16.30h Research with humans: What I need for an intervention study? Begoña Olmedilla Alonso (ICTAN)

17.30h Coffee/Tea time and **conclusions of the day**. Evert van Schothorst (WUR), Begoña Olmedilla Alonso (ICTAN), Paula Oliver, Catalina A Pomar, Sebastià Galmès, Bàrbara Reynés (UIB)

18.00h End

Friday 14

09.00h **Working groups**: Selection and optimization of preferred study design. Finalizing ppt. Evert van Schothorst (WUR), Joan Ribot, Sebastià Galmès, Bàrbara Reynés (UIB)

10.30h Coffee/Tea

11.00h **Plenary Presentations and Discussion**. Evert van Schothorst (WUR), Joan Ribot, M Luisa Bonet, Joana Sánchez, Ana M Rodríguez (UIB)

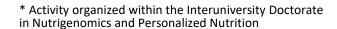
13.00h **Final conclusions**. Evert van Schothorst (WUR), Joan Ribot, M Luisa Bonet (UIB).

13.30h Good bye

VENUE

Centre for Postgraduate Studies-Doctoral School
University of the Balearic Islands
Building: Antoni M. Alcover i Sureda
University Campus







Functional and omics analysis of carotenoid interventions*

COST Training School

February 10-14th 2020 Palma de Mallorca, Spain

Coordinators:

Joan Ribot, Jaap Keijer, Evert van Schothorst & M Luisa Bonet





PROGRAM

Monday 10

18.00h Registration

18.30h Welcome and introduction to the training school. Problem-based learning. Ana M Rodríguez (Director of the Doctoral School of the University of the Balearic Islands, UIB) and Joan Ribot (UIB)

19.00h Opening Lecture: **Health claims and nutritional information**. Andreu Palou (UIB)

20.30h Welcome Cocktail

Tuesday 11

09.00h **Introduction** to definition of hypothesis, objectives and analysis parameters. Joan Ribot, Sebastià Galmès, Bàrbara Reynés (UIB)

Things to consider: What is your product? What are a priory potential health effects? Are there similar products? What do I want to show? What experimental model should I use?

9.30h **Tutor supervised working groups**: Define hypothesis, objective and analysis parameters (preparation of a research project) Joan Ribot, Sebastià Galmès, Bàrbara Reynés (UIB)

10.30h Coffee/Tea time

11.00h Absorption and metabolism of carotenoids in mammals. Joan Ribot (UIB) $\label{eq:uibolism}$

11.30h What I need for animal experimentation? Teresa de Francisco (UIB)

12.15h **Visualizing animals' facilities and routinely procedures.** Catalina A Pomar, Pedro Castillo (UIB)

13.00h Lunch

15.30h Research with animals: How to approach a study related to metabolic health and obesity. Animal models. Experimental questions. Methodological considerations. Examples of studies on mechanistic aspects and omic studies. M Luisa Bonet (UIB)

17.00h **Communicating with the tutors**. Joan Ribot, M Luisa Bonet, Catalina A Pomar (UIB)

17.30h Coffee/Tea time and **conclusions of the day**. Joan Ribot, M Luisa Bonet, Catalina A Pomar (UIB)

18.00h End

Wednesday 12

9.00h **Working groups**: Design an experimental protocol with an animal model to test your product (preparation of a research project) Jean François Landrier (C2VN, AMU), Joan Ribot, Sebastià Galmès, Bàrbara Reynés (UIB)

10.30h Coffee/Tea time

11.00h Cell culture. Culture medium. Biosafety. How to deliver a lipophilic compound to cells in culture? Jean François Landrier (C2VN, AMU)

12.00 h Examples of studies in cells systems: How to approach a study related to metabolic aspects and oxidative stress? Mechanistic aspects studies. Jean François Landrier (C2VN, AMU)

13.00h Lunch

15.30h Examples of studies in cells systems: How to evaluate anticancer activity? Mechanistic aspects studies. Priam Villalonga (UIB)

Group A

16.15h Introduction to cell culture laboratories and visiting a cell culture laboratory. Joana Sánchez, Sebastià Galmès (UIB)

17.15h Coffee/Tea time and **communicating with the tutors**. Jean François Landrier (C2VN, AMU), Priam Villalonga, Joan Ribot, Catalina A Pomar (UIB)

Group B

16.15h Coffee/Tea time and **communicating with the tutors**. Jean François Landrier (C2VN, AMU), Priam Villalonga, Joan Ribot, Catalina A Pomar (UIB)

17.15h Introduction to cell culture laboratories and visiting a cell culture laboratory. Joana Sánchez, Sebastià Galmès (UIB)

18.00h End

Thursday 13

09.00h **Working groups**: Design an experimental protocol with a cell culture cell system to test your product (preparation of a research project) Evert van Schothorst (WUR), Joana Sánchez, Sebastià Galmès, Bàrbara Reynés (UIB)

10.30h Coffee/Tea time

11.00h Omics based biomarkers. Evert van Schothorst (WUR)

12.00h Functional tests and challenges tests. Evert van Schothorst (WUR)

13.00h Lunch

15.30h Use of blood cells as a source of biomarkers. Paula Oliver (UIB)