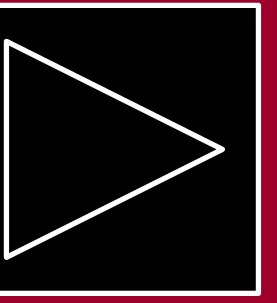


Role OF DLL-3, A NOTCH PATHWAY LIGAND AS A PREDICTIVE BIOMARKER IN HIGH GRADE NEUROENDOCRINE CARCINOMA

CLICK TO GO
BACK TO KIOSK
MENU

Arun Kumar Arumugam Raajasekar, Aman Chauhan, Kurt Hodges, Lowell Anthony

Division of Oncology, Markey Cancer Center, University of Kentucky

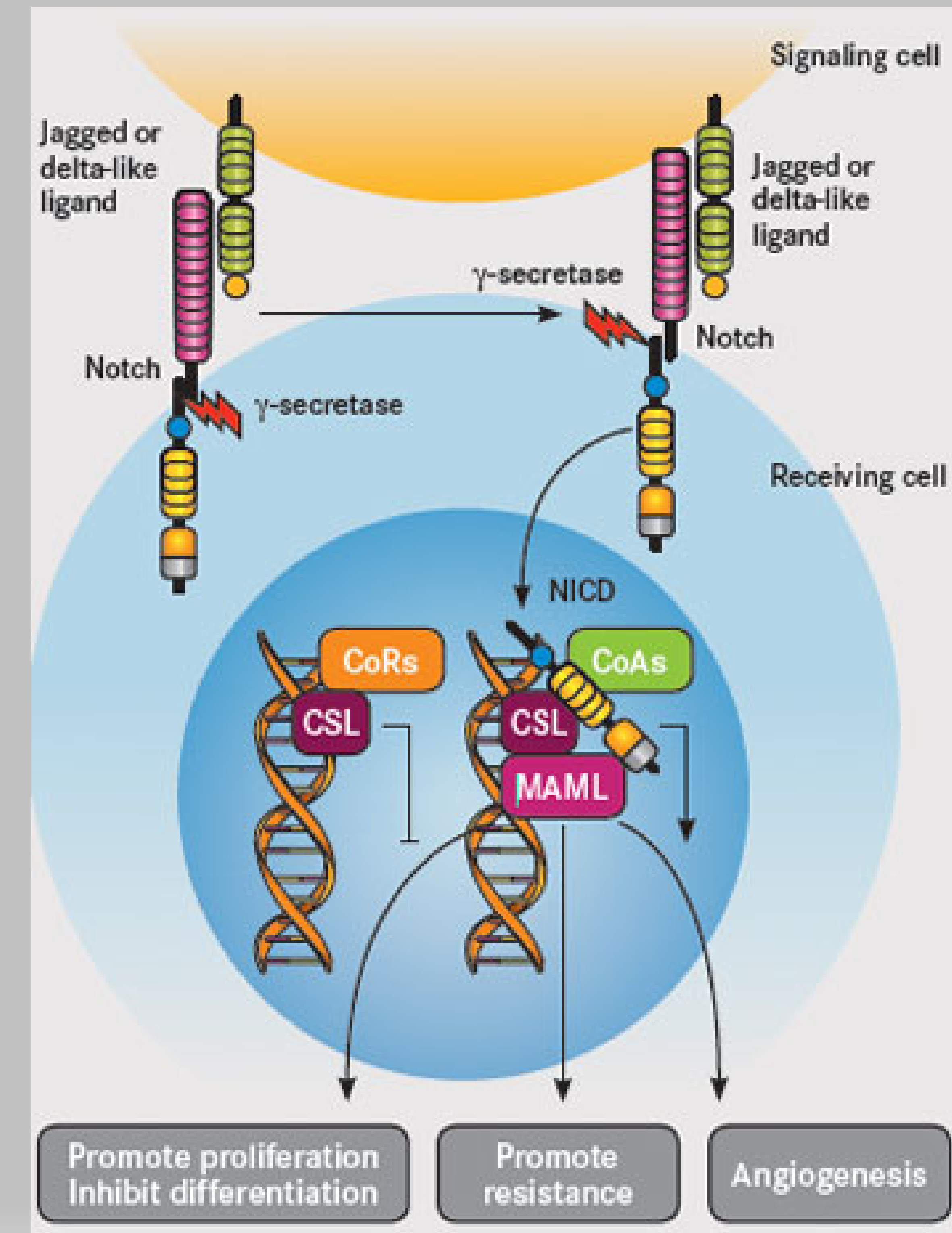


INTRODUCTION

- Delta-like protein 3 (DLL3) is a Notch pathway ligand. Activation of DLL3 can either activate or inhibit the NOTCH pathway based on tumor type.
- Oncologic potential of NOTCH pathway and especially DLL 3 ligand is currently unclear. DLL 3 expression has been found to be upregulated in various malignancies including small cell lung cancer, grade 3 neuroendocrine carcinoma, melanoma, glioblastoma etc.
- In this retrospective study we want to evaluate role of DLL-3 expression as a predictive biomarker for platinum-based chemotherapy.

METHODS

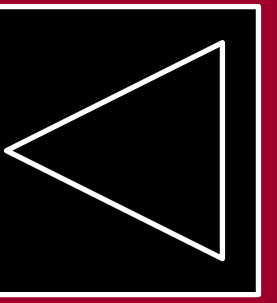
- All the patients with neuroendocrine carcinomas who underwent DLL-3 screening for rovalpituzumab Phase I clinical trial (NCT02709889) were evaluated for our analysis.
- We retrospectively analyzed correlation between DLL3 expression and radiological response to platinum-based chemotherapy.



Role OF DLL-3, A NOTCH PATHWAY LIGAND AS A PREDICTIVE BIOMARKER IN HIGH GRADE NEUROENDOCRINE CARCINOMA

Arun Kumar Arumugam Raajasekar, Aman Chauhan, Kurt Hodges, Lowell Anthony
 Division of Oncology, Markey Cancer Center, University of Kentucky

CLICK TO GO
 BACK TO KIOSK
 MENU



RESULTS

- Total of eleven patients with stage IV grade III neuroendocrine carcinoma patients were evaluated for DLL3 expression.
- Seven patients (median age 67 years) were positive and remaining 4 were negative for DLL3 expression.
- All seven DLL-3 positive patients treated with carboplatin plus etoposide had radiological response to the treatment.
- Median progression free survival was found to be 9 months (range 8-12months) for DLL-3 positive cohort.
- On the contrary DLL-3 negative patients (n=4; median age 64 years) had a suboptimal response to platinum-based chemotherapy.
- Only one of the four patients responded to platinum-based chemotherapy and the median progression free survival for the 4 patients was 2.5 months (range 2-8 months).

	DLL3+	DLL3-	DLL+	DLL-
N	7	4	Bladder	Ovary(2)
Median Age	67y	64y	Gastric	Epithelioid
Median PFS	9m	2.5m	Lung	Bladder
			Prostate	
			Pancreas (2)	
			Prostate	

CONCLUSIONS

- This is the first ever study evaluating role of DLL-3 as a predictive biomarker for platinum sensitivity in grade III neuroendocrine carcinoma patients.
- Early trends suggest DLL-3 expression correlates with response to platinum-based chemotherapy.
- We plan to expand our evaluation to other solid tumors with DLL-3 expression and will also collaborate with our basic scientist colleagues to confirm our early clinical trends in preclinical PDX models.