LIST OF FIGURES

1.1	The conceptual framework of this study	5
2.1	The illustration of multi-head attention and the scaled dot-product attention	
	in Vaswani et al. study	15
3.1	System Flow to Develop a Sequence-based DTA Prediction Model	17
3.2	Sample data from Davis and KIBA datasets	18
3.3	The distribution of Davis and KIBA datasets	19
3.4	Illustration of DTA prediction model framework	21
3.5	Example of modified scale process	23
4.1	Scatter plot of comparison between actual and predicted values for samples	
	with affinity $>$ threshold in Davis and KIBA datasets	34
4.2	Histogram of error distribution in high-affinity data for Davis and KIBA	34
4.3	The training and validation loss curves of the best model on both datasets,	
	Davis (left) and KIBA (right)	35
4.4	The evaluation results of the comparison of the proposed drug and receptor	
	representations with other representations in predicting DTA (the proposed	
	representation method is marked with *)	36
4.5	The evaluation results of the interaction modeling experiment on the Davis	
	and KIBA dataset	37