



Hayato Takahashi

M.D., Ph.D.

Current Appointments

Associate Professor, Department of Dermatology

Keio University School of Medicine

Education and Experience

1994 – 2000 Keio University School of Medicine

2000 – 2002 Department of Dermatology, Keio University Hospital

2002 – 2006 Department of Dermatology

Keio University, Graduate School of Medicine

2006 – 2009 Section of Dermatology, Tokyo Electronic Power Company Hospital

2009 - 2012 Visiting Fellow at Dr. John O'Shea's lab, National Institute of Arthritis
and Musculoskeletal and Skin Diseases, National Institutes of Health. USA

2011 – 2012 JSPS Research Fellow in Biomedical and Behavioral Research at NIH.

2012 – present Department of Dermatology, Keio University Hospital, Tokyo

Expertise

- Autoimmune bullous diseases
- Drug adverse reactions

Faculty Appointments

2012-2015 Instructor, Department of Dermatology, Keio University School of Medicine

2015-2021 Assistant Professor, Department of Dermatology, Keio University School of Medicine

2021-present Associate Professor, Department of Dermatology, Keio University School of Medicine

Awards and Honors

- 2012 Young Investigator Award, Keio University School of Medicine Alumni Association (Sanshikai)
- 2012 Minami Shogo Memorial Award, The Japanese Dermatological Association
- 2015 Young Dermatologist International Achievement Award, International League of Dermatological Societies
- 2018 LEO Foundation Gold Award

Medical Societies

- The Japanese Dermatological Association
- The Japanese Society for Investigative Dermatology
- The Society for Investigative Dermatology
- The Japanese Society for Immunology
- The Japanese Society of Inflammation and Regeneration

Selected 10 Publications

(over 65 publications; total citation 3036; h-index 21; ORCID 0000-0001-6768-8821)

1. Nomura H, Wada W, Takahashi H, Kase Y, Yamagami J, Egami S, Iriki H, Mukai M, Kamata A, Ito H, Fujii H, Ishikura T, Koseki H, Watanabe T, Yamada T, Ohara O, Koyasu S, Amagai M. IgM to IgG class-switching is a necessary step for pemphigus phenotype induction in desmoglein 3-specific B cell receptor knock-in mouse. **J Immunol.** **208(3):582-593** 2022
2. Kase Y, Takahashi H, Itoh H, Kamata A, Amagai M, Yamagami J. Intravenous immunoglobulin regulates anti-desmoglein 3 IgG production in B220⁺ antibody-producing cells in mice with pemphigus vulgaris. **J Invest Dermatol.** S002-202X(21)02585-9 2021
3. Iriki H, Takahashi H^{*}, Wada N, Nomura H, Mukai M, Kamata A, Ito H, Yamagami J, Matsui T, Kurebayashi Y, Mise-Omata S, Nishimasu H, Nureki O, Yoshimura A, Horii S, Amagai M^{*}. Peripheral tolerance by Treg via constraining OX40 signal in autoreactive T cells against desmoglein 3, a target antigen in pemphigus. **Proc Natl Acad Sci U S A.** 118(49):e2026763118 2021 ^{*}Co-corresponding author
4. Takahashi H^{*}, Nomura H, Iriki H, Kubo A, Isami K, Mikami Y, Mukai M, Sasaki T, Yamagami J, Kudoh J, Ito H, Kamata A, Kurebayashi Y, Yoshida H, Yoshimura A, Sun H, Suematsu M, O'Shea J. J, Kanno Y, Amagai M. Cholesterol 25-hydroxylase is a metabolic switch to constrain T cell-mediated inflammation in the skin. **Science Immunology.** 6(64):eabb6444 2021 ^{*}Corresponding author
5. Fukuda R, Ouchi T, Asahina Y, Shiiya C, Takeuchi S, Yasuda-Sekiguchi F, Iriki H, Kouno M, Takahashi S, Tanikawa A, Amagai M, Takahashi H. Diagnostic utility of the basophil activation test in natto-induced hypersensitivity. **Allergology International.** 71(1):125-130 2022

6. Vahedi G, Takahashi H, Nakayamada S, Sun HW, Sartorelli V, Kanno Y, O'Shea JJ: STATs shape the active enhancer landscape of T cell populations. **Cell**, 151 (5): 981-993, 2012.
7. Takahashi H, Kanno T, Nakayamada S, Hirahara K, Sciume G, Muljo SA, Kuchen S, Casellas R, Wei L, Kanno Y, O'Shea JJ: TGF-beta and retinoic acid induce the microRNA miR-10a, which targets Bcl-6 and constrains the plasticity of helper T cells. **Nat Immunol**, 13 (6): 587-595, 2012.
8. Takahashi Hayato, Kouno Michiyoshi, Nagao Keisuke, Wada Naoko, Hata Tsuyoshi, Nishimoto Shuhei, Iwakura Yoichiro, Yoshimura Akihiko, Yamada Taketo, Kuwana Masataka, Fujii Hideki, Koyasu Sshigeo, Amagai Masayuki: Desmoglein 3-specific CD4+ T cells induce pemphigus vulgaris and interface dermatitis in mice. **J Clin Invest**. 2011 Sep 1;121(9):3677-88.
9. Takahashi H, Kuwana M, Amagai M: A single helper T cell clone is sufficient to commit polyclonal naive B cells to produce pathogenic IgG in experimental pemphigus vulgaris. **J Immunol**, 182 (3): 1740-1745, 2009.
10. Takahashi H, Amagai M, Nishikawa T, Fujii Y, Kawakami Y, Kuwana M. Novel System Evaluating In Vivo Pathogenicity of Desmoglein 3-Reactive T-Cell Clones Using Murine Pemphigus Vulgaris. **J Immunol**181(2): 1526-1535, 2008