

Pediatrics

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Other Faculty Members

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Major Scientific Interests of the Group

We aim to understand physiologic and pathologic processes of growth and development in terms of molecular mechanism in embryogenesis, differentiation, apoptosis and regeneration. Development of methods to improve human health and control diseases on the basis of the above results.

Projects for Regular Students in Doctoral or Master's Programs

- 1) Molecular and genetic mechanism of diseases of children.
- 2) Functional and quantitative analysis of the development of children with and without diseases.
- 3) Establishment of novel gene therapy.

Study Programs for Short Stay Students (one week – one semester)

- 1) Surface marker analysis of peripheral blood cells, and use of flow-cytometer for molecular functional analysis.
- 2) Genetic analysis of diseases of children.
- 3) Functional and quantitative analysis of child development.
- 4) Culture of stem cells and functional analysis of cord blood cells.

Selected Publications

- 1) Morita A, Imagawa K, Iwasaki T, Yaita K, Sakai A, Takada H. Activation of bystander CD8+ T cells in a pediatric patient with acute hepatitis E. *Immunol Med*. 2024 Jul 16:1-7.
- 2) Hara M, Suzuki H, Hayashi D, Morii W, Nakamura T, Kiyoki K, Hara H, Ishii R, Noguchi E, Takada H. Gut microbiota of one-and-a-half-year-old food-allergic and healthy children. *Allergol Int*. 2024 Apr 9:S1323-8930(24)00042-X.
- 3) Nagafuji M, Fujiyama S, Ishii R, Shime M, Kitatsu T, Hoshino Y, Kanai Y, Arai J, Miyazono Y, Takada H. Effect of maturation at birth on the clinical features of neonatal cow's milk protein allergy: A retrospective study. *J Pediatr Gastroenterol Nutr*.
- 4) Hosaka S, Imagawa K, Yano Y, Lin L, Shiono J, Takahashi-Igari M, Hara H, Hayashi D, Imai H, Morita A, Fukushima H, Takada H. The CXCL10-CXCR3 axis plays an important role in Kawasaki disease. *Clin Exp Immunol*. 2024 Mar 12;216(1):104-111.
- 5) Inaba M, Fukushima H, Hara M, Hosaka S, Fujiyama S, Maruo K, Nomura T, Okiyama N, Takada H. Antigen-specific T cell balance reveals Why patients with atopic dermatitis fail to achieve immune tolerance. *Clin Immunol*. 2023 Jul;252:109649.

- 6) Fukushima H, Suzuki R, Yamaki Y, Hosaka S, Inaba M, Masumoto K, Muroi A, Tsurubuchi T, Okubo R, Hidaka K, Mizumoto M, Sakurai H, Takada H. Longitudinal health-related quality of life analysis in childhood cancer survivors after proton beam therapy. *Int J Clin Oncol*. 2023 Jul;28(7):928-939.
- 7) Morita A, Imagawa K, Tagawa M, Sakamoto N, Takada H. Case report: Immunological characteristics of de novo ulcerative colitis in a child post COVID-19. *Front Immunol*. 2023 Feb 16;14:1107808.
- 8) Hitaka D, Fujiyama S, Nishihama Y, Ishii R, Hoshino Y, Hamada H, Miyazono Y, Nakayama SF, Takada H. Assessment of Alcohol Exposure From Alcohol-Based Disinfectants Among Premature Infants in Neonatal Incubators in Japan. *JAMA Netw Open*. 2023 Feb 1;6(2):e230691.
- 9) Kido T, Hosaka S, Imagawa K, Fukushima H, Morio T, Nonoyama S, Takada H. Initial manifestations in Patients with Inborn Errors of Immunity Based on Onset Age: a Study from a Nationwide Survey in Japan. *J Clin Immunol*. 2023 May;43(4):747-755.
- 10) Morita A, Imagawa K, Asayama K, Terakado T, Takahashi S, Yaita K, Tagawa M, Matsubara D, Takada H. Immunological characteristics of severe acute hepatitis of unknown origin in a child post SARS-CoV-2 infection. *Clin Immunol*. 2022 Dec;245:109138.
- 11) Hosaka S, Kido T, Imagawa K, Fukushima H, Morio T, Nonoyama S, Takada H. Correction to: Vaccination for Patients with Inborn Errors of Immunity: A Nationwide Survey in Japan. *J Clin Immunol*. 2022 Aug;42(6):1349-1350.
- 12) Morita A, Hosaka S, Imagawa K, Ishiodori T, Nozaki Y, Murakami T, Takada H. Time course of peripheral immunophenotypes of multisystem inflammatory syndrome in children. *Clin Immunol*. 2022 Mar;236:108955.