

Re: ELAMI 2025 Decision Notification

1 message

TMU, LE HUU NHAT MINH <d142111009@tmu.edu.tw>

To: Khanh Lee <khanhlee@tmu.edu.tw>

Cc: KY PHAT NGUYEN TMU <m142113007@tmu.edu.tw>, Hien Kha <d142111015@tmu.edu.tw>, toandinh6501@outlook.com, toandir Hong Ong <ongxuanhong@gmail.com>, LE HUU NHAT MINH TMU <d142111009@tmu.edu.tw>, 21126572@st.hcmuaf.edu.vn, pkhuyn <m658112001@tmu.edu.tw>, xluynh@bu.edu, Thuý An Võ <thuyan061297@gmail.com>, minhdc1712@gmail.com, harvey.nguyen081

Subject: MICCAI 2025 – ELAMI Paper Accepted

Dear Professor Khanh and team,

I am pleased to share that our paper has been **accepted** for presentation in the ELAMI section of MICCAI 2025.

Congratulations to everyone on this achievement!

Best regards,

Minh Le

MICCAI 2025 Workshop

Home

Call for Papers

Important Dates

Organizers

MICCAI 2025 Workshop

Emerging LLM/LMM Applications in Medical Imaging (ELAMI)

About the Workshop

The rapid advancement of large language models (LLMs) and multimodal large language models (MLLMs) has introduced groundbreaking possibilities for advancing medical imaging and healthcare applications. These technologies, grounded in state-of-the-art generative AI, are poised to transform how clinicians and researchers interact with complex datasets, enabling novel workflows and decision-making paradigms within the medical imaging domain.

LLMs have demonstrated their ability to process and synthesize vast amounts of textual information, offering insights that assist in clinical interpretation, diagnostic reasoning, and knowledge discovery. MLLMs extend these capabilities by integrating modalities such as text, images, and real-time data streams, opening unique opportunities to enhance medical imaging tasks.

Key Applications

Supporting radiologists and pathologists in synthesizing imaging findings with clinical histories

Developing adaptive systems with user-specific workflows

Improving image-guided procedures through multimodal data integration

Enabling efficient annotation through natural language interaction

Enhancing complex medical diagnosis with multi-agent LLM systems

Facilitating collaborative decision-making among specialists

Author Console

1 - 1 of 1

1

Show: 25 50 100 All

Clear All Filters

| Paper ID | Title | Files | Status | Actions |
|----------|---|---|-------------------|-----------------------------------|
| 24 | DeepGPT-DILI: Integrating Graph Convolutional Networks and Large Language Model Embeddings for Accurate Drug-Induced Liver Injury Prediction <small>View abstract</small> Drug-induced liver injury (DILI) is a leading cause of late-stage clinical attrition due to its unpredictable onset and potential for severe hepatotoxicity. In this study, we benchmark four machine learning models on the DILI compound (DILI-Compound), (i) extensive gradient boosting (XGBoost), (ii) an autoencoder-based model (AutoEncoder), (iii) a graph convolutional network (GCN), and (iv) an attention-based recurrent neural network (ABNN) applied to DILI-ES strings. Large language model (LLM) embeddings enrich both the tabular and graph inputs. All models are evaluated with stratified five-fold cross-validation and scored by the area under the ROC curve (AUC). The best single learner, CatBoost, achieves an AUC of 0.87. A weight-optimized soft-voting ensemble that fuses Inception_graph_LLM and ABNN outputs further improves performance to an AUC of 0.921 while balancing sensitivity (0.77) and specificity (0.85). In contrast, standalone deep models (GCN and ABNN) underperform when used to bootstrap AUC (0.765). These results demonstrate that integrating orthogonal molecular representations yields more reliable hepatotoxicity predictions and offers a practical route for early DILI screening in drug development pipelines. | <div>Submission files</div> <div>ELAMI_DILI.pdf</div> | Accept Reviews | Email Service Meta-Reviewer |

DeepGPT-DILI: Integrating Graph Convolutional Networks and Large Language Model Embeddings for Accurate Drug-Induced Liver Injury Prediction

1st Minh Hou Nhat Le
International PhD Program in Medicine
College of Medicine
Taipei Medical University
Taipei, Taiwan
Email: d142111009@tmu.edu.tw

2nd Uyen Huynh Khoi Minh
Faculty of Biological Sciences
Nong Lam University
Ho Chi Minh City, Vietnam
Email: 21126572@slhcmuaf.edu.vn

3rd Hong Xuan Ong
Department of Data and Analytics, EPAM
Ho Chi Minh 700000, Vietnam
Email: ongxuanhong@gmail.com

4th Phat K. Huynh
Department of Industrial and Systems Engineering
North Carolina A&T State University
Greensboro, NC 27411, USA
Email: pkhuynh@ncat.edu

5th Minh-Toan Dinh
Department of Software Engineering
University of Science and Technology - The University of
Da Nang
Da nang, Vietnam
Email: toandinh6501@outlook.com

6th Han Hong Huynh
International Master Program for Translational Science
College of Medical Science and Technology
Taipei Medical University, Taipei, Taiwan
Email: m658112001@tmu.edu.tw

7th Hien Quang Kha
International PhD Program in Medicine
College of Medicine, Taipei Medical University
Taipei, Taiwan
Email: d142111015@tmu.edu.tw

8th Phat Ky Nguyen
International Master Program in Medicine
College of Medicine, Taipei Medical University
Taipei, Taiwan
Email: m142113007@tmu.edu.tw

9th Xuan-Loc Huynh
Department of Mathematics and Statistics
Boston University
MA 02215, United States
Email: xluhuynh@bu.edu

10th An Thuy Vo
Faculty of Pharmacy
Can Tho University of Medicine and Pharmacy
Can Tho, Vietnam
Email: thuyan061297@gmail.com

11th Thanh-Minh Nguyen
Faculty of Medicine
University of Medicine and Pharmacy at Ho Chi Minh City
Ho Chi Minh City 700000, Vietnam
Email: minhdc1712@gmail.com

12th Thanh-Huy Nguyen
UFR Sciences et Techniques
Université de Bourgogne
Dijon, France
Email: thanh-huy_nguyen@etu.u-bourgogne.fr

13th Quan Nguyen
Department of Artificial Intelligence
Posts and Telecommunications Institute of Technology
Ho Chi Minh City 700000, Vietnam
Email: quannd@ptit.edu.vn

14th Nguyen Quoc Khanh Le
In-Service Master Program in AI in Medicine
College of Medicine, Taipei Medical University
Taipei, Taiwan
Translational Imaging Research Center
Taipei Medical University Hospital
Taipei, Taiwan
Email: kxanhle@tmu.edu.tw

Abstract

Submissions Contact Chairs [Help](#)

View Reviews

| | |
|-------------|--|
| Paper ID | 24 |
| Paper Title | DeepGPT-DILI: Integrating Graph Convolutional Networks and Large Language Model Embeddings for Accurate Drug-Induced Liver Injury Prediction |

Reviewer #2

Questions

1. Please describe the main contribution of the paper.
This manuscript presents a comprehensive and well-motivated multimodal machine learning framework for predicting drug-induced liver injury (DILI), an impactful problem in drug discovery. The authors systematically combine four complementary representations—fingerprints, graph-based topology, atom-bond topological indices, and SMILES sequences—into a unified model.
2. Please list the major strengths of the paper: you should highlight a novel feature, a novel application, a particularly strong evaluation, or anything else that is interesting. If a method is novel, explain what aspect is novel and why this is interesting.
Combining orthogonal molecular representations—fingerprints, graph-based topology, atom-bond topological indices, and SMILES sequences—into a unified model is a modern approach that leverages the complementary strengths of each modality.

Paper is well written with the extensive set of the experimental results

3. Please list the major weaknesses of the paper. Please provide details: for instance, if a method is novel, explain what aspect is novel and why this is interesting; if a claim is made, provide evidence. If the paper is not novel, then you must provide specific reasons why it is not novel.
While the idea of integrating different representations is valuable, the individual models are not novel. The novelty mainly lies in combining them rather than proposing new architectures.

The results are limited to a single dataset (DILIRank). Testing on other datasets, or even on real-world data, would help to reduce the risk of overfitting to the chemical space of DILIRank.

- Qualitative results are missing. There should be some discussion about the failure cases.
4. Please rate the clarity and organization of this paper.
Satisfactory
5. Please comment on the reproducibility of the paper. Please be aware that providing code is essential for reproducibility.
There is no information about the code
7. Rate the paper on a scale of 1-6, 6 being the strongest (6-4: accept; 3-1: reject), and provide a short justification. (Visible to authors.)
5
9. In view of your answers above and your overall experience, how would you rate the paper?
Confident

Reviewer #3

Questions

1. Please describe the main contribution of the paper.

- The paper benchmarks four machine learning models: (i) XGBoost, (ii) ExtraTrees - F embeddings for tabular and graph inputs. Additionally, a weight-optimized soft-voting e

2. Please list the major strengths of the paper: you should highlight a novel form feasibility, a novel application, a particularly strong evaluation, or anything else. If an instance, if a method is novel, explain what aspect is novel and why this is interesting.

- The paper focuses on a cause (DILI) of acute liver failure, which is a practical medical problem.
- The paper proposes a hybrid learning scheme to learn from multi-modal data.
- Experiments are carried out in five-fold cross-validation setting, which suggests the reliability of the results.
- The paper invests a good amount of time on discovering different baselines, even on the

3. Please list the major weaknesses of the paper. Please provide details: for instance, if the method is not novel, then you must provide specific details on why it is not novel.

- The writing style of the abstract and introduction section is not easy for reader, who do not know what the paper is about. It should be a brief description of what molecular fingerprint/atom-bond use all of the data inputs.
- If multi-modal learning is the main theme of the paper, then it should be emphasized in the abstract and introduction section, ...). In the current version of the paper, it is not until the last paragraph of the section.
- It is not clear which is the main contribution: GCN, LLM, or ensemble?
- In Fig.1, although "LLM embeddings" is mentioned in the caption, but it is not clear what it is.
- Hyperparameter such as learning rate and epochs are not mentioned.
- It is not clear if LLM has a pivotal role in the proposed approach.

4. Please rate the clarity and organization of this paper.

Poor

5. Please comment on the reproducibility of the paper. Please be aware that providing code is not required.

7. Rate the paper on a scale of 1-6, 6 being the strongest (6-4: accept; 3-1: reject). Please provide a brief description of the paper's contribution to the field.

3

With my best regards,

Minh Le, M.D.

a. International Ph.D. Program in Medicine, College of Medicine, Taipei Medical University, Taipei 110, Taiwan.

b. AIBioMed Research Group, Taipei Medical University, Taipei 110, Taiwan

Email: d142111009@tmu.edu.tw or lehuunhatminh@gmail.com

[ORCID](#) | [Google Scholar](#) | [Scopus](#) | [ResearchGate](#) | [LinkedIn](#) | [Homepage](#)

Phone: +886-902234337 (LINE)



TAIPEI
MEDICAL UNIVERSITY | COLLEGE OF
MEDICINE

On Wed, Jul 30, 2025 at 1:23 AM Kha, Hien <d142111015@tmu.edu.tw> wrote:

QUANG-HIEN KHA, M.D., M.Sc.

Doctoral Researcher in "Artificial Intelligence in Medicine"

Phone: (+886) 986 279 347

Email: d142111015@tmu.edu.tw

International Ph.D. Program in Medicine, College of Medicine

Taipei Medical University

----- Forwarded message -----

From: **Microsoft CMT** <noreply@msr-cmt.org>

Date: Wed, 30 Jul 2025 at 12:36

Subject: ELAMI 2025 Decision Notification

To: HIEN QUANG KHA <d142111015@tmu.edu.tw>

Dear HIEN,

We are pleased to announce that your paper, submitted to the ELAMI workshop at MICCAI 2025, has been accepted. Congratulations!

Please log into CMT to access the reviews. Note that the deadline for camera-ready papers is very soon, on August 10th. Please address reviewers' concerns as much as possible before submitting your camera-ready papers.

The workshop is planned to take place in-person in Daejeon, Korea on September 27,

2025. The complete program for the workshop will be announced shortly at <https://hula-ai.github.io/LLM-MI-MICCAI-2025/>.


Best regards,
ELAMI 2025 organizers

Please do not reply to this email as it was generated from an email account that is not monitored.

To stop receiving conference emails, you can check the 'Do not send me conference email' box from your User Profile.

Microsoft respects your privacy. To learn more, please read our [Privacy Statement](#).

Microsoft Corporation
One [Microsoft Way](#)
[Redmond, WA 98052](#)

 MICCAI_ELAMI_DILI_MINH.pdf
1344K