
List of Abstracts from the XXth Congress of European Chemoreception Research Organization, ECRO-2010, Avignon, France

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SYMPOSIA ABSTRACTS

Symposium: Odorants, Receptors and glomeruli:

The dynamics of the peripheral olfactory system

Stuart Firestein

Mitral cell time of origin determines position and cortical connections

Charles A. Greer and Fumiaki Imamura

Deconstructing smell

Linda B. Buck

Olfaction targeted

Peter Mombaerts

Symposium: Gut-Brain interactions:

Metabolic regulation of brain reward systems

Ivan E. de Araujo, Xueying Ren and Jozelia Ferreira

Neuronal responses in the nucleus accumbens during hunger and satiety

Ranier Gutierrez

The taste organ is a target for orexigenic and anorexic mediators

Yuzo Ninomiya, Mayu Niki, Tadahiro Ohkuri, Masafumi Jyotaki and Ryusuke Yoshida

Gut-brain nutrient sensing in the control of energy homeostasis.

Gary J. Schwartz

Gut-brain interactions and dopamine release

Simon S.A., Oliveira-Maia A.J., Roberts C.D., Walker Q.D., Luo B., Kuhn C. and Nicolelis M.A.L.

Symposium: Odour Representation in the Olfactory Bulb:

Odor coding in mammals involves information redistribution but not decorrelation in neural assemblies

Alan Carleton

Fast simultaneous imaging of mitral cell populations reveals odor specificity of latency patterns

Stephan Junek, Eugen Kludt, Fred Wolf and Detlev Schild

Odor Processing with an experimental model of olfactory epithelium and bulb

E. Martinelli, D. Polese, F. Dini, R. Paolesse, D. Filippini, A. D'Amico, D. Schild, I. Lundstrom and C. Di Natale

Representation of chemical features in the olfactory bulb

Michael Schmuker and Hartwig Spors

Granule cells in the adult olfactory bulb: from development to function

Pierre-Marie Lledo

Symposium: Bitter taste receptors throughout the animal kingdom:

Introduction

Maik Behrens and Wolfgang Meyerhof

Bitter taste receptors of mammals

Maik Behrens, Stephan Born, Anne Brockhoff, Anat Levit, Masha Y. Niv, Giovanni Appendino and Wolfgang Meyerhof

Bitter taste sensation in fish

Shinji Okada, Keiko Abe and Takumi Misaka

Bitter taste receptors in insects

Frederic Marion-Poll

Evolutionary dynamics of bitter taste receptor gene repertoires in primates

Yasuhiro Go, Tohru Sugawara, Nami Suzuki, Takashi Hayakawa, Atsushi Matsui, Hirohisa Hirai and Hiroo Imai

Molecular evolution of the TAS2R38 gene in primates

Stephen Wooding

Symposium: Culture, language and Olfactory perception:

The perceptive relationship as a model to highlight cultural diversity in olfactory perception
 Sylvain Farge, Olivier Wathelet and Rémi Digonnet

The language of perception across cultures
 Asifa Majid and Stephen C. Levinson

Disgust at the crossroads of taste and smell: a lexicological comparison of English and French
 Amélie Depierre

Odour Perception and Cognition: A symposium in memory of Trygg Engen:

Is there but one odor space?
 Birgitta Berglund

Role of experience in measured chemosensory sensitivity

William S. Cain, Roland Schmidt and J. Enrique Cometto-Muñiz

Olfaction and the brain for better or worse: Top-down processing and consequences for health and performance

Steven Nordin

The pleasantness of odor memory

Yaara Yeshurun, Yadin Dudai and Noam Sobel

Autobiographical odor memory

Johan Willander

Symposium: Physiological significance on glutamate signaling from the luminal side of gut directly and/or via vagal afferent to the brain functional changes:**Purpose****Outcomes – knowledge and action points**

Experimental studies of food choices and palatability responses of European consumers exposed to the Umami taste

France Bellisle

Responsiveness of forebrain glucose-monitoring neurons to intraorally and intragastrically delivered monosodium glutamate

Zoltán Karádi, Bernadett Nagy, István Szabó, Dimitrios Fotakos, Dóra Keresztes, Barnabás Hideg and Bence Faragó

Free dietary glutamate promotes gastric secretion via neuro-endocrine pathways

Vasiliy Zolotarev

Roles of gustducin, taste receptors and transient receptor potential channel M5 in gut

Bedrich Mosinger, Zaza Kokashvili, Peihua Jiang and Robert F. Margolskee

Physiological roles of dietary glutamate signaling via gut-brain axis for energy expenditure

Kunio Torii

Symposium: Chemoreception in aquatic animals:

Fish olfactory receptor repertoires
 Sigrun Korsching

Which olfactory receptor neurons code amino acid stimuli in black bullhead catfish: spontaneously inactive or spontaneously active neurons responding to olfactory stimuli?

Tine Valentinčič, Jurij Dolenšek and Pika Miklavc

Olfactory sensitivity to inorganic cations in fish

Peter Hubbard

Selective staining of olfactory pathways

K.B. Døving, K.-A. Hansson and H.E. Karlsen

Symposium: Olfactory Transduction Proteins and Genes:

Calcium-activated chloride currents in olfactory transduction

Anna Menini

Transduction components in Grueneberg ganglion neurons

Joerg Fleischer, Katharina Mamasuew and Heinz Breer

A role for the guanine nucleotide exchange factor Ric-8B in olfaction

Bettina Malnic and Luciana Mayumi Gutiyama

Genetic variation analysis for the human olfactory transduction universe

Ifat Keydar, Tsviya Olender, Miriam Khen, Edna Ben-Asher, Ester Feldmesser, Yoav Gilad and Doron Lancet

Symposium: Extracting significance from complexity: Odour mixtures' perception from insects to humans & molecules to behaviour:

Unravelling the mechanisms of odour mixture perception

David Laing

Odour mixture coding, processing and learning in the honeybee, *Apis mellifera*

Jean-Christophe Sandoz, Nina Deisig and Martin Giurfa

Olfactory receptor neuron responses to odor mixture may predict the perceived odor quality

Patricia Duchamp-Viret and Michel Chaput

Odour mixture processing: from birth to adulthood

Gérard Coureaud, Charlotte Sinding, Elodie Le Berre, Guillemette Crépeaux, Boris Bervialle, David Gibaud, Younes Hamdani, Benoist Schaal and Thierry Thomas-Danguin

The hedonics of odorant mixtures

Mats J. Olsson, Malin Brodin and Per Møller

Symposium: Neuromorphic Olfactory Sensors:

A Biomimetic Gas Sensor Array System designed to test Computational Olfaction Models

L. Fernandez, A. Gutierrez-Galvez, J. Fonollosa and S. Marco

Odor recognition framework for evaluating olfactory codes

Pawel Herman and Anders Lansner

Stereotyped firing response patterns in moth antennal lobe neurons: from experiments to models

Dominique Martinez, Antoine Chaffiol, Yuqiao Gu, Sylvia Anton and Jean-Pierre Rospars

Analysis of Exhaled Breath for COPD monitoring based on E-NOSE/SPME System

Hyung-Gi Byun, Krishna C. Persaud, Jeong-Ok Lim, Joon-Bu Yu, Jeung-Soo Huh and Jae-Yong Park

Development and test of a large array of conductive polymers sensors resembling the redundancy of the biological olfactory system

Mara Bernabei and Krishna Persaud

Symposium: Offensive odours - Chemistry, Behaviour, Development and Language:

Introduction

Andrea Buettner and Benoist Schaal

Unconditional response to offensive smells: what we learn from newborns' reactions

Sébastien Doucet, Constanze Hartmann, Ralf Dittrich, Robert Soussignan, Benoist Schaal and Andrea Buettner

Molecular-chemical characterization of off-odours and their formation pathways - indicators for potentially harmful processes?

Michael Czerny and Andrea Buettner

Material off odours in the built environment - annoying or harmful?

Florian Mayer, Andrea Burdack-Freitag and Klaus Breuer

Sensory and linguistic aspects of offensive odors: how to describe and communicate about unpleasant odors

Jeannette Nuessli Guth and Andrea Strube

Does the quality of an odour matter to the brain? Insights from functional neuroimaging studies

Martin Wiesmann

Offensive versus pleasant odours: analytical techniques to characterise physiological and behavioural responses

Jonathan Beauchamp

Symposium: Cerebral Imaging in Taste and Olfaction:

Body odors of newborns activate neuronal regions associated with reward in women

Johan N. Lundström, Annegret Mathe, Benoist Schaal, Johannes Frasnelli, Johannes Gerber and Thomas Hummel

The gustatory cortex and multisensory integration

Ivan E. de Araujo

Neural dynamics of taste intensity perception in humans

Tatsu Kobayakawa, Naomi Gotow and Sachiko Saito

fMRI response to reward value of chemosensory stimuli in the human brain

Claire Murphy, Lori Haase, Erin Green, Aaron Jacobson and Nobuko Kemmotsu

Workshop: Species differences and similarities in Taste:

Introduction: Species differences in taste

Göran Hellekant

Vertebrate chemosensory evolution: quality coding, conservation and diversification

Marion E. Frank and Thomas P. Hettinger

The rules of encoding in the taste system revealed by complementary neurophysiology and functional neuroimaging

Edmund T. Rolls

Differences in bitter taste receptors and behaviours in species and sub-species of primates: Identification of non-taster Japanese macaques for a specific bitter taste

Nami Suzuki, Tohru Sugawara, Atsushi Matsui, Yasuhiro Go, Hirohisa Hirai and Hiroo Imai

Labeled lines and taste of compounds in cattle

Göran Hellekant

ORAL COMMUNICATIONS***Oral session Human Chemoreception:*****High prevalence of quality-specific taste disorders in children: explaining the neural mechanisms is not so easy**

David Laing and Fiona Wilkes

Taste sensitivity increases under conditions of adaptation and inhibition

Veronica Galindo-Cuspinera and Paul A.S. Breslin

Evaluation of taste-aroma and taste-taste interactions with relevance to bitterness perception and bitterness masking potential

Katharina V. Reichelt, Andreas Degenhardt, Susanne Paetz, Jakob P. Ley and Gerhard E. Krammer

Natural salt taste enhancing peptides – sensomics-based discovery, human psychophysics, and ENaC activation

Andreas Dunkel, Alexander Schindler, Frauke Stähler, Stefanie Demgensky, Michael Backes; Jakob Ley, Wolfgang Meyerhof and Thomas Hofmann

Discovery platform for odorant potentiators and blockers

Kambiz Shekdar, Lori Schmid, Amy Lancaster, Jonathan Anobile, Srinivasan Venkatachalan and Dennis Sawchuk

Chemosensory communication of anxiety – An emotion regulation study

Dirk Adolph, Sonja Meyer, Dominique Schaub and Bettina M. Pause

Congenitally anosmic adults report less maternal care than normosmics: a retrospective questionnaire study

Lenka Novakova, Ilona Croy, Jan Havlicek and Thomas Hummel

Nasal sniffing enables communication and environmental control for the severely disabled

Lee Sela, Anton Plotkin, Aharon Weissbrod, Nachum Soroker and Noam Sobel

Molecular mechanism of salt taste

Oluwatoroti O. Umuerri, Renate Hukema, Martijn Dekkers, Suzanne Rademakers and Gert Jansen.

Oral session Receptors:**Zebrafish crypt neurons express a single V1R-like olfactory receptor**

Yuichiro Oka and Sigrun I. Korschning

Genetic basis for variability in bitter taste perception

Natacha Roudnitzky, Sophie Thalmann, Susann Kohl, Anika Engel, Stephen Wooding, Maik Behrens and Wolfgang Meyerhof

An analysis of the gustatory receptor genes of the insect pest, *Epiphyas postivittana* (Tortricidae, Lepidoptera)

John Täne Christeller

The antennal transcriptome of a moth

Emmanuelle Jacquin-Joly, Fabrice Legeai, Sébastien Malpel, Nicolas Montagné, Christelle Monsempe, François Cousserans, Christine Merlin, Marie-Christine François, Martine Maibèche-Coisné, Frédéric Gavory and Julie Poulain

Key role of the capsaicin receptor TRPV1 as a mustard oil chemo-nociceptor

Maarten Gees, Wouter Everaerts, Aurelia Apetrei, Ilse Dewachter, Annelies Janssens, Fred van Leuven, Rudi Vennekens, Bernd Nilius, Thomas Voets and Karel Talavera

On the role of mitochondrial calcium in mouse olfactory sensory neurons

Daniela Fluegge, Lisa M. Moeller, Jennifer Spehr, Sophie Veitinger, Silvia Cainarca, Stefan Lohmer, Sabrina Corazza, Eva M. Neuhaus and Marc Spehr

Ion channel properties of the *Drosophila* odorant receptor protein Or83b

Vardanush Sargsyan, Bill S. Hansson and Dieter Wicher

Oral session Coding and Regulations:**Processing of Complex Host Blends in the *Manduca* Antennal Lobe**

Linda S. Kuebler, Shannon B. Olsson and Bill S. Hansson

Towards unraveling the olfactory code in *Mus musculus*: combinatorial encoding of age-, sex-, and genotype-specific olfactory signature by major urinary proteins (MUPs)

Sergey Novikov, Elena Fedorova and Irina Ermakova

RNAi-mediated dissection of olfactory behavioral response profiles of odorant binding proteins in *Drosophila melanogaster*

Shilpa Swarup, Trudy Mackay and Robert Anholt

Role of Glycine receptors during postnatal neurogenesis

Frank Zufall and Jean-Claude Platel

The influence of L-felinine on reproduction in mice and rats

Vera Voznessenskaya and Tatiana Malanina

Transition from sea to land: Olfactory function and adaptations in land hermit crabs

Anna-Sara Krång, Markus Knaden, Kathrin Steck and Bill S. Hansson

Plasticity of the chemosensory repertoire in *Drosophila melanogaster*

Shanshan Zhou , Eric A. Stone, Taufika I. Williams, Trudy F.C. Mackay and Robert R.H. Anholt

POSTERS

Methods for Intrinsic optical imaging of human olfactory epithelium

Anton Plotkin, Sagit Shushan, Hadas Lapid, Aharon Weissbrod, Yehuda Roth and Noam Sobel

Olfactory perception via both orthonasal and retronasal routes is associated with respiratory activities

Yuri Masaoka and Ikuo Homma

Training the inter-nostil localization ability of olfactory chemicals

Simona Negoias, Oxana Aszmann, Johannes Gerber and Thomas Hummel

Processing differences between monorhinal and birhinal odor mixtures

Malin Brodin, Simona Negoias and Mats Olsson

Is the olfactory epithelium tuned to olfactory perception?

Hadas Lapid, Sagit Shushan, Anton Plotkin, Yehudah Roth and Noam Sobell

Olfactory perception and motion sickness

Aurore Paillard, Laurence Jacquot and Jean-Louis Millot

Influence of information-manipulation of the same odor stimulus on cardiovascular response (2) -using subliminal affective priming method

Takefumi Kobayashi, Yu Akiyama, Yuichiro Nagano and Tatsu Kobayakawa

How do Italian and Korean consumers perceive the same food? The case of *Perilla frutescens*

Monica Laureati, Ella Pagliarini, Angela Bassoli and Gigliola Borgonovo

Effect of sensory education on categorisation of unknown odors in children

C. Reverdy, C. Lange, A. Thibaut, P. Schlich and E.P. Köster

Selective adaptation allows identification of odors from a mixture of chemically similar compounds

Dane B. Fletcher, Marion E. Frank and Thomas P. Hettinger

Water quality monitoring by a multisensors apparatus

K.C. Persaud, A.M Pisanelli and A. Rubino

Design of mobile robot with artificial olfactory system

Jeong-Do Kim, Jung-Hwan Lee, Hyung-Gi Byun, Sang-Goog Lee and Chul-Ho Hong

Bio-signal based emotion evaluation by olfactory display in playing the game and entertainment

Jeong-Do Kim, Jung-Hwan Lee, Hyung-Gi Byun, Sang-Goog Lee and Chul-Ho Hong

Towards a bio-electronic nose: sensing volatiles with rodent olfactory receptor neurons

Evelien Micholt, Liesbeth Micholt, Dries Braeken, Danny Jans, Wolfgang Eberle, Carmen Bartic, Bart Nicolaï and Jeroen Lammertyn

Relationship between odor descriptors and molecular structures

Hiromi Sagae, Wakamatsu Miki, Yukio Sone, Hisanori Nagata and Yuichi Furudono

Towards an understanding of odor blending in odorant mixtures:a pharmacophore approach

Anne Tromelin, Thierry Thomas-Danguin, Charlotte Sinding, Gérard Coureau and Elisabeth Guichard

Interpretation of Psychophysics Response Curves Using Statistical Physics and Double Layer Adsorption Model

S. Knani, A. Ben Lamine and M. Mathlouthi

Adaptive sensor drift counteraction by a modular neural network

Simon Benjaminsson and Anders Lansner

Taste preferences in Zebrafish juveniles

Brigitte Boyer and Frédéric Rosa

Characterization of ligands for human T1R3 taste receptor

Elodie Maîtrepierre, Maud Sigoillot, Laurence Le Pessot and Loïc Briand

Molecular and behavioral analysis of gustatory sugar sensitivity in *Drosophila simulans* wild populations

Shinjiro Saeki, Hiromi Morita and Kunio Isono

Expression of Tas1R taste receptor subtypes in mammalian spermatozoa

Dorke Meyer, Heike Borth, Patricia Widmayer, Thomas Gudermann and Ingrid Boekhoff

Mixture interactions in taste sensilla of *Drosophila melanogaster*

Marie-Jeanne Sellier and Frédéric Marion-Poll

Purification and characterization of recombinant gurmarin secreted by the yeast *Pichia pastoris*

Maud Sigoillot, Nicolas Poirier and Loïc Briand

A screening for genes encoding G protein-coupled receptors expressed in taste papillae.

Jean-Pierre Montmayeur, Zhenhui Liu, Soumya Kusumakshi, Fabienne Laugeronette, Claire Fenech, Anna Wiencis and Ulrich Boehm

cAMP may regulate bitter taste transduction in bullfrog

Takashi Kumazawa, Kazunori Mashiyama, Yukiko Urano, Tatsuya Handa, Noriaki Tsuji and Kiyonori Yoshii

Pharmacology and expression of a dye-permeable voltage-gated channel on mouse taste bud cells

Keita Takeuchi, Yasuhisa Seto, Yoshitaka Ohtubo and Kiyonori Yoshii

Palatability of long-chain fatty acids assessing from the licking behavior of BALB/c mice

Takeshi Yoneda, Katsuyoshi Saitou, Hiroki Asano, Takafumi Mizushige, Shigenobu Matsumura, Ai Eguchi, Yasuko Manabe, Satoshi Tsuzuki, Kazuo Inoue and Tohru Fushiki

Identification of agonist interaction sites in the human bitter taste receptor hTAS2R10 through in silico model-guided mutagenesis

Stephan Born, Maik Behrens, Anne Brockhoff, Anat Levit, Masha Y. Niv, Giovanni Appendino and Wolfgang Meyerhof

Iterative *in-silico* and *in-vitro* tools for exploration of bitterness

Anat Levit, Ayana Wiener, Claudia Deutschmann, Maik Behrens, Wolfgang Meyerhof and Masha Y. Niv

Vesicular glutamate transporter 1 positive nerve fibers in rat fungiform papillae

A. Braud, Y. Boucher and F. Zerari-Mailly

Tingle sensation by a sansho oil derivative and its effects on primary sensory neurons

Amanda H. Klein, Carolyn M. Sawyer, Margaret A. Ivanov, Susan Cheung, Mirela Iodi Carstens, Christopher T. Simons, Jay Slack and E. Carstens

The role of TRPV1-dependent chemosensation in alcohol perception and consumption by mice

Vladimir O. Murovets, Alexander A. Bachmanov and Vasily A. Zolotarev

The role of olfaction in perception and consumption of ethanol by mice

Vladimir O. Murovets, Sergey V. Travnikov, Maria S. Aksenova and Vasily A. Zolotarev

Just noticeable difference in olfaction is related to trigeminal component of odorants

Brand G., Jacquot L. and Hidalgo J.

Major urinary proteins (MUPs) as a promising tool for analysis of the intermale aggression in mice

Elena Fedorova, Irina Ermakova and Sergey Novikov

Females of two subspecies of mice differ in their urinary volatile profile

C. Mucignat-Caretta, M. Redaelli, A. Orsetti, M. Perriat-Sanguinet, G. Zagotto and G. Ganem

Pheromone receptors in the noctuid moth *Spodoptera littoralis*

Nicolas Montagné, Thomas Chertemps, Isabelle Brigaud, Christelle Monsempès and Emmanuel Jacquin-Joly

Molecular elements of pheromone reception in moths

Pablo Pregitzer, Danuta Schymura, Maike Forstner, Heinz Breer and Jürgen Krieger

Use trail pheromones in the ant *Camponotus aethiops*: discrimination and generalisation among societies

Fernando J. Guerrieri and Marcus Stensmyr

The smell of disease: Human body odor changes in response to systemic inflammation

Mats J. Olsson, Nishetan Hosseini, Malin Brodin, Johan N. Lundström, Anne Soop, Mats Lekander, John Axelsson and Bianka Karshikoff

Postnatal exposure to predator odor induces modification in fear-related behaviors during adulthood without change in corticosterone levels

Brand G., Hacquemard R. and Jacquot L.

Expression of genes controlling adult neurogenesis of dopaminergic neurones in the olfactory bulb: a synoptic view

Mirta Borin, Angela Pignatelli, Cristina Gambardella, Antonio P. Beltrami and Ottorino Belluzzi

Local modulation of excitatory/inhibitory balance influences oscillatory neural activity in the accessory olfactory bulb of anaesthetised mice

Emilia Leszkowicz, Selina Khan, Stephanie Ng and Peter Brennan

Mechanisms underlying olfactory perceptual learning in adult and aging mice: implication of neurogenesis and noradrenaline

Melissa Moreno, Marion Richard, Benoit Landrein, Joelle Sacquet, Charles A. Greer, Anne Didier and Nathalie Mandairon

Decreases in olfactory responses in mouse model for Alzheimer disease

Takeshi Osako, Takashi Narukawa, Tomohiro Noguchi, Toshiharu Suzuki and Makoto Kashiwayanagi

How nasal airflow shapes spatio-temporal representation of odors at the olfactory bulb level

Frédéric Esclassan, Emmanuelle Courtiol, Marc Thévenet, Belkacem Messaoudi, Samuel Garcia, Nathalie Buonviso and Philippe Litaudon

Projection pattern of antennal-lobe output neurons in higher olfactory centers of the heliothine moth brain

Xin-Cheng Zhao and Bente G. Berg

Function of inhibitory Projection neurons for odor coding and their influence on odor-guided behavior in *Drosophila melanogaster*

Antonia Strutz, Bill S. Hansson and Silke Sachse

Identification of a fatty acyl reductase from *Spodoptera littoralis* female gland involved in pheromone production

Gerard Carot-Sans, Lourdes Muñoz, Glòria Rosell and Àngel Guerrero

Dichlobenil-induced limited damage of the olfactory system alter exploratory and social behaviour in the mouse

Antonio Caretta, Michela Bondi and Carla Mucignat-Caretta

Modelling the cellular mechanisms underlying the multiphasic response of moth pheromone-sensitive projection neurons

Yugqiao Gu, Hana Belmabrouk, Antoine Chaffiol, Jean-Pierre Rospars and Dominique Martinez

An exploration of mammary odor cues in newborn mice

Syrina Al Aïn, Amal Chrifi, Benoist Schaal and Bruno Patris

Flavour learning in babies: The role of breastfeeding

Helene Hausner, Sophie Nicklaus, E.P. Köster and Per Möller

Modulation of facial mimicry by sexual orientation and related social chemosensory context cues

Katrin Lübke, Nina Riether and Bettina M. Pause

Central nervous processing of chemosensory anxiety signals in pregnant women

Carolin Jungbluth, Anne Orth and Bettina M. Pause

Developmental and activity-dependent regulation of the post-synaptic protein Neurogranin in the olfactory bulb

Gribaudo S., Bovetti S., Denorme M., Garzotto D., Fasolo A. and De Marchis S.

Sequential arrival and graded secretion of sema3F by olfactory neuron axons specify map topography at the bulb

Mari Aoki, Haruki Takeuchi, Kasumi Inokuchi and Hitoshi Sakano

Intracellular study of relationships between spiking activity and membrane potential oscillation in freely breathing anesthetized rat

Virginie Briffaud, Nicolas Fourcaud-Trocme, Marc Thevenet and Nathalie Buonviso and Corine Amat

Activity correlation imaging: visualizing function and structure of neuronal populations in the olfactory bulb

Mihai Alevră, Stephan Junek, Tsai-Wen Chen and Detlev Schild

Rat piriform cortex response to odors revealed by BOLD fMRI

Frédéric Esclassan, Denis Grenier, Olivier Beuf, Anne-Laure Perrier, Jean-Baptiste Langlois, Marc Thevenet, Nadine Ravel and Philippe Litaudon

Olfaction in parkinson's disease: monorhinal olfactory testing in patients with lateralized motor symptoms

Noémie Aubert Bonn and Jelena Djordjevic

Odour recognition memory and odour identification abilities in patients with mild and severe major depressive disorder

Gesualdo M. Zucco and Fabiola Bollini

The influence of distractors on olfactory identification ability in schizophrenia patients and controls: relationships to negative symptomatology

Marie-Line Hamtat, Jack Doron, Olivier Grondin, Katia M'Bailara, Alain Desage, Gilles de Revel, Vanessa Meyer and Gilles Sicard

Delayed decrease of pleasantness ratings in congenital anosmia during the consumption of a simple food

Lenka Novakova, Ilona Croy, Viola Engelhardt, Jan Havlicek and Thomas Hummel

No brain-response to a human chemosignal in congenital anosmia

Sagit Shushan, Yaara Yeshurun, Yehuda Roth and Noam Sobel

Early anosmia or hyposmia: MR Imaging and evoked potentials evaluation

Akiko Ishii-Forêt, Amir Djoumoi, Corinne Eloit, Jean Loup Bensimon, Philippe Herman, Patrice Tran Ba Huy, Annick Faurion and Didier Trotter

Olfactory responses in children with and without autism

Jasna Lehigha and Luc Marlier

Odorant receptors in olfactory cilia and axons

Julia Eberle, Olga Levai and Heinz Breer Jörg Strotmann

OR37-receptors: a unique subfamily of olfactory receptors

J. Strotmann, Yong-Quan Zhang and H. Breer

Gene switching and odor induced activity shape the OR37-typical patch

Andrea Bader, Verena Bautze, Désirée Haid, Heinz Breer and Jörg Strotmann

Interactions between octanal and citronellal at the receptor level

Fouzia E.I. Mountassir, Christine Belloir, Marie-Louise Miller, Loïc Briand and Anne-Marie Le Bon

Novel signaling mechanism of the olfactory receptor hOR51E2 in prostate cancer cells

Jennifer Spehr, Lian Gelis, Markus Osterloh, Marc Spehr, Hanns Hatt and Eva M. Neuhaus

Pyrethroids alter sodium channel gating in honeybee olfactory receptor neurons

Aklesso Kadala, Mercedes Charreton, Ingrid Jakob, Yves Le Conte and Claude Collet

Ca²⁺-activated Cl⁻ channels of the ClCa family are present in rat olfactory cilia and may participate in odor transduction

Carolina González, Jorge Vera, Alejandra Riveros, Christian González-Billaud, María Rosa Bono and Juan Bacigalupo

Calcium-activated chloride currents in olfactory sensory neurons and in HEK293 cells heterologously expressing TMEM16B

Claudia Sagheddu, Anna Boccaccio and Anna Menini

Calcium-dependence of the TMEM16B-chloride channel: a candidate calcium-activated chloride channel in olfactory transduction

Valentina Cenedese, Fulvio Celsi, Simone Pifferi and Anna Menini

Bioluminescence resonance energy transfer studies demonstrate constitutive and specific homo-oligomerization of the human olfactory receptor OR1740, a rhodopsin-like GPCR

Fallou Wade, Agathe Espagne, Marie-Annick Persuy, Régine Monnerie, Fabienne Merola, Edith Pajot-Augy and Guenhaël Sanz

Odorant dependent secretion on the antennal surface in the cockroach, *Periplaneta americana*

Marianna I. Zhukovskaya

Processing of odour mixture complexity in newborn rabbits

Charlotte Sinding, Thierry Thomas-Danguin, Benoist Schaal and Gérard Coureaud

Banana odor blend processing in the olfactory circuitry of *Drosophila melanogaster*—linking gas-chromatography with optical imaging techniques

Marco Schubert, Bill S. Hansson and Silke Sachse

Candidate chemosensory ionotropic receptors in a lepidoptera

Violaine Olivier, Christelle Monsempes, Marie-Christine François, Erwan Poivet and Emmanuelle Jacquin-Joly

Conserved response to food compounds in olfactory receptor neurons of two scarab beetles, *pachnoda interrupta* and *P. marginata*

Jonas M. Bengtsson, Hamida Khbaish, Andreas Reinecke, Bill S. Hansson, Ylva Hillbur and Mattias C. Larsson

Expression of odorant binding proteins and olfactory receptors on the antenna of the mosquito *Anopheles gambiae*

Danuta Schymura, Maike Forstner, Anna Schultze and Jürgen Krieger

In vitro characterization of two antennal Odorant-Degrading Enzymes in the noctuid moth *Spodoptera littoralis*

Durand N., Chertemps T., Carot-Sans G., Bozzolan F., Montagné M., Jacquin-Joly E., Debernard S., Rosell-Pellise G. and Maibèche-Coinse M.

Molecular mode of action of insect repellents

Jonathan D. Bohbot and Joseph C. Dickens

Octenol receptor of the yellow fever mosquito, *aedes aegypti*: Comparison of activity of agonists and antagonists in heterologous expression and in vivo studies

Alan J. Grant and Joseph C. Dickens

Morphology and electrophysiology of olfactory sensilla on the antennae of female cotton leafworm, *Spodoptera littoralis*

M. Binyameen, F. Schlyter and P. Anderson

Olfactory responses to neuro-transmitters in goldfish

Nikolay Kolmakov, Peter Hubbard, Adelino V.M. Canario

Olfactory sensitivity to Ca^{2+} and Na^+ in the European eel (*Anguilla anguilla*)

Mar Huertas, Adelino V.M. Canario and Peter C. Hubbard

Oviposition in *Manduca sexta*: Behavioural responses, chemical stimuli, and their sensory perception

Andreas Reinecke, Anna Henning, Subaharan Kesavan, Shannon Olsson, Bill S. Hansson

Sensory organs on larval antenno-maxillary complex of *Melolontha melolontha* (Coleoptera: Scarabaeidae)

Elisabeth Johanna Eilers, Andreas Reinecke, Bill Hansson and Monika Hilker

Egg deposition elicits Brachiaria plants to produce defence signals that attract natural enemies antagonistic to a major cereal pest

Amanuel Tamiru, Toby J.A. Bruce, Charles A.O. Midega, Callistus K.P.O. Ogor, John A. Pickett and Zeyaur R. Khan

Macroanatomy and ultrastructural studies on olfactory sensory epithelial components of *Pseudapocryptes lanceolatus* (Bloch and Schneider)

S.K. De and S.K. Sarkar

Smell of death elicit evasive behavior in zebrafish

Ashiq Hussain, Luis R Saraiva, David Ferrero, Yen Yen Kwan, Stephen D. Liberles and Sigrun I. Korschning

An edibility/toxicity sensor in the nose

Tali Weiss, Rafi Haddad, Aharon Weissbrod, Minghong Ma, Tali Kimchi and Noam Sobel

The Grueneberg ganglion – a dual sensory organ?

Katharina Mamasuew, Heinz Breer and Joerg Fleischer

Investigations of the multisensory modalities of the mouse Grueneberg ganglion

Julien Brechbühl, Nicolas Hurni and Marie-Christine Broillet

Subsystem-specific odorant-processing in the main olfactory system of larval *Xenopus laevis*

S. Gliem, E. Kludt, D. Schild and I. Manzini

Sensory aspects of offensive odours: "musty" is not always perceived the same

Andrea Strube and Andrea Buettner

Determinants of the pleasantness of odor mixtures

Per Møller, Ditte Hartvig and Wender Bredie

Modulation of odor pleasantness with age

Pauline Joussain, Johan Poncelet, Marc Thévenet, Catherine Rouby and Moustafa Bensafi

The effect of congruent and incongruent ambient odors on the evaluation of public goods

Valentina Perrotta, Michele Graffeo, Nicolao Bonini and Konstantinos Hadjichristidis

Individual differences in the awareness of odours

M. Luisa Demattè, Isabella Endrizzi, Franco Biasioli, Maria Laura Corollaro, Massimiliano Zampini and Flavia Gasperi

Structure and variability of odor-related affective feelings

Camille Ferdenzi, S. Craig Roberts, Annett Schirmer, Sylvain Delplanque, Isabelle Cayeux, Christelle Porcherot-Lassallette, Maria-Inès Velazco, David Sander, Klaus R. Scherer and Didier Grandjean

Odors eliciting fear: a conditioning approach to idiopathic environmental intolerance

Patricia Bulsing, Arne Leer, Monique Smeets and Marcel van den Hout

Olfactory identification capacities in novice and wine experts

S. Tempère, M.L. Hamtat, G. de Revel, V. Meyer, E. Cuzange, J.C. Bougeant and G. Sicard

Adaptation of UPSIT for RF population

Anna Voznesenskaya, Maria Klyuchnikova, Elena Rodionova and Vera Voznessenskaya

Insulin, a survival factor for olfactory epithelium

Marie-Christine Lacroix, Aida Rodriguez-Enfedaque, Iman Laziz, Regine Monnerie, Denise Grébert, Monique Caillol and Flore Renaud

The endocannabinoid 2-AG controls odor sensitivity in larvae of *Xenopus laevis*

Esther Breunig, Ivan Manzini, Fabiana Piscitelli, Vincenzo Di Marzo, Detlev Schild and Dirk Czesnik

Evidence for Multidrug resistance transporter activity in the olfactory epithelium of rodents

Adrien Molinas, Gilles Sicard and Ingrid Jakob

Psychobiological effects of perinatal exposure to odorants in mice. Part I: Morphological changes in the olfactory epithelium

Bassim Tazir, Hervé Cadiou and Xavier Grosmaire

Psychobiological effects of perinatal exposure to odorants in mice. Part II: Behavioural alterations

Marije Oostindjer, Syrina A.I. Aïn, Bruno Patris, Hervé Cadiou, Xavier Grosmaire and Benoist Schaal

Influence of nutritional and metabolic status on different olfactory-driven behaviours tests: a way to regulate food intake?

Monique Caillol, Karine Badonnel, Régine Monnerie, Didier Durieux and Christine Baly

Taste responses in the nucleus of the solitary tract of the actively licking rat

Andre T. Roussin, Jonathan D. Victor and Patricia M. Di Lorenzo

The number of taste bud cells that belongs to each cell type is in equilibrium in fungiform and soft palate taste buds of mice

Yoshitaka Ohtubo and Kiyonori Yoshii

4-aminopyridine differentially affects spike generator and receptor potential in the labellar "salt" receptor of the blowfly *Protophormia terraenovae*

Giorgia Sollai, Paolo Solari, Valentina Corda, Carla Masala and Anna Liscia, Roberto Crnjar

An attempt to establishment *in vitro* models for analyses of taste buds with clonal cell lines derived from murine tongue

Miyako Nishiyama, Hideyuki Sako, Kayoko Hashizume, Takenori Miyamoto and Yasuhiro Tomooka

Intermittent delivery of salt or sugar distorts perception of saltiness or sweetness

Andrew Eddy, Ingrid Appelqvist, Leif Lundin and Conor Delahunt

EAG responses of the medfly *Ceratitis capitata* to fruit and foliage headspace of host-plants: a comparison between wild and lab reared insect populations

Giorgia Sollai, Nicola Altea, Carla Masala, Francesco Loy, Anna Liscia, Roberto Crnjar and Paolo Solari

Morpho-functional characterization of taste labellar apparatus in the medfly *Ceratitis capitata* in response to host-plants

Carla Masala, Giorgia Sollai, Piera Angioni, Francesco Loy, Anna Liscia, Roberto Crnjar and Paolo Solari

Olfactory and gustatory processing in a premotoric area; the laterale protocerebrum in a model insect

Bjarte Bye Løfaldli, Pål Kvælo and Hanna Mustaparta

Is taste perception driven by change-detection rather than level-detection?

Johannes Hendrikus Franciscus Bult

The effects of franones flavors on the intakes of umami solution in short time one-bottle test in non-deprived mice

Hiroya Kawasaki and Aiko Tsutsumi

Sweet taste intensity is enhanced by temporal fluctuation of odor and taste, and depends on phase shift

Kerstin Martha Mensien Burseg, Sera Camacho, Janine Knoop and Johannes Hendrikus Franciscus Bult

Oolong tea is suitable beverage for fatty foods

Yukako Hayashi, Masahide Uemura, Kentaro Matsumiya, Yasuaki Matsumura, Emi Mura and Hajime Nagai

Olfactory learning during sleep

Anat Arzi, Anton Plotkin and Noam Sobel

AMPA receptors in the basolateral amygdala are involved in the memory processes underlying acquisition of olfactory trace conditioning in the Rat

Xander Houbaert and Barbara Ferry

Amygdala PKM ζ role in the formation of taste aversive memories in rats

Fernando Gamiz and Milagros Gallo

Dorsal hippocampal and perirhinal neurotoxic lesions and taste intake suppression induced by context aversion learning in rats

Beatriz Gómez-Chacón, Fernando Gamiz, Laura Martínez-Escudero and Milagros Gallo

The participation of testosterone in the retention of the extinction memory of conditioned taste aversion learning in male mice

Ema Suzuki, Tomoko Kawabe, Hiroko Eda-Fujiwara, Rika Saito, Ryohei Satoh and Takenori Miyamoto

An olfactory mirror: a method for assessing self-recognition in macrosmatic mammals

Roni Kahana, Aharon Weissbrod, Yosef Shohat, Lior Haviv and Noam Sobel