



CURSO DE POSTGRADO

Cellular and Molecular Mechanisms of Disease (Mecanismos Celulares y Moleculares de Enfermedad)

Nombre Curso

SEMESTRE

1°

AÑO

2018

PROF. ENCARGADO

Juan Cristobal Maass Oñate

13.769703-3

PROF. COORD.

Manuel Kukuljan Padilla

9.080.701-3

Nombre Completo

Cédula Identidad

Programa Fisiología y Biofísica, ICBM, FM, UCH

UNIDAD ACADÉMICA

TELÉFONO

29786080

E-MAIL

jcmaass@yahoo.com

TIPO DE CURSO

Seminarios Bibliográficos

(Básico, Avanzado, Complementario, Seminarios Bibliográficos, Formación General)

| | |
|------------|---------|
| CLASES | 0 HRS. |
| SEMINARIOS | 32 HRS. |
| PRUEBAS | 0 HRS. |
| TRABAJOS | 30 HRS. |

| | |
|--------------------------|-----|
| Nº HORAS PRESENCIALES | 032 |
| Nº HORAS NO PRESENCIALES | 096 |
| Nº HORAS TOTALES | 128 |

CRÉDITOS

4

(1 Crédito Equivale a 30 Horas Semestrales)

CUPO ALUMNOS

6

15

(Nº mínimo)

(Nº máximo)

PRE-REQUISITOS

Alumnos del PDCBM y PDCM; se dará prioridad a estudiantes de 1º año

INICIO

4 de Abril 2018

TERMINO

18 de Julio 2018

DIA/HORARIO
POR SESION

Viernes de 14 a 16 hrs.

DIA / HORARIO
POR SESION

LUGAR

Auditorio Dr Luis Figueroa, 2º piso, Escuela de Postgrado, Pabellón F, FM, UCH

Metodología

Seminarios

(Clases, Seminarios, Prácticos)

Evaluación (Indicar % de cada evaluación)

La evaluación es efectuada por el profesor del curso, sobre la base de la participación y desempeño durante las 16 sesiones, además de evaluación de ensayos en la temática y estilo del curso. Todos los estudiantes participan, dirigidamente, en la discusión de cada semana. El seminario está destinado a estudiantes de doctorado.

PROFESORES PARTICIPANTES (INDICAR UNIDADES ACADÉMICAS)

Antonello Penna MDPHd, Departamento de Anestesiología, FM, UCH
Lorena Tapia MDPHd, Programa de Virología ICBM y Departamento de Pediatría Norte, FM, UCH
Luis Michea MDPHd, Programa Fisiología y Biofísica, ICBM, FM, UCH
Pablo Gaspar MDPHd, Departamento de Neurociencias y Psiquiatría y Salud mental, FM, UCH
Manuel Kukuljan MDPHd, Departamento de Neurociencias FM, UCH
Gonzalo Farias MDPHd, Departamento de Neurología, FM, UCH
Juan C Maass MDPHd, Programa Fisiología y Biofísica, ICBM y Departamento de Otorrinolaringología FM, UCH
Nicolás Crisosto MDPHd, Departamento de Medicina Interna Occidente FM, UCH
Luis Toro MDPHd, Departamento de Medicina Interna Norte FM, UCH
Felipe Salech MDPHd, Departamento de Medicina Interna Norte FM, UCH
Diego Reyes MDPHd, Departamento de Urología Norte FM, UCH
Yalda Lucero MDPHd, Departamento de Pediatría Norte FM, UCH

DESCRIPCIÓN

This bibliographic seminar is one of the most traditional courses dictated by this graduate school and it has been oriented to discuss cellular and molecular mechanisms involved in the generation of disease and their applicability to the clinical practice. In this version of the course, the scope of the discussion has been also increased towards systemic and behavioral aspects of disease. During the seminar recent high impact scientific papers will be discussed emphasizing the integration of the discussed topic into the broader clinical and biologic context, the detailed comprehension of the experimental design and methods used and its relevance. On every session students with different backgrounds will be explicitly encouraged to participate and contribute to the comprehension of the paper. The discussion of the papers will be in English.

The papers are chosen weekly considering impact, completion of research, relevance as paradigm to comprehend disease production or prevalence as selection criteria.

Examples of papers discussed in previous years:

Singer et al., Targeting BACE1 with siRNAs ameliorates Alzheimer disease neuropathology in a transgenic model. Nature Neuroscience. 8:1343-9, 2005.

Wu et al. Hypomethylation-linked activation of PAX2 mediates tamoxifen-stimulated endometrial carcinogenesis. Nature 438:981-7, 2005.

OBJETIVOS

To discuss and comprehend the most remarkable cellular and molecular mechanisms of disease and the translation this knowledge into the clinical practice.

CONTENIDOS / TEMAS

Mechanisms of disease in Neurologic, Infectious, Psychiatric, Degenerative, Metabolic, Nutritional, Hormonal, Age related diseases and Cancer. Also we will review some aspects related to Gene Therapy, Regenerative Medicine, Genomics, Immunology and Translational Medicine.

BIBLIOGRAFÍA BÁSICA

How to read a scientific paper (Adam Ruben)

<http://www.sciencemag.org/careers/2016/01/how-read-scientific-paper>

How to (seriously) read a scientific paper (Elisabeth Pain)

<http://www.sciencemag.org/careers/2016/03/how-seriously-read-scientific-paper>

How to Prepare an Outstanding Journal Club Presentation (Rishi Sawhney)

<http://www.hematology.org/Thehematologist/Features/1308.aspx>

How to give a paper presentation (J DiCarlo and N Kanwisher)

https://ocw.mit.edu/courses/brain-and-cognitive-sciences/9-916-the-neural-basis-of-visual-object-recognition-in-monkeys-and-humans-spring-2005/assignments/how_to_pres_pap.pdf

BIBLIOGRAFÍA RECOMENDADA

Subramanyam R. Art of reading a journal article: Methodically and effectively. *Journal of Oral and Maxillofacial Pathology* : JOMFP. 2013;17(1):65-70. doi:10.4103/0973-029X.110733.

How to Read and Present a Scientific Paper (Jiri Srba)

<http://people.cs.aau.dk/~hans/Dat5/slides.pdf>

CALENDARIO DE ACTIVIDADES

(A continuación señalar : Descripción de la actividad, fechas, horas presenciales y no presenciales y Profesores a cargo)

| FECHA | HORAS PRESENCIALES | HORAS NO PRESENCIALES | DESCRIPCION ACTIVIDAD | PROFESOR |
|------------|--------------------|-----------------------|--|----------|
| 06/04/2018 | 2 | 6 | Introduction to the methodology of the course | JCM |
| 13/04/2018 | 2 | 6 | Gene Therapy | JCM |
| 20/04/2018 | 2 | 6 | General cellular and Molecular Mechanisms of Disease | MK |
| 27/04/2018 | 2 | 6 | Gastrointestinal Diseases | YL |
| 04/05/2018 | 2 | 6 | Dementia and biomarkers | GF |
| 11/05/2018 | 2 | 6 | Perioperative cognitive impairment | AP |
| 18/05/2018 | 2 | 6 | Translational medicine in hipertension | LM |
| 25/05/2018 | 2 | 6 | Acute Kidney Injury | LTo |
| 01/06/2018 | 2 | 6 | Sensory systems | JCM |
| 08/06/2018 | 2 | 6 | Viral mechanisms and viral genome | LTa |
| 15/06/2018 | 2 | 6 | Mechanisms of Cancer | MK |
| 22/06/2018 | 2 | 6 | Psychosis | PG |
| 29/06/2018 | 2 | 6 | Cancer Immune therapy | DR |
| 06/07/2018 | 2 | 6 | Hormonal and metabolic disease | NC |
| 13/07/2018 | 2 | 6 | Biology of aging and delirium | FS |
| 20/07/2018 | 2 | 6 | Closure Activity | JCM |