



## A 4-lncRNA Scoring System for Prognostication of Adult MDS

PI : Prof. Wen-Chien Chou

Department of Laboratory Medicine, National Taiwan University Hospital

### Experience:

MD, National Taiwan University, School of Medicine

PhD, Johns Hopkins University, Human Genetics & Molecular Biology

Chief of Department of Laboratory Medicine, National Taiwan University Hospital

### Market Needs:

Myelodysplastic syndromes (MDS) are a group of clonal hematopoietic disorders of the bone marrow (BM). The incidence of MDS is about 4-5 cases per 100,000 persons per year, and it is estimated that more than 10,000 new cases of MDS occur in the US per year. The clinical presentations, pathogenesis, and treatment responses of MDS are very complex. Now we propose to use a 4-lncRNA Scoring System to predict the prognosis of MDS patients, which will hold the potential of guiding treatment planning for both patients and physicians.

### Our Technology:

By screening almost 20,000 lncRNA probes on the microarray (Affymetrix GeneChip Human Transcriptome Array (HTA) 2.0) in a large cohort of MDS patients, we discovered that the expression of four lncRNAs are particularly highly correlated with patients' prognosis. We then constructed an integrated risk scoring system based on these four lncRNAs, which has a high accuracy in predicting MDS patients' survival and acute leukemic transformation risk.

### Strength:

The prognostication of MDS patients has traditionally been based on BM examination findings and clinical and laboratory parameters (ie. the IPSS-R system). However, this conventional methodology has several limitations. Using the microarray technique, we discovered that there four lncRNAs that are significantly associated with MDS patients' survival. We therefore constructed a risk model based on these four lncRNAs, to make the prediction of MDS patients' prognosis more accurate.

### Competing Products: nil

### Intellectual Properties:

- (1) This technique is currently not patented yet.
- (2) Our group has more than 10 years' experience in the study of myeloid diseases. In recent

This information herein is intended for potential license of NTU technology only. Other usage of all or portion of this information in whatever form or means is strictly prohibited. Kindly contact us and we will help to achieve your goal the best we can.