

Wissenschaftliche Veröffentlichungen

Wissenschaftliche Aufsätze

Bognar, M. K., M. Vincendeau, T. Erdmann, T. Seeholzer, M. Grau, J. R. Linnemann, **J. Ruland**, C. H. Scheel, P. Lenz, G. Ott, G. Lenz, S. M. Hauck and D. Krappmann (2016). Oncogenic CARMA1 couples NF-kappaB and beta-catenin signaling in diffuse large B-cell lymphomas. *Oncogene*.

Iversen, M. B., L. S. Reinert, M. K. Thomsen, I. Bagdonaitė, R. Nandakumar, N. Cheshenko, T. Prabakaran, S. Y. Vakhrushev, M. Krzyzowska, S. K. Kratholm, F. Ruiz-Perez, S. V. Petersen, S. Goriely, B. M. Bibby, K. Eriksson, **J. Ruland**, A. R. Thomsen, B. C. Herold, H. H. Wandall, S. Frische, C. K. Holm and S. R. Paludan (2016). An innate antiviral pathway acting before interferons at epithelial surfaces. *Nat Immunol* 17(2): 150-158.

Jilg, S., V. Reidel, C. Muller-Thomas, J. Konig, J. Schauwecker, U. Hockendorf, C. Huberle, O. Gorka, B. Schmidt, R. Burgkart, **J. Ruland**, H. J. Kolb, C. Peschel, R. A. Oostendorp, K. S. Gotze and P. J. Jost (2016). Blockade of BCL-2 proteins efficiently induces apoptosis in progenitor cells of high-risk myelodysplastic syndromes patients. *Leukemia* 30(1): 112-123.

Knies, N., B. Alankus, A. Weilemann, A. Tzankov, K. Brunner, T. Ruff, M. Kremer, U. B. Keller, G. Lenz and **J. Ruland** (2015). Lymphomagenic CARD11/BCL10/MALT1 signaling drives malignant B-cell proliferation via cooperative NF-kappaB and JNK activation. *Proc Natl Acad Sci U S A*.

Patterson, H. C., C. Gerbeth, P. Thiru, N. F. Vogtle, M. Knoll, A. Shahsafaei, K. E. Samocha, C. X. Huang, M. M. Harden, R. Song, C. Chen, J. Kao, J. Shi, W. Salmon, Y. D. Shaul, M. P. Stokes, J. C. Silva, G. W. Bell, D. G. MacArthur, **J. Ruland**, C. Meisinger and H. F. Lodish (2015). A respiratory chain controlled signal transduction cascade in the mitochondrial intermembrane space mediates hydrogen peroxide signaling. *Proc Natl Acad Sci U S A* 112(42): E5679-5688.

Leo, V. I., Tan, S. H., Bergmann, H., Cheah, P. Y., Chew, M. H., Lim, K. H., **Ruland, J.** and Reilly, P. T. (2015). CARD9 Promotes Sex-Biased Colon Tumors in the APCmin Mouse Model. *Cancer Immunol Res*

Rieber, N., Singh, A., Oz, H., Carevic, M., Bouzani, M., Amich, J., Ost, M., Ye, Z., Ballbach, M., Schafer, I., Mezger, M., Klimosch, S. N., Weber, A. N., Handgretinger, R., Krappmann, S., Liese, J., Engeholm, M., Schule, R., Salih, H. R., Marodi, L., Speckmann, C., Grimbacher, B., **Ruland, J.**, Brown, G. D., Beilhack, A., et al. (2015). Pathogenic fungi regulate immunity by inducing neutrophilic myeloid-derived suppressor cells. *Cell Host Microbe* 17, 507-514.

Nemeth, T., Futosi, K., Csorba, K., Sitaru, C., **Ruland, J.** and Mocsai, A. (2015). CARD9 mediates autoantibody-induced autoimmune diseases by linking the syk tyrosine kinase to chemokine production. *European Journal of Clinical Investigation* 45, 54-54.

Bach, M. P., Hug, E., Werner, M., Holch, J., Sprissler, C., Pechlöff, K., Zirlik, K., Zeiser, R., Dierks, C., **Ruland, J.** and Jumaa, H. (2014). Premature Terminal Differentiation Protects from Deregulated Lymphocyte Activation by ITK-Syk. *J Immunol* 192, 1024-1033.

Dechow, T., Steidle, S., Gotze, K. S., Rudelius, M., Behnke, K., Pechlöff, K., Kratzat, S., Bullinger, L., Fend, F., Soberon, V., Mitova, N., Li, Z., Thaler, M., Bauer, J., Pietschmann, E., Albers, C., Grundler, R., Schmidt-Suprian, M., **Ruland, J.**, Peschel, C., Duyster, J., Rose-John, S., Bassermann, F. and Keller, U. (2014). GP130 activation induces myeloma and collaborates with MYC. *J Clin Invest* 124, 5263-5274.

Gewies, A., Gorka, O., Bergmann, H., Pechlöff, K., Petermann, F., Jeltsch, K. M., Rudelius, M., Kriegsmann, M., Weichert, W., Horsch, M., Beckers, J., Wurst, W., Heikenwalder, M., Korn, T.,

Heissmeyer, V. and **Ruland, J.** (2014). Uncoupling malt1 threshold function from paracaspase activity results in destructive autoimmune inflammation. *Cell Rep* 9, 1292-1305.

Goktuna, S. I., Canli, O., Bollrath, J., Fingerle, A. A., Horst, D., Diamanti, M. A., Pallangyo, C., Bennecke, M., Nebelsiek, T., Mankan, A. K., Lang, R., Artis, D., Hu, Y., Patzelt, T., **Ruland, J.**, Kirchner, T., Taketo, M. M., Chariot, A., Arkan, M. C. and Greten, F. R. (2014). IKKalpha Promotes Intestinal Tumorigenesis by Limiting Recruitment of M1-like Polarized Myeloid Cells. *Cell Rep* 7, 1914-1925.

Gorka, O., Wanninger, S. and **Ruland, J.** (2014). Detection of NF-kappaB pathway activation in T helper cells. *Methods Mol Biol* 1193, 69-83.

Hoyer, C., Frankenberger, S., Strobl, L. J., Feicht, S., Djermanovic, K., Jagdhuber, F., Homig-Holzel, C., Ferch, U., **Ruland, J.**, Rajewsky, K. and Zimber-Strobl, U. (2014). B cell expansion and lymphomagenesis induced by chronic CD40 signaling is strictly dependent on CD19. *Cancer Res*

Jeltsch, K. M., Hu, D., Brenner, S., Zoller, J., Heinz, G. A., Nagel, D., Vogel, K. U., Rehage, N., Warth, S. C., Edelmann, S. L., Gloury, R., Martin, N., Lohs, C., Lech, M., Stehklein, J. E., Geerlof, A., Kremmer, E., Weber, A., Anders, H. J., Schmitz, I., Schmidt-Suprian, M., Fu, M., Holtmann, H., Krappmann, D., **Ruland, J.**, et al. (2014). Cleavage of roquin and regnase-1 by the paracaspase MALT1 releases their cooperatively repressed targets to promote T(H)17 differentiation. *Nat Immunol* 15, 1079-1089.

Marko, L., Henke, N., Park, J. K., Spallek, B., Qadri, F., Balogh, A., Apel, I. J., Oravecz-Wilson, K. I., Choi, M., Przybyl, L., Binger, K. J., Haase, N., Wilck, N., Heuser, A., Fokuhl, V., **Ruland, J.**, Lucas, P. C., McAllister-Lucas, L. M., Luft, F. C., Dechend, R. and Muller, D. N. (2014). Bcl10 mediates angiotensin II-induced cardiac damage and electrical remodeling. *Hypertension* 64, 1032-1039.

Neumann, K., Castineiras-Vilarino, M., Hockendorf, U., Hanneschlagner, N., Lemeer, S., Kupka, D., Meyermann, S., Lech, M., Anders, H. J., Kuster, B., Busch, D. H., Gewies, A., Naumann, R., Gross, O. and **Ruland, J.** (2014). Clec12a Is an Inhibitory Receptor for Uric Acid Crystals that Regulates Inflammation in Response to Cell Death. *Immunity* 40, 389-399.

Roth, S., Rottach, A., Lotz-Havla, A. S., Laux, V., Muschawechk, A., Gersting, S. W., Muntau, A. C., Hopfner, K. P., Jin, L., Vanness, K., Petrini, J. H., Drexler, I., Leonhardt, H. and **Ruland, J.** (2014). Rad50-CARD9 interactions link cytosolic DNA sensing to IL-1beta production. *Nat Immunol* 15, 538-545.

Ruland, J. (2014). Inflammasome: putting the pieces together. *Cell* 156, 1127-1129.

Semper, R. P., Mejias-Luque, R., Gross, C., Anderl, F., Muller, A., Vieth, M., Busch, D. H., Prazeres da Costa, C., **Ruland, J.**, Gross, O. and Gerhard, M. (2014). Helicobacter pylori-induced IL-1beta secretion in innate immune cells is regulated by the NLRP3 inflammasome and requires the cag pathogenicity island. *J Immunol* 193, 3566-3576.

Turvey, S. E., Durandy, A., Fischer, A., Fung, S. Y., Geha, R. S., Gewies, A., Giese, T., Greil, J., Keller, B., McKinnon, M. L., Neven, B., Rozmus, J., **Ruland, J.**, Snow, A. L., Stepensky, P. and Warnatz, K. (2014). The CARD11-BCL10-MALT1 (CBM) signalosome complex: Stepping into the limelight of human primary immunodeficiency. *J Allergy Clin Immunol* 134, 276-284.

Yabal, M., Muller, N., Adler, H., Knies, N., Gross, C. J., Damgaard, R. B., Kanegane, H., Ringelhan, M., Kaufmann, T., Heikenwalder, M., Strasser, A., Gross, O., **Ruland, J.**, Peschel, C., Gyrd-Hansen, M. and Jost, P. J. (2014). XIAP Restricts TNF- and RIP3-Dependent Cell Death and Inflammasome Activation. *Cell Rep* 7, 1796-1808.

Goktuna, S. I., Canli, O., Bollrath, J., Fingerle, A. A., Horst, D., Diamanti, M. A., Pallangyo, C., Bennecke, M., Nebelsiek, T., Mankan, A. K., Lang, R., Artis, D., Hu, Y., Patzelt, T., **Ruland, J.**,

Kirchner, T., Taketo, M. M., Chariot, A., Arkan, M. C. and Greten, F. R. (2014). IKK alpha promotes intestinal tumorigenesis by limiting recruitment of M1-like polarized myeloid cells. *Febs Journal* 281, 130-131.

Jost, P. J., Yabal, M., Adler, H., Knies, N., Gross, C., Damgaard, R. B., Kanegane, H., Peschel, C., Strasser, A., Gross, O., **Ruland, J.** and Gyrd-Hansen, M. (2014). A Mouse Model for XLP-2 Disease Uncovers a Critical Function for IL-1beta and TNF in Driving Hyper-Inflammation. *Blood* 124,

Nemeth, T., Futosi, K., Csorba, K., Sitaru, C., **Ruland, J.** and Mocsai, A. (2014). CARD9 mediates autoantibody-induced autoimmune diseases by linking the Syk tyrosine kinase to chemokine production. *European Journal of Clinical Investigation* 44, 68-68.

Nemeth, T., Futosi, K., Weisinger, J., Csorba, K., Sitaru, C., **Ruland, J.** and Mocsai, A. (2014). CARD9 mediates autoantibody-induced autoimmune diseases by linking the syk tyrosine kinase to chemokine production. *Acta Physiologica* 211, 126-126.

Nemeth, T., Futosi, K., Weisinger, J., Csorba, K., Sitaru, C., **Ruland, J.** and Mocsai, A. (2014). CARD9 MEDIATES AUTOANTIBODY-INDUCED AUTOIMMUNE DISEASES BY LINKING THE SYK TYROSINE KINASE TO CHEMOKINE PRODUCTION. *Ann Rheum Dis* 73, A86-A86.

Neumann, K. and **Ruland, J.** (2014). Immune sensing by activating and inhibitory C-type lectin receptors. *Laboratoriumsmedizin-Journal of Laboratory Medicine* 38, 291-297.

Rieber, N., Singh, A., Carevic, M., Oez, H. H., Bouzani, M., Speckmann, C., Grimbacher, B., **Ruland, J.**, Brown, G. D., Beilhack, A., Loeffler, J. and Hartl, D. (2014). Fungi undermine host defence by inducing CXCR4+granulocytic myeloid derived suppressor cells. *Mycoses* 57, 38-39.

Steidle, S., Dechow, T., Goetze, K., Rudelius, M., Kratzat, S., Behnke, K., Pechloff, K., Bullinger, L., Fend, F., Mitova, N., Li, Z., Thaler, M., Bauer, J., Pietschmann, E., Albers, C., Grundler, R., **Ruland, J.**, Peschel, C., Duyster, J., Rose-John, S., Bassermann, F. and Keller, U. (2014). Constitutive gp130-JAK-STAT3 signaling induces a plasma cell malignancy featuring all characteristics of human myeloma - a novel *in vivo* myeloma model for a patient subgroup with STAT3 activation. *Oncology Research and Treatment* 37, 192-192.

Steidle, S., Dechow, T., Goetze, K., Rudelius, M., Pechloff, K., Behnke, K., Bullinger, L., Fend, F., Valeria, S., Schmidt-Suprian, M., Bassermann, F., **Ruland, J.**, Peschel, C. and Keller, U. (2014). Constitutive gp130-JAK-STAT3 Signaling Induces a Plasma Cell Disorder Representing Genetic and Clinical Features of Human Myeloma - a Novel *In Vivo* Model for the Patient Subgroup Characterized By a STAT3 Target Gene Signature. *Blood* 124,

del Fresno, C., Soulat, D., Roth, S., Blazek, K., Udalova, I., Sancho, D., **Ruland, J.** and Ardavin, C. (2013). Interferon-beta production via Dectin-1-Syk-IRF5 signaling in dendritic cells is crucial for immunity to *C. albicans*. *Immunity* 38, 1176-1186.

Gewies, A., Castineiras-Vilarino, M., Ferch, U., Jahrling, N., Heinrich, K., Hoeckendorf, U., Przemeck, G. K., Mundig, M., Gross, O., Schroeder, T., Horsch, M., Karan, E. L., Majid, A., Antonowicz, S., Beckers, J., Hrabe de Angelis, M., Dodt, H. U., Peschel, C., Forster, I., Dyer, M. J. and **Ruland, J.** (2013). Prdm6 is essential for cardiovascular development *in vivo*. *PLoS One* 8, e81833.

Greil, J., Rausch, T., Giese, T., Bandapalli, O. R., Daniel, V., Bekeredjian-Ding, I., Stutz, A. M., Drees, C., Roth, S., **Ruland, J.**, Korbel, J. O. and Kulozik, A. E. (2013). Whole-exome sequencing links caspase recruitment domain 11 (CARD11) inactivation to severe combined immunodeficiency. *J Allergy Clin Immunol* 131, 1376-1383 e1373.

Jabara, H. H., Ohsumi, T., Chou, J., Massaad, M. J., Benson, H., Megarbane, A., Chouery, E., Mikhael, R., Gorka, O., Gewies, A., Portales, P., Nakayama, T., Hosokawa, H., Revy, P.,

Herrod, H., Le Deist, F., Lefranc, G., **Ruland, J.** and Geha, R. S. (2013). A homozygous mucosa-associated lymphoid tissue 1 (MALT1) mutation in a family with combined immunodeficiency. *J Allergy Clin Immunol* 132, 151-158.

Jankovic, D., Ganesan, J., Bscheider, M., Stickel, N., Weber, F. C., Guarda, G., Follo, M., Pfeifer, D., Tardivel, A., Ludigs, K., Bouazzaoui, A., Kerl, K., Fischer, J. C., Haas, T., Schmitt-Graff, A., Manoharan, A., Muller, L., Finke, J., Martin, S. F., Gorka, O., Peschel, C., **Ruland, J.**, Idzko, M., Duyster, J., Holler, E., et al. (2013). The Nlrp3 inflammasome regulates acute graft-versus-host disease. *J Exp Med* 210, 1899-1910.

Lutzny, G., Kocher, T., Schmidt-Suprian, M., Rudelius, M., Klein-Hitpass, L., Finch, A. J., Durig, J., Wagner, M., Haferlach, C., Kohlmann, A., Schnittger, S., Seifert, M., Wanninger, S., Zaborsky, N., Oostendorp, R., **Ruland, J.**, Leitges, M., Kuhnt, T., Schafer, Y., Lampl, B., Peschel, C., Egle, A. and Ringshausen, I. (2013). Protein kinase c-beta-dependent activation of NF-kappaB in stromal cells is indispensable for the survival of chronic lymphocytic leukemia B cells in vivo. *Cancer Cell* 23, 77-92.

Neumann, K. and **Ruland, J.** (2013). Kinases conquer the inflammasomes. *Nat Immunol* 14, 1207-1208.

Roth, S. and **Ruland, J.** (2013). Caspase recruitment domain-containing protein 9 signaling in innate immunity and inflammation. *Trends Immunol* 34, 243-250.

Schlauderer, F., Lammens, K., Nagel, D., Vincendeau, M., Eitelhuber, A. C., Verhelst, S. H., Kling, D., Chrusciel, A., **Ruland, J.**, Krappmann, D. and Hopfner, K. P. (2013). Structural Analysis of Phenothiazine Derivatives as Allosteric Inhibitors of the MALT1 Paracaspase. *Angew Chem Int Ed Engl* 52, 10384-10387.

Schweneker, K., Gorka, O., Schweneker, M., Poeck, H., Tschopp, J., Peschel, C., **Ruland, J.** and Gross, O. (2013). The mycobacterial cord factor adjuvant analogue trehalose-6,6'-dibehenate (TDB) activates the Nlrp3 inflammasome. *Immunobiology* 218, 664-673.

Sledzinska, A., Hemmers, S., Mair, F., Gorka, O., **Ruland, J.**, Fairbairn, L., Nissler, A., Muller, W., Waisman, A., Becher, B. and Buch, T. (2013). TGF-beta Signalling Is Required for CD4(+) T Cell Homeostasis But Dispensable for Regulatory T Cell Function. *PLoS Biol* 11, e1001674.

Marko, L., Henke, N., Park, J. K., Spallek, B., Qadri, F., Apel, I. J., Oravecz-Wilson, K., Przybyl, L., Luft, F. C., Dechend, R., **Ruland, J.**, Lucas, P. C., McAllister-Lucas, L. M. and Mueller, D. N. (2013). Bcl10 Deficiency of Both Cardiac Cells and Bone Marrow Derived Cells Attenuates Angiotensin (Ang) II-induced Target Organ Damage. *Hypertension* 62,

Roth, S., Thomas, C. and **Ruland, J.** (2013). Immunobiology of C-Type Lectin Receptors. Innate Immunity: Resistance and Disease-Promoting Principles. G. Hartmann and H. Wagner. 4: 11-14.

Spinner, S., Kelly, G., Herold, M., Pechloff, K., Crispatzu, G., Strasser, A., **Ruland, J.**, Herling, M., Peschel, C. and Jost, P. (2013). MCL-1 is critically required for T-lymphocyte non-Hodgkin lymphoma cell survival. *Onkologie* 36, 195-196.

Abdullah, Z., Schlee, M., Roth, S., Mraheil, M. A., Barchet, W., Bottcher, J., Hain, T., Geiger, S., Hayakawa, Y., Fritz, J. H., Civril, F., Hopfner, K. P., Kurts, C., **Ruland, J.**, Hartmann, G., Chakraborty, T. and Knolle, P. A. (2012). RIG-I detects infection with live Listeria by sensing secreted bacterial nucleic acids. *EMBO J* 31, 4153-4164.

Brustle, A., Brenner, D., Knobbe, C. B., Lang, P. A., Virtanen, C., Hershenfield, B. M., Reardon, C., Lacher, S. M., **Ruland, J.**, Ohashi, P. S. and Mak, T. W. (2012). The NF-kappaB regulator MALT1 determines the encephalitogenic potential of Th17 cells. *J Clin Invest* 122, 4698-4709.

Dorhoi, A., Nouailles, G., Jorg, S., Hagens, K., Heinemann, E., Pradl, L., Oberbeck-Muller, D., Duque-Correa, M. A., Reece, S. T., **Ruland, J.**, Brosch, R., Tschopp, J., Gross, O. and

- Kaufmann, S. H. (2012). Activation of the NLRP3 inflammasome by Mycobacterium tuberculosis is uncoupled from susceptibility to active tuberculosis. *Eur J Immunol* 42, 374-384.
- Hafalla, J. C., Burgold, J., Dorhoi, A., Gross, O., **Ruland, J.**, Kaufmann, S. H. and Matuschewski, K. (2012). Experimental cerebral malaria develops independently of caspase recruitment domain-containing protein 9 signaling. *Infect Immun* 80, 1274-1279.
- Kratzat, S., Nikolova, V., Miething, C., Hoellein, A., Schoeffmann, S., Gorka, O., Pietschmann, E., Illert, A. L., **Ruland, J.**, Peschel, C., Nilsson, J., Duyster, J. and Keller, U. (2012). Cks1 is required for tumor cell proliferation but not sufficient to induce hematopoietic malignancies. *PLoS One* 7, e37433.
- Marion, S., Mazzolini, J., Herit, F., Bourdoncle, P., Kambou-Pene, N., Hailfinger, S., Sachse, M., **Ruland, J.**, Benmerah, A., Echard, A., Thome, M. and Niedergang, F. (2012). The NF-kappaB signaling protein Bcl10 regulates actin dynamics by controlling AP1 and OCRL-bearing vesicles. *Dev Cell* 23, 954-967.
- Poeck, H. and **Ruland, J.** (2012). From virus to inflammation: mechanisms of RIG-I-induced IL-1beta production. *Eur J Cell Biol* 91, 59-64.
- Strasser, D., Neumann, K., Bergmann, H., Marakalala, M. J., Guler, R., Rojowska, A., Hopfner, K. P., Brombacher, F., Urlaub, H., Baier, G., Brown, G. D., Leitges, M. and **Ruland, J.** (2012). Syk kinase-coupled C-type lectin receptors engage protein kinase C-sigma to elicit Card9 adaptor-mediated innate immunity. *Immunity* 36, 32-42.
- Van Beek, M., Oravecz-Wilson, K. I., Delekta, P. C., Gu, S., Li, X., Jin, X., Apel, I. J., Konkle, K. S., Feng, Y., Teitelbaum, D. H., **Ruland, J.**, McAllister-Lucas, L. M. and Lucas, P. C. (2012). Bcl10 links saturated fat overnutrition with hepatocellular NF-kB activation and insulin resistance. *Cell Rep* 1, 444-452.
- Greil, J., Rausch, T., Bandapalli, R., Daniel, V., Bekeredjian-Ding, I., Stuetz, A. M., Drees, C., Roth, S., **Ruland, J.**, Korbel, J. O., Kulozik, A. E. and Giese, T. (2012). IMMUNOPHENOTYPE OF AN AUTOSOMAL RECESSIVE T+B+-SCID SYNDROME CAUSED BY CARD11 DEFICIENCY. *J Clin Immunol* 32, 382-383.
- Greil, J., Rausch, T., Giese, T., Bandapalli, O. R., Daniel, V., Bekeredjian-Ding, I., Stuetz, A. M., Drees, C., Roth, S., **Ruland, J.**, Korbel, J. and Kulozik, A. E. (2012). Whole-Exome Sequencing Links CARD11 Inactivation with SCID. *Blood* 120,
- Nemeth, T., Futosi, K., Weisinger, J., Csorba, K., Sitaru, C., **Ruland, J.** and Mocsai, A. (2012). CARD9 mediates autoantibody-induced autoimmune diseases. *European Journal of Clinical Investigation* 42, 64-64.
- Nemeth, T., Futosi, K., Weisinger, J., **Ruland, J.** and Mocsai, A. (2012). CARD9 mediates Fc gamma receptor signaling in neutrophils by linking the protein tyrosine kinase Syk to chemokine production. *European Journal of Clinical Investigation* 42, 34-35.
- Roth, S., Bergmann, H., Neumann, K., Prazeres da Costa, C., Tybulewicz, V. L., Bustelo, X. and **Ruland, J.** (2012). Vav proteins mediate Syk kinase-coupled C-type lectin receptor induced innate immune responses. *Immunology* 137, 30-30.
- Ruland, J.** (2012). C-type Lectin Receptors: Signaling and Therapeutic Opportunities (vol 62, pg S17, 2012). *Arzneimittelforschung-Drug Research* 62, 690-690.
- Semper, R., Oertli, M., Engler, D., Anderl, F., Ritter, M., Da Costa, C. P., **Ruland, J.**, Mueller, A. and Gerhard, M. (2012). Helicobacter pylori activated the NLRP3 inflammasome. *International Journal of Medical Microbiology* 302, 35-35.
- Roth, S. and **Ruland, J.** (2011). Caspase-8: clipping off RIG-I signaling. *Immunity* 34, 283-285.
- Ruland, J.** (2011). Return to homeostasis: downregulation of NF-kappaB responses. *Nat*

Immunol 12, 709-714.

da Gloria Sousa, M., Reid, D. M., Schweighoffer, E., Tybulewicz, V., **Ruland, J.**, Langhorne, J., Yamasaki, S., Taylor, P. R., Almeida, S. R. and Brown, G. D. (2011). Restoration of Pattern Recognition Receptor Costimulation to Treat Chromoblastomycosis, a Chronic Fungal Infection of the Skin. *Cell Host Microbe* 9, 436-443.

Nemeth, T., Futosi, K., **Ruland, J.** and Mocsai, A. (2011). The role of CARD9 in phagocytes and in experimental arthritis. *European Journal of Clinical Investigation* 41, 28-29.

Poeck, H., Bscheider, M., Gross, O., Finger, K., Roth, S., Rebsamen, M., Hanneschlaeger, N., Schlee, M., Rothenfusser, S., Barchet, W., Kato, H., Akira, S., Inoue, S., Endres, S., Peschel, C., Hartmann, G., Hornung, V. and **Ruland, J.** (2011). RIG-I is a dual activator of Card9 and inflammasome signaling for IL-1beta production upon RNA virus recognition. *Onkologie* 34, 178-178.

Yabal, M., Damgaard, R. B., Nachbur, U., **Ruland, J.**, Peschel, C., Strasser, A., Silke, J., Gyrd-Hansen, M. and Jost, P. J. (2011). Inhibition of NOD2 signalling by mutations in the RING domain of XIAP contribute to development of X-linked lymphoproliferative syndrome. *Onkologie* 34, 113-113.

Deenick, E. K., Po, L., Chapatte, L., Murakami, K., Lu, Y. C., Elford, A. R., Saibil, S. D., **Ruland, J.**, Gerondakis, S., Mak, T. W. and Ohashi, P. S. (2010). c-Rel phenocopies PKCtheta but not Bcl-10 in regulating CD8+ T-cell activation versus tolerance. *Eur J Immunol* 40, 867-877.

Dorhoi, A., Desel, C., Yeremeev, V., Pradl, L., Brinkmann, V., Mollenkopf, H. J., Hanke, K., Gross, O., **Ruland, J.** and Kaufmann, S. H. (2010). The adaptor molecule CARD9 is essential for tuberculosis control. *J Exp Med* 207, 777-792.

McAllister-Lucas, L. M., Jin, X., Gu, S., Siu, K., McDonnell, S., **Ruland, J.**, Delekta, P. C., Van Beek, M. and Lucas, P. C. (2010). The CARMA3-Bcl10-MALT1 signalosome promotes angiotensin II-dependent vascular inflammation and atherosclerosis. *J Biol Chem* 285, 25880-25884.

Mocsai, A., **Ruland, J.** and Tybulewicz, V. L. (2010). The SYK tyrosine kinase: a crucial player in diverse biological functions. *Nat Rev Immunol* 10, 387-402.

Pechloff, K., Holch, J., Ferch, U., Schweneker, M., Brunner, K., Kremer, M., Sparwasser, T., Quintanilla-Martinez, L., Zimber-Strobl, U., Streubel, B., Gewies, A., Peschel, C. and **Ruland, J.** (2010). The fusion kinase ITK-SYK mimics a T cell receptor signal and drives oncogenesis in conditional mouse models of peripheral T cell lymphoma. *J Exp Med* 207, 1031-1044.

Poeck, H., Bscheider, M., Gross, O., Finger, K., Roth, S., Rebsamen, M., Hanneschlaeger, N., Schlee, M., Rothenfusser, S., Barchet, W., Kato, H., Akira, S., Inoue, S., Endres, S., Peschel, C., Hartmann, G., Hornung, V. and **Ruland, J.** (2010). Recognition of RNA virus by RIG-I results in activation of CARD9 and inflammasome signaling for interleukin 1 beta production. *Nat Immunol* 11, 63-69.

Poeck, H. and **Ruland, J.** (2010). SYK kinase signaling and the NLRP3 inflammasome in antifungal immunity. *J Mol Med (Berl)* 88, 745-752.

Poeck, H. and **Ruland, J.** (2010). ITAM receptor signaling and the NLRP3 inflammasome in antifungal immunity. *J Clin Immunol* 30, 496-501.

Ritter, M., Gross, O., Kays, S., **Ruland, J.**, Nimmerjahn, F., Saijo, S., Tschopp, J., Layland, L. E. and Prazeres da Costa, C. (2010). *Schistosoma mansoni* triggers Dectin-2, which activates the Nlrp3 inflammasome and alters adaptive immune responses. *Proc Natl Acad Sci U S A* 107, 20459-20464.

Schoenen, H., Bodendorfer, B., Hitchens, K., Manzanero, S., Werninghaus, K., Nimmerjahn, F., Agger, E. M., Stenger, S., Andersen, P., **Ruland, J.**, Brown, G. D., Wells, C. and Lang, R. (2010). Cutting edge: Mincle is essential for recognition and adjuvanticity of the mycobacterial cord factor and its synthetic analog trehalose-dibehenate. *J Immunol* 184, 2756-2760.

Glocker, E. O., Hennigs, A., Nabavi, M., Schaffer, A. A., Woellner, C., Salzer, U., Pfeifer, D., Veelken, H., Warnatz, K., Tahami, F., Jamal, S., Manguiat, A., Rezaei, N., Amirzargar, A. A., Plebani, A., Hanneschlager, N., Gross, O., **Ruland, J.** and Grimbacher, B. (2010). Susceptibility to fungal infections due to a homozygous mutation in CARD9. *Clinical and Experimental Immunology* 160, 4-5.

Henke, N., Marko, L., Park, J.-K., Qadri, F., Fokuhl, V., Oeckinghaus, A., Krappmann, D., Luft, F. C., Dechend, R., **Ruland, J.** and Muller, D. N. (2010). Bcl10 Deficiency Attenuates Cardiac, Vascular and Tubular Damage Despite Albuminuria in Angiotensin II-Infused Mice. *Hypertension* 56, E153-E154.

Pechloff, K., Holch, J., Ferch, U., Schweneker, M., Brunner, K., Kremer, M., Sparwasser, T., Quintanilla-Martinez, L., Zimber-Strobl, U., Streubel, B., Gewies, A., Peschel, C. and **Ruland, J.** (2010). The fusion kinase ITK-SYK mimics a T cell receptor signal and drives oncogenesis in conditional mouse models of peripheral T cell lymphoma. *Onkologie* 33, 208-208.

Duwel, M., Welteke, V., Oeckinghaus, A., Baens, M., Kloo, B., Ferch, U., Darnay, B. G., **Ruland, J.**, Marynen, P. and Krappmann, D. (2009). A20 negatively regulates T cell receptor signaling to NF-kappaB by cleaving Malt1 ubiquitin chains. *J Immunol* 182, 7718-7728.

Ferch, U., Kloo, B., Gewies, A., Pfander, V., Duwel, M., Peschel, C., Krappmann, D. and **Ruland, J.** (2009). Inhibition of MALT1 protease activity is selectively toxic for activated B cell-like diffuse large B cell lymphoma cells. *J Exp Med* 206, 2313-2320.

Glocker, E. O., Hennigs, A., Nabavi, M., Schaffer, A. A., Woellner, C., Salzer, U., Pfeifer, D., Veelken, H., Warnatz, K., Tahami, F., Jamal, S., Manguiat, A., Rezaei, N., Amirzargar, A. A., Plebani, A., Hanneschlager, N., Gross, O., **Ruland, J.** and Grimbacher, B. (2009). A homozygous CARD9 mutation in a family with susceptibility to fungal infections. *N Engl J Med* 361, 1727-1735.

Gross, O., Poeck, H., Bscheider, M., Dostert, C., Hanneschlager, N., Endres, S., Hartmann, G., Tardivel, A., Schweighoffer, E., Tybulewicz, V., Mocsai, A., Tschopp, J. and **Ruland, J.** (2009). Syk kinase signalling couples to the Nlrp3 inflammasome for anti-fungal host defence. *Nature* 459, 433-436.

Robinson, M. J., Osorio, F., Rosas, M., Freitas, R. P., Schweighoffer, E., Gross, O., Verbeek, J. S., **Ruland, J.**, Tybulewicz, V., Brown, G. D., Moita, L. F., Taylor, P. R. and Reis e Sousa, C. (2009). Dectin-2 is a Syk-coupled pattern recognition receptor crucial for Th17 responses to fungal infection. *J Exp Med* 206, 2037-2051.

Steinberg, C., Eisenacher, K., Gross, O., Reindl, W., Schmitz, F., **Ruland, J.** and Krug, A. (2009). The IFN regulatory factor 7-dependent type I IFN response is not essential for early resistance against murine cytomegalovirus infection. *Eur J Immunol* 39, 1007-1018.

Tusche, M. W., Ward, L. A., Vu, F., McCarthy, D., Quintela-Fandino, M., **Ruland, J.**, Gommerman, J. L. and Mak, T. W. (2009). Differential requirement of MALT1 for BAFF-induced outcomes in B cell subsets. *J Exp Med* 206, 2671-2683.

Werninghaus, K., Babiak, A., Gross, O., Holscher, C., Dietrich, H., Agger, E. M., Mages, J., Mocsai, A., Schoenen, H., Finger, K., Nimmerjahn, F., Brown, G. D., Kirschning, C., Heit, A., Andersen, P., Wagner, H., **Ruland, J.** and Lang, R. (2009). Adjuvanticity of a synthetic cord factor analogue for subunit Mycobacterium tuberculosis vaccination requires FcRgamma-Syk-Card9-dependent innate immune activation. *J Exp Med* 206, 89-97.

- Ferch, U., Kloo, B., Gewies, A., Pfaender, V., Duewel, M., Peschel, C., Krappmann, D. and **Ruland, J.** (2009). Inhibition of MALT1 Protease Activity Is Selectively Toxic for Activated B Cell(A)over-tilde,(A)over-cap-Like Diffuse Large B Cell Lymphoma Cells. *Blood* 114, 522-523.
- Leibig, W., Kuhn, S., Patzelt, T., Mugler, C., Ren-Yuan, B., Quintanilla-Fend, L., Foerster, I., Peschel, C., **Ruland, J.** and Duyster, J. (2009). Smif (Smad4 Interacting Factor) Is a Negative Regulator of T Cell Activation and Autoimmunity In Vivo. *Blood* 114, 297-297.
- Gross, O., Grupp, C., Steinberg, C., Zimmermann, S., Strasser, D., Hanneschlaeger, N., Reindl, W., Jonsson, H., Huo, H., Littman, D. R., Peschel, C., Yokoyama, W. M., Krug, A. and **Ruland, J.** (2008). Multiple ITAM-coupled NK-cell receptors engage the Bcl10/Malt1 complex via Carma1 for NF-kappaB and MAPK activation to selectively control cytokine production. *Blood* 112, 2421-2428.
- Homig-Holzel, C., Hojer, C., Rastelli, J., Casola, S., Strobl, L. J., Muller, W., Quintanilla-Martinez, L., Gewies, A., **Ruland, J.**, Rajewsky, K. and Zimber-Strobl, U. (2008). Constitutive CD40 signaling in B cells selectively activates the noncanonical NF-kappaB pathway and promotes lymphomagenesis. *J Exp Med* 205, 1317-1329.
- Poeck, H., Besch, R., Maihoefer, C., Renn, M., Tormo, D., Morskaya, S. S., Kirschnek, S., Gaffal, E., Landsberg, J., Hellmuth, J., Schmidt, A., Anz, D., Bscheider, M., Schwerd, T., Berking, C., Bourquin, C., Kalinke, U., Kremmer, E., Kato, H., Akira, S., Meyers, R., Hacker, G., Neuenhahn, M., Busch, D., **Ruland, J.**, et al. (2008). 5'-Triphosphate-siRNA: turning gene silencing and Rig-I activation against melanoma. *Nat Med* 14, 1256-1263.
- Ruland, J.** (2008). CARD9 signaling in the innate immune response. *Ann N Y Acad Sci* 1143, 35-44.
- Schaefer, M., Reiling, N., Fessler, C., Stephani, J., Taniuchi, I., Hatam, F., Yildirim, A. O., Fehrenbach, H., Walter, K., **Ruland, J.**, Wagner, H., Ehlers, S. and Sparwasser, T. (2008). Decreased pathology and prolonged survival of human DC-SIGN transgenic mice during mycobacterial infection. *J Immunol* 180, 6836-6845.
- Gross, O., Grupp, C., Steinberg, C., Zimmermann, S., Strasser, D., Hanneschlaeger, N., Reindl, W., Peschel, C., Krug, A. and **Ruland, J.** (2008). Carma1/Bcl10/Malt1 complexes transmit ITAM-coupled NK cell receptor signals for NF-kappa B and MAPK activation. *Wiener Klinische Wochenschrift* 120, 21-21.
- Ruedal, D., Gaidel, O., Ho, L., Lewkowicz, E., Niedergang, F., Rebeaud, F., Hailfingerl, S., Guzzardi, M., Ferch, U., Mak, T., **Ruland, J.**, Schwaller, J. and Thome, M. (2008). Bcl10 phosphorylation plays a key role in T-cell receptor-induced actin polymerisation. *Swiss Medical Weekly* 138, 49S-49S.
- Ruland, J.** (2008). Signaling crosstalk in DLBCL. *Blood* 111, 3304-3304.
- Ferch, U., zum Buschenfelde, C. M., Gewies, A., Wegener, E., Rauser, S., Peschel, C., Krappmann, D. and **Ruland, J.** (2007). MALT1 directs B cell receptor-induced canonical nuclear factor-kappaB signaling selectively to the c-Rel subunit. *Nat Immunol* 8, 984-991.
- Jost, P. J. and **Ruland, J.** (2007). Aberrant NF-kappaB signaling in lymphoma: mechanisms, consequences, and therapeutic implications. *Blood* 109, 2700-2707.
- Jost, P. J., Weiss, S., Ferch, U., Gross, O., Mak, T. W., Peschel, C. and **Ruland, J.** (2007). Bcl10/Malt1 signaling is essential for TCR-induced NF-kappaB activation in thymocytes but dispensable for positive or negative selection. *J Immunol* 178, 953-960.
- Klemm, S., Zimmermann, S., Peschel, C., Mak, T. W. and **Ruland, J.** (2007). Bcl10 and Malt1 control lysophosphatidic acid-induced NF-kappaB activation and cytokine production. *Proc Natl Acad Sci U S A* 104, 134-138.

Leibundgut-Landmann, S., Slack, E. C., Gross, O., Robinson, M. J., Osorio, F., **Ruland, J.** and Reis, e. S. (2007). Syk-dependent signaling in dendritic cells couples innate recognition by C-type lectins to induction of Th17 responses. *Swiss Medical Weekly* 137, 10S-10S.

LeibundGut-Landmann, S., Gross, O., Robinson, M. J., Osorio, F., Slack, E. C., Tsoni, S. V., Schweighoffer, E., Tybulewicz, V., Brown, G. D., **Ruland, J.** and Reis e Sousa, C. (2007). Syk- and CARD9-dependent coupling of innate immunity to the induction of T helper cells that produce interleukin 17. *Nat Immunol* 8, 630-638.

McAllister-Lucas, L. M., **Ruland, J.**, Siu, K., Jin, X., Gu, S., Kim, D. S., Kuffa, P., Kohrt, D., Mak, T. W., Nunez, G. and Lucas, P. C. (2007). CARMA3/Bcl10/MALT1-dependent NF-kappaB activation mediates angiotensin II-responsive inflammatory signaling in nonimmune cells. *Proc Natl Acad Sci U S A* 104, 139-144.

Misra, R. S., Russell, J. Q., Koenig, A., Hinshaw-Makepeace, J. A., Wen, R., Wang, D., Huo, H., Littman, D. R., Ferch, U., **Ruland, J.**, Thome, M. and Budd, R. C. (2007). Caspase-8 and c-FLIPL associate in lipid rafts with NF-kappaB adaptors during T cell activation. *J Biol Chem* 282, 19365-19374.

Oeckinghaus, A., Wegener, E., Welteke, V., Ferch, U., Arslan, S. C., **Ruland, J.**, Scheidereit, C. and Krappmann, D. (2007). Malt1 ubiquitination triggers NF-kappaB signaling upon T-cell activation. *EMBO J* 26, 4634-4645.

Rueda, D., Gaide, O., Ho, L., Lewkowicz, E., Niedergang, F., Hailfinger, S., Rebeaud, F., Guzzardi, M., Conne, B., Thelen, M., Delon, J., Ferch, U., Mak, T. W., **Ruland, J.**, Schwaller, J. and Thome, M. (2007). Bcl10 controls TCR- and Fc gamma R-induced actin polymerization. *J Immunol* 178, 4373-4384.

Gross, O., Gewies, A., Finger, K., Schafer, M., Sparwasser, T., Peschel, C., Forster, I. and **Ruland, J.** (2006). Card9 controls a non-TLR signalling pathway for innate anti-fungal immunity. *Nature* 442, 651-656.

Jost, P., Peschel, C. and **Ruland, J.** (2006). The Bcl10/Malt1 signaling pathway as a drug target in lymphoma. *Curr Drug Targets* 7, 1335-1340.

Klemm, S., Gutermuth, J., Hultner, L., Sparwasser, T., Behrendt, H., Peschel, C., Mak, T. W., Jakob, T. and **Ruland, J.** (2006). The Bcl10-Malt1 complex segregates Fc epsilon RI-mediated nuclear factor kappa B activation and cytokine production from mast cell degranulation. *J Exp Med* 203, 337-347.

Klemm, S. and **Ruland, J.** (2006). Inflammatory signal transduction from the Fc epsilon RI to NF-kappa B. *Immunobiology* 211, 815-820.

Klemm, S., Gutermuth, J., Hultner, L., Sparwasser, T., Behrendt, H., Peschel, C., Mak, T. W., Jakob, T. and **Ruland, J.** (2006). The Bcl10/Malt1 complex segregates Fc epsilon RI-mediated NF-kappaB activation and cytokine production from mast cell degranulation. *Journal of Investigative Dermatology* 126, 57-57.

Klemm, S. and **Ruland, J.** (2006). NF-kappa B activation by Fc epsilon RI- mediated signal transduction. *Current Immunology Reviews* 2, 357-360.

Wegener, E., Oeckinghaus, A., Papadopoulou, N., Lavitas, L., Schmidt-Suprian, M., Ferch, U., Mak, T. W., **Ruland, J.**, Heissmeyer, V. and Krappmann, D. (2006). Essential role for IkappaB kinase beta in remodeling Carma1-Bcl10-Malt1 complexes upon T cell activation. *Mol Cell* 23, 13-23.

Jost, P. J., Ferch, U., Weiss, S., Leeder, S., Gross, O., Mak, T. W., Peschel, C. and **Ruland, J.** (2005). Functional and molecular analysis of maturation of thymocytes in Bcl10 or Malt1 deficient mice. *Blood* 106, 929a-929a.

Ruland, J., Duncan, G. S., Mak, T. W. and Medimond (2004). Paracaspase MALT1 controls antigen receptor mediated NF- κ B activation. (*Book: Immunology 2004: Cytokine Network, Regulatory Cells, Signaling, and Apoptosis*)

Ruland, J. and Mak, T. (2004). MALT1 is an essential regulator of antigen receptor mediated NF- κ B activation. *Blood* 104, 103A-103A.

Hsu, E. C., Hsi, B., Hirota-Tsuchihara, M., **Ruland, J.**, Iorio, C., Sarangi, F., Diao, J., Migliaccio, G., Tyrrell, D. L., Kneteman, N. and Richardson, C. D. (2003). Modified apoptotic molecule (BID) reduces hepatitis C virus infection in mice with chimeric human livers. *Nat Biotechnol* 21, 519-525.

Ruland, J., Duncan, G. S., Wakeham, A. and Mak, T. W. (2003). Differential requirement for Malt1 in T and B cell antigen receptor signaling. *Immunity* 19, 749-758.

Ruland, J. and Mak, T. W. (2003). Transducing signals from antigen receptors to nuclear factor κ B. *Immunol Rev* 193, 93-100.

Ruland, J. and Mak, T. W. (2003). From antigen to activation: specific signal transduction pathways linking antigen receptors to NF- κ B. *Semin Immunol* 15, 177-183.

Muto, A., **Ruland, J.**, McAllister-Lucas, L. M., Lucas, P. C., Yamaoka, S., Chen, F. F., Lin, A., Mak, T. W., Nunez, G. and Inohara, N. (2002). Protein kinase C-associated kinase (PKK) mediates Bcl10-independent NF- κ B activation induced by phorbol ester. *J Biol Chem* 277, 31871-31876.

Li, L., Liao, J., **Ruland, J.**, Mak, T. W. and Cohen, S. N. (2001). A TSG101/MDM2 regulatory loop modulates MDM2 degradation and MDM2/p53 feedback control. *Proc Natl Acad Sci U S A* 98, 1619-1624.

McAllister-Lucas, L. M., Inohara, N., Lucas, P. C., **Ruland, J.**, Benito, A., Li, Q., Chen, S., Chen, F. F., Yamaoka, S., Verma, I. M., Mak, T. W. and Nunez, G. (2001). Bimp1, a MAGUK family member linking protein kinase C activation to Bcl10-mediated NF- κ B induction. *J Biol Chem* 276, 30589-30597.

Ruland, J., Duncan, G. S., Elia, A., del Barco Barrantes, I., Nguyen, L., Plyte, S., Millar, D. G., Bouchard, D., Wakeham, A., Ohashi, P. S. and Mak, T. W. (2001). Bcl10 is a positive regulator of antigen receptor-induced activation of NF- κ B and neural tube closure. *Cell* 104, 33-42.

Ruland, J., Sirard, C., Elia, A., MacPherson, D., Wakeham, A., Li, L., de la Pompa, J. L., Cohen, S. N. and Mak, T. W. (2001). p53 accumulation, defective cell proliferation, and early embryonic lethality in mice lacking tsg101. *Proc Natl Acad Sci U S A* 98, 1859-1864.

Tang, D., Okada, H., **Ruland, J.**, Liu, L., Stambolic, V., Mak, T. W. and Ingram, A. J. (2001). Akt is activated in response to an apoptotic signal. *J Biol Chem* 276, 30461-30466.

Boehmelt, G., Wakeham, A., Elia, A., Sasaki, T., Plyte, S., Potter, J., Yang, Y., Tsang, E., **Ruland, J.**, Iscove, N. N., Dennis, J. W. and Mak, T. W. (2000). Decreased UDP-GlcNAc levels abrogate proliferation control in EMeg32-deficient cells. *EMBO J* 19, 5092-5104.

Hirao, A., Kong, Y. Y., Matsuoka, S., Wakeham, A., **Ruland, J.**, Yoshida, H., Liu, D., Elledge, S. J. and Mak, T. W. (2000). DNA damage-induced activation of p53 by the checkpoint kinase Chk2. *Science* 287, 1824-1827.

Stambolic, V., Suzuki, A., de la Pompa, J. L., Brothers, G. M., Mirtsos, C., Sasaki, T., **Ruland, J.**, Penninger, J. M., Siderovski, D. P. and Mak, T. W. (1998). Negative regulation of PKB/Akt-dependent cell survival by the tumor suppressor PTEN. *Cell* 95, 29-39.