

Master of Science in Molecular Life Sciences - Autumn 2023 -

<u>TEACHING</u>	<u>ABBREVIATION</u>	<u>RESPONSIBLE</u> Teaching Staff	<u>ROOM</u>	<u>HOURS</u>	Other
<u>COMPULSORY COURSES (MODULE 1)</u>					
Retreat MSc MLS		Benton R.	19.09.2023, from 09:00am, outside UNIL (Leysin)		
Data Analysis		Bergmann S.	BIO/Amphi	8 C + 8 E	BEC
Sequence a Genome I, II	SAGE I, II	Engel P., tutors	POL/201 except 15.12.23 : POL/319	36 C + 72 E	
Write a Review		Benton R., tutors	consult the responsible except 25.09. to 11.10.23 : POL/336	15h 42h	
Critical Readings of Scientific Literature (14 x 4 hours)				56h	
First Step Project		all PIs		250h	
<u>OPTIONAL COURSES (MODULE 3)</u>					
Biotechnology	BIOTECH	Poirier Y., Resch G., vacat	POL/319	18 C	
Chromosome Organization and Dynamics	COD	Gruber S.	POL/336 except 24.11 and 01.12.23 : Lab S. Gruber	6 C + 3 E + 8 PW	
CRISPR-Cas9 Genome Editing	CRISPR	van Leeuwen J.	POL/209,455,457 except 06.11. and 11.12.23 : POL/334	4 C + 4 E + 8 PW	
Development of the Nervous System	NERV	Braissant O.	POL/336	14 C	
Genomics, Proteomics and Quantitative Genetics	GEN	Franken P., Quadroni M., Marquis J., Gambetta M.C.	POL/336	21 C + 3 E	
Modeling of Plant Growth	MPG	Majda M.	POL/201	12 C + 12 E	
Molecular Mechanisms of Evolution	MME	Benton R., Geldner N.	POL/201	3 C + 12 E	BEC
Plant and Animal Domestication: From History to Molecular Mechanisms	PAD	Soyk S.	POL/336	12 C + 12 E	BEC
Plant Functional Genetics	PFG	Poirier Y.	POL/334	14 C	
Proteins : from Structural Determination to Molecular Dynamic Simulations	PSD	Santiago Cuellar J., Zoete V., Roehrig U., Cuendet M.	POL/201	12 C + 12 E	
Scientific Research in all its Forms for Biology (Sciences2 - in French only)	SRF	Preissmann D.	MAX/412	16 C	Sciences2
<u>SPECIALISATION "BIOINFORMATICS"</u>					
Advanced Data Analysis	ADA	Ciriello G.	BIO/Amphi except 24.11.23 : CUB/I	8 C + 8 PW	BEC
Theory and Practice in Gene Expression Analyses	TPGE	Gfeller D., Carmona S.	POL/334	4 C + 32 E	
Advanced Python Programming	APP	Salamin N.	POL/201	10 C + 18 E	BEC
<u>SPECIALISATION "MICROBIOLOGY"</u>					
Advanced Microbial Genetics	AMG	Collier J., Pelet S.	17 + 31.10.23 : POL/336 24.10.23 : POL/201 07.11.23 : POL/315.1	16 C	
Bacterial Genomes and Genome Evolution	BGG	van der Meer J.	POL/201	6 C + 10 E	
Bacterial Virulence and Pathogenesis	BVP	Greub G., Hauser P., Jacquier N.	Bugnon 48, level 5, room 502	12 C + 2 E	
Fungal Virulence and Pathogenicity	FVP	Lamoth F., Sanglard D., Hauser P.	Bugnon 48, level 5, room 502	10 C + 4 E	
Immunology and Infectious Diseases	IMMU	Roger T., Perreau M., Di Domizio J.	POL/202 except 14.11.23 : POL/336	16 C	
Mechanisms and Principles of Yeast Cell Biology	MPY	Vjestica A., Gasser S.	POL/319	14 C	
Microbes as Tools in Experimental Biology	EXP	Coste A., Ciuffi A.	Bugnon 48, level 5, room 502	8 C + 8 E	
Plant Interactions with Microbes and Insects	PMI	Keel C., Reymond P.	POL/201	14 C	
Viral Pathogenesis and Emerging Viruses	VPE	Ciuffi A., Gouttenoire J., Cagno V.	Bugnon 48, level 5, room 502	8 C + 8 E	
Virus-Host Interactions	VHI	Gouttenoire J.	POL/336	16 C	
Optional support : Introduction to R (Introduction to Data Analysis)		Schütz F.	GEN/C except 15.11.23 : BIO/Amphi	24 E	BSc2
Training in Animal Experimentation (RESAL Module 1)		Broillet M.-C.	From 11.12. to 20.12.23 : online except 11.12.23 - 15:15-16:00 : Bugnon, CHUV, Aud. A. Tissot		MSc MB (Dec-Feb)
Meeting of School of Biology : 19.09.2023			POL/D		All MSc
Introduction to Biological Security : 22.09.2023		Van Bemmelen M.	POL/D	2 C	All MSc

Schedule_start of lessons :

UNIL-Sorge : 08:00 - 09:00 - 10:15 - 11:15 - 12:15 - 13:15 - 14:15 - 15:15 - 16:15 - 17:15
Bugnon : 08:15 - 09:15 - 10:15 - 11:15 - 12:15 - 13:15 - 14:15 - 15:15 - 16:15 - 17:15

Building : BIO: Biophore MAX: Amphimax
 GEN: Genopode POL: Amphipôle

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WEEK 1: 18.09 to 22.09

	mo 18	tu 19	we 20	th 21	fr 22	
08:00	Jeûne Fédéral	Meeting SB	Retreat	SAGE I: UNIX I	Data Analysis (lecture; give exercises)	
10:15				<i>Second year students: Write a Fellowship Intro</i>		
12:15						
14:15					SAGE I: UNIX I	Intro Biological Security
16:15						
18:15						

WEEK 2: 25.09 to 29.09

	mo 25	tu 26	we 27	th 28	fr 29
08:00		SAGE I: UNIX II	Write a Review	SAGE I: Illumina assembly	Data Analysis (lecture; give exercises)
10:15	Write a Review				
12:15					Data Analysis (discussion)
14:15		SAGE I: UNIX II		SAGE I: Illumina assembly	
16:15					
18:15					

WEEK 3: 02.10 to 06.10

	mo 02	tu 03	we 04	th 05	fr 06
08:00		SAGE I: Illumina assembly	Write a Review	SAGE I: ONT assembly	Data Analysis (lecture; give exercises)
10:15	Write a Review				
12:15					Data Analysis (discussion)
14:15		SAGE I: Illumina assembly		SAGE I: ONT assembly	
16:15					
18:15					

WEEK 4: 09.10 to 13.10

	mo 09	tu 10	we 11	th 12	fr 13
08:00		SAGE I: ONT assembly	Write a Review	SAGE I: Genome annotation	Data Analysis (lecture; give exercises)
10:15	Write a Review				
12:15					Data Analysis (discussion)
14:15		SAGE I: Genome annotation		SAGE I: Genome annotation	
16:15					
18:15					

WEEK 5: 16.10 to 20.10

	mo 16	tu 17	we 18	th 19	fr 20
08:00	APP	AMG	BVP	BIOTECH	Intro to R
10:15		PSD			
12:15					
14:15		PAD	EXP	MPG	Data Analysis (discussion)
16:15		IMMU			
18:15			SRF		

WEEK 6: 23.10 to 27.10

	mo 23	tu 24	we 25	th 26	fr 27
08:00		IMMU	BVP	BIOTECH	Intro to R
10:15	MME				
12:15					
14:15		AMG	EXP	TPGE	BGG
16:15	APP	POL/201			
18:15			SRF		

WEEK 7: 30.10 to 03.11

	mo 30	tu 31	we 01	th 02	fr 03
08:00		AMG	BVP	BIOTECH	Intro to R
10:15	APP				
12:15					
14:15		IMMU	EXP	TPGE	VHI
16:15	MME	PAD			
18:15		POL/202	PMI	SRF	COD

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WEEK 8: 06.11 to 10.11

	mo 06	tu 07	we 08	th 09	fr 10
08:00					
10:15	MME	PSD	BVP	Intro to R	GEN
12:15					
14:15	APP	TPGE III	EXP	BGG	TPGE III
16:15	CRISPR	PMI	TPGE III		COD
18:15			SRF		

WEEK 9: 13.11 to 17.11

	mo 13	tu 14	we 15	th 16	fr 17
08:00	APP	IMMU	BIOTECH		GEN
10:15		PSD	FVP	NERV	MPY
12:15			Intro to R BIO/Amphi		
14:15	MME	TPGE IV	VPE	VHI	TPGE IV
16:15	PAD	PMI	TPGE IV	MPG	COD
18:15			SRF		

WEEK 10: 20.11 to 24.11

	mo 20	tu 21	we 22	th 23	fr 24
08:00					
10:15	MME	PSD	FVP	MPG	MPY
12:15			Intro to R		GEN
14:15	APP		VPE	NERV	ADA
16:15		PMI			CUB/I
18:15			SRF		COD

WEEK 11: 27.11 to 01.12

	mo 27	tu 28	we 29	th 30	fr 01
08:00	APP	SAGE II	FVP	SAGE II	ADA
10:15			PFG	Intro to R	COD
12:15					
14:15		SAGE II	VPE	SAGE II	
16:15	PAD				COD
18:15			SRF		

WEEK 12: 04.12 to 08.12

	mo 04	tu 05	we 06	th 07	fr 08
08:00					
10:15	PAD	SAGE II	FVP	SAGE II	ADA
12:15			PFG		
14:15	CRISPR	SAGE II	VPE	Intro to R	CRISPR
16:15				SAGE II	
18:15			SRF		Pour info: Remise BSc biol UNIL dès 17h

WEEK 13: 11.12 to 15.12

	mo 11	tu 12	we 13	th 14	fr 15
08:00					
10:15		SAGE II	PFG	SAGE II	ADA
12:15					
14:15		SAGE II		SAGE II	SAGE II (wrap-up apéro)
16:15	CRISPR				POL/319
18:15					

WEEK 14: 18.12 to 22.12

	mo 18	tu 19	we 20	th 21	fr 22
08:00					
10:15					
12:15					
14:15					
16:15					
18:15					