesis. *Biochem. Biophys. Acta* 1601: 149-154.
13. Otto, G.P., Wu, M.Y., Clarke, M., Lu, H., Anderson, O.R., **Hilbi, H.**, Shuman, H.A. & Kessin, R.H. (2004) Macroautophagy is dispensable for intracellular replication of *Legionella pneumophila* in *Dictyostelium discoideum*. *Mol. Microbiol.* 51: 63-72.
● Faculty of 1000 Biology: <http://www.f1000biology.com/article/id/1016669/evaluation>
14. Albers, U., Reus, K., Shuman, H.A. & **Hilbi, H.** (2005) The amoebae plate test implicates a paralogue of *lpxB* in the interaction of *Legionella pneumophila* with *Acanthamoeba castellanii*. *Microbiology* 151: 167-182.
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16. Spörri, R., Joller, N., Albers, U. **Hilbi, H.** & Oxenius, A. (2006) MyD88-dependent interferon gamma production by NK cells is key for control of *Legionella pneumophila* infection. *J. Immunol.* 176: 6162-6171.
● Faculty of 1000 Biology: <http://www.f1000biology.com/article/id/1032227/evaluation>

17. Weber, S. S., Ragaz, C., Reus, K., Nyfeler Y. & **Hilbi, H.** (2006) *Legionella pneumophila* exploits PI(4)P to anchor secreted effector proteins to the replicative vacuole. *PLoS Pathog.* 2: e46.
 • Editor's Choice in *Science* 312: 974. Research Highlights in *Nature Rev. Microbiol.* 4: 492-493. Faculty of 1000 Biology: <http://www.f1000biology.com/article/id/1033019/evaluation>
18. • Schroeder, G. N. & **Hilbi, H.** (2007) Cholesterol is required to trigger caspase-1 activation and macrophage apoptosis after phagosomal escape of *Shigella*. *Cell. Microbiol.* 9: 265-278.
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20. Schroeder, G. N., Jann, N. J. & **Hilbi, H.** (2007) Intracellular type III secretion by cytoplasmic *Shigella* promotes caspase-1-dependent macrophage apoptosis. *Microbiology* 153: 2862-2876.
21. Albers, U., Tiaden, A., Spirig, T., Al Alam, D., Goyert, S. M., Gangloff, S. C. & **Hilbi, H.** (2007) Expression of *Legionella pneumophila* paralogous lipid A biosynthesis genes under different growth conditions. *Microbiology* 153: 3817-3829.
22. Joller, N., Spörri, R., **Hilbi, H.** & Oxenius, A. (2007) Induction and protective role of antibodies in *Legionella pneumophila* infection. *Eur. J. Immunol.* 37: 3414-3423.
23. • Spirig, T., Tiaden, A., Kiefer, P., Buchrieser, C., Vorholt, J. A. & **Hilbi, H.** (2008) The *Legionella* autoinducer synthase LqsA produces an α -hydroxyketone signaling molecule. *J. Biol. Chem.* 283: 18113-18123.
24. • Ragaz, C., Pietsch, H., Urwyler, S., Tiaden, A., Weber, S. S. & **Hilbi, H.** (2008) The *Legionella pneumophila* phosphoinositide-4-phosphate-binding type IV substrate SidC recruits endoplasmic reticulum vesicles to a replication-permissive vacuole. *Cell. Microbiol.* 10: 2416-2433.
25. Spörri, R., Joller, N., **Hilbi, H.** & Oxenius, A. (2008) A novel role for neutrophils as critical cytokine producers in microbial infection. *J. Immunol.* 181: 7121-7130.
26. Tiaden, A., Spirig, T., Carranza, P., Brüggemann, H., Riedel, K., Eberl, L., Buchrieser, C. & **Hilbi, H.** (2008) Synergistic contribution of the *Legionella pneumophila* *lqs* genes to pathogen-host interactions. *J. Bacteriol.* 190: 7532-7547.
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30. • Tiaden, A., Spirig, T., Sahr, T., Wälti, M. A., Boucke, K., Buchrieser, C. & **Hilbi, H.** (2010) The autoinducer synthase LqsA and putative sensor kinase LqsS regulate phagocyte interactions, extracellular filaments and a genomic island of *Legionella pneumophila*. *Environ. Microbiol.* 12: 1243-1259.
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35. • Kessler, A., Schell, U., Sahr, T., Tiaden, A., Harrison, C. F., Buchrieser, C. & **Hilbi, H.** (2013) The *Legionella pneumophila* orphan sensor kinase LqsT regulates competence and pathogen-host interactions as a component of the LAI-1 circuit. *Environ. Microbiol.* 15: 646-662.

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39. Ahrendt, T., Miltenberger, M., Haneburger, I., Kirchner, F., Brachmann, A. O., Kronenwerth, M., **Hilbi, H.** & Bode, H. B. (2013) Biosynthesis of the natural fluorophore legioliulin from *Legionella*. *Chembiochem.* 14: 1415-1418.
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41. • Rothmeier, E., Pfaffinger, G., Hoffmann, C., Harrison, C. F., Grabmayr, H., Repnik, U., Hannemann, M., Wölke, S., Bausch, A., Griffith, G., Müller-Taubenberger, A., Itzen, A. & **Hilbi, H.** (2013) Activation of Ran GTPase by a *Legionella* effector promotes microtubule polymerization, pathogen vacuole motility and infection. *PLoS Pathog.* 9: e1003598.
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• Editor's Choice *Cell. Microbiol.* 16 (7).
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48. • Weber, S., Stirnimann, C. U., Wieser, M., Frey, D., Meier, R., Engelhardt, S., Li, X., Capitani, G., Kammerer, R. A. & **Hilbi, H.** (2014) A type IV-translocated *Legionella* cysteine phytase counteracts intracellular growth restriction by phytate. *J. Biol. Chem.* 289: 34175-34188.
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● Editor's Spotlight *Appl. Environ. Microbiol.* 82 (16).
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 63. ● Steiner, B., Swart, A. L., Welin, A., Weber, S., Personnic, N., Kaech, A., Freyre, C., Ziegler, U., Klemm, R. W. & **Hilbi, H.** (2017) ER remodeling by the large GTPase atlastin promotes vacuolar growth of *Legionella pneumophila*. *EMBO Rep.* 18: 1817-1836.
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 67. ● Weber, S., Steiner, B., Welin, A., & **Hilbi, H.** (2018) *Legionella*-containing vacuoles capture PtdIns(4)P-rich vesicles derived from the Golgi apparatus. *mBio* 9: e02420-18.

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Patent

1. **Hilbi, H.** (2009) Bacterial protein phosphoinositide probes and effectors (US patent No. 7,629,130). Licensed to 2 companies.