



Learning Agreement 04.10.2019

MASTER OF SCIENCE IN BIOLOGY - NEUROSCIENCES

16-715-435 (Matr.)

Mr.

Hess

Luca

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Coursework

Abbreviation	Title	Semester	Year	ECTS
BIO209	Discovering Statistics using R	spring	2020	6
BIO215	Evolution of Human Behaviour	fall	2019	2
BIO219	Biomedical Imaging and Scientific Visualization	spring	2020	2
BIO331	Frontiers in Animal Behaviour	fall	2019	2
BIO338	Introduction to Scientific Writing			
BIO388	Human Genetics	spring	2020	2
BIO392	Bioinformatics of Molecular Sequence Variations	fall	2019	6
Total				20

Research Program

Master's thesis months	12	60
BIO520 Integrated Knowledge in Biology		10
Amount of credit points to be obtained for the Master's program: Minimum 90		90



Master's thesis

Learning Behaviour and associated genetics in Zebrafish

In this thesis we try to find out whether zebrafish can be trained more efficiently by having them observe another fish perform the action in question. Thus we'll perform trials to assess the observational learning performance of the fishes (in various conditions). It has been shown in other research that male fish observing two others fight for dominance will show the transcriptome changes associating with winning such a fight, thus treat the weaker male as if they had won against them. We intend to see if transcriptome changes can also be observed after having a fish observe another perform a conditional food-fetching task. (Are "social genes" upregulated by this social eavesdropping?)

Start: 2019-10-14

End: 2020-11-27

Approximate assessment date: 2021-02-19 / Fast Track: no

Master's thesis supervisor:

Prof. Dr.
Neuhauss
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Institute of Molecular Life Sciences
Stephan
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Signatures:

The supervisor agrees to take responsibility for the thesis and to see it through all stages, from the initial planning to its completion.

Candidate

First name: **Luca**

Last name: **Hess**

Date:

Signed:

Supervisor of the Master's thesis

First name: **Stephan**

Last name: **Neuhauss**

Date:

Signed:

M.Sc. program coordinator

First name: **Esther**

Last name: **Stoeckli**

Date:

Signed:

Head of the Academic Support Office

First name: **Karin**

Last name: **Isler**

Date:

Signed:

Print out the PDF and obtain the approval and signatures of your thesis supervisor and the coordinator of your Master's program.
Prof. Dr. Esther Stoeckli, Institute of Molecular Life Sciences, esther.stoeckli@imls.uzh.ch

Bring the signed paper copy personally to the Academic Support Office (make an appointment by email):

Studienkoordination Fachbereich Biologie

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The final version of the Master's Thesis must be handed in to the Academic Support Office (hard copy and as PDF) Y13-J-01. Further copies are to be given to the supervisor and the Master's program coordinator.

Delivery date: 2020-11-27