

# Sample of thesis English editing

Field of research: medicine - oncology

### BACKGROUND

This chapter examines the literatures that are associated withte breast cancer, the autonomic nervous system, and music therapy. The content will coverincludes psychosocial profilinge of cancer survivors, cancer treatment and side effects, heart rate variability analysis and application, and music therapy and its application.

### 2.1 The biology of cancer

The Hhuman body contains many types of differentiated cells, eachwith theits unique structure and unique function of each cell contributing to total body physiologic function. Every mMalignancy arises whenfrom cells that are originally normal becomebut are altered at the gene level in some way. The end result of these changes may manifest asis the a loss of some or all of the a cell's! normal characteristics, and the expression of abnormal characteristics. This maye changes then affect the cell's appearance, surface membrane, function and growth characteristics. Cancer is a type of abnormal cell growth. Each normal mature cell is differentiated with a distinct and recognizable appearance in terms of size and shape. In addition, the size of the normal cell nucleus is usually small compared with the rest of the cell, which includesincluding the cytoplasm. Thus normal cells generally have a small nuclear-/-cytoplasmic ratio. Cancer cells lose the specific appearance of their parent cells. This loss of specific appearance makes many types of cancer cells look alike. The nucleus of a cancerous cell is larger than that of normal cells from the same lineagea normal cell from the same tissue. Thus cancer cells have a large nuclear-/cytoplasmic ratio. Other microscopic features typical of malignant cells include irregularly shaped nuclei and an increased proportion of cells undergoing mitosis. Along with losing the appearance of the parent cells, cCancer cells also lose some or all of the differentiated functions performed by their parent cells and. Cancer cells have no useful

function.

Cancer cells are poorly organized as they produce little fibronectin and are thus poorly adherent with one anothermake little fibronectinand adhere poorly to each other. This in addition to Because cancercells do not bind tightly together the expression of and have many cell surface enzymes capable of on their cell surfaces that can digesting the molecules of extracellular matrix allows cells, they are able to break off from the main tumor, move through blood vessels and tissues, and spread to other body sites (metastasize). Unlike normal cells, cancer cells divide <u>almostnearly</u> continuously. Certain genetic mutations The gene changes allow cancer cells to bypass the normal controls and regulating restrictions on entering the cell cycle. As a result, Almost as soon as one round of mitosis is often followed by anotheris complete, the daughter cells begin a new round. In addition, cCancer cells also have an infinite life span due to an abnormal response to that does not respond to apoptotic signals, a . This characteristic has been termed immortality. The persistence of abnormal proliferation cancer cell division makes cancer difficult to control.

## **Final text**

### BACKGROUND

This chapter examines the literature associated with breast cancer, the autonomic nervous system, and music therapy. The content will cover psychosocial profiling of cancer survivors, cancer treatment and side effects, heart rate variability analysis and application, and music therapy and its application.

### 2.1 The biology of cancer

The human body contains many types of differentiated cells, with the unique structure and unique function of each cell contributing to total body physiologic function. Malignancy arises when cells that are originally normal become altered at the gene level in some way. The end result of these changes may manifest as a loss of some or all of a cell's normal characteristics, and the expression of abnormal characteristics. This may then affect the cell's appearance, surface membrane, function and growth characteristics.

Cancer is a type of abnormal cell growth. Each normal mature cell is differentiated with a distinct and recognizable appearance in terms of size and shape. In addition, the size of the normal cell nucleus is usually small compared with the rest of the cell, which includes the cytoplasm. Thus normal cells generally have a small nuclear-cytoplasmic ratio.

Cancer cells lose the specific appearance of their parent cells. This loss of specific appearance makes many types of cancer cells look alike. The nucleus of a cancerous cell is larger than that of normal cells from the same lineage. Thus cancer cells have a large nuclear-cytoplasmic ratio. Other microscopic features typical of malignant cells include irregularly shaped nuclei and an increased proportion of cells undergoing mitosis. Cancer cells also lose some or all of the differentiated functions performed by their parent cells and have no useful function.

Cancer cells are poorly organized as they produce little fibronectin and are thus poorly adherent with one another. This in addition to the expression of many cell surface enzymes capable of digesting extracellular matrix allows cells to break off from the main tumor, move through blood vessels and tissues, and spread to other body sites (metastasize).

Unlike normal cells, cancer cells divide almost continuously. Certain genetic mutations allow cancer cells to bypass the normal controls regulating the cell cycle. As a result, one round of mitosis is often followed by another. Cancer cells also have an infinite life span due to an abnormal response to apoptotic signals, a characteristic termed immortality. The persistence of abnormal proliferation makes cancer difficult to control.