The 16th International Symposium on Molecular and Neural Mechanisms of Taste and Olfactory Perception (ISMNTOP2017: in conjunction with YR Umami Forum 2017, AISCRIB 2017)

第16回国際シンポジウム“味覚嗅覚の分子神経機構”
（うま味若手フォーラム2017、
アジア国際シンポジウム“化学受容と摂食行動”2017併催）

Organizer： **Yuzo Ninomiya**
Research and Development Center for Taste and Odor Sensing
Kyushu University

Program & Abstracts

November 3-4, 2017
Kyushu University Station-I and II for Collaborative Research (Maidashi campus), Fukuoka, Japan

Hosted by

Kyushu University, Research and Development Center for Taste and Odor Sensing

九州大学・味覚・嗅覚センサ研究開発センター

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ISMNTOP website:
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The 16th International Symposium on Molecular and Neural Mechanisms of Taste and Olfactory Perception (YRUF2017/AISCRIB2017)

November 3rd, Friday ----------

■ **Opening remarks 12:50 - 13:00** Yuzo Ninomiya (Kyushu Univ.)

■ **Session I 13:00 - 14:30**

Chemosensory signals and functions in the oral cavity

[Chair: Satoshi Wakisaka (Osaka Univ.)]

IS1-1 13:00 - 13:40 (invited talk)

Gingival solitary chemosensory cells serve as immune sentinels to protect against periodontitis

Xin Zheng[1,2], Xin Xu[2], Jinzhi He[2], Xian Peng[2], Marco Tizzano[1], Peihua Jiang[1], Xuedong Zhou[2], **Robert F. Margolskee**[1]

[1]Monell Chemical Senses Center, Philadelphia, PA, USA, [2]State Key Laboratory of Oral Diseases & National Clinical Research Center for Oral Diseases & Department of Cariology and Endodontics, West China Hospital of Stomatology, Sichuan University, Chengdu, China

IS1-2 13:40 – 14:10 (invited talk)

TRPV4 heats ups ANO-dependent exocrine gland fluid secretion

Makoto Tominaga[1], Sandra Derouiche[1], Yasunori Takayama[1], Masataka Murakami[2]

[1]Division of Cell Signaling, Okazaki Institute for Integrative Bioscience (National Institute for Physiological Sciences), [2]National Institute for Physiological Sciences

IS1-3 14:10 - 14:30 (+ poster presentation)

Responses to sweeteners as measured by sweet taste receptor reaction, sensory evaluation of taste intensity, and salivary secretion

Yuko Kusakabe[1], Yumiko Shindo[1], Takayuki Kawai[1], Mari Maeda-Yamamoto[1], Yuji Wada[2]

[1]Food Research Institute, NARO, Japan, [2]College of Science and Engineering, Ritsumeikan University, Japan

► Break **14:30 - 14:40**

■ **Session II 14:40 – 15:40**

Asian International Symposium on Chemo-Reception and Ingestive Behavior 2017 (AISCRIB2017)

[Chair: Hiroo Imai (Kyoto Univ.)]

IS2-1 14:40 - 15:00

Sensory system in chemical communication for nestmate recognition of ant

Mamiko Ozaki

Department of Biology, Graduate School of Science, Kobe University, Kobe, Japan

IS2-2 15:00 - 15:20

***Drosophila* Gr64e mediates fatty acids sensing via phospholipase C pathway**

Hyeyon Kim[1], Haein Kim[2], Jae Young Kwon[2], Jeong Taeg Seo[1], Dong Min Shin[1], Seok Jun Moon[1]

[1]Department of Oral Biology, BK21 PLUS, Yonsei University College of Dentistry, Seodaemun-gu, Korea, [2]Department of Biological Sciences, Sungkyunkwan University, Suwon, Korea

IS2-3 15:20 - 15:40

Buffering cAMP in olfactory receptor neurons

Noriyuki Nakashima

Department of Physiology, School of Medicine, Kurume University, Kurume, Japan

► Break **15:40 - 16:00**

■ Session III 16:00 – 18:05

Olfaction

[Chair: Masahiro Yamaguchi (Kochi Univ.), Takeshi Imai (Kyushu Univ.)]

IS3-1 16:00 - 16:25

Bioluminescence neural recording reveals olfactory landmark-based communication in interacting *Drosophila*

Hokto Kazama

RIKEN Brain Science Institute, Saitama, Japan

IS3-2 16:25 - 16:50

ER-resident protein Meigo governs dendrite targeting specificity of *Drosophila* olfactory projection neurons by regulating Toll-6 and Eph/ephrin pathways

Takahiro Chihara

Hiroshima University, Hiroshima, Japan

IS3-3 16:50 - 17:15

Odor-induced analgesia in mice

Hideki Kashiwadani

Department of Physiology, Graduate School of Medical and Dental Sciences, Kagoshima University, Kagoshima, Japan

IS3-4 17:15 - 17:40

Stress response to malodors is induced by subjective unpleasantness

Yukei Hirasawa[1,2], Mika Shirasu[1,2], Masako Okamoto[1,2], Kazushige Touhara[1,2]

[1]Department of Applied Biological Chemistry, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Tokyo, Japan. [2]ERATO Touhara Chemosensory Signal Project, JST, The University of Tokyo, Tokyo, Japan

IS3-5 17:40 - 18:05

Mechanosensory-Based Phase Coding of Odor Identity in the Olfactory Bulb

Ryo Iwata[1], **Takeshi Imai**[1,2]

[1] Laboratory for Sensory Circuit Formation, RIKEN Center for Developmental Biology, Kobe, Japan, [2]Department of Developmental Neurophysiology, Kyushu University Graduate School of Medical Sciences, Fukuoka, Japan

■ Poster Session & Social Gathering 18:10 – 21:00

@ Collabo-Station II, 1F Communication lounge, Kyushu University

November 4th, Saturday ----------

■ Session IV 9:30 – 11:40

Functional molecules in the chemosensory system

[Chair: Hirohito Miura (Kagoshima Univ.) Yuko Kusakabe (NARO)]

IS4-1 9:30 - 9:50

Generation of enteroids and taste organoids from primates

Ken Iwatsuki

Department of Nutrient Science and Food Safety, Tokyo University of Agriculture, Tokyo, Japan

IS4-2 9:50 - 10:10 (+ poster presentation)

Crystal structures of the ligand-binding domains of taste receptor T1r heterodimer

Nipawan Nuemket[1], Norihisa Yasui[1], Yuko Kusakabe[2], Yukiyo Nomura[1], Nanako Atsumi[1], **Atsuko Yamashita**[1]

[1]Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama University, Japan, [2]Food Research Institute, NARO, Japan.

IS4-3 10:10 - 10:30
Intestinal tuft cells: immunity and metabolism
Yoshiro Ishimaru
Faculty of Agriculture, Meiji University, Kanagawa, Japan

►Break **10:30 - 10:40**

IS4-4 10:40 - 11:00
Differences of TRPV1 between chickens and mice in desensitization and energy expenditure regulation
Fuminori Kawabata, Ruojun Liang, Jun Hai, Yuko Kawabata, Shotaro Nishimura, Shoji Tabata
Laboratory of Functional Anatomy, Faculty of Agriculture, Kyushu University, Fukuoka, Japan

IS4-5 11:00 - 11:20
Functional and behavioral analysis of primate bitter and sweet taste receptors
Hiroo Imai[1], Nami Suzuki-Hashido[1], Emiko Nishi[1], Takashi Hayakawa[1], Hirohisa Hirai[1], Laurentia Purba[2], Kanthi Widayati[2], Bambang Suryobroto[2]
[1]Primate Research Institute, Kyoto University, Japan; [2]Department of Biology, Bogor Agricultural University, Indonesia

IS4-6 11:20 - 11:40 (+ poster presentation)
The functional analysis of a thermosensitive channel TRPM5
Kunitoshi Uchida[1], Makoto Tominaga[2], Jun Yamazaki[1]
[1]Department of physiological Science and Molecular Biology, Fukuoka Dental College, Fukuoka, Japan, [2]Division of Cell Signaling, Okazaki Institute for Integrative Biosciences (National Institute for Physiological Sciences)

► Lunch and Poster Session 11:40 – 13:10

■ Session V 13:10 – 14:30
Chemosensory signaling I
[Chair: Ken Iwatsuki (Tokyo Univ. Agricul.)]

IS5-1 13:10 - 13:50 (invited talk)
Connectivity of Taste Buds with Taste Nerves supports specificity as required by the "Labeled Line" Hypothesis.
Thomas E. Finger
Rocky Mountain Taste & Smell Center, University of Colorado School of Medicine, CO, USA

IS5-2 13:50 - 14:30 (invited talk)
New insights into the role of ATP in signaling from Type III taste cells to afferent fibers
Sue C. Kinnamon, Eric Larson, Aurelie Vandenbeuch, Courtney Wilson
Department of Otolaryngology and Rocky Mountain Taste and Smell Center, University of Colorado Anschutz Medical Campus, Aurora, CO, USA

► Break **14:30 - 14:45**

■ Session VI 14:45 – 16:25
Chemosensory Signaling II
[Chair: Mamiko Ozaki (Kobe Univ.)]

IS6-1 14:45 - 15:15 (invited talk)
How taste preference is modulated in the nematode
Yuichi Iino[1], Takashi Nagasima[1], Hirofumi Sato[1], Jang Moon-Sun[1], Suzu Oe[2], Yu Toyoshima[1], Masahiro Tomioka[1], Hirofumi Kunitomo[1], Stephen Wu[3], Ryo Yoshida[3], Yuishi Iwasaki[4], Takeshi Ishihara[2]
[1]Department of Biological Sciences, the University of Tokyo, [2]Department of Biology, Kyushu University, [3]The Institute of Statistical Mathematics, [4]Department of Intelligent Systems Engineering, Ibaraki University

IS6-2 15:15 - 15:45 (invited talk)
The mechanisms of fluid sensing in the brain and the tongue
Yuki Oka
Division of Biology and Biological Engineering, California Institute of Technology, Pasadena, California, USA

IS6-3 15:45 - 16:05
Type III taste cells could be reclassified by the function
Yukako Hayashi, Norihiro Fujimoto
Graduate School of Agriculture, Kyoto University, Kyoto, Japan

IS6-4 16:05 - 16:25
Information pathways for fatty acids via GPR120 in mouse chorda tympani nerve
Keiko Yasumatsu[1], Shusuke Iwata[1], Mayuko Inoue[1], Yuzo Ninomiya[1,2]
[1]Div. Sensory Physiology, Research and Development Center for Taste and Odor Sensing, Kyushu Univ., Fukuoka, Japan, [2]Monell Chemical Senses Center, Philadelphia, PA, USA

■ Closing remarks 16:25 Mamiko Ozaki (Kobe Univ.)

[Discussants:
Thomas E. Finger (Univ of Colorado), Sue C. Kinnamon (Univ of Colorado), Robert F. Margolskee (Monell Chem Senses Center), Yuki Oka (California Inst of Tech), Kyung Nyun Kim (Gangneung Natl Univ), Myunghwan Choi (Sungkyunkwan Univ), Hyeong Jin Jang (Kyung Hee Univ), Seok Jun Moon (Yonsei Univ), Hyung Joon Ahn (Yonsei Univ), In Ik Chang (Yonsei Univ), Jong Min Lee (Yonsei Univ), Jin Woong Bok (Yonsei Univ), Iino Y (Univ of Tokyo), Tominaga M (Okazaki Inst for Integ Biosci), Torii K (Torii Nutrient-stasis Inst Inc), Kashiwayanagi M (Asahikawa Med Univ). Wakisaka S (Osaka Univ), Ozaki M (Kobe Univ), Toyono T (Kyushu Dent Coll), Seta Y (Kyushu Dent Coll), Hayashi Y (Kyoto Univ), Ishimaru Y (Meiji Univ), Iwatsuki K (Tokyo Univ Agricul), Kawabata F (Kyushu Univ), Imai H (Kyoto Univ), Goto T (Tokyo Dent Coll), Kido M (Saga Univ), Nakashima N (Kurume Univ), Sako N (Asahi Univ), Yasuo T (Asahi Univ), Yamashita A (Okayama Univ), Kusakabe Y (NARO), Kawai T (NARO), Miura H (Kagoshima Univ), Uchida K (Fukuoka Dent Coll), Imai T (Kyushu Univ), Yamaguchi M (Kochi Univ), Murata Y (Kochi Univ), Kazama H (RIKEN BSI), Chihara T (Hiroshima Univ), Kashiwadani H (Kagoshima Univ), Hirasawa Y (Univ Tokyo), Kohmura M (Ajinomoto Co Inc), Ogiwara Y (Ajinomoto Co Inc), Maruyama Y (Ajinomoto Co Inc), Kitamura A (Ajinomoto Co Inc), Ohkuri T (Suntory Global Innovation Center Ltd), Nagai H (Zensho Holdings)]

■ Poster Session

ISP01
Microfluidics-on-a-tongue imaging chamber for functional taste mapping *in vivo*
Jisoo Han[1,2], Pyong-gang Choi[2], Myunghwan Choi[1,2]
[1]Department of Biomedical Engineering, Sungkyunkwan University, Suwon, South Korea. [2]Center for Neuroscience and Imaging Research, Institute for Basic Science (IBS), Suwon, South Korea.

ISP02
Bitter herbal medicines stimulate glucagon-like peptide-1 secretion in enteroendocrine L cells
Kang-Hoon Kim, In-Seung Lee, Ji Young Park, Yumi Kim, Hyeung-Jin Jang
Department of Biochemistry, Graduate School, Kyung Hee University, Heogi-dong, Dongdaemun-gu, Seoul, 02447, Republic of Korea

ISP03
1,10-phenanthroline stimulates GLP-1 secretion via co-localized T2R5 signal transduction in human enteroendocrine L cell
Jiyoung Park, Kang-Hoon Kim, In-Seung Lee, Yumi Kim, Hyeung-Jin Jang
College of Korean Medicine, Institute of Korean Medicine, Kyung Hee University, Heogi-dong, Dongdaemun-gu, Seoul, 130-701, Republic of Korea

ISP04
Interaction between Lgr5 and FGF10 is necessary to circumvallate papillae development
Sushan Zhang, Hyuk Su Choi, Han-Sung Jung, Jong-Min Lee
Division in Anatomy and Developmental Biology, Department of Oral Biology, Oral Science Research Center, BK21 PLUS Project, Yonsei University College of Dentistry, Seoul, Korea

ISP05
Optimization of taste sensor for high-potency sweeteners
Y. Liu [1], T. Hattori[1], X. Wu[1], Y. Tahara[2], R.Yatabe[2], H. Ikezaki[3], K. Toko[1,2]
[1]Graduate School of Information Science and Electrical Engineering, Kyushu University, Japan, [2]Research and Development Center for Taste and Odor Sensing, Kyushu University, Japan, [3]Intelligent Sensor Technology, Inc., Japan

ISP06
The risk factors of spontaneous abnormal bitter taste
Saori Funayama[1], Kayoko Ito[1], Makoto Inoue[1, 2]
[1]Oral Rehabilitation, Niigata University Medical and Dental Hospital, Niigata, Japan, [2]Division of Dysphagia Rehabilitation, Niigata University Graduate School of Medical and Dental Sciences, Niigata, Japan

ISP07
Attempt for recombinant expression of the extracellular domains of human T1R taste receptors
Yohei Kono[1], Norihisa Yasui[1], Hisao Moriya[2], AtsukoYamashita[1]
[1]Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama University, [2]Research Core for Interdisciplinary Sciences, Okayama University

ISP08
Promoter analysis for mouse T1R1 amino acids (umami) receptor gene in C2C12 cells
Takashi Toyono[1], Yuki Hirata[2], Shinji Kataoka[1], Mitsushiro Nakatomi[1], Yuji Seta[2]
[1]Division of Anatomy, Kyushu Dental University, [2]Division of Oral Reconstruction and Rehabilitation, Kyushu Dental University

ISP09
Identification of the candidate molecules related to the taste sensitivity
Takashi Ieki, Naoko Saito, Junji Nakamura
Kansei Science Research, Kao Corporation, Tochigi, Japan

ISP10
Skn-1a/Pou2f3 functions as a master regulator to generate Trpm5-expressing chemosensory cells in mice
Junpei Yamahita[1], Makoto Ohmoto[2], Tatsuya Yamaguchi[1], Ichiro Matsumoto[2], Junji Hirota[1,3]
[1]Dept. of Bioeng, Grad. Sch. of Biosci. and Biotech., [2]Monell Chemical Senses Center, Philadelphia, U. S. A., [3]Center for Biological Resources and Informatics, Tokyo Inst. of Tech.

ISP11

How do the rats recognize individual components of mixed taste solutions? -Review of our recent behavioral studies-

Tomoki Yamamura[1], Yoshihisa Katagawa[1,2], Shigeki Yamada[2], Toshiaki Yasuo[1], Takeshi Suwabe[1], Keika Gen[2], Noritaka Sako[1]

[1]Department of Oral Physiology, Asahi University School of Dentistry, Gifu 501-0296, Japan, [2]Department of Dentistry for Disability and Oral Health, Asahi University School of Dentistry, Gifu 501-0296, Japan

ISP12

Expression of jejunal gustatory signaling elements in obese patients

Toshiaki Yasuo[1,2], Peihua Jiang[1], G. Craig Wood[3], Xin Chu[3], Peter Benotti[3], Christopher Still[3], David D K Rolston[3], Robert F. Margolskee[1], Yuzo Ninomiya[1,4]

[1]Monell chemical senses center, Philadelphia, USA, [2]Dept. Oral Physiol., Asahi Univ. Sch. Dent., Mizuho, Japan, [3]Geisinger medical center, Danville, USA, [4]Research and Development Center for Taste and Odor Sensing, Kyushu University, Fukuoka, Japan

ISP13

The role of the receptor localized to the apical tips of intestinal tuft cells

Yasuka Toda[1], Michihiro Tanishita[2], Masataka Narukawa[2], Kenji Ishiwatari[3], Misako Yoshioka[2], Tomiko Asakura[2], Hirotaka Kanuta[3], Hiroaki Masuzaki[4], Keiko Abe[2], Yoshiro Ishimaru[1]

[1]Meiji University, [2]The University of Tokyo, [3]The Jikei University School of Medicine, [4]University of the Ryukyus

ISP14

Elucidating Tas1R2/Tas1R3 function of leaf eating monkey, Javan lutung (*Trachypithecus auratus*)

Emiko Nishi[1], Nami Suzuki-Hashido[1], Takashi Hayakawa[2], Yamato Tsuji[3], Bambang Suryobroto[4], **Hiroo Imai**[1]

[1]Molecular Biology Section, Dept. of Cellular and Molecular Biology, Primates Research Institute, Kyoto Univ., Aichi, Japan. [2]Dept. of Wildlife Science (Nagoya Railroad Co., Ltd.), Primates Research Institute, Kyoto Univ., Aichi, Japan. [3]Social Systems Evolution Section, Primates Research Institute, Kyoto Univ., Aichi, Japan. [4]Dept. Biology, Bogor Agricultural Univ., Bogor, West Java, Indonesia.

ISP15

Species-specific mutation among Sulawesi Macaques: Characterization of the TAS2R38 bitter taste receptor for phenylthiocarbamide (PTC) of two species of Sulawesi Macaques

Yan Xiaochan[1], Nami Suzuki-Hashido[1], Kanthi Arum Widayati[2], Laurentia Henrieta Permita Sari Purba[2], Fahri Bajeber[3], Bambang Suryobroto[2], Yohey Terai[4], Hiroo Imai[1]

[1]Primate Research Institute, Kyoto University, Japan, [2]Department of Biology, Bogor Agricultural University, Indonesia, [3]Department of Biology, Tadulako University, Indonesia, [4]Department of Evolutionary Studies of Biosystems, The Graduate University for Advanced Studies, Japan

ISP16

HCN channels are not principally involved in acid detection in mice

Noriyuki Nakashima

Dept. Physiol., Sch. Med., Kurume Univ., Japan

ISP17

Relationship between enhancement of bitterness by repeated exposure to iso alpha acids and frequency of beer consumption

Kohei Yokota[1], Hideyuki Ohara[1], Emi Mura[1,2], Masahide Uemura[2], Yukako Hayashi[1]

[1]Grad. Sch. Agriculture, Kyoto Univ., [2]Suntory Global Innovation Center

ISP18

Comparison of the taste sensitivity and pleasantness between elderly and young people

Sayaka Fujiki[1], Rihoko Shimizu[1], Aoyama Tomoki[2], Yukako Hayashi[1]

[1]Grad. Sch. Agri., Kyoto Univ., [2]Grad. Sch. Med., Kyoto Univ.

ISP19

Immunohistochemical Localization of Serotonin in Two types of Type III taste cells

Norihiro Fujimoto, Yukako Hayashi

Grad. Sch. Agri., Kyoto Univ.

ISP20

Purification of the human bitter taste receptor hT2R14 using the yeast expression system

Atsushi Dan[1], Kimihiko Mizutani[1], Bunzo Mikami[1], Kenji Maehashi2, Takashi Iino[3], Kenji Horie[3], Mujo Kim[3], Yukako Hayashi[1]

[1]Grad. Sch. Agr., Kyoto Univ., [2]Dept. Ferment. Sci., Tokyo Univ. Agri., [3]Pharma Foods International Co., Ltd.

ISP21

Localization of innexin in the antennae of the Japanese carpenter ant, *Camponotus japonicus*, and its involvement in the specific functions of dendritic network for the chemosensory system of nestmate-nonnestmate discrimination.

Tatsuya Uebi[1], Yusuke Takeichi[1], Kouji Yasuyama[2], Naoyuki Miyazaki[3], Kazuyoshi Murata[4], Satoshi Kurihara[5], Eichi Takaya[5], Hideo Kubo[6], Toshiaki Omori[7], Mamiko Ozaki[1]

[1]Grad. School Sci., Kobe Univ., Kobe, Japan, [2]Kawasaki Medical School, Kurashiki, Japan, [3]Inst. for Protein Research, Osaka Univ., Osaka, Japan, [4]National Inst. for Physiological Sciences, Okazaki, Japan, [5]Grad. School of Info. Systems, Univ. of Electro-Communications, Chofu, Japan, [6]Faculty of Sci., Hokkaido Univ. Sapporo, Japan, [7]Dept. of Electrical and Electronic Eng., Grad. School of Eng., Kobe Univ., Kobe, Japan

ISP22

Generation and characterization of enteroids from monkey intestines

Shunsuke Kumami[1], Akihiko Inaba[1], Eitaro Aihara[2], Takumi Yamane[1], Yuich Oishi[1], Hiroo Imai[3], **Ken Iwatsuki**[1]

[1]Dept. of Food Nutritional Science, Tokyo University of Agriculture, Tokyo, [2]Department of Molecular and Cellular Physiology, University of Cincinnati, Cincinnati, Ohio, USA, [3]Dept. of Cellular and Molecular Biology, Primate Research Institute, Kyoto University, Inuyama, Aichi

ISP23

Evaluation of the enhancing effects of saltiness by flavor addition

Takayuki Kawai[1], Yuko Kusakabe[1], Yuji Wada[2]

[1]Food Research Institutes, NARO, Tsukuba, Japan, [2]College of Sci. and Eng., Ritsumeikan Univ., Kusatsu, Japan

ISP24

Salt taste sensitivities and the mRNA expressions of ENaC in chickens

Yui Hayase, Fuminori Kawabata, Yuko Kawabata, Shotaro Nishimura, Shoji Tabata

Laboratory of Functional Anatomy, Faculty of Agriculture, Kyushu University, Fukuoka, Japan

ISP25

***Kokumi* substances enhanced the extracellular calcium-sensing receptor (CaSR) response in chickens**

Hikaru Omori, Yuko Kawabata, Fuminori Kawabata, Shotaro Nishimura, Shoji Tabata

Laboratory of Functional Anatomy, Faculty of Agriculture, Kyushu University, Fukuoka, Japan

ISP26

Behavioral analysis for sour taste stimuli and mRNA expressions of PKD2L1 in chickens

Masashi Araki, Fuminori Kawabata, Yuko Kawabata, Yuta Yoshida, Shotaro Nishimura, Shoji Tabata

Laboratory of Functional Anatomy, Faculty of Agriculture, Kyushu University, Fukuoka, Japan

ISP27

Oral lipase activities and the expressions of fat taste receptors in chickens

Yuko Kawabata[1,2], Fuminori Kawabata[1], Shotaro Nishimura[1], Noriatsu Shigemura[2], Shoji Tabata[1]

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ISP28

The insulin signaling could promote taste cell proliferation

Shingo Takai[1], Noriatsu Shigemura[1,2], Robert F. Margolskee[3], Yuzo Ninomiya[2,3]

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ISP29

Analysis of leptin signaling in T1R3-positive taste cells

Ryusuke Yoshida[1,2], Noriatsu Shigemura[1,3], Yuzo Ninomiya[3,4]

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ISP30

Spontaneous Network Activity in the Neonatal Mouse Olfactory Bulb Regulates Dendrite Pruning of Mitral Cells

Marcus N. Leiwe[1,2], Satoshi Fujimoto[1,2], Takeshi Imai[1,2]

[1]Department of Developmental Neurophysiology, Kyushu University Graduate School of Medical Sciences, Fukuoka, Japan. [2]Laboratory for Sensory Circuit Formation, RIKEN Center for Developmental Biology, Kobe, Japan.

ISP31

Developmental change of spontaneous network activity regulates dendrite pruning of mitral cells to establish discrete connectivity

Satoshi Fujimoto[1,2], Marcus N. Leiwe[1,2], Yuko Muroyama[3], Tetsuichiro Saito[3], Takeshi Imai[1,2]

[1]Department of Developmental Neurophysiology, Kyushu University Graduate School of Medical Sciences, Fukuoka, Japan. [2]Laboratory for Sensory Circuit Formation, RIKEN Center for Developmental Biology, Kobe, Japan. [3]Department of Developmental Biology, Graduate School of Medicine, Chiba University, Chiba, Japan.

ISP32

Olfactory sensory neurons regulate maturation of olfactory bulb neurons independently of neuronal activity

Shuhei Aihara[1], Takeshi Imai[1,2]

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