CURRICULUM VITAE

Name: Yukiko Gotoh

Contact Address: Graduate School of Pharmaceutical Sciences
The University of Tokyo
7-3-1 Hongo, Bunkyo-ku, Tokyo 113-0033, Japan
Phone: +81-3-5841-4870
Fax: +81-3-5841-4879
E-mail: ygotoh@mol.f.u-tokyo.ac.jp

Education

1989 - 1992 Ph.D., Department of Biophysics & Biochemistry, Faculty of Science, The University of Tokyo. (Supervisors: Drs. Hikoichi Sakai and Eisuke Nishida)
Thesis Title: Activation and Functions of MAP kinase.
1987 - 1989 M.S., Department of Biophysics & Biochemistry, Faculty of Science, The University of Tokyo (Supervisors: Drs. Hikoichi Sakai and Eisuke Nishida)
1983 - 1987 B.Sc., Faculty of Science, The University of Tokyo.

Scientific Employment

October 2017 - present	Principal Investigator, International Research Center for Neurointelligence, The University of Tokyo, Tokyo, Japan
October 2013 - present	Professor, Graduate School of Pharmaceutical Sciences, The University of Tokyo, Tokyo, Japan
April 2005 – September 2013	Professor, Institute of Molecular and Cellular Biosciences, The University of Tokyo, Tokyo, Japan
April 1998 – April 2005	Associate Professor, Institute of Molecular and Cellular Biosciences, The University of Tokyo, Tokyo, Japan
April 2003 - March 2006	Adjunct Professor, National Institute of Genetics, NIG, Mishima
April 2002 - March 2005	Adjunct Associate Professor, National Institute of Physiological Science, NIPS, Okazaki
May 1997 – February 1999	Visiting scientist, In Dr. Michael E. Greenberg's laboratory at Children's Hospital/Harvard Medical School, Boston, USA
October 1996 - April 1997	Visiting scientist, in Dr. Jonathan A. Cooper's laboratory at Fred Hutchinson Cancer Research Center, Seattle, USA
July 1993 - March 1998	Research Associate/ Assistant Professor, in Dr. Eisuke Nishida's laboratory at Institute for Virus Research, Kyoto University, Kyoto, Japan
April 1992 - June 1993	Post-doctoral fellow, in Dr. Eisuke Nishida's laboratory at the University of Tokyo, Tokyo, Japan

Scientific Awards

- 22nd Kihara Memorial Foundation Academic Award
- 30th Inoue Prize for Science
- Prize for Medicine, Yasuda Memorial Foundation
- 24th Tsukahara Prize
- 6th Japan Academy Medal
- 6th JSPS PRIZE, Japan Society for the Promotion of Science
- Incitement Award of the Japanese Cancer Association
- Incitement Award of Mitsubishi Chemical Corp., The Molecular Biology Society of Japan

- Medal with Purple Ribbon, Cabinet Office, Government of Japan

Current Advisory Board Member / Editorial Board member

Neuron, Advisory Board Member

Journal of Cell Biology, Editorial Board member

Development, Advisory Board Member

The EMBO Journal, Advisory Editorial Board Member

GLIA, Editorial Board member

Molecular Psychiatry, Editorial Board member

Life Science Alliance, Advisory Editorial Board Member

Stem Cell Reports, Editorial Board member

Frontiers in Neuroscience (Neurogenesis), Associate Editor

Frontiers in Cell and Developmental Biology (Developmental Epigenetics), Associate Editor

Genes to Cells, Associate Editor

Oxford Open Neuroscience, Editorial Advisory Board member

Selected Contributions to the Scientific Society

- **The Science Council of Japan,** Member
- **The Japanese Society for Molecular Biology**, President
- **The Union of Japanese Societies for Biological Science**, Vice Representative
- **The Declaration on Research Assessment (DORA)**, Advisory Board Member
-

Selected Presentations (Invited) 2016-2023

- The 97th Annual Meeting of the Japanese Pharmacological Society, 2023/12/14-16, Kobe, Japan (Special lecture)
- The 30th Federation of Asian and Oceanian Biochemists and Molecular Biologists (FAOBMB), 2023/11/22-25, Bangkok, Thailand (Plenary speaker)
- The 96th Annual Meeting of the Japanese Biochemical Society, 2023/10/31-11/2, Hakata, Japan (Special lecture)
- The 50th Naito Conference, Glia World- Glial Cells Governing Brain Functions-, 2023/10/10-13, Sapporo, Japan
- EMBO workshop, Gene regulatory mechanisms in neural fate decisions, 2023/9/7-10, Alicante, Spain (Co-organizer)
- The 2nd CJK International Meeting, 2023/7/27-30, Shuhai, China (Plenary Lecture)
- International Society for Stem Cell Research 2023 Annual Meeting, 2023/6/14-17, Boston, USA (Plenary Speaker)
- 3rd Neuroepigenetics & Neuroepitranscriptomics Conference, 2023/4/28-5/1, Riviera Maya, Mexico (Plenary Speaker)
- EMBL Symposium, Brain genome: regulation, evolution, and function, 2023/4/25-28, Heidelberg, Germany
- International Symposium on Neural Development and Diseases, 2023/3/15-17, Kyoto, Japan
- OIST workshop, Nervous System Assembly, 2023/3/6-9, Okinawa, Japan
- The 21st Takeda Science Foundation Symposium on Bioscience, Towards Understanding Human Development and Evolution, 2023/1/27-28, Osaka, Japan (Co-organizer)
- Anne McLaren Lecture, University of Oxford, 2022/11/1

- The 14th International Congress of Cell Biology & the 9th Asian Pacific Organization for Cell Biology, 2022/11-7-11, Taipei, Taiwan
- The 1st Fujita International Symposium on Brain Science, 2022/11/19-20, Nagoya, Japan
- UTokyo New York Office Event Series, 2022/10/19, NYC, USA
- NeuroZoom 2022/8/22, Virtual
- Gordon Research Conference, Neural Development, 2022/8/7-12, USA
- RIKEN CBS Summer Program 2022, 2022/7/4-8, Japan
- The 24th Biennial Meeting of the International Society for Developmental Neuroscience (ISDN), 2022/5/7-10, Vancouver, Canada
- EMBO Workshop, Molecular mechanisms of developmental and regenerative biology, 2022/4/26-29, Virtual
- The 74th Annual Meeting of the Japan Society for Cell Biology (JSCB) (Plenary lecture), 2022/6/28-30, Funabori, Japan
- ASHBi Symposium 2022, The International Symposium on Development and Plasticity of Neural Systems, 2022/3/14-17, Virtual
- Lecture Series, Centre for Developmental Neurobiology, King's College London, 2022/2/10
- The international Society for Stem Cell Research (ISSCR) 2021/10/27-29, Tokyo, Japan. (Co-organizer)
- The Uehara International Symposium, 2021/6/7-9, Japan (Co-organizer)
- The 2nd Neuroepigenetics & Neuroepitranscriptomics conference, 2020/3/3-6 Nassau, Bahamas
- The Hospital for Sick Children symposium 2019/11/14, Toronto, Canada.
- The Notch Meeting XI, 2019/10/6-10, Athens, Greece
- The International Brain Research Organization IBRO 2019 (Keynote speaker), 2019/9/21-25, Daegu, Korea
- Current Trends and Future Directions of Synapse-Circuit Plasticity Research 2019, 2019/9/3-6, Sizuoka, Japan
- NCCR-IRCN "22q" Workshop, 2019/7/6, Tokyo, Japan
- Center for Regenerative Therapies TU Dresden (CRTD) Summer Conference, 2019/6/28, Dresden, Germany
- The 13th Annual Meeting of the Japanese Society for Epigenetics 2019/5/28-29, Kanagawa, Japan
- 2nd Neurogenesis Conference (Life Science Alliance Journal Lecture) 2019/3/6, Nassau, Bahamas
- 2nd IRCN International Symposium, 2018/12/17, Tokyo, Japan
- Neuroscience Program of Academia Sinica (NPAS) Seminar, 2018/12/5, Neuroscience Program of Academia Sinica (NPAS), Taipei, Taiwan
- National Chung Kung University （NCKU） Seminar, 2018/12/6, National Chung Kung University （NCKU）, Tainan, Taiwan
- Japan-Asia-NIBR Drug Discovery and Translational Medicine Symposium, 2018/10/22, Tokyo, Japan
- Vienna BioCenter (VBC) Seminar, 2018/9/27, Vienna, Austria
- The Joint Congress of the 40th Annual Meeting of Japanese Society of Biological Psychiatry and the 61st Annual Meeting of the Japanese Society for Neurochemistry, 2018/9/6-8, Kobe, Japan
- Stem Cell Dynamics Throughout Life: From Development to the Adult, 2018/8/30, Basel, Switzerland
- International Society for Stem Cell Research (ISSCR) 2018 Annual Meeting, 2018/6/20-23, Melbourne, Australia
- The Company of Biologists Workshop: Development and evolution of the human neocortex, 2018/6/10-13, West Sussex, UK
- International Society for Developmental Neuroscience (ISDN) 2018, 2018/5/22-25, Nara, Japan
- Cold Spring Harbor (CSH) Asia2018, Stem Cell Crossroads, 2018/5/7-10, Suzhou, China
- Bordeaux Cajal School 2018, 2018/4/3-21, Bordeaux Cedex, France
- Cell Symposia. 2017/11/13, Tokyo, Japan
- Keystone Symposia, Regenerative Biology and Applications, The University of Hong Kong, 2017/10/15-19, Hong Kong, China
- Italian Society for Neuroscience 2017 (Plenary lecture), 2017/10/1-4, Ischia, Italy
- EMBO Conference, Gene regulatory mechanisms in neural fate decisions, 2017/9/7-10, Alicante, Spain (Co-organizer)
- The Japan Neuroscience Society, Neuro2017 (Special lecture), 2017/7/20-23, Chiba, Japan
- XIII European Meeting on Glial Cells 2017 (Plenary lecture), 2017/7/8-11, Edingburgh, UK
- EMBO Conference, Advances in Stem Cell and Regenerative Medicine, 2017/5/23-26, Heiderberg, Germany

- Society for Neuroscience, Neuroscience 2016 (Special lecture), 2016/11/12-16, San Diego, USA
- EMBO workshop Neural Function and Cell Fate Choice, 2016/9/18-22, Kyllini, Greece
- Gordon Research Conference, Neural Development, 2016/7/31-8/5, Newport, USA
- Gordon Research Conference, Molecular & Cellular Neurobiology, 2016/6/12-17, HongKong, China
- 18th International Neuroscience Winter Conference, 2016/4/2-6, Innsbruck, Austria
- Neurogenesis, 2016/3/2-5, Cancun, Mexico

Publications

Hirata, Y., Kitanishi, Y., Sugishita, H. and Gotoh, Y.
Fast reconstruction of an original continuous series from a recurrence plot.
Chaos 31, 121101. 2021

Harada, Y., Yamada, M., Imayoshi, I., Kageyama, R., Suzuki, Y., Kuniya, T., Furutachi, S., Kawaguchi, D. and Gotoh, Y.
Cell cycle arrest determines adult neural stem cell ontogeny by an embryonic Notch-nonoscillatory Hey1 module.
Nat. Comm. 12, 6562, 2021.

Kitanishi, Y., Sugishita, H., Gotoh, Y. and Hirata, Y.
Three-dimensional chromatin architecture of early-stage mouse embryos reconstructed via recurrence plots.
bioRxiv, 2021.

Yuizumi, N., Harada Y., Kuniya T., Sunabori T., Koike M., Wakabayashi M., Ishihama Y., Suzuki Y., Kawaguchi D. and Gotoh Y.
Maintenance of neural stem - progenitor cells by the lysosomal biosynthesis regulators TFEB and TFE3 in the embryonic mouse telencephalon.
Stem Cells 39, 929-944, 2021.

Omiya, H., Yamaguchi, S., Watanabe, T., Kuniya, T., Harada, Y., Kawaguchi, D. and Gotoh, Y.
BMP signaling suppresses Gemc1 expression and ependymal differentiation of mouse telencephalic progenitors.
Sci. Rep. 11, 613, 2021.

Tsuboi, M. and Gotoh, Y.
Analysis of histone modifications in mouse neocortical neural progenitor-stem cells at various developmental stages.
STAR Protoc. 2, 100763, 2021.

Kishi, Y. and Gotoh, Y.
Isolation of genetically manimulated neural progenitors and immature neurons from embryonic mouse neocortex by FACS.
STAR Protoc. 2, 100540, 2021.

Utsunomiya, S., Kishi, Y., Tsuboi, M., Kawaguchi, D., Gotoh, Y., Abe, M., Sakimura, K., Maeda, K. and Takemoto, H.
Ezh1 regulates expression of Cpg15/Neuritin in mouse cortical neurons.
Drug Discov. Ther. 15, 55-65, 2021.

Eto, H., Kishi, Y., Yakushiji-Kaminatsu, N., Sugishita, H., Utsunomiya, S., Koseki, H. and Gotoh, Y.
The Polycomb group protein Ring1 regulates dorsoventral patterning of the mouse telencephalon.
Nat. Comm. 11, 5709, 2020.

Aoyama-Ishiwatari, S., Okazaki, T., Iemura, S., Natsume, T., Okada, Y. and Gotoh, Y.
NUDT21 links mitochondrial IPS-1 to RLR-containing stress granules and activates host antiviral defense.

J. Immunol. 206, 2020.

Nagahama, K., Sakoori, K., Watanabe, T., Kishi, Y., Kawaji, K., Koebis, M., Nakao, K., Gotoh, Y., Aiba, A., Uesaka, N. and Kano, M.
Setd1a insufficiency in mice attenuates excitatory synaptic function and recapitulates Schizophrenia-related behavioral abnormalities.
Cell Rep. 32 (11):108126, 2020.

Imaizumi, Y., Furutachi, S., Watanabe, T., Miya, H., Kawaguchi, D. and Gotoh, Y.
Role of the imprinted allele of the Cdkn1c gene in mouse neocortical development.
Sci. Rep. doi: 10.1038/s41598-020-58629-9, 2020.

Tsuboi, M. and Gotoh, Y.
Endfoot regrowth for neural stem cell renewal.
Nat. Cell Biol. 22, 3-5, 2020. news & views.

Sakai, H., Fujii, Y., Kuwayama, N., Kawaji, K., Gotoh, Y. and Kishi, Y.
Plag1 regulates neuronal gene expression and neuronal differentiation in neocortical neural progenitor cells.
Genes Cells. 24, 650-666, 2019.

Kawaguchi, D. and Gotoh, Y.
Neurexin nanoclusters: A novel structure at presynaptic terminals
J. Cell Biol. 218, 2442-2443, 2019. Spotlight.

Tsuboi, M., Hirabayashi, Y. and Gotoh, Y.
Diverse gene regulatory mechanisms mediated by Polycomb group proteins during neural development
Curr. Opin. Neurobiol. 59, 164-173, 2019.

Tanaka, H., Okazaki, T., Aoyama, S., Yokota, M., Koike, M., Okada, Y., Fujiki, Y. and Gotoh, Y.
Peroxisomes control mitochondrial dynamics and the mitochondrion-dependent pathway of apoptosis.
J. Cell Sci. 2019, doi: 10.1242/jcs.224766.

Tsuboi, M., Kishi, Y., Kyozuka, W., Koseki, H., Hirabayashi, Y. and Gotoh, Y.
Ubiquitination-independent repression of PRC1 targets during neuronal fate restriction in the developing mouse neocortex.
Dev. Cell 47, 758-772, 2018.

Kishi, Y. and Gotoh, Y.
Regulation of chromatin structure during neural development.
Frontiers Neurosci. 12, 874, 2018. Review

Okazaki, T. and Gotoh, Y.
An unexpected calm: Mfge8 controls stem cell quiescence and maintenance.
Cell Stem Cell 23, 311-312, 2018. Preview.

Lanjakornsiripan, D., Pior, BJ., Kawaguchi, D., Furutachi, S., Tahara, T., Katsuyama, Y., Suzuki, Y., Fukazawa, F. and Gotoh, Y.
Layer-specific heterogeneity of astrocytes and its dependence on neuronal layers.
Nat. Comm. 9,1623, 2018.

Kawai, H., Kawaguchi, D., Kuebrich, BD., Kitamoto. T., Yamaguchi. M., Gotoh. Y., and Furutachi. S.
Area-Specific Regulation of Quiescent Neural Stem Cells by Notch3 in the Adult Mouse Subependymal Zone
J Neurosci. 37, 11867-11880, 2017.

Itoh, Y., Higuchi, M., Oishi, K.,Kishi, Y., Okazaki, T., Sakai, H., Miyata, T., Nakajima, K., Gotoh, Y.
The PDK1-Akt Pathway Regulates Radial Neuronal Migration and Microtubules in the Developing Mouse

Neocortex
Proc. Natl. Acad. Sci. U.S.A. 113(21) E2955-64, 2016

Nagao, M., Ogata, T.,Sawada, Y., and Gotoh,Y.
Zbtb20 promotes astrocytogenesis during neocortical development
Nat. Comm. 7, 11102, 2016.

Furutachi, S., Miya, H., Watanabe, T., Kawai, H., Yamasaki, N., Harada, Y., Imayoshi, I., Nelson, M., Nakayama, KI., Hirabayashi, Y., and Gotoh, Y.
Slowly dividing neural progenitors are an embryonic origin of adult neural stem cells.
Nat. Neurosci. 18, 657-665, 2015.

Okazaki, T., Higuchi, M., Takeda, K., Iwatuki-Horimoto, K., Kiso, M., Miyagishi, M., Yanai, H., Kato, A., Yoneyama, M., Fujita, T., Taniguchi, T., Kawaoka, Y., Ichijo, H. and Gotoh, Y.
The ASK family kinases differentially mediate induction of type I interferon and apoptosis during the antiviral response.
Sci. Signal. 8, ra78. Doi: 10.1126/scisignal.aab1883, 2015.

Oshiro, H., Hirabayashi, Y., Furuta, Y., Okabe, S. and Gotoh, Y.
Up-regulation of HP1g expression during neuronal maturation promotes axonal and dendritic development in mouse embryonic neocortex.
Genes Cells 20, 108-120, 2015.

Morimoto-Suzki, N., Hirabayashi, Y., Tyssowski, K., Singa, J., Vidal, M., Koseki, H. and Gotoh, Y.
The polycomb component Ring1B regulates the timed termination of subcerebral projection neuron production during mouse neocortical development.
Development 141, 4343-4353, 2014.

Nagao, M., Lanjakornsiripan, D., Itoh, Y., Kishi, Y., Ogata, T. and Gotoh, Y.
High mobility group nucleosome-binding family proteins promote astrocyte differentiation of neural precursor cells.
Stem Cells 32, 2983-2997, 2014.

Kuwahara, A., Sakai, H., Xu, Y., Itoh, Y., Hirabayashi, Y. and Gotoh, Y.
Tcf3 represses Wnt-□□catenin signaling and maintains neural stem cell population during neocortical development.
PLoS One 9, e94408, 2014.

Tyssowski, K., Kishi, Y. and Gotoh, Y.
Chromatin regulation of neural development
Neuroscience 264, 4-16, 2014 doi:10.1016/j.neuroscience 2013.10.008, 2013.

Itoh, Y., Tyssowski, K. and Gotoh, Y.
Transcriptional coupling of neuronal fate commitment and the onset of migration.
Curr. Opin. Neurobiol. 23, 957-964, 2013.

Okazaki, T., Higuchi, M. and Gotoh, Y.
Mitochondrial localization of the antiviral signaling adaptor IPS-1 is important for its induction of caspase activation.
Genes Cells 18, 493-501, 2013.

Kawaguchi, D., Furutachi, S., Kawai, H., Hozumi, K. and Gotoh, Y.
Dll1 maintains quiescence of adult neural stem cells and segregates asymmetrically during mitosis.
Nat. Commun. 4, 1880, 2013.

Furutachi, S., Matsumoto, A., Nakayama, K.I. and Gotoh, Y.
p57 controls adult neural stem cell quiescence and modulates the pace of lifelong neurogenesis.
EMBO J. 32, 970-981, 2013.

Fujii, Y., Kishi, Y. and Gotoh, Y.
IMP2 regulates differentiation potentials of mouse neocortical neural precursor cells.
Genes Cells. 18, 79-89, 2013.

Itoh, Y., Moriyama, Y., Hasegawa, T., Endo, T.A., Toyoda, T. and Gotoh, Y.
Scratch regulates neuronal migration onset via an epithelial-mesenchymal transition-like mechanims.
Nat. Neurosci. 16, 416-425, 2013.

Higuchi, M., Kihara, R., Okazaki, T., Aoki, I., Suetsugu, S. and Gotoh, Y.
Akt1 promotes focal adhesion disassembly and cell motility through phosphorylation of FAK in growth factor-stimulated cells.
J. Cell Sci. 126, 745-755, 2013.

Kishi, Y., Fujii, Y., Hirabayashi, Y. and Gotoh, Y.
HMGA proteins regulate global chromatin state and the neurogenic potential in neocortical precursor cells.
Nat. Neurosci. 15, 1127-1133, 2012.

Onoguchi, M., Hirabayashi, Y., Koseki, H. and Gotoh, Y.
A noncoding RNA regulates the neurogenin1 gene locus during mouse neocortical development.
Proc. Natl. Acad. Sci. U.S.A. 109, 16939-16944, 2012.

Aoki I., Higuchi M., Gotoh Y.
NEDDylation controls the target specificity of E2F1 and apoptosis induction.
Oncogene, doi: 10.1038/onc.2012.428., 2012.

Kishi, Y., Kondo, S. and Gotoh, Y.
Transcriptional activation of mouse major satellite regions during neuronal differentiation.
Cell Struct. Funct. 37, 101-110, 2012.

Watatani, K., Hirabayashi, Y., Itoh, Y. and Gotoh, Y.
PDK1 regulates the generation of oligodendrocyte precursor cells at an early stage of mouse telencephalic development.
Genes Cells 17, 326-335, 2012.

Ip, J.P., Shi, L., Chen, Y., Itoh, Y., Fu, W.Y., Betz, A., Yung, W.H., Gotoh, Y., Fu, A.K. and Ip, N.Y.
α2-chimaerin controls neuronal migration and functioning of the cerebral cortex through CRMP-2.
Nat. Neurosci. 15, 39-47, 2011.

Hirabayashi, Y. and Gotoh, Y.
Epigenetic control of neural precursor cell fate during development.
Nat. Rev. Neurosci. 11, 377-388, 2010.

Kuwahara, A., Hirabayashi, Y., Knoepfler, P.S., Taketo, M.M., Sakai, J., Kodama, T. and Gotoh, Y.
Wnt signaling and its downstream target N-myc regulate basal progenitors in the developing neocortex.
Development 137, 1035-1044, 2010.

Miyata, T., Kawaguchi, D., Kawaguchi, A. and Gotoh, Y.
Mechanisms that regulate the number of neurons during mouse neocortical development.
Curr. Opin. Neurobiol. 20, 22-28, 2010.

Hirabayashi, Y., Suzki, N., Tsuboi, M., Endo, T.A., Toyoda, T., Shinga, J., Koseki, H., Vidal, M. and Gotoh, Y.
Polycomb limits the neurogenic competence of neural precursor cells to promote astrogenic fate transition.
Neuron 63, 600-613, 2009.

Oishi, K., Watatani, K., Itoh, Y., Okano, H., Guillemot, F., Nakajima, K. and Gotoh, Y.
Selective induction of neocortical GABAergic neurons by the PDK1-Akt pathway through activation of Mash1.
Proc. Natl. Acad. Sci. USA 106, 13064-13069, 2009.

Higuchi, M., Onishi, K., Yoneyama, C. and Gotoh, Y.
Scaffolding function of PAK in the PDK1-Akt pathway.
Nat. Cell Biol. 10, 1356-1364, 2008.

Kawaguchi, D., Yoshimatsu, T., Hozumi, K. and Gotoh, Y.
Selection of differentiating cells by different levels of delta-like 1 among neural precursor cells in the developing mouse telencephalon.
Development 135, 3849-3858, 2008.

Mori, Y., Higuchi, M., Hirabayashi, Y., Fukuda, M. and Gotoh, Y.
JNK phosphorylates Syt 4 and enhances Ca2+-evoked release.
EMBO J. 27, 76-87, 2008.

Itoh, Y., Masuyama, N., Nakayama, K., Nakayama, K.I. and Gotoh, Y.
The cdk inhibitors p57 and p27 regulate neuronal migration in the developing mouse neocortex.
J. Biol. Chem. 282, 390-396, 2007.

Onishi, K., Higuchi, M., Asakura, T., Masuyama, N., and Gotoh, Y.
The PI3K-Akt pathway promotes microtubule stabilization in migrating fibroblasts.
Genes Cells 12, 535–546, 2007.

Adachi, K., Mirzadeh, Z., Sakaguchi, M., Yamashita, T., Nikolcheva, T., Gotoh, Y., Peltz, G., Gong, L., Kawase, T., Alvarez-Buylla, A., Okano, H., and Sawamoto, K. Beta-catenin signaling promotes proliferation of progenitor cells in the adult mouse subventribular zone.
Stem Cells 25, 2827-2836, 2007.

Hayakawa-Yano, Y., Nishida , K., Fukami, S., Gotoh, Y., Hirano, T., Nakagawa, T., Shimazaki, T. and Okano, H. EGF-signaling mediated by Gab1 is required for the spatiotemporally regulated proliferation of Olig2-expressing progenitors in the embryonic spinal cord.
Stem Cells 25, 1410 – 1422, 2007.

Ura, S., Nishina, H., Gotoh, Y. and Katada, T.
Activation of the c-Jun N-terminal kinase pathway by MST1 is essential and sufficient for the induction of chromatin condensation during apoptosis.
Mol. Cell Biol. 27, 5514-5522, 2007.

Yoshizaki, H., Mochizuki, N., Gotoh, Y.. and Matsuda, M.
Akt-PDK1 complex mediates EGF-induced membrane protrusion through Ral activation.
Mol. Biol. Cell. 18, 119-128, 2007.

Yoshimatsu, T., Kawaguchi, D., Oishi, K., Takeda, K., Akira, S., Masuyama, N. and Gotoh, Y.
Non-cell-autonomous action of STAT3 in maintenance of neural precursor cells in the mouse neocortex.
Development 133, 2553-2563, 2006.

Sunayama, J.,Tsuruta, F., Masuyama, N. and Gotoh, Y.
JNK antagonizes Akt-mediated survival signals by phosphorylating 14-3-3.
J. Cell. Biol. 170, 295-304, 2005.

Hirabayashi, Y. and Gotoh, Y.
Stage-dependent fate determination of neural precursor cells in mouse forebrain.
Neurosci. Res. 51, 331-336, 2005.

Takada, T., Suzuki, H., Gotoh, Y. and Sugiyama, Y.

Regulation of the cell surface expression of human BCRP/ABCG2 by the phosphorylation state of Akt in polarized cells.
Drug Metab. Dispos. 33, 905-909, 2005.

Oishi, K., Kamakura, S., Isazawa, Y., Yoshimatsu, T., Kuida, K., Nakafuku, M., Masuyama, N. and Gotoh, Y.
Notch promotes survival of neural precursor cells via mechanisms distinct from those regulating neurogenesis.
Dev. Biol. 276, 172-184, 2004.

Kamakura, S., Oishi, K., Yoshimatsu, T., Nakafuku, M., Masuyama, N. and Gotoh, Y.
Hes binding to STAT3 mediates crosstalk between Notch and JAK-STAT signaling.
Nat. Cell Biol. 6, 547-554, 2004

Tsuruta, F., Sunayama, J., Mori, Y., Shimizu, S., Tsujimoto, Y., Yoshioka, K., Masuyama, N. and Gotoh, Y.
JNK promotes Bax translocation to mitochondria through phosphorylation of 14-3-3 proteins.
EMBO J. 23, 1889-1899, 2004.

Hirabayashi, Y., Itoh, Y., Tabata, H., Nakajima, K., Akiyama, T., Masuyama, N. and Gotoh, Y.
The Wnt-beta-catenin pathway directs neuronal differentiation of cortical neural precursor cells.
Development 131, 2791-2801, 2004.

Mori, Y., Higuchi, M., Masuyama, N. and Gotoh, Y.
Adenosine A2A receptor facilitates calcium-dependent protein secretion through the activation of protein kinase A and phosphatidylinositol-3 kinase in PC12 cells.
Cell Struct. Funct. 29, 101-110, 2004.

Miyagi, S., Saito, T., Mizutani, K., Masuyama, N., Gotoh, Y., Iwama, A., Nakauchi, H., Masui, S., Niwa, H., Nishimoto, M., Muramatsu, M. and Okuda, A.
The sox-2 regulatory regions display their activities in two distinct multipotent stem cells.
Mol. Cell. Biol. 24, 4207-4220, 2004.

Sunayama, J., Ando, Y., Itoh, N., Tomiyama, A., Sakurada, K., Sugiyama, A., Kang, D., Tashiro, F., Gotoh, Y., Kuchino, Y. and Kitanaka, C.
Physical and functional interaction between BH3-only protein Hrk and mitochondrial pore-forming protein p32.
Cell Death Differ. 11, 771-781, 2004.

Ogihara T, Asano T, Katagiri H, Sakoda H, Anai M, Shojima N, Ono H, Fujishiro M, Kushiyama A, Fukushima Y, Kikuchi M, Noguchi N, Aburatani H, Gotoh Y, Komuro I, Fujita T.
Oxidative stress induces insulin resistance by activating the nuclear factor-B pathway and disrupting normal subcellular distribution of phosphatidylinositol 3-kinase.
Diabetologia 5, 794-805, 2004.

Higuchi, M., Onishi, K., Masuyama, N. and Gotoh, Y.
The phosphatidylinositol-3 kinase (PI3K)-Akt pathway suppresses neurite branch formation in NGF-treated PC12 cells.
Genes Cells 8, 657, 2003.

Suzawa, M., Takada, I., Yanagisawa, J., Ohtake, F., Ogawa,S., Yamaguchi, T., Kadowaki, T., Takeuchi, Y., Shibuya, H., Gotoh, Y., Matsumoto, K. and Kato, S. Cytokines suppress adipogenesis and PPAR-gamma function through the TAK1/TAB1/NIK cascade.
Nat. Cell Biol. 5, 224-230, 2003.

Fujishiro, M., Gotoh, Y., Katagiri, H., Sakoda, H., Ogihara, T., Anai, M., Onishi, Y., Ono, H., Abe, M., Shojima, N., Fukushima, Y., Kikuchi, M., Oka, Y. and Asano, T.
Three Mitogen-Activated Protein kinases inhibit Insulin signaling by different mechanisms in 3T3-L1

adipocytes.
Mol. Endocrinology 17, 487-497, 2003.

Sakoda, H., Gotoh, Y., Katagiri, H., Kurokawa, M., Ono, H., Onishi, Y., Anai, M., Ogihara, T., Fujishiro, M., Fukushima, Y., Abe, M., Shojima, N., Kikuchi, M., Oka, Y., Hirai, H. and Asano, T.
Differing roles of Akt and SGK in glucose metabolism, DNA synthesis and oncogenic activity.
J. Biol. Chem. 278, 25802-25807, 2003.

Katome, T., Obata, T., Matsushima, R., Masuyama, N., Cantley, L.C., Gotoh, Y., Kishi, K., Shiota, H. and Ebina, Y.
Use of RNA-interference-mediated gene silencing and adenoviral overexpression to elucidate the roles of AKT/PKB-isoforms in insulin actions.
J. Biol. Chem. 278, 28312-28323, 2003.

Ogawara, Y., Kishishita, S., Obata, T., Suzuki, T., Tanaka, K., Masuyama, N. and Gotoh, Y.
Akt enhances Mdm2-mediated ubiquitination and degradation of p53.
J. Biol. Chem. 277, 21843-21850, 2002.

Tsuruta, F., Masuyama, N. and Gotoh, Y.
The PI3K-Akt pathway suppresses Bax translocation to mitochondria.
J. Biol. Chem. 277, 14040-14047, 2002.

Shinohara, M., Terada, Y., Iwamatsu, A., Shinohara, A., Mochizuki, N., Higuchi, M., Gotoh, Y., Ihara, S., Nagata, S., Itoh, H., Fukui, Y. and Jessberger, R.
SWAP-70 is a guanine nucleotide exchange factor that mediates signaling of membrane ruffling.
Nature 416, 759-763, 2002.

Higuchi, M., Masuyama, N., Suzuki, A. and Gotoh, Y.
Akt mediates Rac/Cdc42-Regulated Cell Motility in Growth Factor-Stimulated Cells and in Invasive PTEN-Knockout Cells.
Curr. Biol. 11, 1958-1962, 2001.

Morishima, Y., Gotoh, Y., Barrett, T., Takano, H., Davis, R.J., Shirasaki, Y. and Greenberg, M.E.
β-Amyloid Induces Neuronal Apoptosis Via JNK Pathway Activation and the Subsequent Induction of Fas Ligand.
J. Neurosci. 21,7551-7560, 2001.

Masuyama, N., Oishi, K., Mori, Y., Ueno, T., Takahama, Y. and Gotoh, Y.
Akt Inhibits the Orphan Nuclear Receptor Nur77 and T cell Apoptosis.
J. Biol. Chem. 276, 32799-32805, 2001.

Ura, S., Masuyama, N., Graves, J. and Gotoh, Y.
Caspase Cleavage of MST1 Promotes Nuclear Translocation and Chromatin Condensation.
Proc. Natl. Acad. Sci. USA 98, 10148-10153, 2001.

Graves, J.D., Draves, K.E., Gotoh, Y., Krebs, E.G. and Clark, E.A.
Both phosphorylation and caspase-mediated cleavage contribute to regulation of the Ste-20-like Protein Kinase Mst1 during CD95/Fas-induced apoptosis.
J. Biol. Chem. 276, 14909-14915, 2001.

Fujishiro, M., Gotoh, Y., Katagiri, H., Sakoda, H., Ogihara, T., Anai, M.,
Onishi, Y., Ono, H., Funaki, M., Inukai, K., Fukushima, Y., Kikuchi, M.,
Oka, Y. and Asano, T.
MKK6/3 and p38 MAPK Pathway Activation is not Necessary for Insulin-Induced Glucose Uptake, but Regulates Glucose Transporter Expression.
J. Biol. Chem. 276, 19800-19806, 2001.

Ura, S., Masuyama, N., Graves, J. and Gotoh, Y.

MST1-JNK promotes apoptosis via caspase-dependent and -independent pathways.
Genes to Cells. 6, 519-530, 2001.

Kawasaki, H., Fujii, H., Gotoh, Y., Morooka, T., Shimohama, S., Nishida, E. and Hirano, T.
Requirement for mitogen-activated protein kinase in cerebellar long tern depression.
J. Biol. Chem. 274, 13498-13502, 1999.

Gotoh, Y. and Cooper, J.A.
Reactive oxygen species and dimerization-induced activation of ASK1 in TNFα signal transduction.
J. Biol. Chem. 273, 17477-17482, 1998.

Shibuya, H., Iwata, H., Masuyama, N., Gotoh, Y., Yamaguchi, K., Irie, K., Matsumoto, K., Nishida, E. and Ueno, N.
Role of TAK1 and TAB1 in BMP signaling in early Xenopus development.
EMBO J. 17, 1019-1028, 1998.

Graves, J.D., Gotoh, Y., Draves, K.E., Ambrose, D., Han, D., Wright, M., Chernoff, J., Clark, E.A. and Krebs, E.G.
Caspase-mediated activation and induction of apoptosis by the mammalian Ste20-like kinase Mst1.
EMBO J. 17, 2224-2234, 1998.

Fukuda, M., Gotoh, I., Adachi, M., Gotoh, Y. and Nishida, E.
A novel regulatory mechanism in the mitogen-activated protein (MAP) kinase cascade. Role of nuclear export signal of MAP kinase kinase.
J. Biol. Chem. 272, 32642-32648, 1997.

Moriguchi, T., Toyoshima, F., Masuyama, N., Hanafusa, H., Gotoh, Y. and Nishida, E.
A novel SAPK/JNK kinase, MKK7, stimulated by TNF□ and cellular stresses.
EMBO J. 16, 7045-7053, 1997.

Datta, S.R., Dudek, H., Tao, X., Masters, S., Fu, H., Gotoh, Y. and Greenberg, M.E.
Akt phosphorylation of BAD couples survival signals to the cell-intrinsic death machinery.
Cell 91, 231-241, 1997.

Kawasaki, H., Morooka, T., Shimohama, S., Kimura, J., Hirano, T., Gotoh, Y. and Nishida, E.
Activation and involvement of p38 MAP kinase in glutamate-induced apoptosis in rat cerebellar granule cells.
J. Biol. Chem. 272, 18518-18521, 1997.

Moriguchi, T., Gotoh, Y. and Nishida, E.
Roles of the MAPK cascades in vertebrates.
Advances in Pharmacology 36, 121-137, 1997.

Takenaka, K., Gotoh, Y. and Nishida, E.
MAP kinase is required for the spindle assembly checkpoint, but dispensable for the normal M phase entry and exit, in Xenopus egg cell cycle extracts.
J. Cell Biol. 136, 1091-1097, 1997.

Fukuda, M., Gotoh, Y. and Nishida, E.
Interaction of MAP kinase with MAP kinase kinase : Its possible role in the control of nucleocytoplasmic transport of MAP kinase.
EMBO J. 16, 1901-1908, 1997.

Shirakabe, K., Yamaguchi, K., Shibuya, H., Irie, K., Matsuda, S., Moriguchi, T., Gotoh, Y., Matsumoto, K. and Nishida, E.
TAK1 mediates the ceramide signaling to SAPK/JNK.
J. Biol. Chem. 272, 8141-8144, 1997.

Ichijo, H., Nishida, E., Irie, K., ten Dijke, P., Saitoh, M., Moriguchi, T., Takagi, M., Matsumoto, K., Miyazono, K. and Gotoh, Y.
Induction of apoptosis by ASK1, a mammalian MAPKKK that activates SAPK/JNK and p38 signaling pathways.
Science 275, 90-94, 1997.

Kawasaki, H., Moriguchi, T., Matsuda, S., Li, H.Z., Nakamura, S., Shimohama, S., Kimura, J., Gotoh, Y., and Nishida, E.
Ras-dependent and Ras-independent activation pathways for the stress-activated-protein kinase cascade.
Eur. J. Biochem. 241, 315-321, 1996.

Toda, T., Dhut, S., Superti-Furga, G., Gotoh, Y., Nishida, E., Sugiura, R. and Kuno, T.
Fission yeast pmk1+ gene encodes a novel MAPK homologue which regulates cell integrity and functions coordinately with the PKC pathway.
Mol. Cell. Biol. 16, 6752-6764, 1996.

Gotoh, Y. and Nishida, E.
Signals for mesoderm induction- Roles of fibroblast growth factor (FGF) / mitogen-activated protein kinase (MAPK) pathway.
Biochim. Biophys. Acta Reviews on Cancer 1288, F1-7, 1996.

Kosako, H., Akamatsu, Y., Tsurushita, N., Lee, K.K., Gotoh, Y. and Nishida, E.
Isolation and characterization of neutralizing single-chain antibodies against Xenopus mitogen-activated protein kinase kinase from phage display libraries.
Biochemistry 35, 13212-13221, 1996.

Kamata, H., Tanaka, C., Yagisawa, H., Matsuda, S., Gotoh, Y., Nishida, E., and Hirata, H.
Suppression of nerve growth factor-induced neuronal differentiationi of PC12 cells. N-acetylcysteine uncouples the signal transduction from Ras to the mitogen-activated protein kinase cascade.
J. Biol. Chem. 271, 33018-33025, 1996.

Moriguchi, T., Toyoshima, F., Gotoh, Y., Iwamatsu, A., Irie, K., Mori, E., Kuroyanagi, N., Hagiwara, M., Matsumoto, K. and Nishida, E.
Purification and identification of a major activator for p38 from osmotically shocked cells.
Activation of MAPKK6 by osmotic shock, tumor necrosis factor-α and H2O2.
J. Biol. Chem. 271, 26981-26988, 1996.

Fukuda, M., Gotoh, I., Gotoh, Y. and Nishida, E.
Cytoplasmic localization of MAP kinase kinase directed by its N-terminal, leucine-rich short aino acid sequence which acts as a nuclear export signal.
J. Biol. Chem. 271, 20024-20028, 1996.

Moriguchi, T., Kuroyanagi, N., Yamaguchi, K., Gotoh, Y., Irie, K., Kano, T., Shirakabe, K., Muro, Y., Shibuya, H., Matsumoto, K., Nishida, E. and Hagiwara, M.
A novel kinase cascade mediated by mitogen-activated protein kinase kinase 6 and MKK3.
J. Biol. Chem. 13675-13679, 1996.

Shibuya, H., Yamaguchi, K., Shirakabe, K., Tonegawa, A., Gotoh, Y., Ueno, N., Irie, K., Nishida, E. and Matsumoto, K.
TAB1: An activator of TAK1 MAPKKK in TGF-β signal transduction.
Science 272, 1179-1182, 1996.

Gotoh, Y. and Nishida, E.
The MAP kinase cascade: Its role in Xenopus oocytes, eggs and embryos.
Progress in Cell Cycle Research, 1, 287-297. (Meijer, L., Guidet, S. and Tung, H.Y.L., eds.) Plenum Press, New York, USA, 1995.

Kato, S., Endo, H., Masuhiro, Y., Kitamoto, T., Uchiyama, S., Sasaki, H., Masushige, S., Gotoh, Y., Nishida, E., Kawashima, H., Metzger, D. and Chambon, P.
Activation of the Estrogen Receptor through phosphorylation by mitogen-activated protein kinase.
Science 270, 1491-1494, 1995.

Moriguchi, T., Gotoh, Y. and Nishida, E.
Activation of two isoforms of mitogen-activated protein kinase kinase in response to epidermal growth factor and nerve growth factor.
Eur. J. Biochem. 234, 32-38, 1995.

Gotoh, Y., Masuyama, N., Dell, K., Shirakabe, K. and Nishida, E. Initiation of Xenopus oocyte maturation by activation of the mitogen-activated protein kinase cascade.
J. Biol. Chem. 270, 25898-25904, 1995.

Gotoh, Y. and Nishida, E.
Activation mechanism and function of the MAP kinase cascade.
Molecular Reproduction and Development 42, 486-492, 1995.

Fukuda, M., *Gotoh, Y., Tachibana, T., Dell, K., Hattori, S., Yoneda, Y. and Nishida, E.
Induction of neurite outgrowth by MAP kinase in PC12 cells.
Oncogene 11, 239-244, 1995.

Shiina, N., Gotoh, Y. and Nishida, E.
Microtubule-severing activity in M phase.
Trends Cell Biol. 5, 283-286, 1995.

Moriguchi, T., Kawasaki, H., Matsuda, S., *Gotoh, Y. and *Nishida, E.
Evidence for multiple activators for stress-activated protein kinases / c-Jun amino-terminal kinases. Existence of novel activators.
J. Biol. Chem. 270, 12969-12972, 1995.

Matsuda, S., Kawasaki, H., Moriguchi, T., *Gotoh, Y. and *Nishida, E. Activation of protein kinase cascades by osmotic shock.
J. Biol. Chem. 270, 12781-12786, 1995.

Gotoh, Y., Masuyama, N., Suzuki, A., Ueno, N. and Nishida, E.
Involvement of the MAP kinase cascade in Xenopus mesoderm induction.
EMBO J. 14, 2491-2498, 1995.

Fukuda, M., Gotoh, Y., Kosako, H., Hattori, S. and Nishida, E.
Analysis of the Ras p21/mitogen-activated protein kinase signaling in vitro and in Xenopus oocytes.
J. Biol. Chem. 269, 33097-33101, 1994.

Kosako, H., Gotoh, Y. and Nishida, E.
Mitogen-activated protein kinase kinase is required for the Mos-induced metaphase arrest.
J. Biol. Chem. 269, 28354-28358, 1994.

Kosako, H., Gotoh, Y. and Nishida, E.
Regulation and function of the MAP kinase cascade in Xenopus oocytes.
J. Cell Sci. 18 (supple.), 115-119, 1994.

Matsuda, S., Gotoh, Y. and Nishida, E.
Signaling pathways mediated by the mitogen-activated protein (MAP) kinase kinase/MAP kinase cascade.
J. Leukoc. Biol. 56, 548-553, 1994.

Shiina, N., Gotoh, Y., Kubomura, J., Iwamatsu, A. & Nishida, E.
Microtubule severing by elongation factor-1α.

Science 266, 282-285, 1994.

Irie, K., Gotoh, Y., Yasher, B.M., Errede, B., Nishida, E. and Matsumoto, K.
Stimulatory effects of yeast and mammalian 14-3-3 proteins on the Raf protein kinase.
Science 265, 1716-1719, 1994.

Gotoh, Y., Matsuda, S., Takenaka, K., Hattori, S., Iwamatsu, A., Ishikawa, M., Kosako, H. & Nishida, E.
Characterization of recombinant Xenopus MAP kinase kinases mutated at potential phosphorylation sites.
Oncogene 9, 1891-1898, 1994.

Kosako, H., Gotoh, Y. & Nishida, E.
Requirement for the MAP kinase kinase/MAP kinase cascade in Xenopus oocyte maturation.
EMBO J. 13, 2131-2138, 1994.

Ueki, K., Matsuda, S., Tobe, K., Gotoh, Y., Tamemoto, H., Yachi, M., Akanuma, Y., Yazaki, Y., Nishida, E. and Kadowaki, T.
Feedback regulation of mitogen-activated protein kinase kinase kinase activity of c-Raf-1 by insulin and phorbol ester stimulation.
J. Biol. Chem. 269, 15756-15761, 1994.

Bito, H., Mori, M., Sakanaka, C., Takano, T., Honda, Z., Gotoh, Y., Nishida, E. & Shimizu, T.
Functional coupling of SSTR4, a major hippocampal samatostatin receptor, to adenylate cyclase inhibition, arachidonate release, and activation of the mitogen-activated protein kinase cascade.
J. Biol. Chem. 269, 12722-12730, 1994.

Mizoguchi, T., Gotoh, Y., Nishida, E., Yamaguchi-Shinozaki, K., Hayashida, N., Iwasaki, T., Kamada, H. & Shinozaki, K.
Characterization of two cDNAs that encode MAP kinase homologues in Arabidopsis thaliana and analysis of the possible role of auxin in activating such kinase activities in cultured cells.
Plant J. 5, 111-122, 1994.

Honda, Z., Takano, T., Gotoh, Y., Nishida, E., Ito, K. & Shimizu, T.
Transfected Platelet-activating factor activates mitogen-activated protein kinase and MAP kinase kinase in chinese hamster ovary cells.
J. Biol. Chem. 269, 2307-2315, 1994.

Gotoh, Y., Nishida, E., Shimanuki, M., Toda, T., Imai, Y. & Yamamoto, M.
Schizosaccharomyces pombe Spk1 is a tyrosine-phosphorylated protein functionally related to *Xenopus* mitogen-activated protein kinase.
Mol. Cell. Biol. 13, 6427-6431, 1993.

Nishida, E. & Gotoh, Y.
The MAP kinase cascade is essential for diverse signal tansduction pathways.
Trends Biochem. Sci. 18, 128-131, 1993.

Lee, K.S., Irie, K., Gotoh, Y., Watanabe, Y., Araki, H., Nishida, E., Matsumoto, K. & Levin, D.E.
A yeast mitogen-activated protein kinase homolog (Mpk1p) mediates signalling by protein kinase C.
Mol. Cell. Biol. 13, 3067-3075, 1993.

Kosako, H., *Nishida, E. & *Gotoh, Y.
cDNA cloning of MAP kinase kinase reveals kinase cascade pathways in yeasts to vertebrates.
EMBO J. 12, 787-794, 1993.

Matsuda, S., *Gotoh, Y. & *Nishida, E.
Phosphorylation of *Xenopus* MAP kinase kinase by MAP kinase kinase kinase and MAP kinase.
J. Biol. Chem. 268, 3277-3281, 1993.

Shiina, N., Gotoh, Y. & Nishida, E.
A novel homo-oligomeric protein responsible for an MPF-dependent microtubule-severing activity.
EMBO J. 11, 4723-4731, 1992.

Shiina, N., Moriguchi, T., Ohta, K., *Gotoh, Y. & *Nishida, E.
Regulation of a major microtubule-associated protein by MPF and MAP kinase.
EMBO J. 11, 3977-3984, 1992.

Hattori, S., Fukuda, M., Yamashita, T., Nakamura, S., Gotoh, Y. & Nishida, E.
Activation of MAP kinase and its activator by ras in intact cells and in a cell-free system.
J. Biol. Chem. 267, 20346-20351, 1992.

Shirakabe, K., *Gotoh, Y. & Nishida, E.
A MAP kinase activating factor in mammalian mitogen-stimulated cells is homologous to *Xenopus* M phase MAP kinase activator.
J. Biol. Chem. 267, 16685-16690, 1992.

Kosako, H., *Gotoh, Y., Matsuda, S., Ishikawa, M. & *Nishida, E.
Xenopus MAP kinase activator is a serine/threonine/tyrosine kinase activated by threonine phosphorylation.
EMBO J. 11, 2903-2908, 1992.

Nishida, E. & Gotoh, Y.
MAP kinase and cytoskeleton in mitogenic signal transduction.
Int. Rev. Cytol. 138, 211-238, 1992.

Matsuda, S., Kosako, H., Takenaka, K., Moriyama, K., Sakai, H., Akiyama, T., *Gotoh, Y. & *Nishida, E.
Xenopus MAP kinase activator : identification and function as a key intermediate in the phosphorylation cascade.
EMBO J. 11, 973-982, 1992.

Hoshi, M., Ohta, K., Gotoh, Y., Mori, A., Murofushi, H., Sakai, H. & Nishida, E.
Mitogen-activated-protein-kinase-catalyzed phosphorylation of microtubule-associated proteins, microtubule-associated protein 2 and microtubule-associated protein 4, induces an alteration in their function.
Eur. J. Biochem. 203, 43-52, 1992.

Gotoh, Y., Moriyama, K., Matsuda, S., Okumura, E., Kishimoto, T., Kawakami, H., Suzuki, K., Yahara, I., Sakai, H. & Nishida, E.
Xenopus M phase MAP kinase : isolation of its cDNA and activation by MPF.
EMBO J. 10, 2661-2668, 1991.

Shinohara-Gotoh, Y., Nishida, E., Hoshi, M. & Sakai, H.
Activation of microtubule-associated protein kinase by microtubule disruption in quiescent rat 3Y1 cells.
Exp. Cell Res. 193, 161-166, 1991.

Gotoh, Y., Nishida, E., Matsuda, S., Shiina, N., Kosako, H., Shiokawa, K., Akiyama, T., Ohta, K. & Sakai, H.
In vitro effects on microtubule dynamics of purified *Xenopus* M phase-activated MAP kinase.
Nature 349, 251-254, 1991.

Gotoh, Y., Nishida, E. & Sakai, H.
Okadaic acid activates MAP kinase in quiescent fibroblastic cells.
Eur. J. Biochem. 193, 671-674, 1990.

Gotoh, Y., Nishida, E., Yamashita, T., Hoshi, M., Kawakami, M. & Sakai, H.
MAP kinase activated by nerve growth factor and epidermal growth factor in PC12 cells. Identity with the mitogen-activated MAP kinase of fibroblastic cells.

Eur. J. Biochem. 193, 661-669, 1990.

Shinohara, Y., Nishida, E. & Sakai, H.
Initiation of DNA synthesis by microtubule disruption in rat 3Y1 cells
Eur. J. Biochem. 183, 275-280, 1989.

Shinohara, Y., Nishida-E. and Sakai, E. Colchicine acts as a progression factor to initiate DNA synthesis in quiescent Balb/c 3T3 cells.
FEBS lett. 236, 19-22, 1988.

Hoshi, M., Akiyama, T., Shinohara, Y., Miyata, Y., Ogawara, H., Nishida, E. and Sakai, H.
Protein-kinase-C-catalyzed phosphorylation of the microtubule-binding domain of microtubule-associated protein 2 inhibits its ability to induce tubulin polymerization.
Eur. J. Biochem. 174, 225-230, 1988.

Public Research Grants

- JSPS KAKENHI Grant-in-Aid for Scientific Research(A) 2021-23
- AMED/CREST Advanced Research and Development Programs for Medical Innovation "Early Life Stage", 2019-24
- JSPS KAKENHI Scientific Research on Innovative Areas "Interplay of developmental clock and extracellular environment in brain formation" 2016-2020
- JSPS KAKENHI Grant-in-Aid for Scientific Research(S) 2015-19
- AMED/CREST Advanced Research and Development Programs for Medical Innovation "Homeostasis", 2014-19
- JSPS KAKENHI Grant-in-Aid for Scientific Research(A) 2015
- CREST/ Basic Research Programs "Brain Neural Network", 2012-15
- JSPS KAKENHI Scientific Research on Innovative Areas "Neocortical organization" 2010-14
- JSPS KAKENHI Grant-in-Aid for Scientific Research on Innovative Areas, 2010-2015
- JST-CREST/ "Basic Research Programs", 2009-2014
- JSPS KAKENHI Grant-in-Aid for Scientific Research(A) 2008-2010
- JSPS KAKENHI Grant-in-Aid for Scientific Research(A) 2006-2007
- JSPS KAKENHI Grant-in-Aid for Scientific Research on Priority Areas 2005-2009
- JSPS KAKENHI Grant-in-Aid for Scientific Research(B) 2004-2005
- JSPS Global COE Program "Integrative life science based on the study of biosignaling mechanisms" 2007-2011
- JST-SORST 2004-2006
- JSPS The 21st century COE program "Biological Signals" 2002-2006
- JSPS KAKENHI Grant-in-Aid for Young Scientists(A) 2002-2003
- JST-PRESTO 2001-2004
- JSPS KAKENHI Grant-in-Aid for Scientific Research(B) 2001-2002
- JSPS KAKENHI Grant-in-Aid for Scientific Research on Priority Areas 2000-2004
- JSPS KAKENHI Grant-in-Aid for Scientific Research(B) 1999-2000
- JSPS KAKENHI Grant-in-Aid for Scientific Research on Priority Areas(A)1999
- JST-PRESTO 1998-2001