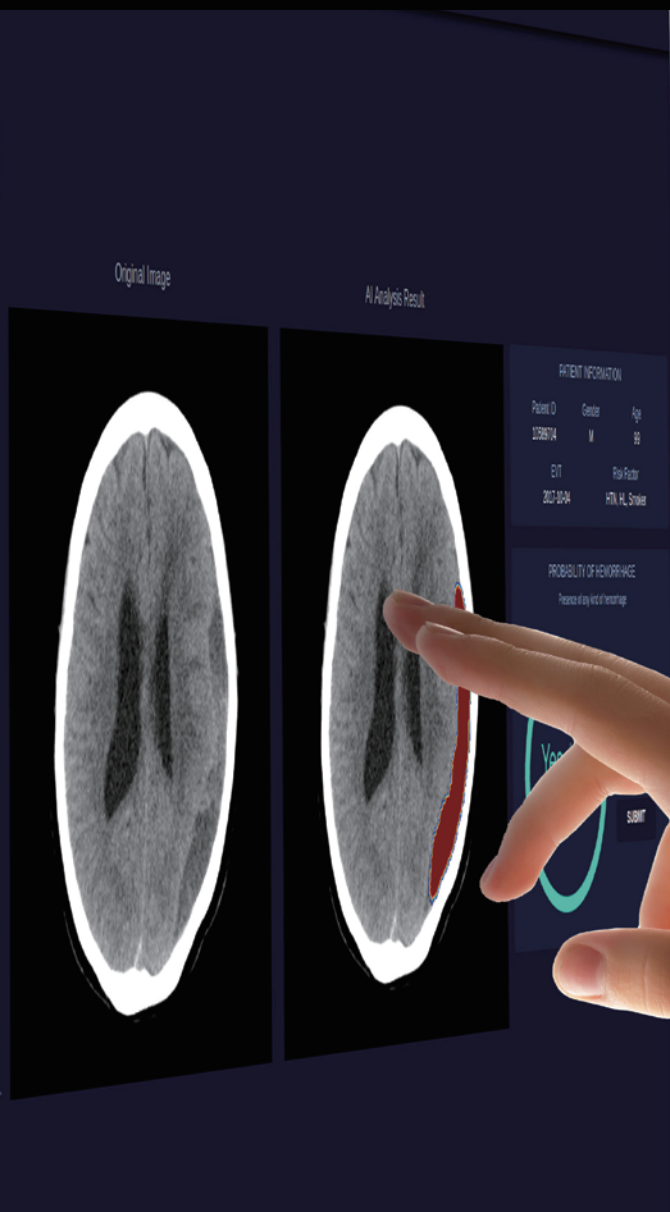
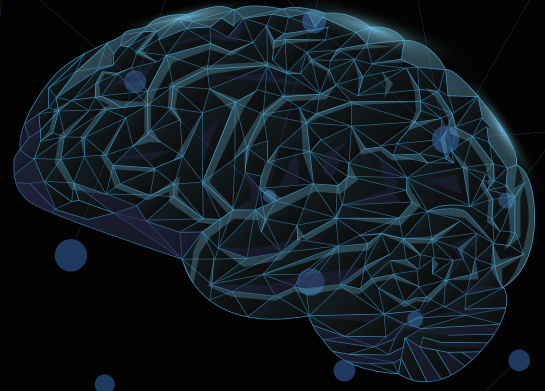


AI for Human Benefit, Everywhere

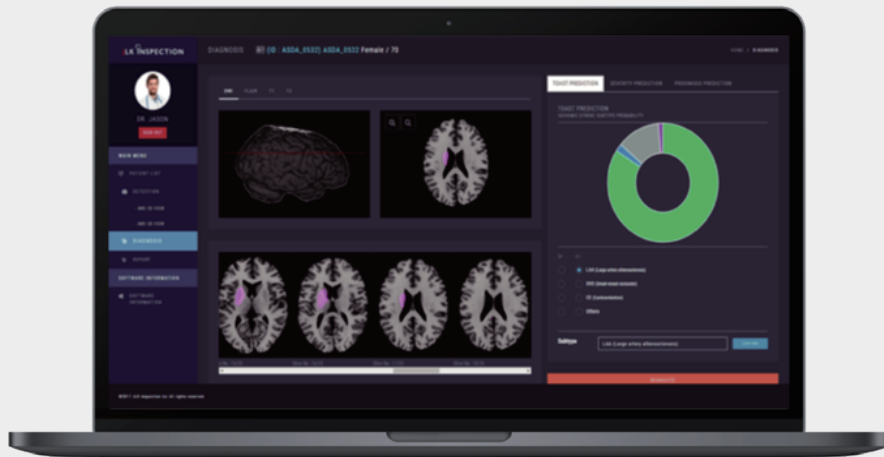
# JBS-01K

AI based Stroke Total Solution



MEDIHUB STROKE





# JBS-01K

## AI based Ischemic Stroke Subtype Classification Solution

### | Summary

Recent advances in stroke management have shown a significant increase in the cure rate for stroke patients. However, such treatment plans can vary in efficacy or have the risk of side effects if stroke subtype is not considered. Therefore, pre-treatment subtype classification is a crucial step to take in the early stage.

JBS-01K is aimed at detecting lesion location for ischemic stroke patients and classifying the subtype of such occasion. The subtype of ischemic stroke is provided according to the trial of org 10172 in acute stroke treatment(TOAST) and will assist in establishing a proper treatment plan.

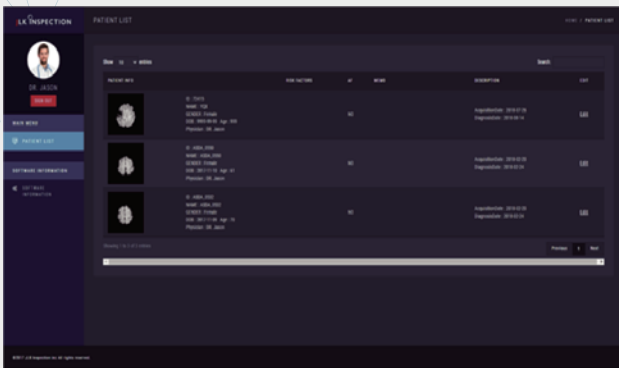
### | Key Components & Performance

- Multi Data Center Dice Coefficient 83.56% / F1-Score 80.62%
- Analysis Time : within 40 seconds
- Convenient patient data management through PACS interworking
- Display analysis result within the web-based user interface
- Provide customized patient report

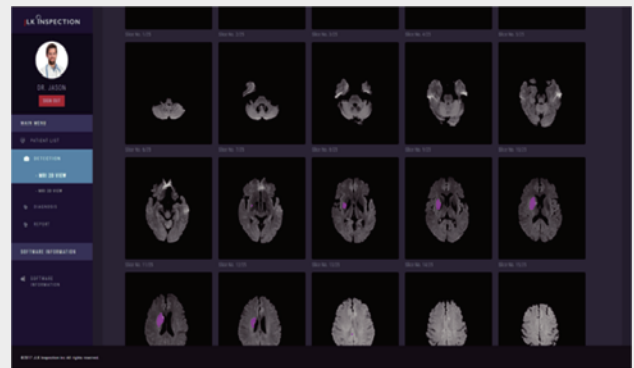
### | Input / Output

- **Input Data** Patient Brain MRI DICOM (DWI), Atrial Fibrillation (AF)
- **Output Information** Ischemic Stroke Subtype Probability

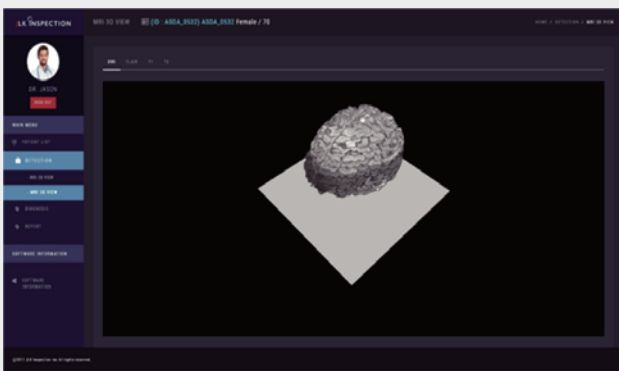
## Solution UI



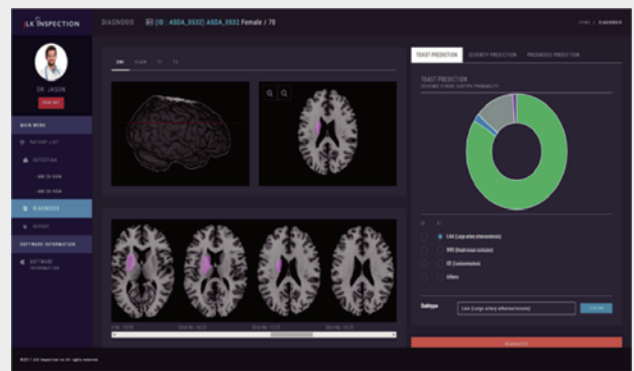
1 Patient List Management UI



2 AI Analysis Result UI (2D View)



3 AI Analysis Result UI (3D View)



4 Ischemic Stroke Subtype Analysis UI

## Unique Functionality

- Trained to detect whether lesion exists consistently between slices of MR images through 3D CNN segmentation model
- Trained on lesion image which has standardized lesion size and location for subtype classification model
- Provides subtype probability to assist doctor's final decision
- Improved classification performance for cardioembolism by additionally training on atrial fibrillation information



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