SCBM 304
Biological Science of Aging

Semester 2/2017

Department of Pathobiology
Faculty of Science
Mahidol University
Course Syllabus

SCBM 304  Biological Science of Aging  2(2-0-4)

Course description

Biological Science of Aging is senescence aims to highlight the importance of research on aging and give an overview of current knowledge on the biology and genetics of aging, including anti-aging therapies, models and theories of aging. The most ambitious, even if distant, goal of gerontological research is to make aging optional, to develop a cure for aging, and the social implications of a radical increase in human lifespan due to scientific breakthroughs are also discussed.

Prerequisite:  SCID 102 Cell and Molecular Biology

Type of Course:  Required Course

Session:  2nd Semester, 3rd year student

Course class size:  None

Course objectives

By the end of this course the students are able to understand the basic concepts to theory of Aging and aging process in each major system including common diseases associated aging and therapeutic procedure for aging prevention including nutrition, homeopathy and alternative medicine.
## Course Outline

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Topic</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wed 17 Jan</td>
<td>9.00-12.00 am.</td>
<td>Aging of Nervous system</td>
<td>L1 PD</td>
</tr>
<tr>
<td>Wed 17 Jan</td>
<td>1.00-4.00 pm.</td>
<td>Introduction, Theory of Aging (Biology and genetic of Aging)</td>
<td>L2 WP</td>
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<tr>
<td>Fri 19 Jan</td>
<td>1.00-4.00 pm.</td>
<td>Aging of Musculoskeletal system and rehabilitation</td>
<td>L3 SV</td>
</tr>
<tr>
<td>Wed 24 Jan</td>
<td>9.00-12.00 am.</td>
<td>Aging of skin system</td>
<td>L4 SN</td>
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<tr>
<td>Fri 26 Jan</td>
<td>9.00-12.00 am.</td>
<td>Aging of endocrine</td>
<td>L5 NK</td>
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<tr>
<td>*Wed 14 Feb</td>
<td>9.00-12.00 am.</td>
<td>Midterm Examination (L1-L5)</td>
<td></td>
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<tr>
<td>Wed 31 Jan</td>
<td>9.00-12.00 am.</td>
<td>Diet nutrition for aging and the future and Caloric restriction</td>
<td>L6 WJ</td>
</tr>
<tr>
<td>Thu 1 Feb</td>
<td>9.00-12.00 am.</td>
<td>Immune system and Aging</td>
<td>L7 PM</td>
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<tr>
<td>Fri 2 Feb</td>
<td>9.00-12.00 am.</td>
<td>Homeopathy and alternative medicine, Longevity, health and functioning</td>
<td>L8 AS</td>
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<tr>
<td>Wed 7 Feb</td>
<td>9.00-12.00 am.</td>
<td>Stem cell therapy and aging</td>
<td>L9 PC</td>
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<tr>
<td>Wed 7 Feb</td>
<td>1.00-4.00 pm.</td>
<td>Aging of circulatory system</td>
<td>L10 TB</td>
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<tr>
<td>Wed 28 Feb</td>
<td>9.00-12.00 am.</td>
<td>Final Examination (L6-L10)</td>
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### Teaching Method

Lectures in class 30 hours

### Teaching Media

1. Class handouts, Powerpoint presentation
2. Textbooks
Measurement and Evaluation of Students Achievement

1. Participation 20%
2. Written Examination 80%
3. Student Examination Grade = A, B+, B, C+, C, D+, D, F

References

Instructors
1. AS = Ariya Sarikaphuti, Pharm, Ph.D
2. NK = Niwat Kangwanrangsan, Ph.D
3. PC = Pornthip Chaichompoo, Ph.D
4. PD = Associate Professor Permphan Dharmasaroja, M.D., Ph.D
5. PM = Assistant Professor Ponpan Matangkasombat, Ph.D
6. SN = Somphong Narkpinit, M.D.
7. SV = Sivaporn Vongpipatana, M.D.
8. TB = Associate Professor Tepmanas Bupha-intr, M.D.
9. WP = Witchuda Payuhakrit, Ph.D
10. WJ = Associate Professor Wannee Jiraungkoorskul, Ph.D

Course Coordinator:
Somphong Narkpinit, M.D.
Department of Pathobiology, Faculty of Science, Mahidol University
Tel. 02-201-5550, E-mail: somphong.nar@mahidol.ac.th
Requesting an appeal:

1. Somphong Narkpinit, M.D. (Course Coordinator)
   Department of Pathobiology, Faculty of Science, Mahidol University
   Tel. 02-201-5550, E-mail: somphong.nar@mahidol.ac.th

2. Niwat Kangwanrangsan, Ph.D (Program Director)
   Department of Pathobiology, Faculty of Science, Mahidol University
   Tel. 02-201-5550, E-mail: niwat.kan@mahidol.ac.th