

FLORIDA ATLANTIC UNIVERSITY™

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Graduate Programs—NEW COURSE PROPOSAL

DEPARTMENT NAME:
Basic Science

COLLEGE OF:
Charles E. Schmidt College of Biomedical Science

RECOMMENDED COURSE IDENTIFICATION:
 PREFIX _____ MCB _____ COURSE NUMBER _____ 6208 _____ LAB CODE (L or C) _____
 (TO OBTAIN A COURSE NUMBER, CONTACT ERUDOLPH@FAU.EDU)
 COMPLETE COURSE TITLE Host Defense & Inflammation

EFFECTIVE DATE
(first term course will be offered)
SPRING 2011

CREDITS: 3

TEXTBOOK INFORMATION:
No textbook required.

GRADING (SELECT ONLY ONE GRADING OPTION): REGULAR PASS/FAIL _____ SATISFACTORY/UNSATISFACTORY _____

COURSE DESCRIPTION, NO MORE THAN 3 LINES: The course covers the immunology emphasizing mechanisms of host defense and inflammation in chronic inflammatory diseases. Mechanisms emphasized are roles of macrophages that are heterogeneous and diverse populations regulating host defense and inflammation. Mycobacterial infections and allergic asthma are presented as disease models of chronic inflammatory diseases.

PREREQUISITES W/MINIMUM GRADE:* PCB 4233 or equivalent Minimum grade: B-	COREQUISITES:	OTHER REGISTRATION CONTROLS (MAJOR, COLLEGE, LEVEL): Graduate Students Only
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PREREQUISITES, COREQUISITES & REGISTRATION CONTROLS SHOWN ABOVE WILL BE ENFORCED FOR ALL COURSE SECTIONS.
 * DEFAULT MINIMUM GRADE IS D-

MINIMUM QUALIFICATIONS NEEDED TO TEACH THIS COURSE:
Ph.D.

Other departments, colleges that might be affected by the new course must be consulted. List entities that have been consulted and attach written comments from each. Department of Biology

Yoshimi Shibata, Ph.D, yshibata@fau.edu, tel: 297-0606

Faculty Contact, Email, Complete Phone Number

SIGNATURES

SUPPORTING MATERIALS

<p>Approved by:</p> <p>Department Chair: </p> <p>College Curriculum Chair: </p> <p>College Dean: </p> <p>UGPC Chair: _____</p> <p>Dean of the Graduate College: _____</p>	<p>Date:</p> <p>3-16-10</p> <p>3-16-10</p> <p>3-16-10</p> <p>_____</p> <p>_____</p>	<p>Syllabus—must include all details as shown in the UGPC Guidelines.</p> <p>Written Consent—required from all departments affected.</p> <p>Go to: http://graduate.fau.edu/gpc/ to download this form and guidelines to fill out the form.</p>
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Email this form and syllabus to diamond@fau.edu and eqirjo@fau.edu one week **before** the University Graduate Programs Committee meeting so that materials may be viewed on the UGPC website by committee members prior to the meeting.

HOST DEFENSE AND INFLAMMATION

Course Number: MCB 6208

Three (3) credits

Pre-requisites: PCB 4233; Instructor permission only

Co-requisites: None

Instructor: Dr. Yoshimi Shibata

Office: BC 224, bldg 71

Telephone: 297-0606

Office hours: Tuesday 4:00 pm – 5:20 pm

Textbooks: No textbook required.

Bibliography:

1. Peter Parham, *The Immune System*, 3rd ed. Garland Science
2. Klaus D. Elger, *Immunology*, 2nd ed. Wiley-Blackwell
3. Katzung BG, *Basic & Clinical Pharmacology*, 10th ed. Lange
4. Murray et al. *Medical Microbiology*, 5th ed. Elsevier
5. Shibata, Y., W. L. Dempsey, et al. (1985). "Selectively eliminated blood monocytes and splenic suppressor macrophages in mice depleted of bone marrow by strontium 89." *J Leukoc Biol* 38(6): 659.
6. Shibata, Y., L. A. Foster, et al. (2000). "Oral administration of chitin down-regulates serum IgE levels and lung eosinophilia in the allergic mouse." *J Immunol* 164(3): 1314.
7. Shibata, Y., H. Ohata, et al. (2007). "Immunologic response enhances atherosclerosis-type 1 helper T cell (Th1)-to-type 2 helper T cell (Th2) shift and calcified atherosclerosis in *Bacillus Calmette-Guerin* (BCG)-treated apolipoprotein E-knockout (apo E(-/-)) mice." *Transl Res* 149(2): 62.
8. Shinohara, T., T. Pantuso, et al. (2009). "Persistent inactivation of macrophage cyclooxygenase-2 in mycobacterial pulmonary inflammation." *Am J Respir Cell Mol Biol* 41(2): 146.

Course Description:

The course covers the immunology, emphasizing mechanisms of host defense and inflammation.

Course Objectives:

1. Students will demonstrate learning the host defense mechanisms in response to pathogens.
2. Students will demonstrate understanding mechanisms of inflammation in infections and allergy.
3. Students will demonstrate understanding roles of macrophages, a first line of defense, diversifying pro- and anti- inflammation.
4. Students will demonstrate learning experimental approaches in the topics.

Instructional Method & Assessment Procedures:

Topics are introduced in lectures. Topics are also presented by each student.

Lectures

Approximate 10 lectures will be provided to outline host defense mechanisms and inflammation. Mechanisms emphasized are roles of macrophages that are heterogeneous and diverse populations regulating host defense and inflammation. A lecture emphasizing isolation and roles of dendritic cells will be provided by invited professor, Dr. Mahya Nouri-Shirazi. Students should also take two CMBB seminars. Mycobacterial infections and allergic asthma are presented as disease models of host defense and inflammation. Immediately after lectures, Exam 1 will be scheduled.

Research proposals

Each student will prepare and present his/her own research proposal which is expected to have a specific aim which will determine mechanisms by which:

- (i) Macrophages play pathogenic roles in inflammatory diseases;
- (ii) Macrophages are activated by immunomodulators and produce beneficial activities to reduce inflammatory or infectious diseases.

The materials may be related with your research area (Ph.D., Master Thesis students) or the area that most interests you (non-thesis student). Each student in the audience will provide a short criticism.

Exam II will be scheduled after all presentations and cover their presented materials.

Grading

Participation/Discussion -10%

Exam I- 15%

Exam II- 25%

Presentation- 50%

Schedule

	Date	Room	Instructor	Topics/
1	1/5	BC130	Shibata	Orientation
2	1/7	BC130	Shibata	Introduction of immunology
3	1/12	BC130	Shibata	Host defense
4	1/14	Cmpx303	Shibata	Inflammation
5	1/19		Holiday	
6	1/21	BC130	Shibata	Mycobacteria
7	1/26	BC130	Shibata	Allergy (I)
8	1/28	BC126	Shibata	CMBB seminar
9	2/2	BC130	Shibata	Allergy (II)
10	2/4	BC130	Shibata	Immunomodulation
11	2/9	BC130	Mahyar Nouri-Shirazi	Dendritic cells and FACS
12	2/11	Cmpx303	Shibata	COX-2 and macrophage activation
13	2/16	BC130	Shibata	Proposal Format/skeletal muscle injury and repair

14	2/18	Cmpx303	Shibata	General Discussion
15	2/23	BC130	Exam 1	Exam 1
16	2/25	BC130	Mari Kogiso/Traci Pantuso	Research Presentation
17	3/2		<i>Spring Brake</i>	
18	3/4		<i>Spring Brake</i>	
19	3/9	BC130	Students	
20	3/11	BC130	Students	
21	3/16	BC130	Students	
22	3/18	BC130	Students	
23	3/23	BC130	Students	
24	3/25	Cmpx303	Students	
25	3/30	BC130	Students	
26	4/1	BC130	Students	
27	4/6	BC130	CMBB	
28	4/8	BC130	Students	
29	4/13	BC130	Students	
30	4/15	Cmpx303	Students	
31	4/20	BC130	Students	
32	4/22	BC130	Students	
33	4/27	BC130		
34	4/29	BC130	Final Exam	Final Exam

Grading criteria:

A	100 – 90
B+	89 – 87
B	86 – 80
C	79 – 70
F	<70

Academic Honor Code:

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards because it interferes with the University mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility.

The FAU Honor Code requires a faculty member, student, or staff member to notify an instructor when there is reason to believe an academic irregularity is occurring in a course. The instructor must pursue any reasonable allegation, taking action where appropriate. The following constitute academic irregularities:

1. The use of notes, books or assistance from or to other students while taking an examination or working on other assignments, unless specifically authorized by the

instructor, are defined as acts of cheating.

2. The presentation of words or ideas from any other source as one's own is an act defined as plagiarism.

3. Other activities that interfere with the educational mission of the University.

For full details of the FAU Honor Code, see University Regulation 4.001 at www.fau.edu/regulations/chapter4/4.001_Honor_Code.pdf.

Students With Disabilities

In compliance with the American Disabilities Act (ADA), students who require special accommodations due to a disability to properly execute coursework must register with the Office for Students with Disabilities (OSD) – in Boca Raton, SU 133 (561-297-3880); in Davie, MOD 1 (954-236-1222); in Jupiter, SR 117 (561-799-8585); or at the Treasure Coast, CO 128 (772-873-3305) – and follow all OSD procedures.

Julie Sivigny

From: David Binninger [binninge@fau.edu]
Sent: Wednesday, March 17, 2010 11:47 AM
To: Julie Sivigny
Cc: Rodney Murphey
Subject: Fwd: Biomedical Science New Course Proposals

Good morning,

I circulated the syllabi for the new courses listed in your e-mail (see below) to the faculty who could make comments. I did not receive any responses that raised questions or noted a significant overlap with any of our graduate courses. Please let me know if you have any questions.

I hope this is helpful and good luck with the remainder of the process toward approval of the courses.

Regards,
David

David M. Binninger, Ph.D.
Associate Professor and Associate Chair
Department of Biological Science
and
Center for Molecular Biology and Biotechnology
Florida Atlantic University
777 Glades Road
Boca Raton, FL 33431 USA
Phone: (561) 297-3323
FAX: (561) 297-2749

Begin forwarded message:

From: Julie Sivigny <jsivigny@fau.edu>
Date: March 15, 2010 1:38:27 PM EDT
To: 'David Binninger' <binninge@fau.edu>
Subject: Biomedical Science New Course Proposals

Dear Dr. Binninger,

Thank you for your assistance with this process. We are submitting a total of 10 new course proposals and 2 changes. All syllabi were forwarded to Dr. Murphey but in multiple batches so if you are missing any please let me know and I'll send to you immediately.

Biomedical Science New Course Proposals:
Host Defense & Inflammation – Dr. Yoshimi Shibata
Molecular Neuropsychopharmacology – Drs. Isgor and Tao
Macromolecules and Human Disease – Drs. Brew and Li
Adult Neurogenesis – Dr. Jianning Wei
Molecular Basis of Disease & Therapy – Dr. Caputi

3/17/2010

Tumor Immunology – Dr. Vijaya Iragavarapu
Molecular Genetics of the Cell – Dr. Kantorow
Molecular Basis of Human Cancer – Dr. Lu
Problem-based Immunology – Dr. Nouri-Shirazi
Fundamentals of General Pathology – Dr. Levitt

The integrated morphology courses will be processed as changes. We previously offered two 3-credit courses: Human Gross Anatomy – Trunk and Human Gross Anatomy – Extremities. We are changing these to 4-credit courses with the titles *Integrated Morphology I and II* taught by Drs. Willis Paull, Rainald Schmidt-Kastner and Deborah Cunningham.

The graduate college submission deadline is Wednesday March 17th at noon. I apologize for the lateness of some of these requests and appreciate your effort to assist us.

Please let me know if I can provide any additional information.

Thank you.

Julie

Julie A. Sivigny
Academic Program Specialist
Charles E. Schmidt College of Biomedical Science
Florida Atlantic University
(561) 297-2216

From: David Binninger [<mailto:binninge@fau.edu>]

Sent: Monday, March 15, 2010 11:16 AM

To: Julie Sivigny

Cc: Rodney Murphey; Jay Lyons

Subject: Fwd: Biomedical Science New Course Proposal - Macromolecules & Human Disease

Good morning Julie,

I forwarded the syllabi for the new courses to the appropriate faculty last week. It's my opinion that there will not be any issues or conflicts. So far, I have had only one response and that was that there were no concerns. Please confirm the full list of new courses and when you need a statement from me.

I hope this is helpful and please let me know if you have any questions.

Regards,

David

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