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## Introduction

This is the 26th Annual Bulletin from our Institute. It is our pleasure to present in this issue the further results of our research projects accomplished during the period of April 1991-May 1992. The projects were mostly supported by Grants-in-Aid for Scientific Research from the Ministry of Science, Culture and Education, Japan, one of the most important of which was the following:

Physiological Mechanisms Underlying the Prosodic Features of Japanese (No.03208105)

This was one of the core projects in the Grants-in-Aid for Priority Areas "Integrated Studies on the Prosodic Features of the Japanese Language with Application to Spoken Language Education" (Project Leader, Professor M. Sugitoh, Osaka Shoin Women's College).

Other grants were the following:

Development of Quantitative Measurements of Articulatory Dynamics and their Clinical Application (No.01440071)

Studies on the Digital Hearing Aids based on Modeling the Dynamics of the Hearing Process (No.03670807)

Diagnostic System for Pathological Vocal Cord Vibration Using Ultra High-speed Digital Video (No.02557065).

As in past years, several distinguished speech scientists have visited our institute. Dr. D-W Kim of Pusan National University, Korea, stayed with us as a guest researcher to conduct joint research on Korean stops. Under a joint research program with the Primate Institute of Kyoto University (Ontogeny and Phylogeny of Speech Perception, No.03044076), Professors P. K. Kuhl and A. N. Meltzoff of the University of Washington visited us in October and held a special lecture meeting on "Speech and Language Acquisition".

As for our research facilities, we were able to introduce a high-performance 3D-graphic computer system which will be used primarily for the 3-D modeling of the speech organs and also for 3-D analyses of CT-images of speech and language disorders. We have also obtained new space for electro-physiological experiments using animals in the basement of our building, and we have nearly completed the experimental set-up for a neuro-physiological study on birds. Thus, we expect that in the next year several substantially new areas will be added to our research activities.

Shigeru Kiritani, Director

## PERSONNEL

(April 1991 - March 1992)

### Professor Emeritus:

Masayuki Sawashima (D.M.Sc.)

### Director: Hajime Hirose

### Research Staff:

Hajime Hirose (D.M.Sc.) Professor of Speech Pathology

Shigeru Kiritani (D.M.Sc.) Professor of Speech Science

Seiji Niimi (D.M.Sc.) Professor of Speech Physiology

Satoshi Imaizumi (D.Eng.) Associate Professor of Speech Science

Yohko Fukusako (D.M.Sc.) Associate Professor of Speech Pathology

Kenji Itoh (D.Eng.) Research Associate

Sotaro Sekimoto (B.Eng.) Research Assistant

Kiyoshi Ohshima (M.D.) Research Assistant (On leave for research work at Haskins Laboratories, U.S.A. Jan.-)

Atsushi Matsunaga (M.D.) Research Assistant

### Graduate Students:

Masanobu Kumada (M.D.)

Yoshiaki Murasawa (B.L.)

Yan Qun (B.L.)

### Special Students:

Keiko Asano (M.A.) (Apr.-)

Shinichiro Asano (M.D.) (Oct.-)

Haruhito Saida (M.D.)

Zunichi Simada (M.D.)

Masako Tateishi (B.L.)

Yohko Watanabe (M.A.)

Hiroya Yamagichi (D.M.Sc.)

Mana Yamori (B.L.)

Shigeru Yamori (M.D.)

### Guest Researchers:

Dae-Won Kim (Ph.D.) (Oct.-Mar.)

Technical Staff:

Hiroshi Imagawa (B.Eng.)

Secretaries:

Miss Kikuko Yamakoshi

Mrs. Noriko Kobori (part time)

Miss Hiroko Yamane (part time)

Mrs. Mikiko Murakami (part time)

Miss Akiko Mizoguchi (part time)(-Sep.)

Miss Minobu Managi (part time)(Oct.-)

Cooperative Groups:

University of Tokyo, Faculty of Medicine,  
Department of Otolaryngology, Voice and Speech Group.

University of Tokyo, Faculty of Engineering,  
Department of Electrical Engineering.

Kitasato University, School of Medicine,  
Department of Physiology.

Department of Otolaryngology.

University of Electro-Communications.

Department of Computer Science and  
Information Mathematics.

Waseda University,  
School of Science and Engineering.

Tokyo University of Foreign Studies,  
Institute for the Study of Languages and Cultures of Asia  
and Africa.

University of Tsukuba,  
Institute of Human Sciences.

National Rehabilitation Center for the Disabled,  
Department of Speech and Hearing Disorders. and of  
Otolaryngology.

Tokyo Metropolitan Institute of Gerontology,  
Department of Rehabilitation Medicine.

Section of Communication Research.

Tokyo Metropolitan Geriatric Hospital,  
Department of Speech Pathology.

Osaka Shoin Women's College.

National Language Research Institute,  
Center for Teaching of Japanese as a Foreign Language.

Tokyo Senbai Hospital,  
Department of Otolaryngology.

Advanced Telecommunication Research Institute International

Kyoto University,  
The Primate Insititute.  
Tokyo Gakugei University, Faculty of Education,  
Department of Special Education.  
Research Institute for the Education of Exceptional  
Children.