

# LncRNA-LA16c313D11.11, A Novel Signature to Predict the 5-Years Survival Chances in Patients with Endometrial Carcinoma



Xue Ding, Keqin Hua, Weijuan Xin

Department of Obstetrics and Gynecology, Obstetrics and Gynecology Hospital of Fudan University, 128 Shen-Yang Road, Shanghai 200090, China

## Introduction

Endometrial Carcinoma (EC) is one of the most common malignant tumors in the female, which severely damages the health of women. It's critical to be capable to screen patients who is at high risk for developing poor denouement and formulate an appropriate therapeutic schedule individually. In our previous studies, we found and identified a new LncRNA named LA16C-313D11.114, which acts as a ceRNA inhibiting miR-205 and maintaining the biological characteristics of cells by binding with miR-205. This research purposed to predict 5-year survival state in endometrial carcinoma (EC) by combining LncRNA-LA16c-313D11.11 with clinicopathologic features.

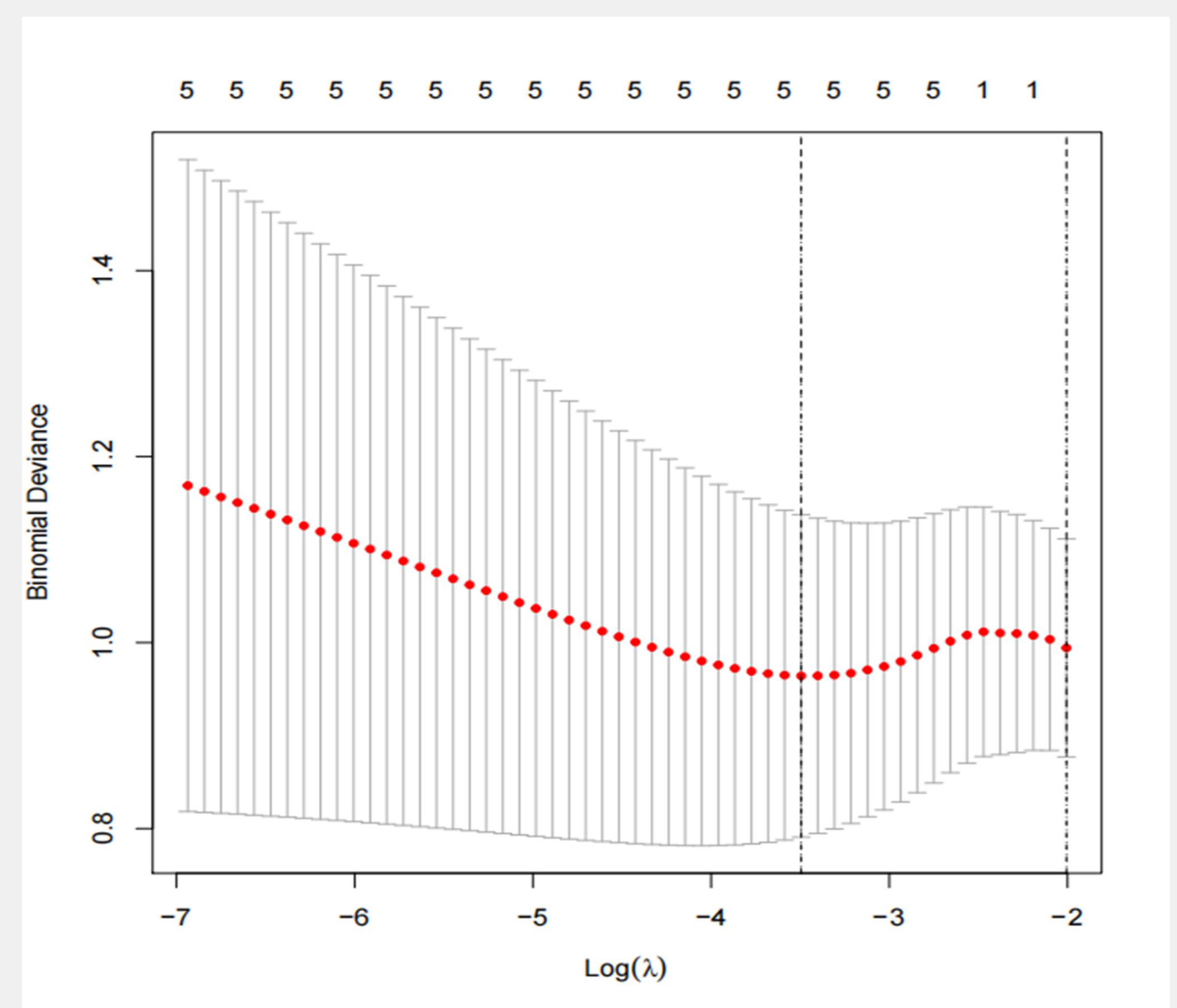
## Method

60 patients with primary EC who admitted to the Obstetrics and Gynecology Hospital of Fudan University between September 2013 and September 2016 were selected in the dataset. qRT-PCR was implemented to analyze the expressions of LncRNA-LA16c-313D11.11 in 60 EC tissues. The data of clinicopathological characteristics and follow-up were retrospectively gathered and analyzed. All statistical analysis was performed by software R (version 3.6.3). Multivariate logistic regression analysis was applied to establish the prediction model. And the discrimination, calibration and clinical practicability of the prediction model was assessed by concordance index (C-index), calibration chart and decision curve analysis. Bootstrap validation was performed to the internally validation.

## Result

The factors of the prediction histogram contained the expression of LncRNA-LA16C-313D11.11, age, depth of myometrial invasion, and FIGO stage.

The model demonstrated good calibration and modest discrimination (c-index = 0.837; 95% confidence interval, 0.693 - 0.981). Moreover, the interval validation achieved high c-index value of 0.768 as before. ROC curve analysis found that the AUC (Area Under ROC Curve) was 0.730.



## Conclusion

This study has revealed a predictive value of LncRNA-LA16C-313D11.11 and successfully developed a nomogram for prediction of 5-year survival status in endometrial carcinoma, which could assist clinical decision-making.

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Hospital of Fudan University**