

PublisherInfo		
PublisherName	:	BioMed Central
PublisherLocation	:	London
PublisherImprintName	:	BioMed Central

## Endocrine response: Is *CGA* the key?

ArticleInfo		
ArticleID	:	3769
ArticleDOI	:	10.1186/bcr-2001-68452
ArticleCitationID	:	68452
ArticleSequenceNumber	:	41
ArticleCategory	:	Paper Report
ArticleFirstPage	:	1
ArticleLastPage	:	3
ArticleHistory	:	RegistrationDate : 2001-8-20 Received : 2001-4-30 Accepted : 2001-8-20 OnlineDate : 2001-9-12
ArticleCopyright	:	Biomed Central Ltd2001
ArticleGrants	:	

Valerie Speirs,<sup>Aff1</sup>

---

Aff1 Molecular Medicine Unit, University of Leeds, UK

## Keywords

CGA, endocrine response, estrogen receptor

---

## Context

Oestrogen receptor (ER) is an established prognostic marker in breast cancer and expressed in about two thirds of all patients. The presence of ER is used routinely to predict response to adjuvant endocrine therapy. However, not all patients with ER-positive tumours respond, so there is a need to identify alternative markers of endocrine responsiveness. In this study, the authors evaluated the role of the *CGA* gene (coding for the a subunit of glycoprotein) as a novel ER-responsive gene in a cohort of human breast tumours.

## Significant findings

Overexpression of *CGA* was observed in 44 of the 131 breast tumours tested. Significant associations were noted between *CGA* overexpression and features indicating a low level of biological aggressiveness, including histological grades I and II, ER a and progesterone receptor. Overexpression of *CGA* was not observed in ER-negative tumours, indicating its association with ER responsiveness, and immunohistochemical analysis showed *CGA* was expressed exclusively in ER-positive tumour cells.

## Comments

The *CGA* gene has the potential to offer a more refined approach for the selection of patients for endocrine therapy. Future studies should focus on the expression of *CGA* in in tumours sensitive or resistant to tamoxifen to determine if it is associated with survival advantage. On a technical note, high throughput screening of *CGA* in a clinical setting would require further validation of the

immunohistochemical technique, as TaqManR real-time PCR requires specialised and expensive equipment which may not be available to many pathology labs. Together with established markers of endocrine response, *CGA* is an attractive new candidate which could help decide which patients might benefit from adjuvant endocrine therapy.

## Methods

TaqManR real-time PCR, immunohistochemistry

## Additional information

## References

1. Bieche I, Parfait B, Le Doussal V, Olivi M, Rio M-C, Lidereau R, Vidaud M: Identification of *CGA* as a novel estrogen receptor-responsive gene in breast cancer: An outstanding candidate marker to predict the response to endocrine therapy. *Cancer Res* . 2001, 61: 1652-1658.