**LECTURE SYLLABUS**

**(General medicine)**

**Senescence, terminal stages, death**

**Definition of death**

Biological death

Clinical death

uncertain x certain death signs

**Terminal states**

Thanatology

 Preagonal state

Agonal state

Lazarus syndrome

**Lock-in syndrome**

**Brain death**

* **brain stem death**
* **cortical death**
* **whole brain death**

**Aging**

Survival curve, types I, II, III

* Gerontology x Geriatrics

maximum life span

average life span

life expectancy

**Systemic changes in senescence**

comparison of 75 and 30 years old organisms:

92% brain weight

84% basal metabolism

70% renal filtration

43% max. lung capacity

**Theories of aging**

**Stochastic theories**

Theory of somatic mutations

Theory of random postsynthetic modifications

**Programmed aging**

**Combined theory**

**Cellular mechanisms of aging and death**

Characteristics of a senescent cell

Apoptosis

Autophagy

Pyroptosis

Necrosis

**Hayflick limit**

**age estimation by telomeres**

**Hormonal change**

**DHEA**

**Melatonin**

**Somatotropin**

**Progesterone, estradiol**

**Testosterone**

**Cortisol**

 glucocorticoid cascade hypothesis

**Neurotransmitters**

**Immune system changes**

**Mitochondrial changes**

**Diseases with accelerated aging**

**Predictors of successful aging**

**Specifics of medical care in senescence**