



**CHANDIGARH
UNIVERSITY**

Discover. Learn. Empower.

INSTITUTE-UNIVERSITY INSTITUTE OF ENGINEERING

ACADEMIC UNIT-II

Computer Science Engineering

Subject Name-Biology For Engineers

Subject Code- 20SZT148




CANCER

DISCOVER . **LEARN** . EMPOWER

CANCER

Course Outcome

CO Number	Title	Level
CO1	It gives an idea about the about the basic cell biology.	Understanding
CO2	It deals with the idea of uses of biology in engineering.	Understanding
CO3	It provide knowledge about the uses of softwares in biology field.	Remembering



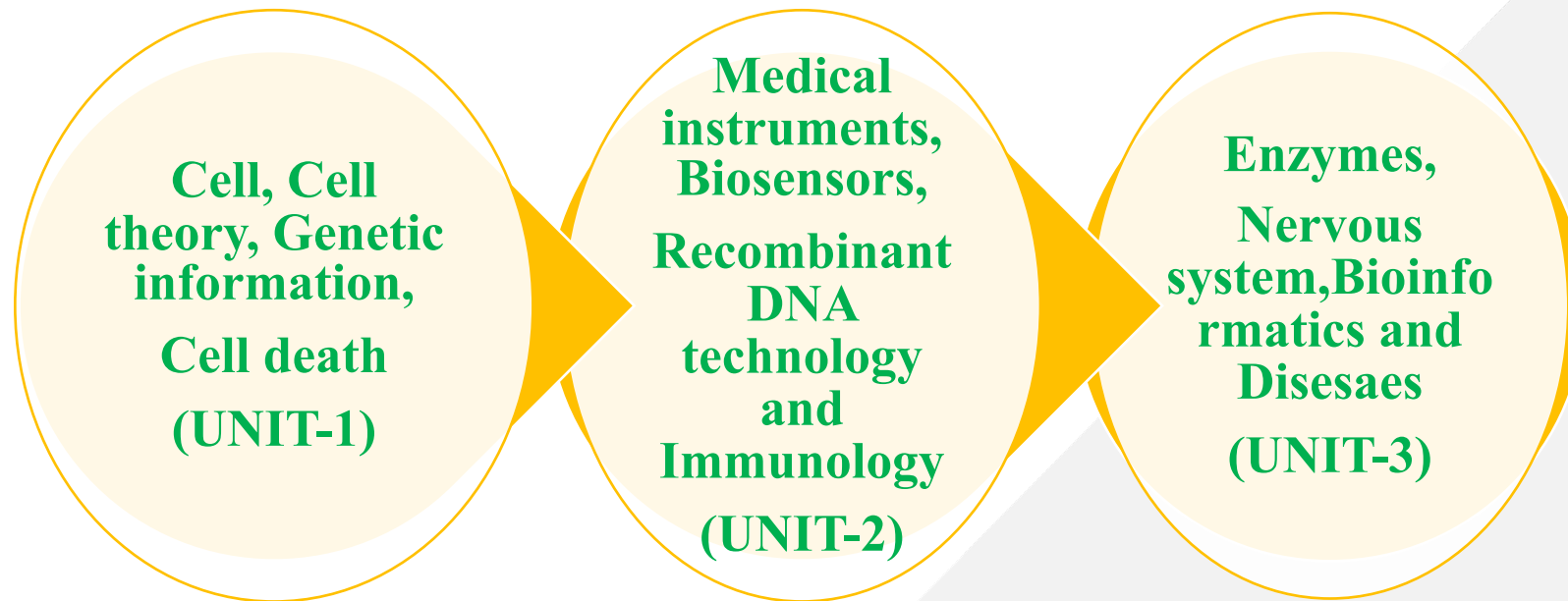
2015-03-23

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Will be covered in this lecture

<https://www.electronicshub.org/types-of-transducers/>

BIOLOGY FOR ENGINEERS



CANCER

Cancer is the uncontrolled growth of abnormal cells anywhere in a body – cancer cell.

- It is also called malignancy.
- Causative agents – chemical , toxic compound exposures ,ionizing radiation , some pathogens.
- Most cancer form tumors ,but not all tumors are cancerous.

CANCER

CANCER SYMPTOMS:

- Depends on the types
- General symptoms are,
- Fatigue
- Weight loss
- Pain
- Skin changes
- Unusual bleeding
- Persistent cough Fever

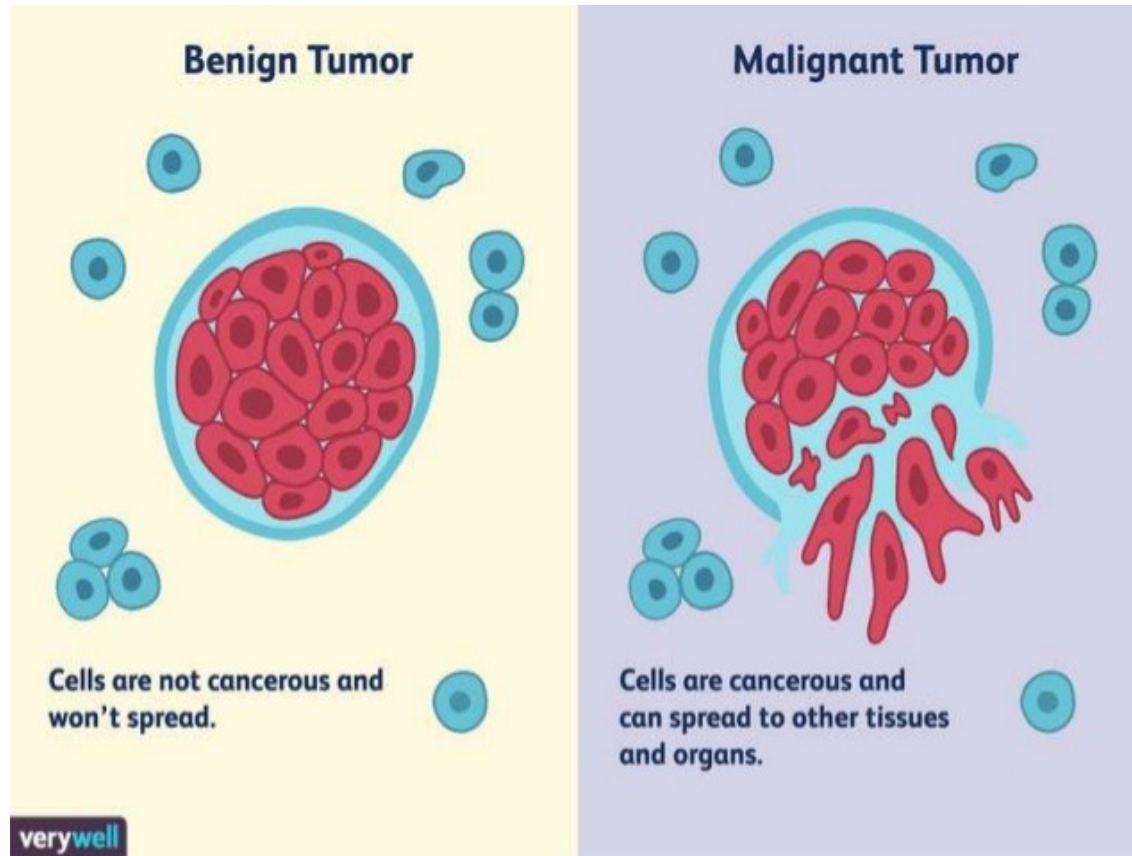
CANCER

▪ TREATMENT:

- Chemotherapy,
- Radiation
- Surgery

General term: Benign – non cancerous tumor Malignant – cancerous tumor

CANCER



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CANCER

TYPES:

- National cancer Institute gives the common types:

Bladder

Lung

Breast

Melanoma

Endometrial

Kidney cancer

Leukemia

Lymphoma

Pancreatic

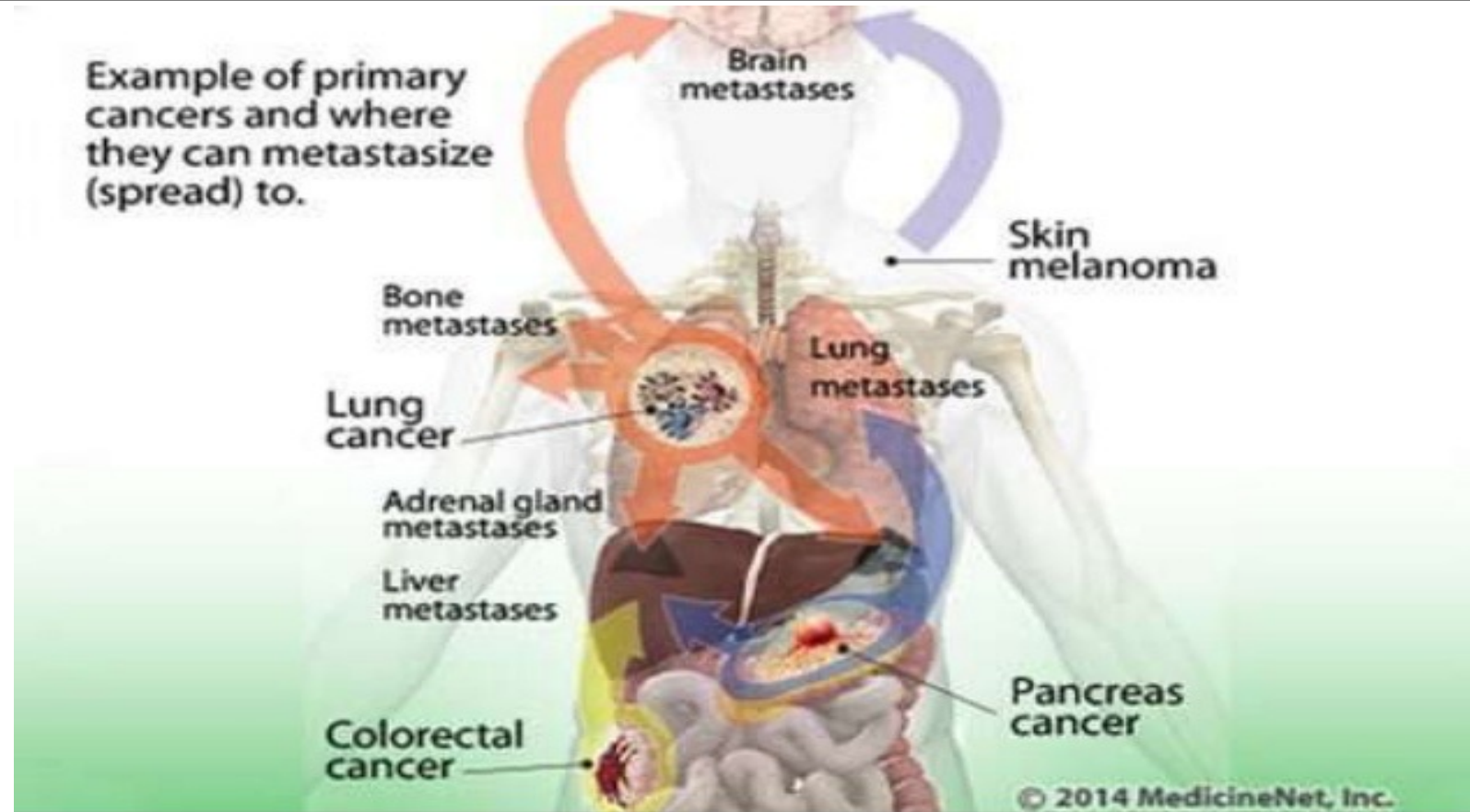
Prostate

Thyroid

Colon & rectal

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CANCER



<https://image.slidesharecdn.com/cancer-190807142943/95/cancer-types-spread-and-properties-5-638.jpg?cb=1565188327>

CANCER

CARCINOMA:

- Begins in skin (or) in tissues.
- That line the internal organs – skin , lung , colon , pancreatic , etc...
- Subtypes , Adenocarcinoma Basal cell carcinoma Squamous cell carcinoma

Transitional cell carcinoma

CANCER

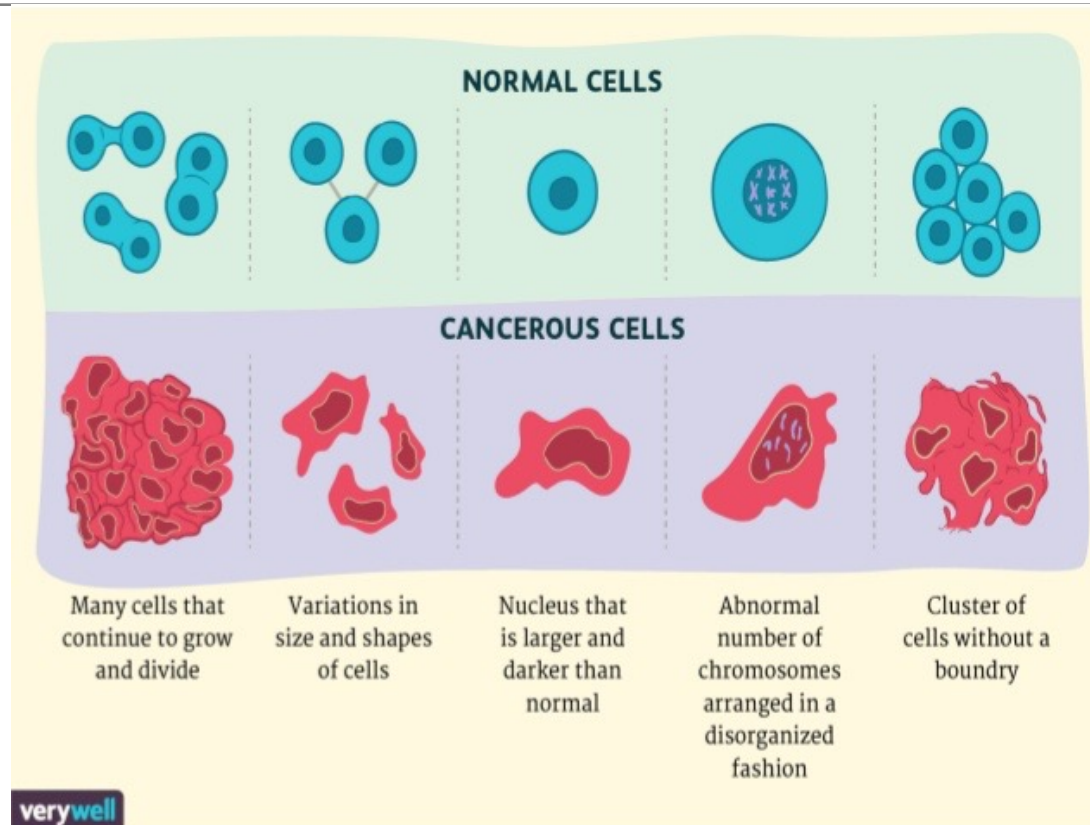
SARCOMA:

- Begins in bone (or) cartilage (or) other connective tissue.
- Two types: Bone sarcomas
- Soft tissue sarcomas

LEUKEMIA:

- Begins in blood forming tissue.
- Causes large numbers of abnormal blood cells and enters the blood.
- Ages – 0-5,14-18,19-40,60+
- Sub type: Lymphoblastic leukemia T – cell leukemia

CANCER



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CANCER

PROPERTIES OF CANCER CELLS:

- It shows uncontrolled mitotic divisions.
- Due to uncontrolled growth – tumor is formed.
- They are less adhesive than normal cells.
- They exhibit number of alterations.
- Lack differentiation.
- They lose ability to communicate with other cells.

CONCLUSION

Till now we have discuss:

- Cancer definition
- Cause of cancer
- Types of cancer
- Properties of cancer

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THANK YOU

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