Cancer: Research, Diagnoses, and Prognoses

I. DEFINITION OF CANCER:

- Cancer = more than 100 related diseases
- (1) ..... to DNA of cells → (2)) ..... cell growth → cancer

Cancer	A tree
Basic (3)	Trunk
Differing types	(4) .....
Millions of individual cases	Leaves

II. CAUSES OF CANCER:

Different hypotheses about the causes of cancer:

- After 1962 (discovery of DNA helical structure):
  - cancer = a disease of genetic mutation
  - exposure to certain toxins, such as (5) ..... → carcinogens → damage to DNA → cancer
- Similar studies:
  - radiation, viruses, and certain inherited genes → cancer
- More recent research:
  - 3 main types of genes:
    - (6) .....
    - tumor suppressor genes
    - DNA repair genes mutate → cause other cells to survive when they shouldn't and (7) ..... in abnormal ways.

III. DIAGNOSES AND TREATMENT OF CANCER:

- Step 1: Name the cancer
  - name 1 of cancer = the (8) ..... in which it originates (breast cancer)
  - name 2 of cancer = types of (9) ..... in which it forms (squamous cell cancer or epithelial cancer)
- Step 2: determine the types of cancer = analyzing the tumor.
  - Breast cancer → 4 types:
    - be endocrine receptor-positive

- (10) .....
- triple positive
- triple negative

- Step 3: inform a patient's (11) ..... program
- (12)..... for endocrine receptor-positive cancer
- chemotherapy for (13) ..... breast cancer

IV. Another door diagnostic tools: inherited genes

- BRCA gene → up to a (14)) ..... chance of developing breast cancer

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