

LETTERS TO THE EDITORS

THE PRESENCE OF HIGH β -GLUCURONIDASE
ACTIVITY IN CANCER TISSUE*

Sirs:

β -Glucuronidase is believed to function in the "metabolic conjugation" of the estrogenic hormones.¹ In view of the large amount of experimental

Distribution of β -Glucuronidase in Adenocarcinoma of Breast with Metastases to Axillary Lymph Nodes

Organ	Tissue	No. of specimens studied	Glucuronidase activity*
			<i>units</i>
Breast	Edge of lesion	1	450
"	Center of lesion	1	890
"	Uninvolved breast	2	168, 112
"	" skin over carcinoma	1	89
"	" fat	1	57
"	" muscle	1	98
Right axilla	Involved lymph nodes	2	1960, 3520
" "	Uninvolved lymph nodes	2	816, 572
Left "	Involved lymph node	1	3700
" "	Uninvolved lymph nodes	5	633, 510, 640, 365, 645

On March 28, 1947, a radical resection of the breast and right axilla was performed on Mrs. C. The lymph nodes of the left axilla were removed on April 4. The presence or absence of carcinoma was confirmed histologically.

* A unit of β -glucuronidase is defined as 1 γ of phenolphthalein liberated per hour per gm. of wet tissue from 0.01 N phenolphthalein mono- β -glucuronide buffered at pH 4.5, 0.1 M acetate buffer, at 37.5°.

and clinical evidence which indicates a rôle of the estrogenic hormones in the production of malignant growth, the glucuronidase activity of cancerous tissues was studied. The data in this report are regarded as evidence of the involvement of β -glucuronidase in processes of malignant growth.

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¹ Fishman, W. H., *J. Biol. Chem.*, **169**, 7 (1947).