Sesame Street at BioNLP 2019
Dina Demner-Fushman, Kevin Bretonnel Cohen, Sophia Ananiadou, and Junichi Tsujii

Recent years have seen an explosion of workshops, community challenges, corpora and publicly available tools in the biomedical and clinical language processing domain. That trend continues in 2019. In a significant advance, this year the original BioNLP-ST challenge matured into an open platform capable of providing technical support and sustaining any group that is interested in organizing a biomedical language processing challenge [1], while the BioNLP Special Interest Group continues supporting Shared Tasks in emerging areas of research through the annual meeting. This year, BioNLP-ST presents research directions explored by 72 teams for inference and entailment in the medical domain, and their contribution to domain-specific information retrieval and question answering systems [2].

The BioNLP meeting has now been ongoing for 18 years. BioNLP continues to stay the flagship and the generalist meeting in biomedical language processing, accepting noteworthy work independently of the tasks and sublanguages studied. BioNLP also continues promoting research in languages other than English, this year presenting work in Romanian, Portuguese, Spanish, and Chinese [3, 4, 5, 6], primarily covering development of resources for these languages.

The quality of submissions continues to impress the program committee and the organizers. BioNLP 2019 received 72 submissions to the workshop, and 21 for the Shared Task. Of the work submitted to the workshop, 14 papers were accepted for oral presentation and 24 as poster presentations. This year, various deep learning architectures are explored in all papers, with continuing focus on interesting new models and in-depth exploration of the state-of-the-art publicly available tools. Most of the work uses BERT [7] or BERT models trained on PubMed, with one paper exploring BERT and ELMo on ten biomedical benchmarking datasets [8] and many others using and exploring embeddings and neural networks for chemical recognition [9], concept extraction and coding [10], relation extraction [11, 12, 13], and phenotyping [14].

As for the past several years, the themes in this year’s papers and posters continue to focus equally on clinical text and biological language processing. They also reveal sustained interest in social media and consumer language processing [15].

As it has been for the past 18 years, the workshop is truly a community-wide effort of the authors producing high quality work that is already contributing to acceleration of foundational biomedical research [16, 17, 18, 19] and clinical practice [20, 21, 22, 23] through improvements in information retrieval and extraction, question answering, diagnosis and clinical decision support [24]. We are equally happy to see sustained contributions from those who started forming the field of BioNLP research, and first-time contributions that show the increasing interest in the domain. We are particularly indebted to our reviewers who reviewed a higher than usual workload in a very short time. Their judgments resulted in a program that will undoubtedly advance both the BioNLP research and the practical areas that it serves. Due to space and time constraints, we could only accept the papers that were recommended for acceptance by at least two reviewers. We hope that the authors of the papers that could not be accepted received good feedback that will help them improve their work.

References


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15:00–15:15 Extracting relations between outcomes and significance levels in Randomized Controlled Trials (RCTs) publications
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