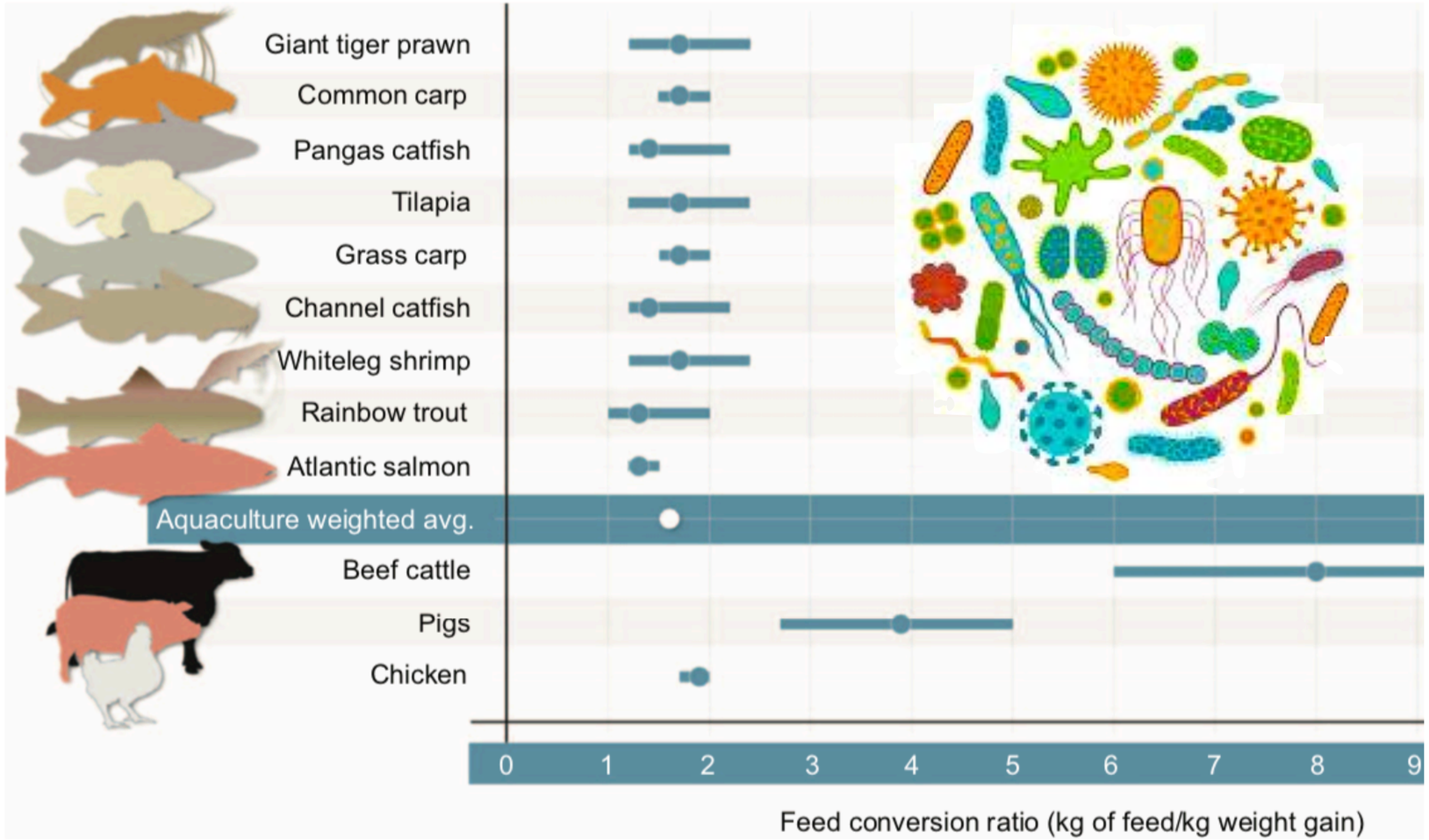

Topics of Microbiota in Animal Production

Summer School

Coordinator J.Romero

January, 10-17 th, 2022.

OBJECTIVES

Topics of Microbiota in Animal Production

Objective 01

To be able to describe the importance of the microbiota and health/nutrition in animals.

Objective 02

To be able to understand the experimental approaches to study microbiota.

Objective 03

To be able to analyze the impact of different factors on microbiota and the possible consequences to the animal production.

TABLE OF CONTENTS

Topics of Microbiota in Animal Production

1

Jan 10th

Microbiota/ Microbiome

Concepts; experimental approaches and general considerations

2

Jan 11th

Aquaculture fish

Impacts of microbiota in health and nutrition

3

Jan 12th

Aquaculture shellfish

Impacts of microbiota modulation on health status and nutrition/ growth

4

Jan 13th

Farm animals

Ingredients and additives and their effects on microbiota

5

Jan 14th

Ruminants

Diet supplementation and microbiota changes

6

Jan 17th

Projects

Oral PPT and discussion by Student Teams

January, 10-17 th, 2022.

ASSIGNMENT: PROJECTS BY TEAMS

Topics of Microbiota in Animal Production

Possible topics for projects

Aquaculture

Last advances in aquafeed modeling microbiota and its benefitial effects

Conversion

Microbiota and feed conversion

Ingredients

New ingredients and their impact in microbiota modulation

Functional feed

Trends in functional additives and their effects on microbiota

To be developed by teams

Assessment: Oral presentations and discussion: students should be able to explain experimental approaches and analyze the impact of several factors on microbiota and their consequences to health status or nutrition (growth) of farm/ aquaculture animals.

LECTURERS

Topics of Microbiota in Animal Production

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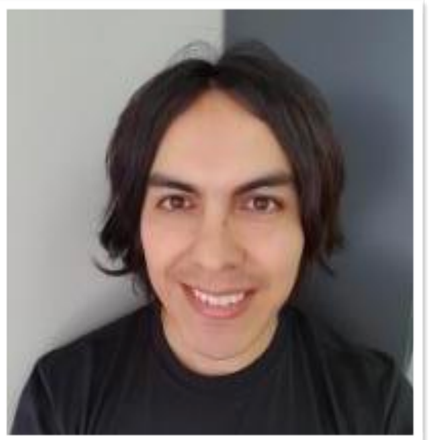
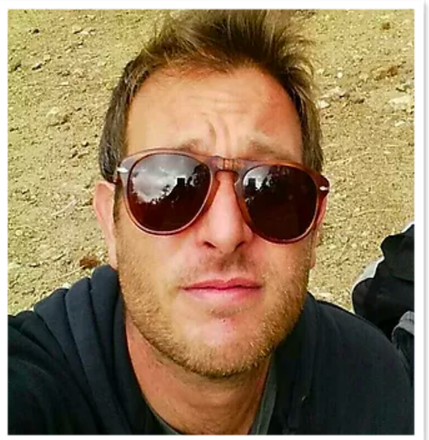


E. Vargas



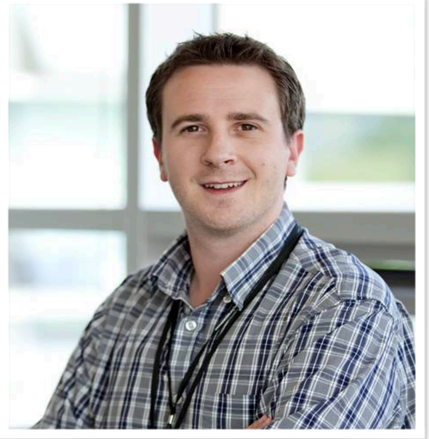
F. Cicala

A. Villasante

M. Fernández

R. Opazo

J. Romero



D. Merrifield

PLANNING

Topics of Microbiota in Animal Production

Day		Topics	Professor 1	Professor 2	Class	Class	Seminar Paper discussion	Student-team homework
1	*Mo 10*	*Microbiota/Microbiome*	J. Romero	R. Opazo	Intro	Several species	JR+Inv+teams	Literature review
2	*Tu 11*	*Aquaculture fish*	A. Villasante	D. Merrifield	Salmonids	Salmonids/fish	JR+Inv+teams	Project preparation
3	*We 12*	*Aquaculture shellfish*	J. Romero	F. Cicala	Shrimps	Mollucs	JR+Inv+teams	Project preparation
4	*Th 13*	*Farm animals*	J. Romero	Fernández/ Díaz	Pigs	Poultry	JR+Inv+teams	Project preparation
5	*Fri 14*	*Rumen*	J. Romero	Einar Vargas	Rumen	Cow	JR+Inv+teams	Project preparation
6	Mo 17	*Seminar Projects*	Teams (Tn)		T1	T2	T3; T4	T5
		Horary			8:30-9:30	9:30-10:30	11:15 - 13:15	14:00 - 19:00
		Hours per session			*1*	*1*	*2*	*5*
		SUM (HOURS) = 50						

January, 10-17 th, 2022.

10 h class + 15h seminars + 25h work = 50 hours => 2 credits