

Schedule

<December 14>

13:00—13:10 **Opening remarks for the 18th Auditory Research Forum**

Hiroshi Riquimaroux

13:10—14:10 **Oral Presentation (1)**

(at Seminar Room 5, the 1st FL. KAKUTAI-KAN)

(Chair: *Junsei Horikawa*)

13:10—13:30

○ *Shota Murai, Kohta I. Kobayasi and Hiroshi Riquimaroux*

Relationships between performance for listening test of the noise-vocoded speech sounds and changes in neural activities

13:30—13:50

○ *Hidetaka Yashiro, Ichiro Nakahara, Kohta I. Kobayasi, Kazuo Funabiki and Hiroshi Riquimaroux*

Optical imaging of the auditory response in the mouse's inferior colliculus using a micro-endoscope

13:50—14:10

○ *Eri Takahashi, Kiri Hyomoto, Kazuma Hase, Yoshiaki Watanabe, Hiroshi Riquimaroux, Tetsuo Ohta and Shizuko Hiryu*

Changes in acoustic characteristics of echolocation pulses emitted by FM bat under artificial jamming conditions

14:10—14:20

Break

14:20—15:20 **Oral Presentation (2)**

(at Seminar Room 5, the 1st FL. KAKUTAI-KAN)

(Chair: *Hiroshi Riquimaroux*)

14:20—14:50

○ *James A. Simmons, Michaela Warnecke and Victoria Flores*

Target shape perception and clutter rejection use the same mechanism in bat sonar

- 14:50—15:20 ○ *Walter Metzner*
Different forms of auditory-vocal feedback control in echolocating bats
- 15:20—15:30 **Break**
- 15:30—16:00 **Oral Presentation (3)**
(at Seminar Room 5, the 1st FL. KAKUTAI-KAN)
(Chair: *Hiroshi Riquimaroux*)
- 15:30—16:00 ○ *Motoi Kudo, Fuduki Inoguchi, Kousuke Taki, Tomoko Kimura, Junko Okano, Yoshinari Aimi and Jun Udagawa*
Parcellation of the inferior colliculus in cat, mole and rat: the rostral pole exists as a separate entity
- 16:00—18:00 **Poster Session**
(at Seminar Rooms 1, 2, 3, 4 , the 1st FL. KAKUTAI-KAN)
- [P1] ○ *Satoko Ono, Kazuo Okanoya and Yoshimasa Seki*
Variability of auditory response to the birds' own song in neurons of the songbird auditory forebrain area
- [P2] ○ *Takafumi Furuyama, Kohta I. Kobayasi and Hiroshi Riquimaroux*
The role of vocal-tract characteristics for identifying individuality in Japanese macaques
- [P3] ○ *Shinya Isaji, Kazuo Ueda and Yoshitaka Nakajima*
Effects of frequency-band elimination on identification of noise-vocoded Japanese syllables
- [P4] ○ *Takashi Noguchi, Takeshi Morimoto, Takafumi Furuyama, Kohta I. Kobayasi and Hiroshi Riquimaroux*
Sound induced visual illusions in Japanese macaques

- [P5] ○*Shota Murai, Marina Takabayashi, Yuki Nakayama, Kohta I. Kobayasi, Jan Auracher and Hiroshi Riquimaroux*
Perceived correspondence between acoustic characteristics of phonemes and abstract semantic concepts: An fMRI study
- [P6] ○*Hiroki Terashima and Masato Okada*
Pitch cells as a computational analogue to complex cells of visual cortex
- [P7] ○*Kazuo Ueda, Yoshitaka Nakajima and Takuya Fujioka*
Factor analyses of power fluctuations in spoken sentences: Applying cepstral analysis
- [P8] ○*Kentaro Ono, Christian Altmann, Masao Matsuhashi, Tatsuya Mima and Hidenao Fukuyama*
Effects of the regularity in a tone sequence on the processing of sound omission in musicians and nonmusicians
- [P9] ○*Hiroyuki Fujita, Shunji Sugimoto and Junsei Horikawa*
An ERP study of parsing mechanisms on the basis of Japanese theme-rheme frame
- [P10] ○*Minoru Iwata, Kohta I. Kobayasi and Hiroshi Riquimaroux*
Comparative study on subjective differences in impression between sounds generated by Japanese and Western wind instruments
- [P11] ○*Marina Takabayashi, Kohta I. Kobayasi and Hiroshi Riquimaroux*
Are pitch accents in noise-vocoded vowels created by a change in amplitude?
- [P12] ○*Genki Asaka, Shota Murai, Kohta I. Kobayasi and Hiroshi Riquimaroux*
Synchronous rhythm sensation measured with synchronization tapping task

- [P13] ○ *Yuki Nakayama, Kyohei Nozawa, Shota Murai, Shohei Hisano, Kohta I. Kobayasi, Junsei Horikawa and Hiroshi Riquimaroux*
Comparison between inductive and deductive reasonings through vocalized sentences by mean of activities in cortical areas
- [P14] ○ *Masataka Nishimura and Wen-Jie Song*
Quantitative examination of frequency representation in the guinea pig primary auditory cortex
- [P15] ○ *Yuki Torigoe, Kohta I. Kobayasi and Hiroshi Riquimaroux*
Brain activities related to communication sounds in Mongolian gerbils, *Meriones unguiculatus*
- [P16] ○ *Tomoko Uekita*
The effects of partner on vigilance behavior in *Octodon degus*
- [P17] ○ *Naoya Akiyama, Kohta I. Kobayasi, Tomoko Uekita and Hiroshi Riquimaroux*
Inactivation of the auditory cortex with muscimol disrupts discrimination of different temporal pattern of noise in the Mongolian gerbil
- [P18] ○ *Tetsu Watanabe, Shunji Sugimoto and Junsei Horikawa*
Spectral and temporal processing in the auditory cortex of guinea pigs: responses to species-specific vocalization
- [P19] ○ *Ayako Nakayama, Hidetaka Yashiro, Kohta I. Kobayasi and Hiroshi Riquimaroux*
Hearing sensitivity for constant frequency sounds and frequency modulated sounds in Mongolian gerbils
- [P20] ○ *Yuta Shiromi, Masataka Nishimura, Yuta Oshima and Wen-Jie Song*
Identification and characterization of a new vocalization of male guinea pig
- [P21] ○ *Hisayuki Ojima, Eriko Tachi and Masato Taira*

Sound recognition by guinea pigs: spectral and temporal cues and interval changes

- [P22] ○ *Yuka Nakatani, Shokei Boku, Kohta I. Kobayasi, and Hiroshi Riquimaroux*
Responses corresponding to the auditory induction in the cochlear microphonics
- [P23] ○ *Hiroshi Onodera, Kohta I. Kobayasi and Hiroshi Riquimaroux*
Intra-cranially recorded cochlear microphonics and compound action potentials responding to amplitude modulated tones and repetitive clicks in Mongolian gerbils
- [P24] ○ *Takeshi Morimoto, Shokei Boku, Kohta I. Kobayasi and Hiroshi Riquimaroux*
Processing to create periodicity pitch in the cochlea: the cochlear microphonics in Mongolian gerbil
- [P25] ○ *Suguru Matsui, Takeshi Morimoto, Shokei Boku, Kohta I. Kobayasi and Hiroshi Riquimaroux*
Optical stimulation of the round window generates the compound action potentials in the auditory neurons
- [P26] ○ *Shin Kawai, Shokei Boku, Kohta I. Kobayasi and Hiroshi Riquimaroux*
Noise induced damage in hair cells of Mongolian gerbils evaluated by cochlear microphonics
- [P27] ○ *Takayuki Kato, Kazuhisa Fujita and Yoshiki Kashimori*
Neural mechanism of extracting target information in the inferior colliculus in echolocating bat
- [P28] ○ *Ryosuke O. Tachibana, Neal A. Hessler and Kazuo Okanoya*
Neural basis for adaptive adjustment of local temporal structure of birdsong
- [P29] ○ *Ikkyu Aihara, Emyo Fujioka, Yasufumi Yamada and Shizuko Hiryu*

Mathematical and experimental studies on prey pursuit by echolocating bats

- [P30] ○ *Ikuo Matsuo, Alyssa Wheeler, Laura Kloepper, Jason Gaudette and James A. Simmons*
3D acoustic tracking of bats in clutter environments from microphone arrays
- [P31] ○ *Daiki Goto, Hana Tsuji, Shizuko Hiryu, Kohta I. Kobayasi and Hiroshi Riquimaroux*
Echo extraction using purposely created beats by overlapping emitted pulses of multiple CF-FM bats during flight
- [P32] ○ *Shinichi Tateiwa, Arie Oka, Yasufumi Yamada, Yoshiaki Watanabe, Hiroshi Riquimaroux, Tetsuo Ohta and Shizuko Hiryu*
Real-time obstacle avoidance algorithms for autonomous vehicles based on bat's echolocation system
- [P33] ○ *Shotaro Ota, Daiki Ogata, Yoshiaki Watanabe, Hiroshi Riquimaroux, Tetsuo Ohta and Shizuko Hiryu*
Investigations of pulse direction and directivity in CF-FM bats during artificial moth capture flight
- [P34] ○ *Naoya Makihara, Shizuko Hiryu, Kouta I. Kobayasi and Hiroshi Riquimaroux*
Behaviorally obtained audiogram of Japanese house bats, *Pipistrellus abramus*
- [P35] *Lei Wang, Yanhong Xiao, Hongwei Wang, Guanjun Lu, Ying Liu,*
○ *Tinglei Jiang and Jiang Feng*
Stereotypy and variability of social calls among huddling female Big-footed myotis: implications for individual recognition
- [P36] ○ *Aiqing Lin, Tinglei Jiang, Jagmeet S. Kanwal, Guanjun Lu, Jinhong*

Luo, Xuewen Wei, Bo Luo and Jiang Feng

The microevolution of echolocation and communication calls in the Himalayan leaf-nosed bat

[P37] ○ *Shokei Boku, Suguru Matsui, Takeshi Morimoto, Kohta I. Kobayasi and Hiroshi Riquimaroux*

Auditory sensitivity in Japanese house bat, *Pipistrellus abramus*

[P38] ○ *Chun-Jen Hsiao, Ching-Lung Lin and Chung-Hsin Wu*

Comparative anatomy of cochlear structures between CF-FM and FM bats in Taiwan

[P39] ○ *Koki Yoshimura, Hiroki Yoshioka, Shotaro Watanabe, Kiri Hyomoto, Yoshiaki Watanabe, Hiroshi Riquimaroux, Tetsuo Ohta and Shizuko Hiryu*

Direction and acoustic characteristics of pulses emitted by wild FM bats (*Pipistrellus abramus*) revealed by a super microphone array system

[P40] *Hongjun Lin, ○ Ying Liu and Jiang Feng*

Vocal communication in adult greater tube-nosed bats (*Murina leucogaster*)

[P41] ○ *Hana Tsuji, Shizuko Hiryu, Kohta I. Kobayasi and Hiroshi Riquimaroux*

Changes in pulse emissions of Japanese horseshoe bats according to relative position in acoustically jammed conditions

18:00—20:00 Dinner

20:00—21:00 Oral Presentation (4)
(at Seminar Room 5, the 1st FL. KAKUTAI-KAN)
(Chair: *James A. Simmons*)

20:00—20:30 ○ *Daniel Margoliash and Timothy P. Brawn*

A new model for sleep dependent auditory memory consolidation

20:30—21:00

○ *Peter Narins*

**A novel middle ear adaptation in the Central African frog
Petropedetes parkeri (Ranidae)**

21:00—

Poster session (cont.)

<December 15>

7:30—8:30 Breakfast & Poster Session (cont.)

8:30—9:30 Oral Presentation (5)

(at Seminar Room 5, the 1st FL. KAKUTAI-KAN)

(Chair: *Walter Metzger*)

8:30—9:00

○ *Rolf Müller, Mittu Pannala, Naren Ramakrishnan and Hongxiao Zhu*

Information-theoretic analysis of the pinna dynamics in horseshoe bats

9:00—9:30

○ *Andrea M. Simmons, Michaela Warnecke, Erika E. Alexander and Andrew Stephens-Smith*

Flow sensing behaviors in amphibian tadpoles

9:30—9:45

Break

9:45—10:45

Oral Presentation (6)

(at Seminar Room 5, the 1st FL. KAKUTAI-KAN)

(Chair: *Dan Margoliash*)

9:45—10:15

○ *Kazuo Funabiki*

Development of micro-endoscope for in vivo Ca and FRET imaging in freely moving animal

10:15—10:45

○ *Go Ashida, Kazuo Funabiki, Jutta Kretzberg and Catherine E. Carr*

Phase-locked inputs and binaural information processing

10:45—11:00

Break

11:00—11:30

Oral Presentation (7)

(at Seminar Room 5, the 1st FL. KAKUTAI-KAN)

(Chair: *Kazuo Ueda*)

- 11:00—11:30 ○ *Tatsuhiko Harada*
Effects of contralateral sound to wide band reflectance of the ear
-A novel detecting tool for olivocochlear bundle reflex separated
from middle ear muscle reflex
- 11:30—11:55 General Discussion**
(Chair: *Peter Narins*)
- 11:55—12:00 Closing Remarks**
Hiroshi Riquimaroux
- 12:00—13:00 Lunch**
- 13:00 Adjourn**