

## References

- Abbasi, K. (2001).** Progress is slow in narrowing the health research divide. *BMJ (Clinical research ed)* **323**, 886.
- Abe, K., Niwa, H., Iwase, K., Takiguchi, M., Mori, M., Abe, S. I., Abe, K. & Yamamura, K. I. (1996).** Endoderm-specific gene expression in embryonic stem cells differentiated to embryoid bodies. *Experimental cell research* **229**, 27-34.
- Abrahams, G. L. & Hensel, M. (2006).** Manipulating cellular transport and immune responses: dynamic interactions between intracellular *Salmonella enterica* and its host cells. *Cellular microbiology* **8**, 728-737.
- Ackerman, A. L., Giudini, A. & Cresswell, P. (2006).** A role for the endoplasmic reticulum protein retrotranslocation machinery during crosspresentation by dendritic cells. *Immunity* **25**, 607-617.
- Adam, T., Arpin, M., Prevost, M. C., Gounon, P. & Sansonetti, P. J. (1995).** Cytoskeletal rearrangements and the functional role of T-plastin during entry of *Shigella flexneri* into HeLa cells. *The Journal of cell biology* **129**, 367-381.
- Adams, D. J., Quail, M. A., Cox, T. & other authors (2005).** A genome-wide, end-sequenced 129Sv BAC library resource for targeting vector construction. *Genomics* **86**, 753-758.
- Affymetrix (2004).** GeneChip Mouse Genome Arrays. Part No 701525 Rev 4.
- Akira, S., Uematsu, S. & Takeuchi, O. (2006).** Pathogen recognition and innate immunity. *Cell* **124**, 783-801.
- Al-Shahrour, F., Diaz-Uriarte, R. & Dopazo, J. (2004).** FatiGO: a web tool for finding significant associations of Gene Ontology terms with groups of genes. *Bioinformatics (Oxford, England)* **20**, 578-580.
- Albert, M. L., Pearce, S. F., Francisco, L. M., Sauter, B., Roy, P., Silverstein, R. L. & Bhardwaj, N. (1998a).** Immature dendritic cells phagocytose apoptotic cells via alphavbeta5 and CD36, and cross-present antigens to cytotoxic T lymphocytes. *The Journal of experimental medicine* **188**, 1359-1368.
- Albert, M. L., Sauter, B. & Bhardwaj, N. (1998b).** Dendritic cells acquire antigen from apoptotic cells and induce class I-restricted CTLs. *Nature* **392**, 86-89.
- Albertini, S., Suter-Dick, L., Boess, F. & Weiser, T. (2006).** How Predictive is In Vitro Toxicogenomics for In Vivo Toxicity? *INVITOX 2006 Session 3 - New in vitro models and strategies Abstract I3.1.*

- Allan, R. S., Waithman, J., Bedoui, S. & other authors (2006).** Migratory dendritic cells transfer antigen to a lymph node-resident dendritic cell population for efficient CTL priming. *Immunity* **25**, 153-162.
- Allaoui, A., Mounier, J., Prevost, M. C., Sansonetti, P. J. & Parsot, C. (1992).** icsB: a Shigella flexneri virulence gene necessary for the lysis of protrusions during intercellular spread. *Molecular microbiology* **6**, 1605-1616.
- Allaoui, A., Sansonetti, P. J. & Parsot, C. (1993).** MxiD, an outer membrane protein necessary for the secretion of the Shigella flexneri lpa invasins. *Molecular microbiology* **7**, 59-68.
- Allison, D. B., Cui, X., Page, G. P. & Sabripour, M. (2006).** Microarray data analysis: from disarray to consolidation and consensus. *Nature reviews* **7**, 55-65.
- Altwegg, M. & Bockemuhl, J. (1998).** Escherichia and Shigella. In *Microbiology and Microbial Infections* pp. 935-967: Hodder Arnold.
- Ardavin, C. (2007).** Subpopulation and differentiation of mouse dendritic cells. In *Dendritic Cells interactions with bacteria*, pp. 3-26. Edited by M. Rescigno: Cambridge University Press.
- Ashburner, M., Ball, C. A., Blake, J. A. & other authors (2000).** Gene ontology: tool for the unification of biology. The Gene Ontology Consortium. *Nature genetics* **25**, 25-29.
- Ausiello, C. M., Fedele, G., Urbani, F., Lande, R., Di Carlo, B. & Cassone, A. (2002).** Native and genetically inactivated pertussis toxins induce human dendritic cell maturation and synergize with lipopolysaccharide in promoting T helper type 1 responses. *The Journal of infectious diseases* **186**, 351-360.
- Austin, C. P., Battey, J. F., Bradley, A. & other authors (2004).** The knockout mouse project. *Nature genetics* **36**, 921-924.
- Auwerx, J., Avner, P., Baldock, R. & other authors (2004).** The European dimension for the mouse genome mutagenesis program. *Nature genetics* **36**, 925-927.
- Bahrani, F. K., Sansonetti, P. J. & Parsot, C. (1997).** Secretion of Ipa proteins by Shigella flexneri: inducer molecules and kinetics of activation. *Infection and immunity* **65**, 4005-4010.
- Balachandran, P., Dragone, L., Garrity-Ryan, L., Lemus, A., Weiss, A. & Engel, J. (2007).** The ubiquitin ligase Cbl-b limits Pseudomonas aeruginosa exotoxin T-mediated virulence. *The Journal of clinical investigation* **117**, 419-427.
- Bennett, C. L. & Clausen, B. E. (2007).** DC ablation in mice: promises, pitfalls, and challenges. *Trends in immunology* **28**, 525-531.
- Bernardini, M. L., Mounier, J., d'Hauteville, H., Coquis-Rondon, M. & Sansonetti, P. J. (1989).** Identification of icsA, a plasmid locus of Shigella flexneri that governs

bacterial intra- and intercellular spread through interaction with F-actin. *Proceedings of the National Academy of Sciences of the United States of America* **86**, 3867-3871.

**Beuzon, C. R., Meresse, S., Unsworth, K. E., Ruiz-Albert, J., Garvis, S., Waterman, S. R., Ryder, T. A., Boucrot, E. & Holden, D. W. (2000).** Salmonella maintains the integrity of its intracellular vacuole through the action of SifA. *The EMBO journal* **19**, 3235-3249.

**Birot, A., Duret, L., Bartholin, L., Santalucia, B., Tigaud, I., Magaud, J. & Rouault, J. (2000).** Identification and molecular analysis of BANP. *Gene* **253**, 189-196.

**Blocker, A., Gounon, P., Larquet, E., Niebuhr, K., Cabiaux, V., Parsot, C. & Sansonetti, P. (1999).** The tripartite type III secreton of Shigella flexneri inserts IpaB and IpaC into host membranes. *The Journal of cell biology* **147**, 683-693.

**Blocker, A., Jouihri, N., Larquet, E., Gounon, P., Ebel, F., Parsot, C., Sansonetti, P. & Allaoui, A. (2001).** Structure and composition of the Shigella flexneri "needle complex", a part of its type III secreton. *Molecular microbiology* **39**, 652-663.

**Bonifacino, J. S. & Weissman, A. M. (1998).** Ubiquitin and the control of protein fate in the secretory and endocytic pathways. *Annual review of cell and developmental biology* **14**, 19-57.

**Bourdet-Sicard, R., Rudiger, M., Jockusch, B. M., Gounon, P., Sansonetti, P. J. & Nhieu, G. T. (1999).** Binding of the Shigella protein IpaA to vinculin induces F-actin depolymerization. *The EMBO journal* **18**, 5853-5862.

**Bowie, A. G. & Fitzgerald, K. A. (2007).** RIG-I: tri-ing to discriminate between self and non-self RNA. *Trends in immunology* **28**, 147-150.

**Bradley, A., Evans, M., Kaufman, M. H. & Robertson, E. (1984).** Formation of germ-line chimaeras from embryo-derived teratocarcinoma cell lines. *Nature* **309**, 255-256.

**Braga-Neto, U. M. & Marques, E. T., Jr. (2006).** From functional genomics to functional immunomics: new challenges, old problems, big rewards. *PLoS computational biology* **2**, e81.

**Brault, V., Pereira, P., Duchon, A. & Herault, Y. (2006).** Modeling chromosomes in mouse to explore the function of genes, genomic disorders, and chromosomal organization. *PLoS genetics* **2**, e86.

**Brinkmann, V., Reichard, U., Goosmann, C., Fauler, B., Uhlemann, Y., Weiss, D. S., Weinrauch, Y. & Zychlinsky, A. (2004).** Neutrophil extracellular traps kill bacteria. *Science (New York, NY)* **303**, 1532-1535.

**Brumell, J. H., Perrin, A. J., Goosney, D. L. & Finlay, B. B. (2002).** Microbial pathogenesis: new niches for salmonella. *Curr Biol* **12**, R15-17.

- Bryant, P. A., Venter, D., Robins-Browne, R. & Curtis, N. (2004).** Chips with everything: DNA microarrays in infectious diseases. *The Lancet infectious diseases* **4**, 100-111.
- Buchrieser, C., Glaser, P., Rusniok, C., Nedjari, H., D'Hauteville, H., Kunst, F., Sansonetti, P. & Parsot, C. (2000).** The virulence plasmid pWR100 and the repertoire of proteins secreted by the type III secretion apparatus of *Shigella flexneri*. *Molecular microbiology* **38**, 760-771.
- Buehring, G. C. (1996).** Contributions of cell culture to the investigation and control of infectious diseases. *Methods in Cell Science* **18**, 195-200.
- Capecci, M. R. (2005).** Gene targeting in mice: functional analysis of the mammalian genome for the twenty-first century. *Nature reviews* **6**, 507-512.
- Chakravortty, D., Rohde, M., Jager, L., Deiwick, J. & Hensel, M. (2005).** Formation of a novel surface structure encoded by *Salmonella* Pathogenicity Island 2. *The EMBO journal* **24**, 2043-2052.
- Chambers, I. & Smith, A. (2004).** Self-renewal of teratocarcinoma and embryonic stem cells. *Oncogene* **23**, 7150-7160.
- Chaudry, A. (2004).** Cell culture. *The Science Creative Quaterly August 2004*.
- Cheminay, C., Schoen, M., Hensel, M., Wandersee-Steinhauser, A., Ritter, U., Korner, H., Rollinghoff, M. & Hein, J. (2002).** Migration of *Salmonella typhimurium*--harboring bone marrow--derived dendritic cells towards the chemokines CCL19 and CCL21. *Microbial pathogenesis* **32**, 207-218.
- Cheminay, C., Mohlenbrink, A. & Hensel, M. (2005).** Intracellular *Salmonella* inhibit antigen presentation by dendritic cells. *J Immunol* **174**, 2892-2899.
- Chen, H. & Li, J. (2007).** Nanotechnology: moving from microarrays toward nanoarrays. *Methods in molecular biology (Clifton, NJ)* **381**, 411-436.
- Chen, J. J., Crosby, J. S. & London, I. M. (1994).** Regulation of heme-regulated eIF-2 alpha kinase and its expression in erythroid cells. *Biochimie* **76**, 761-769.
- Chieppa, M., Rescigno, M., Huang, A. Y. & Germain, R. N. (2006).** Dynamic imaging of dendritic cell extension into the small bowel lumen in response to epithelial cell TLR engagement. *The Journal of experimental medicine* **203**, 2841-2852.
- Clark, A. T., Bodnar, M. S., Fox, M., Rodriguez, R. T., Abeyta, M. J., Firpo, M. T. & Pera, R. A. (2004).** Spontaneous differentiation of germ cells from human embryonic stem cells in vitro. *Hum Mol Genet* **13**, 727-739.
- Clements, M. O., Eriksson, S., Thompson, A., Lucchini, S., Hinton, J. C., Normark, S. & Rhen, M. (2002).** Polynucleotide phosphorylase is a global regulator of virulence and persistency in *Salmonella enterica*. *Proceedings of the National Academy of Sciences of the United States of America* **99**, 8784-8789.

- Coloma, J. & Harris, E. (2008).** Sustainable transfer of biotechnology to developing countries: fighting poverty by bringing scientific tools to developing-country partners. *Annals of the New York Academy of Sciences* **1136**, 358-368.
- Cooke, F. J. & Wain, J. (2006).** Antibiotic resistance in *Salmonella* infections. In *Salmonella Infections: Clinical, Immunological and Molecular Aspects*, pp. 25-56. Edited by P. Mastroeni & D. Maskell: Cambridge University Press.
- Cooper, H. M., Tamura, R. N. & Quaranta, V. (1991).** The major laminin receptor of mouse embryonic stem cells is a novel isoform of the alpha 6 beta 1 integrin. *The Journal of cell biology* **115**, 843-850.
- Croker, B. A., Kiu, H. & Nicholson, S. E. (2008).** SOCS regulation of the JAK/STAT signalling pathway. *Seminars in cell & developmental biology*.
- d'Ostiani, C. F., Del Sero, G., Bacci, A., Montagnoli, C., Spreca, A., Mencacci, A., Ricciardi-Castagnoli, P. & Romani, L. (2000).** Dendritic cells discriminate between yeasts and hyphae of the fungus *Candida albicans*. Implications for initiation of T helper cell immunity in vitro and in vivo. *The Journal of experimental medicine* **191**, 1661-1674.
- Dalpke, A., Heeg, K., Bartz, H. & Baetz, A. (2008).** Regulation of innate immunity by suppressor of cytokine signaling (SOCS) proteins. *Immunobiology* **213**, 225-235.
- de Jong, E. C., Vieira, P. L., Kalinski, P., Schuitemaker, J. H., Tanaka, Y., Wierenga, E. A., Yazdanbakhsh, M. & Kapsenberg, M. L. (2002).** Microbial compounds selectively induce Th1 cell-promoting or Th2 cell-promoting dendritic cells in vitro with diverse th cell-polarizing signals. *J Immunol* **168**, 1704-1709.
- de Jong, E. C., Smits, H. H. & Kapsenberg, M. L. (2005).** Dendritic cell-mediated T cell polarization. *Springer seminars in immunopathology* **26**, 289-307.
- de Jong, R., Altare, F., Haagen, I. A. & other authors (1998).** Severe mycobacterial and *Salmonella* infections in interleukin-12 receptor-deficient patients. *Science (New York, NY)* **280**, 1435-1438.
- Decker, T., Stockinger, S., Karaghiosoff, M., Muller, M. & Kovarik, P. (2002).** IFNs and STATs in innate immunity to microorganisms. *The Journal of clinical investigation* **109**, 1271-1277.
- Denham, M., Conley, B., Olsson, F., Cole, T. J. & Mollard, R. (2005).** Stem cells: an overview. *Current protocols in cell biology / editorial board, Juan S Bonifacino [et al]* Chapter 23, Unit 23 21.
- Detweiler, C. S., Cunanan, D. B. & Falkow, S. (2001).** Host microarray analysis reveals a role for the *Salmonella* response regulator phoP in human macrophage cell death. *Proceedings of the National Academy of Sciences of the United States of America* **98**, 5850-5855.

- Doetschman, T. C., Eistetter, H., Katz, M., Schmidt, W. & Kemler, R. (1985).** The in vitro development of blastocyst-derived embryonic stem cell lines: formation of visceral yolk sac, blood islands and myocardium. *Journal of embryology and experimental morphology* **87**, 27-45.
- Domenech, J., Lubroth, J., Eddi, C., Martin, V. & Roger, F. (2006).** Regional and international approaches on prevention and control of animal transboundary and emerging diseases. *Annals of the New York Academy of Sciences* **1081**, 90-107.
- Ducibella, T., Albertini, D. F., Anderson, E. & Biggers, J. D. (1975).** The preimplantation mammalian embryo: characterization of intercellular junctions and their appearance during development. *Dev Biol* **45**, 231-250.
- Ducibella, T. & Anderson, E. (1975).** Cell shape and membrane changes in the eight-cell mouse embryo: prerequisites for morphogenesis of the blastocyst. *Dev Biol* **47**, 45-58.
- Eckmann, L., Smith, J. R., Housley, M. P., Dwinell, M. B. & Kagnoff, M. F. (2000).** Analysis by high density cDNA arrays of altered gene expression in human intestinal epithelial cells in response to infection with the invasive enteric bacteria *Salmonella*. *The Journal of biological chemistry* **275**, 14084-14094.
- Editorial (2008).** The value of vaccines. *Nature Review Microbiology* **6**.
- Egile, C., d'Hauteville, H., Parsot, C. & Sansonetti, P. J. (1997).** SopA, the outer membrane protease responsible for polar localization of IcsA in *Shigella flexneri*. *Molecular microbiology* **23**, 1063-1073.
- Eriksson, S., Lucchini, S., Thompson, A., Rhen, M. & Hinton, J. C. (2003).** Unravelling the biology of macrophage infection by gene expression profiling of intracellular *Salmonella enterica*. *Molecular microbiology* **47**, 103-118.
- Evans, M. J. & Kaufman, M. H. (1981).** Establishment in culture of pluripotential cells from mouse embryos. *Nature* **292**, 154-156.
- Ewis, A. A., Zhelev, Z., Bakalova, R., Fukuoka, S., Shinohara, Y., Ishikawa, M. & Baba, Y. (2005).** A history of microarrays in biomedicine. *Expert review of molecular diagnostics* **5**, 315-328.
- Fairchild, P. J., Brook, F. A., Gardner, R. L., Graca, L., Strong, V., Tone, Y., Tone, M., Nolan, K. F. & Waldmann, H. (2000).** Directed differentiation of dendritic cells from mouse embryonic stem cells. *Curr Biol* **10**, 1515-1518.
- Fairchild, P. J., Nolan, K. F. & Waldmann, H. (2003).** Probing dendritic cell function by guiding the differentiation of embryonic stem cells. *Methods in enzymology* **365**, 169-186.
- Fairchild, P. J., Nolan, K. F. & Waldmann, H. (2007).** Genetic modification of dendritic cells through the directed differentiation of embryonic stem cells. In *Methods in molecular biology* (Clifton, NJ, pp. 59-72).

- Falkow, S. (1988).** Molecular Koch's postulates applied to microbial pathogenicity. *Reviews of infectious diseases* **10 Suppl 2**, S274-276.
- Finlay, B. B. & Falkow, S. (1988).** Comparison of the invasion strategies used by *Salmonella cholerae-suis*, *Shigella flexneri* and *Yersinia enterocolitica* to enter cultured animal cells: endosome acidification is not required for bacterial invasion or intracellular replication. *Biochimie* **70**, 1089-1099.
- Forsyth, J. R. L. (1998).** Typhoid and paratyphoid. In *Microbiology and microbial infections V 3 Bacterial infections*. Edited by W. J. J. Hausler & M. Sussman: Hodder Arnold.
- Foti, M., Ricciardi-Castagnoli, P. & Granucci, F. (2007).** Gene expression profiling of dendritic cells by microarray. *Methods in molecular biology (Clifton, NJ)* **380**, 215-224.
- Franchi, L., Amer, A., Body-Malapel, M. & other authors (2006).** Cytosolic flagellin requires Ipaf for activation of caspase-1 and interleukin 1beta in salmonella-infected macrophages. *Nature immunology* **7**, 576-582.
- Franchi, L., Park, J. H., Shaw, M. H., Marina-Garcia, N., Chen, G., Kim, Y. G. & Nunez, G. (2008).** Intracellular NOD-like receptors in innate immunity, infection and disease. *Cellular microbiology* **10**, 1-8.
- Freeman, J. A., Rappl, C., Kuhle, V., Hensel, M. & Miller, S. I. (2002).** SpiC is required for translocation of *Salmonella* pathogenicity island 2 effectors and secretion of translocon proteins SseB and SseC. *Journal of bacteriology* **184**, 4971-4980.
- French, T., So, P. T., Weaver, D. J., Jr., Coelho-Sampaio, T., Gratton, E., Voss, E. W., Jr. & Carrero, J. (1997).** Two-photon fluorescence lifetime imaging microscopy of macrophage-mediated antigen processing. *Journal of microscopy* **185**, 339-353.
- Frey, R. J. (2002).** Gale Encyclopedia of Medicine.
- Fukao, T., Matsuda, S. & Koyasu, S. (2000).** Synergistic effects of IL-4 and IL-18 on IL-12-dependent IFN-gamma production by dendritic cells. *J Immunol* **164**, 64-71.
- Garcia-del Portillo, F., Pucciarelli, M. G., Jefferies, W. A. & Finlay, B. B. (1994).** *Salmonella typhimurium* induces selective aggregation and internalization of host cell surface proteins during invasion of epithelial cells. *Journal of cell science* **107** ( Pt 7), 2005-2020.
- Garcia-Del Portillo, F., Jungnitz, H., Rohde, M. & Guzman, C. A. (2000).** Interaction of *Salmonella enterica* Serotype Typhimurium with Dendritic Cells Is Defined by Targeting to Compartments Lacking Lysosomal Membrane Glycoproteins. *Infect Immun* **68**, 2985-2991.
- Gebert, A. (1997).** The role of M cells in the protection of mucosal membranes. *Histochemistry and cell biology* **108**, 455-470.

- Gentleman, R. C., Carey, V. J., Bates, D. M. & other authors (2004).** Bioconductor: open software development for computational biology and bioinformatics. *Genome biology* **5**, R80.
- Gershon, A. A. (2000).** Infectious diseases have shaped our world. In *38th Annual Meeting of the Infectious Diseases Society of America*. New Orleans.
- Giannella, R. A., Broitman, S. A. & Zamcheck, N. (1972).** Gastric acid barrier to ingested microorganisms in man: studies in vivo and in vitro. *Gut* **13**, 251-256.
- Ginocchio, C. C. & Galan, J. E. (1995).** Functional conservation among members of the *Salmonella typhimurium InvA* family of proteins. *Infection and immunity* **63**, 729-732.
- Gorba, T. & Allsopp, T. E. (2003).** Pharmacological potential of embryonic stem cells. *Pharmacol Res* **47**, 269-278.
- Graham, S. M., Molyneux, E. M., Walsh, A. L., Cheesbrough, J. S., Molyneux, M. E. & Hart, C. A. (2000).** Nontyphoidal *Salmonella* infections of children in tropical Africa. *The Pediatric infectious disease journal* **19**, 1189-1196.
- Granucci, F., Vizzardelli, C., Virzi, E., Rescigno, M. & Ricciardi-Castagnoli, P. (2001).** Transcriptional reprogramming of dendritic cells by differentiation stimuli. *European journal of immunology* **31**, 2539-2546.
- Green, J. M. (2000).** The B7/CD28/CTLA4 T-cell activation pathway. Implications for inflammatory lung disease. *American journal of respiratory cell and molecular biology* **22**, 261-264.
- Greenwald, R. J., Freeman, G. J. & Sharpe, A. H. (2005).** The B7 family revisited. *Annual review of immunology* **23**, 515-548.
- Guo, Y., Graham-Evans, B. & Broxmeyer, H. E. (2006).** Murine embryonic stem cells secrete cytokines/growth modulators that enhance cell survival/anti-apoptosis and stimulate colony formation of murine hematopoietic progenitor cells. *Stem cells (Dayton, Ohio)* **24**, 850-856.
- Handley, S. A. & Miller, V. L. (2007).** General and specific host responses to bacterial infection in Peyer's patches: a role for stromelysin-1 (matrix metalloproteinase-3) during *Salmonella enterica* infection. *Molecular microbiology* **64**, 94-110.
- Harenberg, A., Guillaume, F., Ryan, E. J., Burdin, N. & Spada, F. (2008).** Gene profiling analysis of ALVAC infected human monocyte derived dendritic cells. *Vaccine doi:10.1016/j.vaccine.2008.07.050*.
- Hawiger, D., Inaba, K., Dorsett, Y., Guo, M., Mahnke, K., Rivera, M., Ravetch, J. V., Steinman, R. M. & Nussenzweig, M. C. (2001).** Dendritic cells induce peripheral T cell unresponsiveness under steady state conditions in vivo. *The Journal of experimental medicine* **194**, 769-779.

- Hayashi, F., Smith, K. D., Ozinsky, A. & other authors (2001).** The innate immune response to bacterial flagellin is mediated by Toll-like receptor 5. *Nature* **410**, 1099-1103.
- Hayward, R. D., McGhie, E. J. & Koronakis, V. (2000a).** Membrane fusion activity of purified SipB, a Salmonella surface protein essential for mammalian cell invasion. *Molecular microbiology* **37**, 727-739.
- Hayward, R. E., Derisi, J. L., Alfadhli, S., Kaslow, D. C., Brown, P. O. & Rathod, P. K. (2000b).** Shotgun DNA microarrays and stage-specific gene expression in *Plasmodium falciparum* malaria. *Molecular microbiology* **35**, 6-14.
- Hensel, M. (2006).** Pathogenicity island and virulence of *Salmonella enterica*. In *Salmonella infections*. Edited by P. Mastroeni & D. Maskell: Cambridge University Press.
- Hermant, D., Menard, R., Arricau, N., Parsot, C. & Popoff, M. Y. (1995).** Functional conservation of the *Salmonella* and *Shigella* effectors of entry into epithelial cells. *Molecular microbiology* **17**, 781-789.
- Herrmann, M. & Pfaffl, M. W. (2005).** REST 2005 Greater certainty in expression studies. *Corbett Research Pty Ltd*.
- Hicke, L. (2001).** Protein regulation by monoubiquitin. *Nat Rev Mol Cell Biol* **2**, 195-201.
- High, N., Mounier, J., Prevost, M. C. & Sansonetti, P. J. (1992).** IpaB of *Shigella flexneri* causes entry into epithelial cells and escape from the phagocytic vacuole. *The EMBO journal* **11**, 1991-1999.
- Hilbi, H., Moss, J. E., Hersh, D. & other authors (1998).** *Shigella*-induced apoptosis is dependent on caspase-1 which binds to IpaB. *The Journal of biological chemistry* **273**, 32895-32900.
- Hiscott, J., Beauparlant, P., Crepieux, P., DeLuca, C., Kwon, H., Lin, R. & Petropoulos, L. (1997).** Cellular and viral protein interactions regulating I kappa B alpha activity during human retrovirus infection. *Journal of leukocyte biology* **62**, 82-92.
- Hochrein, H., Shortman, K., Vremec, D., Scott, B., Hertzog, P. & O'Keeffe, M. (2001).** Differential production of IL-12, IFN-alpha, and IFN-gamma by mouse dendritic cell subsets. *J Immunol* **166**, 5448-5455.
- Hopkins, S. A., Niedergang, F., Cortesey-Theulaz, I. E. & Kraehenbuhl, J. P. (2000).** A recombinant *Salmonella typhimurium* vaccine strain is taken up and survives within murine Peyer's patch dendritic cells. *Cellular microbiology* **2**, 59-68.

- Inaba, K., Metlay, J. P., Crowley, M. T. & Steinman, R. M. (1990).** Dendritic cells pulsed with protein antigens in vitro can prime antigen-specific, MHC-restricted T cells in situ. *The Journal of experimental medicine* **172**, 631-640.
- Inaba, K., Inaba, M., Romani, N., Aya, H., Deguchi, M., Ikehara, S., Muramatsu, S. & Steinman, R. M. (1992).** Generation of large numbers of dendritic cells from mouse bone marrow cultures supplemented with granulocyte/macrophage colony-stimulating factor. *The Journal of experimental medicine* **176**, 1693-1702.
- Ivanova, N. B., Dimos, J. T., Schaniel, C., Hackney, J. A., Moore, K. A. & Lemischka, I. R. (2002).** A stem cell molecular signature. *Science* **298**, 601-604.
- Iwakoshi, N. N., Lee, A. H., Vallabhajosyula, P., Otipoby, K. L., Rajewsky, K. & Glimcher, L. H. (2003).** Plasma cell differentiation and the unfolded protein response intersect at the transcription factor XBP-1. *Nature immunology* **4**, 321-329.
- Iwakoshi, N. N., Pypaert, M. & Glimcher, L. H. (2007).** The transcription factor XBP-1 is essential for the development and survival of dendritic cells. *The Journal of experimental medicine* **204**, 2267-2275.
- Jantsch, J., Cheminay, C., Chakravortty, D., Lindig, T., Hein, J. & Hensel, M. (2003).** Intracellular activities of *Salmonella enterica* in murine dendritic cells. *Cellular microbiology* **5**, 933-945.
- Jarvelainen, H. A., Galmiche, A. & Zychlinsky, A. (2003).** Caspase-1 activation by *Salmonella*. *Trends in cell biology* **13**, 204-209.
- Jayakumar, A., Donovan, M. J., Tripathi, V., Ramalho-Ortigao, M. & McDowell, M. A. (2008).** Leishmania major infection activates NF-kappaB and interferon regulatory factors 1 and 8 in human dendritic cells. *Infection and immunity* **76**, 2138-2148.
- Jensen, P. E. (2007).** Recent advances in antigen processing and presentation. *Nature immunology* **8**, 1041-1048.
- Jepson, M. A. & Clark, M. A. (2001).** The role of M cells in *Salmonella* infection. *Microbes and infection / Institut Pasteur* **3**, 1183-1190.
- Johansson, C. & Wick, M. J. (2004).** Liver dendritic cells present bacterial antigens and produce cytokines upon *Salmonella* encounter. *J Immunol* **172**, 2496-2503.
- Jones, B. D. & Falkow, S. (1996).** Salmonellosis: host immune responses and bacterial virulence determinants. *Annual review of immunology* **14**, 533-561.
- Kafatos, F. C., Jones, C. W. & Efstratiadis, A. (1979).** Determination of nucleic acid sequence homologies and relative concentrations by a dot hybridization procedure. *Nucleic acids research* **7**, 1541-1552.

- Kaler, S. G. (2008).** Diseases of poverty with high mortality in infants and children: malaria, measles, lower respiratory infections, and diarrheal illnesses. *Annals of the New York Academy of Sciences* **1136**, 28-31.
- Kaufman, R. J. (1999).** Stress signaling from the lumen of the endoplasmic reticulum: coordination of gene transcriptional and translational controls. *Genes & development* **13**, 1211-1233.
- Keller, G. (2005).** Embryonic stem cell differentiation: emergence of a new era in biology and medicine. *Genes & development* **19**, 1129-1155.
- Keller, G. M. (1995).** In vitro differentiation of embryonic stem cells. *Current opinion in cell biology* **7**, 862-869.
- Kholodenko, B. N. (2006).** Cell-signalling dynamics in time and space. *Nat Rev Mol Cell Biol* **7**, 165-176.
- Kikuchi, K., Yanagawa, Y., Aranami, T., Iwabuchi, C., Iwabuchi, K. & Onoe, K. (2003).** Tumour necrosis factor-alpha but not lipopolysaccharide enhances preference of murine dendritic cells for Th2 differentiation. *Immunology* **108**, 42-49.
- Kokame, K., Agarwala, K. L., Kato, H. & Miyata, T. (2000).** Herp, a new ubiquitin-like membrane protein induced by endoplasmic reticulum stress. *The Journal of biological chemistry* **275**, 32846-32853.
- Kolb-Maurer, A., Weissinger, F., Kurzai, O., Maurer, M., Wilhelm, M. & Goebel, W. (2004).** Bacterial infection of human hematopoietic stem cells induces monocytic differentiation. *FEMS immunology and medical microbiology* **40**, 147-153.
- Konopka, J. L., Penalva, L. O., Thompson, J. M., White, L. J., Beard, C. W., Keene, J. D. & Johnston, R. E. (2007).** A two-phase innate host response to alphavirus infection identified by mRNP-tagging in vivo. *PLoS pathogens* **3**, e199.
- Kopper, O. & Benvenisty, N. (2005).** Manipulation of the human genome in human embryonic stem cells. *Stem cell reviews* **1**, 145-150.
- Korecka, J. A., Verhaagen, J. & Hol, E. M. (2007).** Cell-replacement and gene-therapy strategies for Parkinson's and Alzheimer's disease. *Regenerative medicine* **2**, 425-446.
- Kristensen, D. M., Kalisz, M. & Nielsen, J. H. (2005).** Cytokine signalling in embryonic stem cells. *Apmis* **113**, 756-772.
- Kubori, T., Matsushima, Y., Nakamura, D., Uralil, J., Lara-Tejero, M., Sukhan, A., Galan, J. E. & Aizawa, S. I. (1998).** Supramolecular structure of the Salmonella typhimurium type III protein secretion system. *Science (New York, NY)* **280**, 602-605.
- Kubori, T. & Galan, J. E. (2003).** Temporal regulation of salmonella virulence effector function by proteasome-dependent protein degradation. *Cell* **115**, 333-342.

- Kuhle, V. & Hensel, M. (2002).** SseF and SseG are translocated effectors of the type III secretion system of *Salmonella* pathogenicity island 2 that modulate aggregation of endosomal compartments. *Cellular microbiology* **4**, 813-824.
- Kuhle, V., Abrahams, G. L. & Hensel, M. (2006).** Intracellular *Salmonella enterica* redirect exocytic transport processes in a *Salmonella* pathogenicity island 2-dependent manner. *Traffic (Copenhagen, Denmark)* **7**, 716-730.
- Kweon, M. N. (2008).** Shigellosis: the current status of vaccine development. *Current opinion in infectious diseases* **21**, 313-318.
- Lara-Tejero, M., Sutterwala, F. S., Ogura, Y., Grant, E. P., Bertin, J., Coyle, A. J., Flavell, R. A. & Galan, J. E. (2006).** Role of the caspase-1 inflammasome in *Salmonella typhimurium* pathogenesis. *The Journal of experimental medicine* **203**, 1407-1412.
- Lee, A. H., Zareei, M. P. & Daefler, S. (2002).** Identification of a NIPSNAP homologue as host cell target for *Salmonella* virulence protein SpiC. *Cellular microbiology* **4**, 739-750.
- Lengeling, A., Pfeffer, K. & Balling, R. (2001).** The battle of two genomes: genetics of bacterial host/pathogen interactions in mice. *Mamm Genome* **12**, 261-271.
- Lindvall, O. (2003).** Stem cells for cell therapy in Parkinson's disease. *Pharmacol Res* **47**, 279-287.
- Lisowski, L. & Sadelain, M. (2008).** Current status of globin gene therapy for the treatment of beta-thalassaemia. *British journal of haematology* **141**, 335-345.
- Liu-Mares, W., Sun, Z., Bamlet, W. R., Atkinson, E. J., Fridley, B. L., Slager, S. L., de Andrade, M. & Goode, E. L. (2007).** Analysis of variation in NF-kappaB genes and expression levels of NF-kappaB-regulated molecules. *BMC proceedings* **1 Suppl 1**, S126.
- Liu, Y. J. (2005).** IPC: professional type 1 interferon-producing cells and plasmacytoid dendritic cell precursors. *Annual review of immunology* **23**, 275-306.
- Livak, K. J. & Schmittgen, T. D. (2001).** Analysis of relative gene expression data using real-time quantitative PCR and the 2(-Delta Delta C(T)) Method. *Methods (San Diego, Calif)* **25**, 402-408.
- Lockhart, D. J. & Winzeler, E. A. (2000).** Genomics, gene expression and DNA arrays. *Nature* **405**, 827-836.
- Loh, Y. H., Wu, Q., Chew, J. L. & other authors (2006).** The Oct4 and Nanog transcription network regulates pluripotency in mouse embryonic stem cells. *Nature genetics* **38**, 431-440.
- Lopez, S. M. C. d. S. & Mummery, C. L. (2004).** Differentiation in Early Development. *Handbook of Stem Cells* **1**, 143-156.

- Luo, X., Tarbell, K. V., Yang, H., Pothoven, K., Bailey, S. L., Ding, R., Steinman, R. M. & Suthanthiran, M. (2007).** Dendritic cells with TGF-beta1 differentiate naive CD4+CD25- T cells into islet-protective Foxp3+ regulatory T cells. *Proceedings of the National Academy of Sciences of the United States of America* **104**, 2821-2826.
- Lupo, P., Chang, Y. C., Kelsall, B. L., Farber, J. M., Pietrella, D., Vecchiarelli, A., Leon, F. & Kwon-Chung, K. J. (2008).** The presence of capsule in Cryptococcus neoformans influences the gene expression profile in dendritic cells during interaction with the fungus. *Infection and immunity* **76**, 1581-1589.
- Lutz, M. B. & Schuler, G. (2002).** Immature, semi-mature and fully mature dendritic cells: which signals induce tolerance or immunity? *Trends in immunology* **23**, 445-449.
- Lynn, D. J., Winsor, G. L., Chan, C. & other authors (2008).** InnateDB: facilitating systems-level analyses of the mammalian innate immune response. *Molecular systems biology* **4**, 218.
- Magliocca, J. F., Held, I. K. & Odorico, J. S. (2006).** Undifferentiated murine embryonic stem cells cannot induce portal tolerance but may possess immune privilege secondary to reduced major histocompatibility complex antigen expression. *Stem cells and development* **15**, 707-717.
- Magnuson, T., Demsey, A. & Stackpole, C. W. (1977).** Characterization of intercellular junctions in the preimplantation mouse embryo by freeze-fracture and thin-section electron microscopy. *Dev Biol* **61**, 252-261.
- Magram, J., Connaughton, S. E., Warrier, R. R. & other authors (1996a).** IL-12-deficient mice are defective in IFN gamma production and type 1 cytokine responses. *Immunity* **4**, 471-481.
- Magram, J., Sfarrà, J., Connaughton, S. & other authors (1996b).** IL-12-deficient mice are defective but not devoid of type 1 cytokine responses. *Annals of the New York Academy of Sciences* **795**, 60-70.
- Maniatis, G. M., Ramirez, F., Cann, A., Marks, P. A. & Bank, A. (1976).** Translation and stability of human globin mRNA in Xenopus oocytes. *The Journal of clinical investigation* **58**, 1419-1427.
- Marcus, S. L., Knodler, L. A. & Finlay, B. B. (2002).** Salmonella enterica serovar Typhimurium effector SigD/SopB is membrane-associated and ubiquitinated inside host cells. *Cellular microbiology* **4**, 435-446.
- Margulies, M., Egholm, M., Altman, W. E. & other authors (2005).** Genome sequencing in microfabricated high-density picolitre reactors. *Nature* **437**, 376-380.
- Marriott, I., Hammond, T. G., Thomas, E. K. & Bost, K. L. (1999).** Salmonella efficiently enter and survive within cultured CD11c+ dendritic cells initiating cytokine expression. *European journal of immunology* **29**, 1107-1115.

- Martin, G. R. (1981).** Isolation of a pluripotent cell line from early mouse embryos cultured in medium conditioned by teratocarcinoma stem cells. *Proceedings of the National Academy of Sciences of the United States of America* **78**, 7634-7638.
- Mathers, C. D. & Loncar, D. (2006).** Projections of global mortality and burden of disease from 2002 to 2030. *PLoS medicine* **3**, e442.
- Mattner, F., Magram, J., Ferrante, J., Launois, P., Di Padova, K., Behin, R., Gately, M. K., Louis, J. A. & Alber, G. (1996).** Genetically resistant mice lacking interleukin-12 are susceptible to infection with Leishmania major and mount a polarized Th2 cell response. *European journal of immunology* **26**, 1553-1559.
- McGuire, K. & Glass, E. J. (2005).** The expanding role of microarrays in the investigation of macrophage responses to pathogens. *Veterinary immunology and immunopathology* **105**, 259-275.
- McKelvie, N. D., Stratford, R., Wu, T. & other authors (2004).** Expression of heterologous antigens in Salmonella Typhimurium vaccine vectors using the in vivo-inducible, SPI-2 promoter, ssaG. *Vaccine* **22**, 3243-3255.
- Medigeshi, G. R., Lancaster, A. M., Hirsch, A. J. & other authors (2007).** West Nile virus infection activates the unfolded protein response, leading to CHOP induction and apoptosis. *Journal of virology* **81**, 10849-10860.
- Medzhitov, R. (2001).** Toll-like receptors and innate immunity. *Nat Rev Immunol* **1**, 135-145.
- Melton, D. A. & Cowan, C. (2004).** "Stemness": Definitions, Criteria, and Standards. *Handbook of Stem Cells* **1**, XXV-XXXI.
- Menard, R., Sansonetti, P. & Parsot, C. (1994).** The secretion of the Shigella flexneri Ipa invasins is activated by epithelial cells and controlled by IpaB and IpaD. *The EMBO journal* **13**, 5293-5302.
- Menendez, P., Bueno, C., Wang, L. & Bhatia, M. (2005).** Human embryonic stem cells: potential tool for achieving immunotolerance? *Stem cell reviews* **1**, 151-158.
- Menges, M., Rossner, S., Voigtlander, C., Schindler, H., Kukutsch, N. A., Bogdan, C., Erb, K., Schuler, G. & Lutz, M. B. (2002).** Repetitive injections of dendritic cells matured with tumor necrosis factor alpha induce antigen-specific protection of mice from autoimmunity. *The Journal of experimental medicine* **195**, 15-21.
- Mercado-Lubo, R., Gauger, E. J., Leatham, M. P., Conway, T. & Cohen, P. S. (2008).** A Salmonella enterica serovar typhimurium succinate dehydrogenase/fumarate reductase double mutant is avirulent and immunogenic in BALB/c mice. *Infection and immunity* **76**, 1128-1134.
- Meresse, S., Unsworth, K. E., Habermann, A., Griffiths, G., Fang, F., Martinez-Lorenzo, M. J., Waterman, S. R., Gorvel, J. P. & Holden, D. W. (2001).**

Remodelling of the actin cytoskeleton is essential for replication of intravacuolar *Salmonella*. *Cellular microbiology* **3**, 567-577.

**Meslin, F. X., Heymann, D. L. & Witt, C. (1998).** Monitoring infectious diseases. *Annals of the New York Academy of Sciences* **862**, 205-210.

**Miao, E. A., Alpuche-Aranda, C. M., Dors, M., Clark, A. E., Bader, M. W., Miller, S. I. & Aderem, A. (2006).** Cytoplasmic flagellin activates caspase-1 and secretion of interleukin 1beta via Ipaf. *Nature immunology* **7**, 569-575.

**Milne, T. S., Michell, S. L., Diaper, H., Wikstrom, P., Svensson, K., Oyston, P. C. & Titball, R. W. (2007).** A 55 kDa hypothetical membrane protein is an iron-regulated virulence factor of *Francisella tularensis* subsp. *novicida* U112. *Journal of medical microbiology* **56**, 1268-1276.

**Mirold, S., Ehrbar, K., Weissmuller, A., Prager, R., Tschape, H., Russmann, H. & Hardt, W. D. (2001).** *Salmonella* host cell invasion emerged by acquisition of a mosaic of separate genetic elements, including *Salmonella* pathogenicity island 1 (SPI1), SPI5, and sopE2. *Journal of bacteriology* **183**, 2348-2358.

**Mirza, S. H., Beeching, N. J. & Hart, C. A. (1996).** Multi-drug resistant typhoid: a global problem. *Journal of medical microbiology* **44**, 317-319.

**Mitchell, E. K., Mastroeni, P., Kelly, A. P. & Trowsdale, J. (2004).** Inhibition of cell surface MHC class II expression by *Salmonella*. *European journal of immunology* **34**, 2559-2567.

**Mittrucker, H. W. & Kaufmann, S. H. (2000).** Immune response to infection with *Salmonella typhimurium* in mice. *Journal of leukocyte biology* **67**, 457-463.

**Monack, D. M., Hersh, D., Ghori, N., Bouley, D., Zychlinsky, A. & Falkow, S. (2000).** *Salmonella* exploits caspase-1 to colonize Peyer's patches in a murine typhoid model. *The Journal of experimental medicine* **192**, 249-258.

**Montaner, D., Tarraga, J., Huerta-Cepas, J. & other authors (2006).** Next station in microarray data analysis: GEPAS. *Nucleic acids research* **34**, W486-491.

**Moore, K. J., Fabunmi, R. P., Andersson, L. P. & Freeman, M. W. (1998).** In vitro-differentiated embryonic stem cell macrophages: a model system for studying atherosclerosis-associated macrophage functions. *Arteriosclerosis, thrombosis, and vascular biology* **18**, 1647-1654.

**Morgan, E. T. (2001).** Regulation of cytochrome p450 by inflammatory mediators: why and how? *Drug metabolism and disposition: the biological fate of chemicals* **29**, 207-212.

**Nakano, T., Kodama, H. & Honjo, T. (1994).** Generation of lymphohematopoietic cells from embryonic stem cells in culture. *Science (New York, NY)* **265**, 1098-1101.

- Nascimento-Carvalho, C. M., Ribeiro, C. T., Cardoso, M. R. & other authors (2008).** The Role of Respiratory Viral Infections among Children Hospitalized for Community-Acquired Pneumonia in a Developing Country. *The Pediatric infectious disease journal*.
- Nau, G. J., Richmond, J. F., Schlesinger, A., Jennings, E. G., Lander, E. S. & Young, R. A. (2002).** Human macrophage activation programs induced by bacterial pathogens. *Proceedings of the National Academy of Sciences of the United States of America* **99**, 1503-1508.
- Nelson-Rees, W. A., Daniels, D. W. & Flandermeyer, R. R. (1981).** Cross-contamination of cells in culture. *Science (New York, NY)* **212**, 446-452.
- Neutra, M. R., Mantis, N. J. & Kraehenbuhl, J. P. (2001).** Collaboration of epithelial cells with organized mucosal lymphoid tissues. *Nature immunology* **2**, 1004-1009.
- Niebuhr, K., Jouihri, N., Allaoui, A., Gounon, P., Sansonetti, P. J. & Parsot, C. (2000).** IpgD, a protein secreted by the type III secretion machinery of *Shigella flexneri*, is chaperoned by IpgE and implicated in entry focus formation. *Molecular microbiology* **38**, 8-19.
- Niedergang, F., Sirard, J. C., Blanc, C. T. & Kraehenbuhl, J. P. (2000).** Entry and survival of *Salmonella typhimurium* in dendritic cells and presentation of recombinant antigens do not require macrophage-specific virulence factors. *Proceedings of the National Academy of Sciences of the United States of America* **97**, 14650-14655.
- Niedergang, F., Didierlaurent, A., Kraehenbuhl, J. P. & Sirard, J. C. (2004).** Dendritic cells: the host Achille's heel for mucosal pathogens? *Trends in microbiology* **12**, 79-88.
- Nishikawa, S. I., Nishikawa, S., Hirashima, M., Matsuyoshi, N. & Kodama, H. (1998).** Progressive lineage analysis by cell sorting and culture identifies FLK1+VE-cadherin+ cells at a diverging point of endothelial and hemopoietic lineages. *Development (Cambridge, England)* **125**, 1747-1757.
- Niyogi, S. K. (2005).** Shigellosis. *Journal of microbiology (Seoul, Korea)* **43**, 133-143.
- Nussenzweig, M. C., Steinman, R. M., Gutchinov, B. & Cohn, Z. A. (1980).** Dendritic cells are accessory cells for the development of anti-trinitrophenyl cytotoxic T lymphocytes. *The Journal of experimental medicine* **152**, 1070-1084.
- Odegaard, J. I., Vats, D., Zhang, L., Ricardo-Gonzalez, R., Smith, K. L., Sykes, D. B., Kamps, M. P. & Chawla, A. (2007).** Quantitative expansion of ES cell-derived myeloid progenitors capable of differentiating into macrophages. *Journal of leukocyte biology* **81**, 711-719.
- Ohl, M. E. & Miller, S. I. (2001).** Salmonella: a model for bacterial pathogenesis. *Annu Rev Med* **52**, 259-274.

- Ohnishi, K., Fan, F., Schoenhals, G. J., Kihara, M. & Macnab, R. M. (1997).** The FliO, FliP, FliQ, and FliR proteins of *Salmonella typhimurium*: putative components for flagellar assembly. *Journal of bacteriology* **179**, 6092-6099.
- Ohya, K., Handa, Y., Ogawa, M., Suzuki, M. & Sasakawa, C. (2005).** IpgB1 is a novel *Shigella* effector protein involved in bacterial invasion of host cells. Its activity to promote membrane ruffling via Rac1 and Cdc42 activation. *The Journal of biological chemistry* **280**, 24022-24034.
- Okoniewski, M. J. & Miller, C. J. (2008).** Comprehensive analysis of affymetrix exon arrays using BioConductor. *PLoS computational biology* **4**, e6.
- Oldach, D. W., Richard, R. E., Borza, E. N. & Benitez, R. M. (1998).** A mysterious death. *N Engl J Med* **338**, 1764-1769.
- Pal, C., Ganguly, D., Paul, K. & Pal, S. (2007).** Dendritic cells and antigen trapping technology--a revolution in vaccine/immunotherapy strategy. *Indian journal of experimental biology* **45**, 491-504.
- Park, S. J., Nakagawa, T., Kitamura, H. & other authors (2004).** IL-6 regulates in vivo dendritic cell differentiation through STAT3 activation. *J Immunol* **173**, 3844-3854.
- Parry, C. M. (2006).** Epidemiological and clinical aspects of human typhoid fever. In *Salmonella infections*. Edited by P. Mastroeni & D. Maskell: Cambridge University Press.
- Pascale Cossart, P. B., Staffan Normark,Rino Rappuoli (Second Edition 2005).** *Cellular Microbiology*.
- Pasquali, P. (2004).** HIV infections and zoonoses. *FAO Animal Production and Health* **163**.
- Patel, J. C. & Galan, J. E. (2006).** Differential activation and function of Rho GTPases during *Salmonella*-host cell interactions. *The Journal of cell biology* **175**, 453-463.
- Persson, J. & Vance, R. E. (2007).** Genetics-squared: combining host and pathogen genetics in the analysis of innate immunity and bacterial virulence. *Immunogenetics* **59**, 761-778.
- Petrovska, L., Aspinall, R. J., Barber, L. & other authors (2004).** *Salmonella enterica* serovar Typhimurium interaction with dendritic cells: impact of the sifA gene. *Cellular microbiology* **6**, 1071-1084.
- Pfaffl, M. W., Horgan, G. W. & Dempfle, L. (2002).** Relative expression software tool (REST) for group-wise comparison and statistical analysis of relative expression results in real-time PCR. *Nucleic acids research* **30**, e36.
- Plotkin, S. A. (2005).** Vaccines: past, present and future. *Nat Med* **11**, S5-11.

- Poltorak, A., He, X., Smirnova, I. & other authors (1998).** Defective LPS signaling in C3H/HeJ and C57BL/10ScCr mice: mutations in Tlr4 gene. *Science (New York, NY)* **282**, 2085-2088.
- Ponka, P. (1999).** Cell biology of heme. *The American journal of the medical sciences* **318**, 241-256.
- Purdy, G. E., Hong, M. & Payne, S. M. (2002).** Shigella flexneri DegP facilitates IcsA surface expression and is required for efficient intercellular spread. *Infection and immunity* **70**, 6355-6364.
- Rajeevan, M. S., Ranamukhaarachchi, D. G., Vernon, S. D. & Unger, E. R. (2001).** Use of real-time quantitative PCR to validate the results of cDNA array and differential display PCR technologies. *Methods (San Diego, Calif)* **25**, 443-451.
- Ramalho-Santos, M., Yoon, S., Matsuzaki, Y., Mulligan, R. C. & Melton, D. A. (2002).** "Stemness": transcriptional profiling of embryonic and adult stem cells. *Science* **298**, 597-600.
- Ramirez-Solis, R., Liu, P. & Bradley, A. (1995).** Chromosome engineering in mice. *Nature* **378**, 720-724.
- Ramsden, A. E., Holden, D. W. & Mota, L. J. (2007).** Membrane dynamics and spatial distribution of Salmonella-containing vacuoles. *Trends in microbiology* **15**, 516-524.
- Rescigno, M., Urbano, M., Valzasina, B., Francolini, M., Rotta, G., Bonasio, R., Granucci, F., Krahenbuhl, J. P. & Ricciardi-Castagnoli, P. (2001).** Dendritic cells express tight junction proteins and penetrate gut epithelial monolayers to sample bacteria. *Nature immunology* **2**, 361-367.
- Rimoldi, M., Chieppa, M., Vulcano, M., Allavena, P. & Rescigno, M. (2004).** Intestinal epithelial cells control dendritic cell function. *Annals of the New York Academy of Sciences* **1029**, 66-74.
- Rosenberger, C. M., Scott, M. G., Gold, M. R., Hancock, R. E. & Finlay, B. B. (2000).** Salmonella typhimurium infection and lipopolysaccharide stimulation induce similar changes in macrophage gene expression. *J Immunol* **164**, 5894-5904.
- Rosenberger, C. M., Pollard, A. J. & Finlay, B. B. (2001).** Gene array technology to determine host responses to Salmonella. *Microbes and infection / Institut Pasteur* **3**, 1353-1360.
- Sansonetti, P. (2002).** Host-pathogen interactions: the seduction of molecular cross talk. *Gut* **50 Suppl 3**, III2-8.
- Sansonetti, P. J., Ryter, A., Clerc, P., Maurelli, A. T. & Mounier, J. (1986).** Multiplication of Shigella flexneri within HeLa cells: lysis of the phagocytic vacuole and plasmid-mediated contact hemolysis. *Infection and immunity* **51**, 461-469.

- Sansonetti, P. J., Mounier, J., Prevost, M. C. & Mege, R. M. (1994).** Cadherin expression is required for the spread of *Shigella flexneri* between epithelial cells. *Cell* **76**, 829-839.
- Sansonetti, P. J. (2004).** War and peace at mucosal surfaces. *Nat Rev Immunol* **4**, 953-964.
- Sansonetti, P. J. (2006).** Shigellosis: an old disease in new clothes? *PLoS medicine* **3**, e354.
- Santana, A., Ensenat-Waser, R., Arribas, M. I., Reig, J. A. & Roche, E. (2006).** Insulin-producing cells derived from stem cells: recent progress and future directions. *Journal of cellular and molecular medicine* **10**, 866-883.
- Schmitt, T. M., de Pooter, R. F., Gronski, M. A., Cho, S. K., Ohashi, P. S. & Zuniga-Pflucker, J. C. (2004).** Induction of T cell development and establishment of T cell competence from embryonic stem cells differentiated in vitro. *Nature immunology* **5**, 410-417.
- Schroeder, A., Mueller, O., Stocker, S. & other authors (2006).** The RIN: an RNA integrity number for assigning integrity values to RNA measurements. *BMC molecular biology* **7**, 3.
- Schuch, R., Sandlin, R. C. & Maurelli, A. T. (1999).** A system for identifying post-invasion functions of invasion genes: requirements for the Mxi-Spa type III secretion pathway of *Shigella flexneri* in intercellular dissemination. *Molecular microbiology* **34**, 675-689.
- Schulz, O., Edwards, A. D., Schito, M., Aliberti, J., Manickasingham, S., Sher, A. & Reis e Sousa, C. (2000).** CD40 triggering of heterodimeric IL-12 p70 production by dendritic cells in vivo requires a microbial priming signal. *Immunity* **13**, 453-462.
- Senju, S., Hirata, S., Matsuyoshi, H., Masuda, M., Uemura, Y., Araki, K., Yamamura, K. & Nishimura, Y. (2003).** Generation and genetic modification of dendritic cells derived from mouse embryonic stem cells. *Blood* **101**, 3501-3508.
- Shen, L., Sigal, L. J., Boes, M. & Rock, K. L. (2004).** Important role of cathepsin S in generating peptides for TAP-independent MHC class I crosspresentation in vivo. *Immunity* **21**, 155-165.
- Shin, J. W., Jin, P., Fan, Y. & other authors (2008).** Evaluation of gene expression profiles of immature dendritic cells prepared from peripheral blood mononuclear cells. *Transfusion* **48**, 647-657.
- Shotland, Y., Kramer, H. & Groisman, E. A. (2003).** The *Salmonella* SpiC protein targets the mammalian Hook3 protein function to alter cellular trafficking. *Molecular microbiology* **49**, 1565-1576.
- Siegemund, S., Schutze, N., Freudenberg, M. A., Lutz, M. B., Straubinger, R. K. & Alber, G. (2007).** Production of IL-12, IL-23 and IL-27p28 by bone marrow-derived

conventional dendritic cells rather than macrophages after LPS/TLR4-dependent induction by *Salmonella Enteritidis*. *Immunobiology* **212**, 739-750.

**Singer, C. (1989).** A history of biology to about the year 1900. Iowa State University Press.

**Skoudy, A., Mounier, J., Aruffo, A., Ohayon, H., Gounon, P., Sansonetti, P. & Tran Van Nhieu, G. (2000).** CD44 binds to the *Shigella* IpaB protein and participates in bacterial invasion of epithelial cells. *Cellular microbiology* **2**, 19-33.

**Smilde, A. K., Jansen, J. J., Hoefsloot, H. C., Lamers, R. J., van der Greef, J. & Timmerman, M. E. (2005).** ANOVA-simultaneous component analysis (ASCA): a new tool for analyzing designed metabolomics data. *Bioinformatics (Oxford, England)* **21**, 3043-3048.

**Smith, A. C., Heo, W. D., Braun, V. & other authors (2007).** A network of Rab GTPases controls phagosome maturation and is modulated by *Salmonella enterica* serovar Typhimurium. *The Journal of cell biology* **176**, 263-268.

**Smith, A. G., Heath, J. K., Donaldson, D. D., Wong, G. G., Moreau, J., Stahl, M. & Rogers, D. (1988).** Inhibition of pluripotential embryonic stem cell differentiation by purified polypeptides. *Nature* **336**, 688-690.

**Smith, A. G. (2001).** Embryo-derived stem cells: of mice and men. *Annu Rev Cell Dev Biol* **17**, 435-462.

**Soilleux, E. J. (2003).** DC-SIGN (dendritic cell-specific ICAM-grabbing non-integrin) and DC-SIGN-related (DC-SIGNR): friend or foe? *Clin Sci (Lond)* **104**, 437-446.

**Sokol, C. L., Barton, G. M., Farr, A. G. & Medzhitov, R. (2008).** A mechanism for the initiation of allergen-induced T helper type 2 responses. *Nature immunology* **9**, 310-318.

**Solter, D. & Knowles, B. B. (1978).** Monoclonal antibody defining a stage-specific mouse embryonic antigen (SSEA-1). *Proceedings of the National Academy of Sciences of the United States of America* **75**, 5565-5569.

**Sparwasser, T. & Eberl, G. (2007).** BAC to immunology--bacterial artificial chromosome-mediated transgenesis for targeting of immune cells. *Immunology* **121**, 308-313.

**Stanford, W. L., Cohn, J. B. & Cordes, S. P. (2001).** Gene-trap mutagenesis: past, present and beyond. *Nature reviews* **2**, 756-768.

**Steinman, R. M. & Cohn, Z. A. (1973).** Identification of a novel cell type in peripheral lymphoid organs of mice. I. Morphology, quantitation, tissue distribution. *The Journal of experimental medicine* **137**, 1142-1162.

- Steinman, R. M. & Cohn, Z. A. (1974).** Identification of a novel cell type in peripheral lymphoid organs of mice. II. Functional properties in vitro. *The Journal of experimental medicine* **139**, 380-397.
- Steinman, R. M., Lustig, D. S. & Cohn, Z. A. (1974).** Identification of a novel cell type in peripheral lymphoid organs of mice. 3. Functional properties in vivo. *The Journal of experimental medicine* **139**, 1431-1445.
- Steinman, R. M. & Witmer, M. D. (1978).** Lymphoid dendritic cells are potent stimulators of the primary mixed leukocyte reaction in mice. *Proceedings of the National Academy of Sciences of the United States of America* **75**, 5132-5136.
- Stevens, L. C. (1984).** Spontaneous and experimentally induced testicular teratomas in mice. *Cell differentiation* **15**, 69-74.
- Stober, D., Schirmbeck, R. & Reimann, J. (2001).** IL-12/IL-18-dependent IFN-gamma release by murine dendritic cells. *J Immunol* **167**, 957-965.
- Sukhan, A. (2000).** The invasion-associated type III secretion system of *Salmonella typhimurium*: common and unique features. *Cell Mol Life Sci* **57**, 1033-1049.
- Sundquist, M. & Wick, M. J. (2005).** TNF-alpha-dependent and -independent maturation of dendritic cells and recruited CD11c(int)CD11b+ Cells during oral *Salmonella* infection. *J Immunol* **175**, 3287-3298.
- Suzuki, T., Saga, S. & Sasakawa, C. (1996).** Functional analysis of *Shigella* VirG domains essential for interaction with vinculin and actin-based motility. *The Journal of biological chemistry* **271**, 21878-21885.
- Svensson, M., Johansson, C. & Wick, M. J. (2000).** *Salmonella enterica* Serovar Typhimurium-Induced Maturation of Bone Marrow-Derived Dendritic Cells. *Infect Immun* **68**, 6311-6320.
- Swenson, G. R., Patino, M. M., Beck, M. M., Gaffield, L. & Walden, W. E. (1991).** Characteristics of the interaction of the ferritin repressor protein with the iron-responsive element. *Biology of metals* **4**, 48-55.
- Syvanen, A. C. (2005).** Toward genome-wide SNP genotyping. *Nature genetics* **37 Suppl**, S5-10.
- Tailleux, L., Waddell, S. J., Pelizzola, M. & other authors (2008).** Probing host pathogen cross-talk by transcriptional profiling of both *Mycobacterium tuberculosis* and infected human dendritic cells and macrophages. *PLoS ONE* **3**, e1403.
- Takeuchi, O. & Akira, S. (2007).** Toll-like receptor signaling. In *Dendritic cell interactions with bacteria*, pp. 25-50. Edited by M. Rescigno: Cambridge University Press.
- Tangri, S., Brossay, L., Burdin, N., Lee, D. J., Corr, M. & Kronenberg, M. (1998).** Presentation of peptide antigens by mouse CD1 requires endosomal localization and

protein antigen processing. *Proceedings of the National Academy of Sciences of the United States of America* **95**, 14314-14319.

**Tarkowski, A. K. (1961).** Mouse chimaeras developed from fused eggs. *Nature* **190**, 857-860.

**Tartour, E. & Kadereit, S. (2006).** Immunogenicity of embryonic stem cells and future directions to improve transplantation tolerance. *Atelier de formation Inserm 171; 16-17 November 2006 Cellules souches: du concept à la clinique.*

**Terme, M., Tomasello, E., Maruyama, K. & other authors (2004).** IL-4 confers NK stimulatory capacity to murine dendritic cells: a signaling pathway involving KARAP/DAP12-triggering receptor expressed on myeloid cell 2 molecules. *J Immunol* **172**, 5957-5966.

**The Nobel Prize Assembly (Press Release 2007-10-08).** The Nobel Prize in Physiology or Medicine 2007 In *Principles for introducing specific gene modifications in mice by the use of embryonic stem cells.*

**Thomson, H. (2007).** Bioprocessing of embryonic stem cells for drug discovery. *Trends in biotechnology* **25**, 224-230.

**Torihashi, S. (2006).** Formation of gut-like structures in vitro from mouse embryonic stem cells. *Methods in molecular biology (Clifton, NJ)* **330**, 279-285.

**Tortorella, D., Gewurz, B. E., Furman, M. H., Schust, D. J. & Ploegh, H. L. (2000).** Viral subversion of the immune system. *Annual review of immunology* **18**, 861-926.

**Tran Van Nhieu, G., Caron, E., Hall, A. & Sansonetti, P. J. (1999).** IpaC induces actin polymerization and filopodia formation during Shigella entry into epithelial cells. *The EMBO journal* **18**, 3249-3262.

**Trinchieri, G. & Sher, A. (2007).** Cooperation of Toll-like receptor signals in innate immune defence. *Nat Rev Immunol* **7**, 179-190.

**Tsai, B., Ye, Y. & Rapoport, T. A. (2002).** Retro-translocation of proteins from the endoplasmic reticulum into the cytosol. *Nat Rev Mol Cell Biol* **3**, 246-255.

**Uchiya, K., Barbieri, M. A., Funato, K., Shah, A. H., Stahl, P. D. & Groisman, E. A. (1999).** A Salmonella virulence protein that inhibits cellular trafficking. *The EMBO journal* **18**, 3924-3933.

**Uchiya, K. & Nikai, T. (2005).** Salmonella pathogenicity island 2-dependent expression of suppressor of cytokine signaling 3 in macrophages. *Infection and immunity* **73**, 5587-5594.

**UNICEF (2003).** Malaria technical note #6.

**UNICEF (2005).** Joint press release: Global goal to reduce measles in children surpassed.

- Uthe, J. J., Royaee, A., Lunney, J. K., Stabel, T. J., Zhao, S. H., Tuggle, C. K. & Bearson, S. M. (2007).** Porcine differential gene expression in response to *Salmonella enterica* serovars Choleraesuis and Typhimurium. *Molecular immunology* **44**, 2900-2914.
- Vallon-Eberhard, A., Landsman, L., Yoge, N., Verrier, B. & Jung, S. (2006).** Transepithelial pathogen uptake into the small intestinal lamina propria. *J Immunol* **176**, 2465-2469.
- van Helden, S. F., van Leeuwen, F. N. & Figdor, C. G. (2008).** Human and murine model cell lines for dendritic cell biology evaluated. *Immunology letters* **117**, 191-197.
- van Steensel, B. (2005).** Mapping of genetic and epigenetic regulatory networks using microarrays. *Nature genetics* **37 Suppl**, S18-24.
- Villadangos, J. A. & Schnorrer, P. (2007).** Intrinsic and cooperative antigen-presenting functions of dendritic-cell subsets in vivo. *Nat Rev Immunol* **7**, 543-555.
- Vivekanandhana, A. & Klinmana, D. M. (2007).** Contribution of MAPAK and NF- $\kappa$ B signaling to TLR mediated MCP-1 secretion. *Cytokine* **39**.
- Wagener, F. A., Volk, H. D., Willis, D., Abraham, N. G., Soares, M. P., Adema, G. J. & Figdor, C. G. (2003).** Different faces of the heme-heme oxygenase system in inflammation. *Pharmacological reviews* **55**, 551-571.
- Walker, L., Levine, H. & Jucker, M. (2006).** Koch's postulates and infectious proteins. *Acta neuropathologica* **112**, 1-4.
- Weinrauch, Y., Drujan, D., Shapiro, S. D., Weiss, J. & Zychlinsky, A. (2002).** Neutrophil elastase targets virulence factors of enterobacteria. *Nature* **417**, 91-94.
- Werbrouck, S., Van Huylenbroeck, J., Finnie, J., Jäger, A., Van Staden, J. & Debergh, P. (1998).** Tissue culture and biotechnology. Ghent: <http://users.ugent.be/~pdebergh/ind/content.htm>.
- Wheeler, D. B., Carpenter, A. E. & Sabatini, D. M. (2005).** Cell microarrays and RNA interference chip away at gene function. *Nature genetics* **37 Suppl**, S25-30.
- WHO (2002).** Foodborne diseases, emerging Fact Sheet N°124.
- WHO (Fact Sheet N 139 Revised April 2005).** Drug-resistant *Salmonella*.
- Wick, M. J. (2002).** The role of dendritic cells during *Salmonella* infection. *Current opinion in immunology* **14**, 437-443.
- Wiles, M. V. & Keller, G. (1991).** Multiple hematopoietic lineages develop from embryonic stem (ES) cells in culture. *Development (Cambridge, England)* **111**, 259-267.

- Wiles, S., Hanage, W. P., Frankel, G. & Robertson, B. (2006).** Modelling infectious disease - time to think outside the box? *Nat Rev Microbiol* **4**, 307-312.
- Williams, R. L., Hilton, D. J., Pease, S. & other authors (1988).** Myeloid leukaemia inhibitory factor maintains the developmental potential of embryonic stem cells. *Nature* **336**, 684-687.
- Wu, Z., Irizarry, A. R., Gentleman, R., Murillo, F. M. & Spencer, F. (2004).** A model based background adjustment for oligonucleotide expression arrays. *John Hopkins University, Dept of Biostatistics Working Papers Working Paper 1* The Berkeley Electronic Press.
- Yam, K. K., Pouliot, P., N'Diaye M, M., Fournier, S., Olivier, M. & Cousineau, B. (2008).** Innate inflammatory responses to the Gram-positive bacterium *Lactococcus lactis*. *Vaccine* **26**, 2689-2699.
- Yamazaki, S., Muta, T. & Takeshige, K. (2001).** A novel IkappaB protein, IkappaB-zeta, induced by proinflammatory stimuli, negatively regulates nuclear factor-kappaB in the nuclei. *The Journal of biological chemistry* **276**, 27657-27662.
- Yang, Y. & Wilson, J. M. (1996).** CD40 ligand-dependent T cell activation: requirement of B7-CD28 signaling through CD40. *Science (New York, NY)* **273**, 1862-1864.
- Yasukawa, H., Sasaki, A. & Yoshimura, A. (2000).** Negative regulation of cytokine signaling pathways. *Annual review of immunology* **18**, 143-164.
- Yoshida, H., Hayashi, S., Kunisada, T., Ogawa, M., Nishikawa, S., Okamura, H., Sudo, T., Shultz, L. D. & Nishikawa, S. (1990).** The murine mutation osteopetrosis is in the coding region of the macrophage colony stimulating factor gene. *Nature* **345**, 442-444.
- Yrlid, U. & Wick, M. J. (2002).** Antigen Presentation Capacity and Cytokine Production by Murine Splenic Dendritic Cell Subsets upon *Salmonella* Encounter. *J Immunol* **169**, 108-116.
- Yu, J. (1998).** Inactivation of DsbA, but not DsbC and DsbD, affects the intracellular survival and virulence of *Shigella flexneri*. *Infection and immunity* **66**, 3909-3917.
- Yu, J., Edwards-Jones, B., Neyrolles, O. & Kroll, J. S. (2000).** Key role for DsbA in cell-to-cell spread of *Shigella flexneri*, permitting secretion of Ipa proteins into interepithelial protrusions. *Infection and immunity* **68**, 6449-6456.
- Yu, X. J., Liu, M. & Holden, D. W. (2004).** SsaM and SpiC interact and regulate secretion of *Salmonella* pathogenicity island 2 type III secretion system effectors and translocators. *Molecular microbiology* **54**, 604-619.
- Zhang, L. & Guarente, L. (1995).** Heme binds to a short sequence that serves a regulatory function in diverse proteins. *The EMBO journal* **14**, 313-320.

**Zhang, Y., Higashide, W., Dai, S., Sherman, D. M. & Zhou, D. (2005).** Recognition and ubiquitination of *Salmonella* type III effector SopA by a ubiquitin E3 ligase, HsRMA1. *The Journal of biological chemistry* **280**, 38682-38688.

**Zhou, D., Hardt, W. D. & Galan, J. E. (1999).** *Salmonella typhimurium* encodes a putative iron transport system within the centisome 63 pathogenicity island. *Infection and immunity* **67**, 1974-1981.