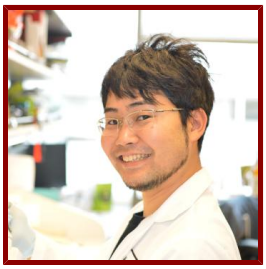
Stanford



Kouta Niizuma

Basic Life Research Scientist, Stem Cell Bio Regenerative Med Institute

Bio

BIO

I am a Research Scientist in Prof. Hiromitsu Nakauchi's laboratory at Stanford University. I obtained my PhD in Immunology from the University of Tsukuba, Japan. During my doctoral studies in Prof. Akira Shibuya's laboratory, I focused on the characterization of cell surface receptors expressed on immune cells. I successfully cloned a novel human immunoglobulin-like receptor, CD300H, and established a specific monoclonal antibody. My research demonstrated that CD300H is expressed on a subset of human monocytes and dendritic cells and plays a crucial role in enhancing inflammation by promoting the production of inflammatory cytokines and chemokines.

During my PhD, I also studied as a visiting scholar in Prof. Lewis L. Lanier's laboratory at UCSF, where I investigated the role of the activating receptor NKG2D on NK cells in viral immunity.

Since May 2018, I have been a member of the Nakauchi lab. My current research focuses on the development of new immunotherapies using myeloid cells derived from iPS cells, the generation of monoclonal antibodies, and hematopoietic stem cell biology.

INSTITUTE AFFILIATIONS

- Member, Maternal & Child Health Research Institute (MCHRI)

ADDITIONAL PROGRAM AFFILIATIONS

- SPARK at Stanford

Publications

PUBLICATIONS

- **Development of iPSC-derived T cells targeting EGFR neoantigens in non-small cell lung cancer.** *Molecular therapy. Methods & clinical development*
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- **Elevated hematopoietic stem cell frequency in mouse alveolar bone marrow.** *Stem cell reports*
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- **Lineage-tracing hematopoietic stem cell origins in vivo to efficiently make human HLF+ HOXA+ hematopoietic progenitors from pluripotent stem cells.** *Developmental cell*

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- **Physioxia improves the selectivity of hematopoietic stem cell expansion cultures.** *Blood advances*

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- **Bioluminescent Tracking of Human Induced Pluripotent Stem Cells In Vitro and In Vivo.** *Methods in molecular biology (Clifton, N.J.)*

  Nishimura, T., Niizuma, K., Nakauchi, H.

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- **Cutting Edge: NKG2D Signaling Enhances NK Cell Responses but Alone Is Insufficient To Drive Expansion during Mouse Cytomegalovirus Infection** *JOURNAL OF IMMUNOLOGY*

  Nabekura, T., Gotthardt, D., Niizuma, K., Trsan, T., Jenus, T., Jonjic, S., Lanier, L. L.

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- **Identification and Characterization of CD300H, a New Member of the Human CD300 Immunoreceptor Family** *JOURNAL OF BIOLOGICAL CHEMISTRY*

  Niizuma, K., Tahara-Hanaoka, S., Noguchi, E., Shibuya, A.

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- **Toll-like receptor 4 and MAIR-II/CLM-4/LMIR2 immunoreceptor regulate VLA-4-mediated inflammatory monocyte migration** *NATURE COMMUNICATIONS*

  Totsuka, N., Kim, Y., Kanemaru, K., Niizuma, K., Umemoto, E., Nagai, K., Tahara-Hanaoka, S., Nakahasi-Oda, C., Honda, S., Miyasaka, M., Shibuya, K., Shibuya, A.

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