

LABORATORY ANIMAL SCIENCE

15th Edition | January 27 - February 7, 2020

WEEK 1

Day	Start	End	Theme	Teaching Staff	Modules	Room
27-01-2020	09:00	09:30	LAS 2020 - Course Opening	M. Castelhana-Carlos, M. Correia-Neves e A. Miranda		G2.02
	09:30	10:30	History of animal use, ethics and the 3Rs (part1)	N. Franco and M. Castelhana-Carlos	2	G2.02
	10:45	12:00	History of animal use, ethics and the 3Rs (part1)	N. Franco and M. Castelhana-Carlos	2	G2.02
	12:00	13:00	History of animal use, ethics and the 3Rs (part2)	N. Franco	2	G2.02
	14:00	15:30	Harm-benefit analysis, severity classification and culture of care	N. Franco	2	G2.02
	15:30	16:45	Basic biology of rodents	A. Miranda	3.1 and 23	G2.02
	17:00	18:00	Group tasks (introduction)	M. Castelhana-Carlos, M. Correia-Neves e A. Miranda	10 and 11	G2.02
28-01-2020	09:00	10:15	Good welfare - Good Science: the influence of husbandry and care on experimental outcome	V. Baumans	3.1 and 23	G2.02
	10:30	11:45	Refinement of experimental procedures	V. Baumans	3.1 and 7	G2.02
	11:45	13:00	Health status and animal facility barriers	L. Tavares	4 and 23	G2.02
	14:00	15:00	Handling restraint and identification	M. Castelhana-Carlos	4	G2.02
	15:00	16:00	Human health hazards and safe practices in the animal facilities	S. Pereira	4.13	G2.02
	15:00	17:30	Handling rodents (practical, Group A)	A. Miranda, B. Coimbra,A. Carvalho, M. Castelhana-Carlos and S. Silva	3.2	Lab 12.04
			Project preparation /selfstudy (Group B)	M. Correia-Neves	10 and 11	G2.02
18:30	19:00	Project preparation /selfstudy	M. Correia-Neves	10 and 11	G2.02	
29-01-2020	09:00	09:45	Health monitoring and diseases of lab animals	A. Miranda	4 and 23	G2.02
	09:45	10:30	Recognition of pain, suffering and distress	A. Miranda	5	G2.02
	10:45	11:45	Husbandry routines and animal welfare	M. Castelhana-Carlos	4 and 23	G2.02
	11:45	13:00	National Legislation	A. P. Martins and M. Castelhana-Carlos	1	G2.02
	14:00	15:15	National and international legal issues	A. P. Martins and M. Castelhana-Carlos	1 and 11	G2.02
	15:30	18:00	Handling rodents (practical, Group B)	A. Miranda, B. Coimbra,A. Carvalho, M. Castelhana-Carlos and S. Silva	3.2	Lab 12.04
			Project preparation /selfstudy (Group A)	M. Correia-Neves	10 and 11	G2.02
18:00	19:00	Project preparation /selfstudy	M. Correia-Neves	10 and 11	G2.02	
30-01-2020	09:00	10:00	Minimally invasive procedures - administration of substances (theory)	M. Castelhana-Carlos	7	A2.07
	10:15	11:00	Demo administration of substances and surgical instrument (Group A)	A. Miranda and M. Castelhana-Carlos	8	Lab 12.04
	11:00	13:00	Practical administration of substances, dosing and suture (Group A)	A. Miranda, B. Coimbra,A. Carvalho, M. Castelhana-Carlos and S. Silva	8	Lab 12.04
	10:15	13:00	Project preparation /selfstudy	M. Correia-Neves	10 and 11	A2.07
	14:00	15:30	Breeding and management of genetically altered animals	P. Maciel	4 and 23	G2.02
	15:30	16:15	Demo administration of substances and surgical instrument (Group B)	A. Miranda and M. Castelhana-Carlos	8	Lab 12.04
	15:45	17:45	Practical administration of substances, dosing and suture (Group B)	A. Miranda, B. Coimbra,A. Carvalho, M. Castelhana-Carlos and S. Silva	8	Lab 12.04
	15:30	18:15	Project preparation /selfstudy (Group A)	M. Correia-Neves	10 and 11	G2.02
18:15	19:00	Project preparation /selfstudy	M. Correia-Neves	10 and 11	G2.02	
31-01-2020	09:00	10:30	Design of procedures and projects (level 1) - part I	P. Costa and H. Almeida	10	A2.06
	10:45	13:00	Design of procedures and projects (level 1) - part II	P. Costa and H. Almeida	10	A2.06
	14:00	15:30	Principles and techniques of Surgery and Microsurgery	M. Castelhana-Carlos	22	G2.02
	15:30	16:30	Welfare assessment	A. Miranda	11	G2.02
	16:30	17:30	Project preparation /selfstudy (week 1 general discussion)	M. Correia-Neves, M. Castelhana-Carlos and A. Miranda	10 and 11	G2.02
	17:30	19:00	Project preparation /selfstudy	M. Correia-Neves	10 and 11	G2.02

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WEEK 2

Day	Start	End	Theme	Teaching Staff	Modules	Room
03-02-2020	09:00	10:15	Minimally invasive procedures - sampling of biological fluids and tissues (theory)	M. Castelhana-Carlos	7	A2.09
	10:30	12:30	Study design and Statistics	P. Costa and H. Almeida	11	A2.08
	14:00	16:15	Sampling (practical) and necropsy demonstration (Group A)	A. Miranda, B. Coimbra, A. Carvalho, M. Castelhana-Carlos and S. Silva	8 and 6.2	Lab 12.04
			Project preparation / selfstudy (Group B)	M. Correia-Neves	10 and 11	A2.09
	16:30	19:00	Project preparation / selfstudy	M. Correia-Neves	10 and 11	A2.09
04-02-2020	09:00	11:00	Ethics, animal welfare and the 3Rs (level 2)	N. Franco and M. Castelhana-Carlos	9	A2.09
	11:00	12:00	Human methods of killing	M. Correia-Neves	6.1	A2.09
	12:00	13:00	Colony management and genetic drifting	T. de La Cueva Bueno (Charles River seminar)	23	A0.03
	14:00	15:30	Anaesthesia for minor procedures in rodents	A. Miranda	20	A2.09
	15:30	17:45	Sampling (practical) and necropsy demonstration (Group B)	A. Miranda, B. Coimbra, A. Carvalho, M. Castelhana-Carlos and S. Silva	8 and 6.2	Lab 12.04
			Project preparation / selfstudy (Group A)	M. Correia-Neves	10 and 11	A2.09
17:45	19:00	Project preparation /selfstudy	M. Correia-Neves	10 and 11	A2.09	
05-02-2020	09:00	10:30	Implementing the 3Rs and using alternatives	M. Castelhana-Carlos	11	A2.09
	10:45	12:00	GLP and the ARRIVE guidelines	M. Correia-Neves	11	A2.09
	12:00	13:00	Animal facilities Manual	M. Castelhana-Carlos	11	A2.09
	14:00	15:00	Project preparation / selfstudy (week 2 general discussion)	M. Correia-Neves, M. Castelhana-Carlos and A. Miranda	10 and 11	A2.09
	15:00	19:00	Project preparation / selfstudy	M. Correia-Neves	10 and 11	A2.09
06-02-2020	09:00	10:00	Visit to the Central Animal Facility (Group A)	M. Castelhana-Carlos and A. Miranda	11	UBiot
	10:15	11:15	Visit to the Central Animal Facility (Group B)	M. Castelhana-Carlos and A. Miranda	11	UBiot
	11:15	13:00	Preparation for examination (general discussion)	M. Correia-Neves, M. Castelhana-Carlos and A. Miranda	ALL	A2.09
	14:00	15:00	Preparation for examination	M. Correia-Neves	ALL	A2.09
	15:00	17:00	Examination	M. Correia-Neves, M. Castelhana-Carlos and A. Miranda	ALL	A2.08
	17:20	19:00	Project preparation/selfstudy	M. Correia-Neves	10 and 11	A2.08
07-02-2020	13:30	17:00	Project presentation and discussion	M. Correia-Neves, M. Castelhana-Carlos, A. Miranda, C. Nóbrega, P. Barreira-Silva	10 and 11	A2.07
	17:00	17:30	Course evaluation	M. Correia-Neves, M. Castelhana-Carlos and A. Miranda	ALL	A2.07

WEEK 3-6

For the students enrolled in the MSc and PhD programs of the School of Medicine the course will have 4 additional weeks (from February 10th to March 6th).

Day	Start	End	Theme	Teaching Staff	Modules	Room
14-02-2020	10:00	12:30	Seminar	M. Correia-Neves, M. Castelhana-Carlos and A. Miranda	3, 7, 8, 9, 10, 11	A2.09
21-02-2020	10:00	12:30	Seminar	M. Correia-Neves, M. Castelhana-Carlos and A. Miranda	3, 7, 8, 9, 10, 11	A2.09
28-02-2020	10:00	12:30	Seminar	M. Correia-Neves, M. Castelhana-Carlos and A. Miranda	3, 7, 8, 9, 10, 11	A2.09
06-03-2020	10:00	12:30	Seminar	M. Correia-Neves, M. Castelhana-Carlos and A. Miranda	3, 7, 8, 9, 10, 11	A2.09