Scientific Program

Monday, November 8, 2021

UTC (Universal)	EST	Session
2:30-2:40 pm	9:30-9:40 am	Opening remarks
2:40-3:55 pm	9:40-10:55 am	**NLM-Chem Track: Full text Chemical Identification and Indexing in PubMed articles (Track 2)** Chair: Zhiyong Lu • Overview of the NLM-CHEM track - Full-text Chemical Identification and Indexing in PubMed articles (Rezarta Islamaj, Robert Leaman) • Chemical detection and indexing in PubMed full text articles using deep learning and rule-based methods (João Figueira Silva) • Improving Tagging Consistency and Entity Coverage for Chemical Identification in Full-text Articles (Hyunjae Kim) • A BERT-Based Hybrid System for Chemical Identification and Indexing in Full-Text Articles (Arslan Erdengasileng) • Chemical Identification and Indexing in PubMed Articles via BERT and Text-to-Text Based Approaches (Virginia Adams)
3:55-4:15 pm	10:55-11:15 am	Break
4:15-5:00 pm	11:15 am-12:00 pm	Keynote: All of Us Research Program: Improving Health Through Technology, Huge Cohorts and Precision Medicine. Joshua Denny M.D., M.S., Chief Executive Officer of the All of Us Research Program, NIH
5:00-6:15 pm	12:00-1:15 pm	**Automatic extraction of medication names in tweets (Track 3)** Chair: Davy Weissenbacher • BioCreative VII – Track 3: Automatic Extraction of Medication Names in Tweets (Davy Weissenbacher) • NCU-IISR/AS-GIS: Detecting Medication Names in Imbalanced Twitter Data with Pretrained Extractive QA Model and Data-Centric Approach (Yu Zhang) • BCH-NLP at BioCreative VII Track 3 - medications detection in tweets using transformer networks and multi-task learning (Dongfang Xu)

Tuesday, November 9, 2021

UTC (Universal)	EST	Session
2:00-2:10 pm	9:00-9:10 am	Opening remarks
2:10-3:55 pm	9:10-10:55 am	**DrugProt:Text mining drug/chemical-protein interactions (Track 1)** Chair: Antonio Miranda-Escalada • Overview of DrugProt BioCreative VII track: quality evaluation and large scale text mining of drug-gene/protein relations (Martin Krallinger, Antonio Miranda-Escalada) • Using Knowledge Base to Refine Data Augmentation for Biomedical Relation Extraction (WonJin Yoon) • Extracting Drug-Protein Interaction using an Ensemble of Biomedical Pre-trained Language Models through Sequence Labeling and Text Classification Techniques (Ling Luo) • Text Mining Drug-Protein Interactions using an Ensemble of BERT, Sentence BERT and T5 models (Xin Sui) • Humboldt @ DrugProt: Chemical-Protein Relation Extraction with Pretrained Transformers and Entity Descriptions (Leon Weber) • Does constituency analysis enhance domain-specific pre-trained BERT models for relation extraction? (Anfu Tang) • Text Mining Drug/Chemical-Protein Interactions using an Ensemble of BERT and T5 Based Models (Virginia Adams) • CU-UD: text-mining drug and chemical-protein interactions with ensembles of BERT-based models(Mehmet Efruz Karabulut) • TTI-COIN at BioCreative VII Track 1 (Naoki Iinuma/Masaki Asada) • A Multi-Task Transfer Learning-based method for Extracting Drug-Protein Interactions (Ed-drissiya El-allaly) • UTHealth@BioCreativeVII: Domain-specific Transformer Models for Drug-Protein Relation Extraction (Liang-Chin (Leon) Huang) • lasigeBioTM at BioCreative VII Track 1: Text mining drug and chemical-protein interactions using biomedical ontologies (Diana Sousa) • Identifying Drug/chemical-protein Interactions in Biomedical Literature using the BERT-based Ensemble Learning Approach for the BioCreative 2021 DrugProt Track (Tzu-Yi Li) • Catalytic DS at BioCreative VII: DrugProt Track (Dennis Mehay)
3:55-4:15 pm	10:55-11:15 am	Break
4:15-5:00 pm	11:15 am-12:00 pm	**Selected poster flash talks** Chair: Rezarta Islamaj • Claim Detection in Biomedical Twitter Posts as a Prerequisite for Fact-Checking (Amelie Wührl) • Visual Exploration of Randomized Clinical Trials for COVID-19 (Abel Correa Dias) • COVID-SEE: The Scientific Evidence Explorer for COVID-19 Related Research (Karin Verspoor) • Long Covid: A Comprehensive Collection of Articles on Post-COVID Conditions (Robert Leaman) • Automated topic prediction of LitCovid using BioBERT (Vangala G Saipradeep) • A Survey of Relation Extraction Techniques Using Hybrid Classical and State of the Art Methods (Onur Kara) • Automatic Extraction of Medication Names in Tweets as Named Entity Recognition (Carole Anderson) • PubMedBERT-based Classifier with Data Augmentation Strategy for Detecting Medication Mentions in Tweets (Qing Hang) • Extraction of Medication Names from Twitter Using Augmentation and an Ensemble of Language Models (Igor Kulev) • Recognizing Chemical Entity in Biomedical Literature using a BERT-based Ensemble Learning Methods for the BioCreative 2021 NLM-Chem Track (Yu Wen Chiu) • Fine-tuning transformers for automatic chemical entity identification in PubMed articles (Robert Bevan) • PolyU CBS-NLP at BioCreative-VII LitCovid Task: Ensemble Learning for COVID-19 Multilabel Classification (Jinghang Gu) • Multi-label topic classification for COVID-19 literature annotation using an ensemble model based on PubMedBERT (Shubo Tian) • RobertNLP at the BioCreative VII - LitCovid track: Neural Document Classification Using SciBERT (Friedrich Annemarie) • TTI-COIN at BioCreative VII Track 2 (Tomoki Tsujimura) • Chemical–protein relation extraction in PubMed abstracts using BERT and neural networks (Rui Antunes) • R-BERT-CNN: Drug-target interactions extraction from biomedical literature (Jehad Aldahdooh)
5:00-6:15 pm	12:00-1:15 pm	**Panel: Challenges in mining adverse drug reactions** The BioCreative organizers have convened this panel to explore the possibility of a future BioCreative evaluation on mining adverse drug reactions (ADRs). The panel will explore challenges of mining ADRs, focusing on applications (e.g., post-market surveillance, early warning from tracking social media, predictive models of toxic endpoints for chemicals and drugs, pre-clinical and clinical research) and data sources (including their limitations and accessibility). Chairs: Martin Krallinger, Lynette Hirschman Panelists: • Dr. Martin Krallinger (Chair) • CDR Monica Muñoz, FDA CDER • Prof. Özlem Uzuner, George Mason University • Dr. Raul Rodriguez-Esteban, Roche Pharmaceutics • Prof. Graciela Gonzalez-Hernandez, U Pennsylvania Medical School

Wednesday, November 10, 2021

UTC (Universal)	EST	Session
2:30-2:40 pm	9:30-9:40 am	Opening remarks
2:40-3:55 pm	9:40-10:55 am	**LitCovid track Multi-label topic classification for COVID-19 literature annotation (Track 5)** Chair: Rezarta Islamaj • BioCreative VII LitCovid Track: multi-label topic classification for COVID-19 literature annotation (Qingyu Chen) • Multic-label topic classification for COVID-19 literature with Bioformer (Fang Li) • Multi-label topic classification for COVID-19 literature annotation: A BioBERT-based feature enhancement approach (Wentai Tang) • BERT-based bagging-stacking for multi-topic classification (Loïc Rakotoson) • Multi-label Topic Classification for COVID-19 Literature Annotation using the BERT-based Ensemble Learning Approach for the BioCreative 2021 LitCovid Track (Sheng-Jie Lin)
3:55-4:15 pm	10:55-11:15 am	Break
4:15-5:30 pm	11:15 am-12:30 pm	**COVID-19 text mining tool interactive demo (Track 4)** Chair: Lynette Hirschman • Introduction to the COVID-19 Text Mining Tool Interactive Demo Track (Andrew Chatr-Aryamontri) • Semantic Search Engine preVIEW COVID-19 - Evaluation in the BioCreative VII IAT Track (Johannes Darms) • TopEx: Topic Exploration of COVID-19 Corpora - Results from the Biocreative VII Challenge Track 4 (Amy Olex) • Interpretable Visualization of Scientific Hypotheses in Literature-based Discovery (Ilya Tyagin) • A self-updating causal model of COVID-19 mechanisms built from the scientific literature (Benjamin Gyori) • BioKDE: a Deep Learning Powered Search Engine and Biomedical Knowledge Discovery Platform (Jinfeng Zhang) • The COVID-19 Therapeutic Information Browser (Tonia Korves) • Overview of the COVID-19 Text Mining Tool Interactive Demo Track (Andrew Chatr-Aryamontri)
5:30-6:10 pm	12:30-1:10 pm	General discussion
6:10-6:15 pm	1:10-1:15 pm	Closing remarks