

**33205. Therapeutic Targets in Neuropsychopharmacology (coordinator: Prof Manuela Garcia Lopez [manuela.garcia@uam.es](mailto:manuela.garcia@uam.es))**

Classes will take place at Seminar XIV

Hour	Monday-17 February	Tuesday- 18 February	Wednesday-19 February	Thursday-20 February	Friday-21 February
10-11	<b>10:30h</b> <b>General instructions to the subject</b> <i>Prof. Manuela G. López</i> <i>Coordinator</i>	<b>Action potential</b>  <i>Prof. Jesús Hernández Guijo</i> <i>Dept. Pharmacology-UAM</i>	<b>Release of neurotransmitters by exocytosis</b>  <i>Prof. Almudena Albillos</i> <i>Dept. Pharmacology-UAM</i>	<b>Endoplasmic reticulum and mitochondrial calcium: contribution to cellular death</b>  <i>Prof. María F. Cano-Abad</i> <i>Dept. Pharmacology-IFTH-UAM</i>	<b>–INTERACTIVE ACTIVITY</b> therapeutic targets for NPP (see order of presentation below)  3 students
11-12	<b>General concepts on the organization of the CNS</b>  <i>Prof. Miguel Garzón</i> <i>Dept. Anatomy-UAM</i>	<b>Sodium and Potassium Channels</b>  <i>Prof. Jesús Hernández-Guijo</i> <i>Dept. Pharmacology-UAM</i>	<b>Electrical activity in neuronal circuits: LTP de basis of memory</b>  <i>Prof. David Fernández Sevilla</i> <i>Dept. Anatomy-UAM</i>	<b>Nicotinic receptors as targets for neurological diseases</b>  <i>Prof. Luis Gandía</i> <i>Dept. Pharmacology-IFTH-UAM</i>	<b>–INTERACTIVE ACTIVITY-cont.</b> therapeutic targets for NPP  3 students
12-13	<b>General concepts on the organization of the CNS</b>  <i>Prof. Miguel Garzón</i> <i>Dept. Anatomy-UAM</i>	<b>Calcium Channels</b>  <i>Prof. Luis Gandía</i> <i>Dept. Pharmacology-IFTH-UAM</i>	<b>Calcium channels: modulation</b>  <i>Prof. Jesús Hernández-Guijo</i> <i>Department Pharmacology-UAM</i>	<b>Calcium homeostasis and drug repurposing</b>  <i>Prof. Adrian Girona Martínez</i> <i>Dept. Pharmacology-UAM</i>	<b>–INTERACTIVE ACTIVITY-cont.</b> therapeutic targets for NPP  3 students
13-14	<b>Main sensorial and motor systems</b>  <i>Prof. Miguel Garzón</i> <i>Dept. Anatomy-UAM</i>				<b>–INTERACTIVE ACTIVITY-cont.</b> therapeutic targets for NPP  3 students

**33205. Therapeutic Targets in Neuropsychopharmacology (coordinator: Prof Manuela Garcia Lopez [manuela.garcia@uam.es](mailto:manuela.garcia@uam.es))**

Classes will take place at Seminar XIV

Hour	Monday-24 February	Tuesday- 25 February	Wednesday- 26 February	Thursday-27 February	Friday-28 February
10-11	<p><b>Glia and cerebral function</b></p> <p><i>Prof. MD Martin de Saavedra Universidad Complutense de Madrid</i></p>	<p><b>Common mechanisms in neurodegenerative diseases</b></p> <p><i>Prof. Jordi Matias-Guiu Antem Hospital San Carlos</i></p>	<p><b>Multiple sclerosis: physiopathology and treatment</b></p> <p><i>Prof. Celia Oreja-Guevara Servicio Neurología Hospital San Carlos</i></p>	<p><b>Drug development in Amyotrophic lateral Sclerosis</b></p> <p><i>Prof. Ana Martínez Centro de Investigaciones Biológicas-CSIC</i></p>	<p><b>Parkinson's disease: new therapeutic strategies</b></p> <p><i>Prof. Isabel Lastres-Becker Department Biochemistry-UAM</i></p>
11-12	<p><b>Neuroinflammation and its implication in neurodegeneration</b></p> <p><i>Prof. Ana I. Rojo Department Biochemistry-UAM</i></p>	<p><b>How genomics and transcriptomics have contributed to our knowledge in neurodegenerative diseases.</b></p> <p><i>Prof. Elisa Navarro UCM</i></p>	<p><b>Friedreich's ataxia: novel therapeutic targets</b></p> <p><i>Prof. Saul Herranz Universidad Complutense de Madrid</i></p>	<p><b>Stem cells to treat neurodegenerative diseases.</b></p> <p><i>Prof. José A Morales García Universidad Complutense de Madrid</i></p>	<p><b>Deciphering the vascular component of Alzheimer's disease</b></p> <p><i>Prof. Marta Cortés. CNIC and Fundación Jimenez Díaz</i></p>
12-13	<p><b>Oxidative stress and neuronal pathology</b></p> <p><i>Prof. Antonio Cuadrado Department Biochemistry-UAM</i></p>	<p><b>Biomarkers in neurodegenerative diseases</b></p> <p><i>Prof. Marta del Campo Universidad CEU Barcelona Beta Brain Research Center.</i></p>	<p><b>Perception of pain</b></p> <p><i>Prof. Javier de Andrés Unidad de Dolor-Hospital la Paz</i></p>	<p><b>The retina as a model for neuroprotective research in Central Nervous System pathologies</b></p> <p><i>Prof. Elena Salobar García Martín Instituto de Investigaciones Oftalmológicas Ramón Castroviejo. UCM</i></p>	<p><b>Group Presentation (supervision: Prof. Manuela Garcia Lopez)</b></p> <p><b><u>SESSION II: Parkinson's disease: In vitro and in vivo models</u></b></p> <p><b>(3 STUDENTS)-</b> Approaches and experimental models to develop drugs for PD</p>
4 pm		<p><i>Seminar Prof. Andrey Y Abramov (Library Dept. Pharmacology)</i></p>			

**33205. Therapeutic Targets in Neuropsychopharmacology (coordinator: Prof Manuela Garcia Lopez [manuela.garcia@uam.es](mailto:manuela.garcia@uam.es))**

Classes will take place at Seminar XIV

Hour	Monday-3 March	Tuesday- 4 March	Wednesday- 5 March	Thursday-6 March	Friday-7 March
10-11	<p><b>Therapeutic strategies in Alzheimer's disease</b></p> <p><i>Prof. Manuela G<sup>a</sup> López- Dept. Pharmacology-IFTH- UAM</i></p>	<p><b>Stroke IV: Pharmacological basis and therapeutic strategies</b></p> <p><i>Prof. Blanca Fuentes Servicio de Neurología. Hospital la Paz</i></p>	<p><b>Optimising animal models of schizophrenia-related alterations for antipsychotic drug development</b></p> <p><i>Prof. Alejandro Higuera Matas UNED</i></p>	<p><b>Depression: molecules, circuits and pharmacological treatment</b></p> <p><i>Prof. Pilar López García Dept. Psychiatry UAM</i></p>	
11-12	<p><b><u>Group presentation supervision: Prof. Manuela Garcia Lopez</u></b></p> <p><b><u>SESSION I Alzheimer's: In vitro and in vivo models</u></b></p> <p><b>Group Presentation (3 STUDENTS)-</b> Approaches and experimental models to develop drugs for AD</p>	<p><b>ApTOLL: from bench to bedside</b></p> <p><i>Prof. Macarena Hernández Jiménez Universidad Complutense de Madrid</i></p>	<p><b>Dendritic plasticity and neuropsychiatric disorders.</b></p> <p><i>Prof. MD Martin de Saavedra Universidad Complutense de Madrid</i></p>	<p><b>Schizophrenia: neurobiological basis and pharmacological treatment</b></p> <p><i>Prof. Pilar Lopez Garcia Dept. Psychiatry UAM</i></p>	
12-13		<p><b>Group Presentation (supervision: Prof. Manuela Garcia Lopez)</b></p> <p><b><u>SESSION III: Stroke</u></b></p> <p><b>(3 STUDENTS)-:</b> Approaches and experimental models to develop drugs for stroke</p>	<p><b>Autism Spectrum Disorders: molecular mechanisms and treatment</b></p> <p><i>Prof. MD Martin de Saavedra Universidad Complutense de Madrid</i></p>	<p><b>Recent advances and challenges in spinal cord injury treatment</b></p> <p><i>Prof. Juliana M. Rosa Neuronal Circuits and Behaviour Lab Hospital Nacional de Paraplégicos. Toledo</i></p>	
13-14		<p><b>Group Presentation (supervision: Prof. Manuela Garcia Lopez)</b></p> <p><b><u>SESSION IVALS: In vitro and in vivo models</u></b></p> <p><b>(3 STUDENTS)-</b> Approaches and experimental models to develop drugs for ALS</p>			

**33205. Therapeutic Targets in Neuropsychopharmacology (coordinator: Prof Manuela Garcia Lopez [manuela.garcia@uam.es](mailto:manuela.garcia@uam.es))**  
**Classes will take place at Seminar XIV**

Hour	Monday-10 March	Tuesday-11 March	Wednesday- 12 March	Thursday-13 March	Friday-14 March
9-10	<b>Individual Presentations:</b>  Student Presentation 1 (15+10 min)  Student Presentation 2 (15+10 min)				
10-11	Student Presentation 3 (15+10 min)  Student Presentation 4 (15+10 min)	<b>Individual Presentations:</b>  Student Presentation 7 (15+10 min)  Student Presentation 8 (15+10 min)			
11-12	Student Presentation 5 (15+10 min)  Student Presentation 6 (15+10 min)	Student Presentation 9 (15+10 min)  Student Presentation 10 (15+10 min)			
12-13		Student Presentation 11 (15+10 min)  Student Presentation 12 (15+10 min)			

**Interactive Sessions 21<sup>st</sup> February**

Name		TARGET	Disease
Martina	Bruno	Inflammation	Depression
Emma	Downes	Tau protein	Alzheimer
Agnes	Gaidosch	NRF2 transcription factor	Frontotemporal dementia
Berta María	García López-Cano	CSF-1	Parkinson
Xinyan	Li	Neurotrophic factors	Huntington's disease
Leah	Luna Juez	Purinergic receptors	Amyotrophic Lateral Sclerosis
Elena	Martínez Cuevas	NLRP3	Traumatic brain injury
Elena	Mconnachie	GLP1 receptor agonist	Alzheimer
Ariadna	Pérez Pérez	NMDA receptors	Depression
Marta	Piñeiro Pérez	Nicotinic receptors	Parkinson
Alba	Porta Roca	NLRP3	Traumatic brain injury
Irene	Vivar García	Ferroptosis	Parkinson

**Group Presentations:**

Date			students
<b>GROUP I</b> 28th February	<b>SESSION I</b>	<b>Models for Alzheimer's disease</b>	Elena
			Elena
			Ariadna
Date			
<b>GROUP II</b> 3rd March	<b>SESSION II</b>	<b>Models for Parkinson's</b>	Martina
			Emma
			Agnes
Date			
<b>GROUP III</b> 3rd March	<b>SESSION III</b>	<b>Models for ALS</b>	Berta María
			Xinyan
			Leah
Date			
<b>GROUP IV</b> 4th March	<b>SESSION IV</b>	<b>Models for Stroke</b>	Marta
			Alba
			Irene


