

免疫バイオ・創薬探索研究講座

Immunobiology and Pharmacological Genetics

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◆ 原著

- 1) Sasaki S., Nagai Y., Yanagibashi T., Watanabe Y., Ikutani M., Kariyone A., Tsuneyama K., Hirai Y., and Takatsu K. : Serum soluble MD-1 levels increase with disease progression in autoimmune prone MRL/lpr-lpr mice. *Mol. Immunol.*, 49: 611-620, 2012.
- 2) Ikutani M., Yanagibashi T., Ogasawara M., Tsuneyama K., Yamamoto S., Hattori Y., Kouro T., Itakura A., Nagai Y., Takaki S., and Takatsu K. : Identification of innate IL-5-producing cells and their role in lung eosinophil regulation and antitumor immunity. *J. Immunol.*, 188: 703-713, 2012.
- 3) Nambiar J.K., Pinto R., Aguilo J.I., Takatsu K., Martin C., Britton W.J., and Triccas J.A. : Protective immunity afforded by attenuated, PhoP-deficient *Mycobacterium tuberculosis* is associated with sustained generation of CD4+ T-cell memory. *Eur. J. Immunol.*, 42: 385-392, 2012.
- 4) Nagai Y., Yanagibashi T., Watanabe Y., Ikutani M., Kariyone A., Ohta S., Hirai Y., Kimoto M., Miyake K., and Takatsu K. : The RP105/MD-1 complex is indispensable for TLR4/MD-2-dependent proliferation and IgM-secreting plasma cell differentiation of marginal zone B cells. *Int. Immunol.*, 24: 389-400, 2012.
- 5) Watanabe Y., Nakamura T., Ishikawa S., Fujisaka S., Usui I., Tsuneyama K., Ichihara Y., Wada T., Hirata Y., Suganami T., Izaki H., Akira S., Miyake K., Kanayama H., Shimabukuro M., Sata M., Sasaoka T., Ogawa Y., Tobe K., Takatsu K., and Nagai Y. : The Radioprotective 105/MD-1 complex contributes to diet-induced obesity and adipose tissue inflammation. *Diabetes*, 61: 1199-1209, 2012.
- 6) Nakamura T., Nishibu A., Yasoshima M., Tanoue C., Yoshida N., Hatta J., Miyamoto T., Nishii M., Yanagibashi T., Nagai Y., Takatsu K., Mochizuki T., and Ogawa K. : Analysis of Trichophyton antigen-induced contact hypersensitivity in mouse. *J. Dermatol. Sci.*, 66: 144-153, 2012.
- 7) Honda H., Nagai Y., Matsunaga T., Saitoh S., Akashi-Takamura S., Hayashi H., Fujii I., Miyake K., Muraguchi A., and Takatsu K. : Glycyrrhizin and isoliquiritigenin suppress the LPS sensor Toll-like receptor 4/MD-2 complex signaling in a different manner. *J. Leukoc. Biol.*, 91: 967-976, 2012.
- 8) Kusano S., Kukimoto-Niino M., Hino N., Ohsawa N., Ikutani M., Takaki S., Sakamoto K., Hara-Yokoyama M., Shirouzu M., Takatsu K., and Yokoyama S. : Structural basis of interleukin-5 dimer recognition by its α receptor. *Protein Sci.*, 21: 850-864, 2012.
- 9) Hara-Yokoyama M., Kukimoto-Niino M., Terasawa K., Harumiya S., Podyma-Inoue K.A., Hino N., Sakamoto K., Itoh S., Hashii N., Hiruta Y., Kawasaki N., Mishima-Tsumagari C., Kaitsu Y., Matsumoto T., Wakiyama M., Shirouzu M., Kasama T., Takayanagi H., Utsunomiya-Tate N., Takatsu K., Katada T., Hirabayashi Y., Yokoyama S., and Yanagishita M. : Tetrameric interaction of the ectoenzyme CD38 on the cell surface enables its catalytic and raft-association activities. *Structure*, 20: 1585-1595, 2012.

◆ 学会報告

- 1) Nagai Y., Yanagibashi T., Watanabe Y., Ikutani M., Kariyone A., Tsuneyama K., Hirai Y., and Takatsu K. : Potential roles for soluble MD-1 in disease progression of autoimmune prone MRLlpr/lpr mice. The 99th Annual Meeting of The American Association of Immunologists, 2012, 5, 7, Boston.
- 2) Watanabe Y., Nagai Y., Nakamura T., Akira S., Miyake K., and Takatsu K. : The radioprotective 105/MD-1 complex contributes to diet-induced obesity and adipose tissue inflammation. The 99th Annual Meeting of The American Association of Immunologists, 2012, 5, 7, Boston.

- 3) Takatsu K. : Regulatory roles of innate IL-5-producing non-T cells in the immune surveillance in the lung and IgA production in the intestine, "Macrophage 2012", 20th International Symposium on Molecular Cell Biology, 2012, 6, 15, Tokyo. (Invited lecture)
- 4) 長井良憲, 渡邊康春, 菅波孝祥, 井崎博文, 審良静男, 三宅健介, 金山博臣, 島袋充生, 佐田政隆, 笹岡利安, 小川佳宏, 戸邊一之, 高津聖志 : TLRファミリー分子 RP105/MD-1 は高脂肪食誘発性の肥満, 脂肪組織炎症, インスリン抵抗性を制御する. 第33回日本炎症・再生医学会, 2012, 7, 5-6, 福岡.
- 5) Nagai Y., Watanabe Y., and Takatsu K. : Regulation of adipose tissue inflammation by TLR family protein RP105/MD-1. IEIIS2012 Homeostatic Inflammation Symposium, 2012, 10, 24, Tokyo. (Invited lecture)
- 6) Ikutani M., Yanagibashi T. Nagai Y., Takaki S., and Takatsu K. : Roles of lung innate IL-5-producing cells in antimetastatic activity through eosinophils. IEIIS2012 Homeostatic Inflammation Symposium, 2012, 10, 2, Tokyo.
- 7) Honda H., Nagai Y., and Takatsu K. : Isoliquiritigenin and glycyrrhizin, representative components of *Glycyrrhiza uralensis*, inhibit activation of NALP3 inflammasome. 第41回日本免疫学会学術集会, 2012, 12, 6, 神戸.
- 8) Yanagibashi T., Ikutani M., Nagai Y., Takaki S., and Takatsu K. : Characterization of innate IL-5-producing non-T cells in the large intestine regarding responsiveness to IL-33 and IgA production. 第41回日本免疫学会学術集会, 2012, 12, 7, 神戸.

◆ その他

- 1) 長井良憲 : 脂肪組織炎症を制御する RP105/MD-1 の機能解析及び内因性リガンドの探索. 新学術領域研究「自然炎症」第3回領域班会議, 2012, 6, 26, 東京.
- 2) 高津聖志 : 免疫と自然炎症の接点: 創薬探索へのアプローチ. 第14回免疫サマースクール2012, 2012, 7, 24, 那須. (招待講演)
- 3) 柳橋 努 : B細胞クラススイッチを制御する天然物の探索. ほくりく健康創造クラスター若手研究者交流会, 2012, 8, 1, 金沢.
- 4) 本田裕恵 : 自然免疫を制御する天然物の探索—甘草成分による自然免疫抑制機構の解析—. ほくりく健康創造クラスター若手研究者交流会, 2012, 8, 1, 金沢.
- 5) 高津聖志 : プロフェッショナルとは—研究生活から学んで, 伝えたいこと—. 富山大学同窓会連合会2012, 2012, 8, 2, 富山. (招待講演)
- 6) 渡邊康春 : 脂肪組織の自然炎症における RP105/MD-1 の機能解析. 伊香保 BS の会・第2回多分野交流会 地方から世界へ ~これからの日本の学術研究発展のために~, 2012, 8, 25, 前橋. (招待講演)
- 7) Honda H. : Molecular basis of regulatory effect of natural products on innate immunity. BioVally Science Day / Basel Toyama Symposium, 2012, 9, 25, Basel, Switzerland. (Invited lecture)
- 8) Ikutani M., Yanagibashi T., and Takatsu K. : Identification of innate IL-5-producing cells and their roles in antitumor immunity. BioVally Science Day / Basel Toyama Symposium, 2012, 9, 25, Basel. (Invited lecture)
- 9) 渡邊康春 : 肥満に伴う慢性炎症を制御するタンパク質の探索と新規治療薬スクリーニング法の開発. BioJapan 2012 World Business Forum, 2012, 10, 10-12, 横浜.