

Sixth International Joint Conference on  
Natural Language Processing



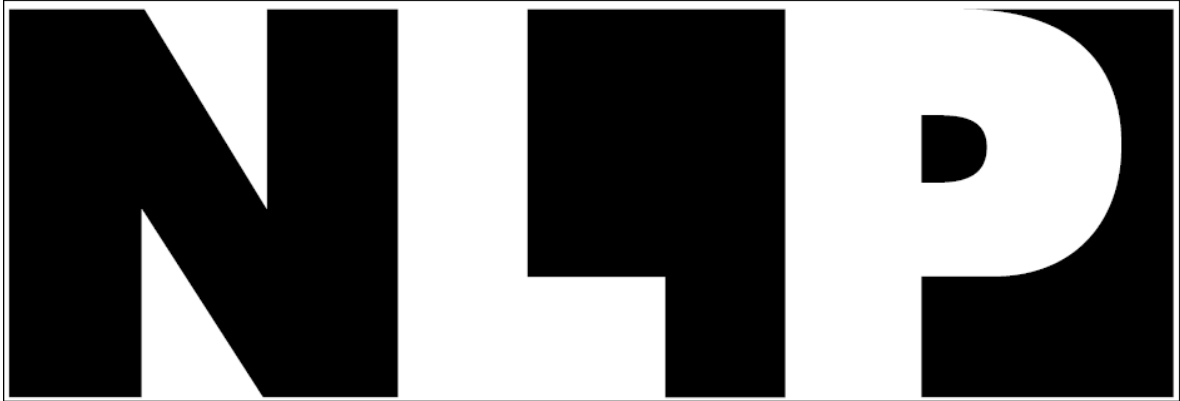
**The First Workshop on  
Natural Language Processing for  
Medical and Healthcare Fields**



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## Preface

Welcome to the Workshop on Natural Language Processing for Medical and Healthcare Fields. We received 9 submissions. After one withdrawal, we chose to accept four long papers and four short papers, giving an long paper acceptance rate of 50%.

Medical records are increasingly written on electronic media instead of on paper, which has radically increased the importance of information processing techniques in medical fields. Nevertheless, the state of usage of information and communication technologies in medical fields is said to 10 years behind that in other fields. By processing large amounts of medical records and obtaining knowledge from them, great potential exist in assisting more precise and timely treatments. Such assistance can save lives and provide better quality of life.

Our goal is the promotion and support of implementation of practical tools and systems in the medical industry, which can support medical decisions and treatment by physicians and medical staff. A short-term objective of this pilot task is to evaluate basic techniques of information extraction in medical fields, but the long-term objective is to offer a forum for achieving the goal with a community-based approach. We aim to gather people who are interested in this issue. Then we intend to facilitate their communication and discussion to clarify issues to be solved, while defining the necessary elemental technologies.

Finally, we would like to express our gratitude to the following people who helped us. Thank you.  
The Workshop on Natural Language Processing for Medical and Healthcare Fields Program Committee

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# Conference Program

Oct 18, 2013

## Session: Long Paper

### *Incorporating Knowledge Resources to Enhance Medical Information Extraction*

Yasuhide Miura, Tomoko Ohkuma, Hiroshi Masuichi, Emiko Yamada Shinohara, Eiji Aramaki and Kazuhiko Ohe

### *Clinical Vocabulary and Clinical Finding Concepts in Medical Literature*

Takashi Okumura, Eiji Aramaki and Yuka Tateisi

### *Developing ML-based Systems to Extract Medical Information from Japanese Medical History Summaries*

Shohei Higashiyama, Kazuhiro Seki and Kuniaki Uehara

### *Towards High-Reliability Speech Translation in the Medical Domain*

Graham Neubig, Sakriani Sakti, Tomoki Toda, Satoshi Nakamura, Yuji Matsumoto, Ryosuke Isotani and Yukichi Ikeda

## Session: Short Paper

### *Finding Every Medical Terms by Life Science Dictionary for MedNLP*

Shuj Kaneko, Nobuyuki Fujita and Hiroshi Ohtake

### *Proper and Efficient Treatment of Anaphora and Long-Distance Dependency in Context-Free Grammar: An Experiment with Medical Text*

Wailok Tam, Koiti Hasida, Yusuke Matsubara, Eiji Aramaki, Mai Miyabe, Motoyuki Takaai and Hiroshi Uozaki

### *A Comparison of Rule-Based and Machine Learning Methods for Medical Information Extraction*

Osamu Imaichi, Toshihiko Yanase and Yoshiki Niwa

### *The Electronic Health Record as a Clinical Study Information Hub*

Naoto Kume, Kazuya Okamoto, Tomohiro Kuroda and Hiroyuki Yoshihara

