

RD 209 / BC 210 / MC 211 Jan 3:0

Molecular Basis of Ageing and Regeneration

Instructor

Varsha Singh, Ravi Sundaresan, Rajyaguru Purusharth Email:

Teaching Assistant

Email:

Department: MRDG, MCB, BC

Course Time: Tue, Thu, Sat Lecture venue: Biochemistry Lecture Hall, Bioscience Building, IISc Detailed Course Page:

Announcements

Brief description of the course

Mechanisms of ageing and regeneration in humans and model organisms

Prerequisites

Basic courses in Biology and Signaling

Syllabus

Mechanisms of Ageing and Regeneration; Model systems for studying Ageing and Regeneration;

Role of cellular processes such as transcription, translation, posttranslational modifications;Signalling

mechanisms; Cellular Senescnece; Genetic basis of Ageing and longevity; Ageing and diseases; Organ

Senescence; Obesity/Diabetes/Cardiovascular diseases/Muscle degenration; Interventions to delay ageing

and/or enhance life span

Course outcomes

Basic mechanisms underlying ageing in animals and interventions to slow aging and improve health span.

Grading policy

75% percent for three written examinations, 25% for assignments and oral presentations

Assignments

Assignments on specific topics in aging, metabolism and regeneration

Resources

Reviews, papers and books