

**CURRICULUM VITAE**



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**Education/Training:**

Postdoc	1996-97	University of Tokyo, Japan (Immunology)
Ph.D.	1996	Sapporo Medical University, Graduate School of Medicine, Japan (Internal Medicine)
M.D.	1992	Sapporo Medical University, Japan (Internal Medicine)

**Academic&Research Appointments/Managerial Positions:**

2014-2016	Management Council Member, Hokkaido University
2012-2016	Director, Institute for Genetic Medicine, Hokkaido University
2012-2016	Councilor, Hokkaido University
2009-2011	Chief director - Research Center for Infection-associated Cancer, Institute for Genetic Medicine, Hokkaido University
2007-Present	Professor - Division of Signaling in Cancer and Immunology, Institute for Genetic Medicine, Hokkaido University
2002-2007	Lecturer - Department of Immunology, Graduate School of Medicine and Faculty of Medicine, University of Tokyo

- 2000-2002      Assistant Professor - Department of Immunology,  
Graduate School of Medicine and Faculty of Medicine,  
University of Tokyo
- 1997-2000      Research Associate - Department of Immunology,  
Graduate School of Medicine and Faculty of Medicine,  
University of Tokyo

**Honors/Awards:**

- 2015      Hokkaido University President's Award for Teaching Excellence
- 2014      Hokkaido University President's Award for Teaching Excellence
- 2012      Hokkaido University President's Award for Research Excellence
- 2011      Medical Research Encouragement Prize of The Japan Medical  
Association
- 2005      MITSUBISHI CHEMICAL research award (The Molecular Biology  
Society of Japan, Fukuoka)
- 2003      Milstein young investigator award (International society for  
interferon and cytokine research, Cairns)
- 2003      The Princess Takamatsu Cancer Research Fund
- 2001      Research Award (Japanese cancer association, Yokohama)
- 2000      1<sup>st</sup> Young investigator award (International cytokine society,  
Amsterdam)
- 1992      Ohno Award, Sapporo Medical University

**Selected Publications:**

Yamada T, Horimoto H, Kameyama T, Hayakawa S, Yamato H, Dazai M, Takada A, Kida H, Bott D, Zhou AC, Hutin D, Watts TH, Asaka M, Matthews J, and Takaoka A. Constitutive aryl hydrocarbon receptor signaling constrains type I interferon-mediated antiviral innate defense. *Nat. Immunol.*, **17**, 687-94, 2016.

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Takaoka, A., Wang, Z., Choi, M., Yanai, H., Negishi, H., Ban, T., Lu, Y., Miyagishi, M., Kodama, T., Honda, K., Ohba, Y. and Taniguchi, T. Identification of DAI as a cytosolic DNA sensor and an activator of innate immune response. *Nature*, **448**, 501-505, 2007.

Takaoka, A., Yanai, H., Kondo, S., Duncan, G., Negishi, H., Mizutani, T., Kano, S., Honda, K., Ohba, Y., Mak, T.M., and Taniguchi, T.; Integral role of IRF-5 in the gene induction programme activated by Toll-like receptors. *Nature*, **434**, 243-249, 2005.

Takaoka, A., Hayakawa, S., Yanai, H., Stoiber, D., Negishi, H., Kikuchi, H., Sasaki, S., Imai, K., Shibue, T., Honda, K. and Taniguchi, T. Integration of IFN- $\alpha/\beta$  signalling to p53 responses in tumor suppression and antiviral defense. *Nature*, **424**, 516-523, 2003.

Takaoka, A., Mitani, Y., Suemori, H., Sato, M., Yokochi, T., Noguchi, S., Tanaka, N., and Taniguchi, T. Cross talk between interferon- $\gamma$  and - $\alpha/\beta$  signaling components in caveolar membrane domains. *Science* **288**, 2357-2360, 2000.

#### **Other Publications:**

Bhattacharya A, Hegazy AN, Deigendesch N, Kosack L, Cupovic J, Kandasamy RK, Hildebrandt A, Merkler D, Kühl AA, Vilagos B, Schliehe C, Panse I, Khamina K, Baazim H, Arnold I, Flatz L, Xu HC, Lang PA, Aderem A, Takaoka A, Superti-Furga G, Colinge J, Ludewig B, Löhning M, Bergthaler A. Superoxide Dismutase 1 Protects Hepatocytes from Type I Interferon-Driven Oxidative Damage. *Immunity*. **43**, 974-86, 2015.

Ingle H, Kumar S, Raut AA, Mishra A, Kulkarni DD, Kameyama T, Takaoka A, Akira S, Kumar H. The microRNA miR-485 targets host and influenza virus transcripts to regulate antiviral immunity and restrict viral replication. *Sci Signal*. 8(406):ra126, 2015.

Kumar S, Ingle H, Mishra S, Mahla RS, Kumar A, Kawai T, Akira S, Takaoka A, Raut AA, Kumar H. IPS-1 differentially induces TRAIL, BCL2, BIRC3 and PRKCE in type I interferons-dependent and -independent anticancer activity. *Cell Death Dis*. **6**:e1758, 2015.

Kawata K, Iwai A, Muramatsu D, Aoki S, Uchiyama H, Okabe M, Hayakawa S, Takaoka A, Miyazaki T. Stimulation of Macrophages with the  $\beta$ -Glucan Produced by *Aureobasidium pullulans* Promotes the Secretion of Tumor Necrosis Factor-Related Apoptosis Inducing Ligand (TRAIL). *PLoS One*. **10**, e0124809, 2015.

Ito K, Morimoto J, Kihara A, Matsui Y, Kurotaki D, Kanayama M, Simmons S, Ishii M, Sheppard D, Takaoka A, Uede T. Integrin  $\alpha 9$  on lymphatic endothelial cells regulates lymphocyte egress. *Proc Natl Acad Sci U S A*. **111**:3080-5, 2014.

Nakagawa S, Hirata Y, Kameyama T, Tokunaga Y, Nishito Y, Hirabayashi K, Yano J,

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- Jinushi M, Chiba S, Baghdadi M, Kinoshita I, Dosaka-Akita H, Ito K, Yoshiyama H, Yagita H, Uede T, Takaoka A. ATM-mediated DNA damage signals mediate immune escape through integrin  $\alpha\beta 3$ -dependent mechanisms. Cancer Res., **72**, 56-65, 2012.
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- Tsushima K, Osawa T, Yanai H, Nakajima A, Takaoka A, Manabe I, Ohba Y, Imai Y, Taniguchi T, Nagai R. “IRF3 regulates cardiac fibrosis but not hypertrophy in mice during angiotensin II-induced hypertension.” FASEB J. **25**:1531-43 (2011)
- Chen, H.M., Tanaka, N., Mitani, Y., Oda, E., Nozawa, H., Chen, J.Z., Yanai, H., Negishi, H., Choi, M.K., Iwasaki, T., Yamamoto, H., Taniguchi, T., and Takaoka, A. Critical role for constitutive type I interferon signaling in the prevention of cellular transformation. Cancer Sci., **100**, 449-456, 2009.
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Nishi, M., Miyake, H., Ito, Y., Kagiichi, S., Kimura, M., Suzuki, A., Takaoka, A., Tago, N., and Nagase, K. Uptake of immunization of children with asthma. Acta. Paediatr. Jpn., **32**, 328-329, 1990.

Nishi, M., Miyake, H., Ito, Y., Kagiichi, S., Kimura, M., Suzuki, A., Takaoka, A., Tago, N. and Nagase, K. Vaccination of children in Japan. Asia. Pac. J. Public Health., **4**, 128-131, 1990.