

UNIVERSITY OF FLORIDA
COLLEGE OF MEDICINE SYLLABUS
NEUROSCIENCE

GMS6029 Journal Club – Protein Aggregation and Neural Disease (1 credit)

Semester: Spring 2023

Delivery Format: In-person

Mondays 4:30-6pm

Instructor Name: David R. Borchelt and Benoit Giasson

Room Number: C1-003 (Communicore)

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Email Address: drb1@ufl.edu or bgiasson@ufl.edu

Office Hours: Mondays 1-3pm and Thursdays 1-3pm (Office: BMS J499)

Graduate Assistant: None

Preferred Course Communications: Email

Prerequisites: Doctoral Students

Purpose and Outcome:

This journal club is intended for all PhD students interested in learning about prion disease and how they relate to more common neurodegenerative disease.

Course Overview:

The term prion was once restricted to a collection of human and animal neurological diseases that were transmissible. In humans, prion disease is one of the rarest neurological diseases and includes Creutzfeldt-Jacob disease, Gerstmann-Straussler-Scheinker Syndrome, and fatal familial insomnia. Animal prion diseases include scrapie in sheep and goats, bovine-spongiform encephalopathy, and transmissible mink encephalopathy. All of these diseases are caused by the misfolding of a cellular prion protein to produce an abnormal protein that accumulates. Disease transmission occurs when the abnormal protein enters a new host, interacts with the cellular prion protein, and induces a conformation change that propagates throughout the nervous system. The course will review seminal research publications that uncovered these novel disease mechanism as well as more recent research that has demonstrated the prion-like features of many more common neurodegenerative diseases, including Alzheimer's disease and amyotrophic lateral sclerosis.

Relation to Program Outcomes:

Understanding the molecular basis for neurologic disease is a fundamental component of the Neuroscience Program.

Course Objectives and/or Goals:

Upon completion of this course, students will have a historical perspective of the research publications that revealed the biology of prion diseases and an appreciation of the parallels between prion disease and more common neurodegenerative diseases.

Instructional Methods:

Initially, in the first module, the students will have assigned reading consisting of original research paper selected by the course directors. The course directors will moderate group discussions of the paper. Students will be expected to be able to explain the results presented and engage in discussion on the significance of the study. In the second module, students will consult with course directors to select recent publications for discussion. Students will prepare a powerpoint presentation to present the critical aspects of the paper and direct discussion.

Blended Learning:

What is blended learning and why is it important?

A Blended Learning class uses a mixture of technology and face-to-face instruction to help you maximize your learning. Knowledge content that, as the instructor, I would have traditionally presented during a live class lecture is instead provided online before the live class takes place. This lets me focus my face-to-face teaching on course activities designed to help you strengthen higher order thinking skills such as critical thinking, problem solving, and collaboration. Competency in these skills is critical for today's health professional.

What is expected of you?

You are expected to actively engage in the course throughout the semester. You must come to class prepared by completing all out-of-class assignments. This preparation gives you the knowledge or practice needed to engage in higher levels of learning during the live class sessions. If you are not prepared for the face-to-face sessions, you may struggle to keep pace with the activities occurring in the live sessions, and it is unlikely that you will reach the higher learning goals of the course. Similarly, you are expected to actively participate in the live class. Your participation fosters a rich course experience for you and your peers that facilitates overall mastery of the course objectives.

Description of Course Content:

Topical Outline/Course Schedule

Week	Date(s)	Topic(s)	Readings
1	1/23/2023	Introduction to Prions	As assigned
2	1/30/2023	Paper Discussion	As assigned
3	02/06/2023	Paper Discussion	As assigned
4	02/13/2023	Paper Discussion	As assigned
5	02/20/2023	Paper Discussion	As assigned
6	02/27/2023	Paper Discussion	As assigned
7	03/06/2023	Paper Discussion	As assigned
8	03/20/2023	Paper Discussion	As assigned
9	03/27/2023	Paper Discussion	As assigned
10	04/03/2023	Paper Discussion	As assigned
11			
12			
13			
14			
15			

Course Materials and Technology:

For technical support for this class, please contact the UF Help Desk at:

- Learning-support@ufl.edu
- (352) 392-HELP - select option 2
- [UF eLearning](#)

Academic Requirements and Grading:

Assignments:

Each student is expected to present at least one paper during the semester and actively participate in the discussion every week. Student presenters will be selected by the instructor.

Grading:

Satisfactory/Unsatisfactory. Grades will be determined based on class attendance and participation in paper discussions.

More information on UF grading policy may be found at:

<http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#grades>

Exam Policy:

No Exam

Policy Related to Make up Exams or Other Work

Please note: Any requests for make-ups due to technical issues MUST be accompanied by the UF Computing help desk (<http://helpdesk.ufl.edu/>) correspondence. You MUST e-mail me within 24 hours of the technical difficulty if you wish to request a make-up.

Policy Related to Required Class Attendance:

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Excused absences must be consistent with university policies in the Graduate Catalog (<http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#attendance>). Additional information can be found here:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Student Expectations, Roles, and Opportunities for Input:

Expectations Regarding Course Behavior:

Communication Guidelines:

Academic Integrity:

Students are expected to act in accordance with the University of Florida policy on academic integrity. As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge:

“We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.”

You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied:

“On my honor, I have neither given nor received unauthorized aid in doing this assignment.”

It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For additional information regarding Academic Integrity, please see Student Conduct and Honor Code or the Graduate Student Website for additional details:

<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>

<http://gradschool.ufl.edu/students/introduction.html>

Please remember cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.

Online Faculty Course Evaluation Process:

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at

<https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

Policy Related to Guests Attending Class:

Only registered students are permitted to attend class. However, we recognize that students who are caretakers may face occasional unexpected challenges creating attendance barriers.

Therefore, by exception, a department chair or his or her designee (e.g., instructors) may grant a student permission to bring a guest(s) for a total of two class sessions per semester. This is two sessions total across all courses. No further extensions will be granted. Please note that guests are **not** permitted to attend either cadaver or wet labs. Students are responsible for course material regardless of attendance. For additional information, please review the [Classroom Guests of Students policy](#) in its entirety.

Support Services:

Accommodations for Students with Disabilities:

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center by visiting <https://disability.ufl.edu/students/get-started/>. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester. The College is committed to providing reasonable accommodations to assist students in their coursework.

Counseling and Student Health:

Students sometimes experience stress from academic expectations and/or personal and interpersonal issues that may interfere with their academic performance. If you find yourself facing issues that have the potential to or are already negatively affecting your coursework, you are encouraged to talk with an instructor and/or seek help through University resources available to you.

- The Counseling and Wellness Center 352-392-1575 offers a variety of support services such as psychological assessment and intervention and assistance for math and test anxiety. Visit their web site for more information: <http://www.counseling.ufl.edu>. On line and in person assistance is available.
- You Matter We Care website: <http://www.umatter.ufl.edu/>. If you are feeling overwhelmed or stressed, you can reach out for help through the You Matter We Care website, which is staffed by Dean of Students and Counseling Center personnel.
- The Student Health Care Center at UF Health is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at UF Health offers a variety of clinical services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the web site at: <https://shcc.ufl.edu/>
- UF Health Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32698, ufhealth.org/emergency-room-trauma-center.
- University Police Department: Visit police.ufl.edu/ or call 352-392-1111 (or 9-1-1 for emergencies).

- Crisis intervention is always available 24/7 from:

Alachua County Crisis Center:

(352) 264-6789

<http://www.alachuacounty.us/DEPTS/CSS/CRISISCENTER/Pages/CrisisCenter.aspx>

Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.

Academic Resources

E-learning technical support: Contact the UF Computing Help Desk at 352-392-4357 or via e-mail at helpdesk@ufl.edu.

Career Connections Center: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services career.ufl.edu/.

Library Support: cms.uflib.ufl.edu/ ask various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center: Broward Hall 352-392-2010 or to make an appointment 352 392-6420. General study skills and tutoring. teachingcenter.ufl.edu/

Writing Studio: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers. writing.ufl.edu/writing-studio/

Student Complaints On-Campus: sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/

On-Line Students Complaints: distance.ufl.edu/student-complaint-process