



## *How to promote PhD research through Erasmus ICM projects*

***David Pipoyan***

Doctor in food science and nutrition



## Erasmus+KA107 Credit Mobility Project

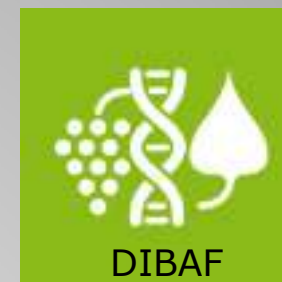


Dipartimento di scienze e tecnologie  
per l'Agricoltura, le Foreste, la Natura e l'Energia

**DEP. OF  
AGRICULTURE AND  
FOREST SCIENCES**



**DEP. OF ECOLOGY AND  
BIOLOGY**



**DEP. OF INNOVATION IN  
BIOLOGICAL SYSTEMS,  
FOOD AND FORESTRY**



## Erasmus+KA107 Credit Mobility Project

Project was implemented between CENS/ISEC NAS RA and University of Tuscia

- opportunity for PhD students to study and train abroad;
- enrich cultural and professional level;
- development new multidisciplinary skills,
- joint publication.





**DAFNE**  
Dipartimento di Scienze Agrarie e  
Forestali  
(Department of Agriculture and  
Forest Sciences)

# GIS and remote sensing for the study of crop canopy

Supervisor-Professor Raffaele CASA





# Unmanned Aerial Vehicles (UAVs)

## Advantages of using UAVs

Low cost

High resolution images

Can fly at variety of altitudes depending on data collection needs

Quick availability of raw data

Flexible flight planning (capture time, resolution, survey area shape)

Easy mobilization to any time

Light weight...



**Urban areas**



**Mapping**

**Soil degradation**

**Water**



**Agriculture**

# Unmanned Aerial Vehicles (UAVs)

- UAVs (principles of work with UAVs)
- Acquisition of UAVs images
- Programs and techniques of work with UAV images
- Image preprocessing



# Acquisition of statistical skills



**DIBAF**

INNOVATION IN  
BIOLOGICAL SYSTEMS,  
FOOD AND FORESTRY



With Dr. Roberto  
Moscetti, PhD



# Acquisition of statistical skills

- populations and parameters and how they differ from samples and statistics,
- confidence intervals and their interpretation,
- hypothesis testing procedures, including the critical value approach and the  $P$ -value approach,,
- tests of proportion

## Basic of Statistics

## Minitub

- Statistical program for data analysis

## R ststistic

- R is a language and environment for statistical computing and graphics



## INVESTIGATION OF ANTIOXIDANT CAPACITY OF ARMENIAN CROPS AND HONEY

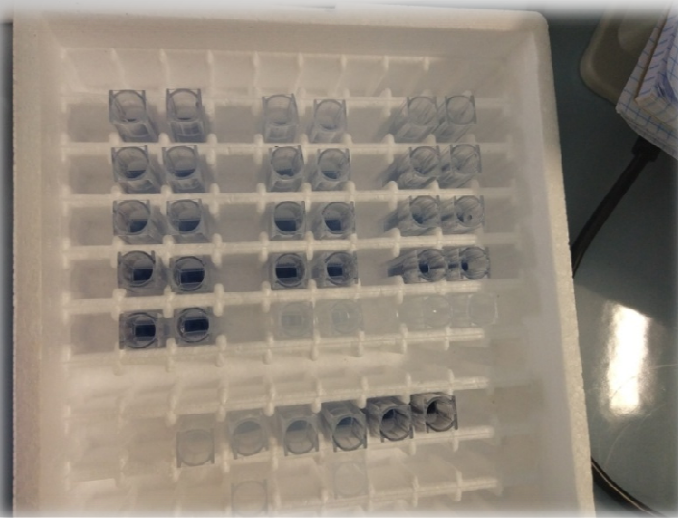
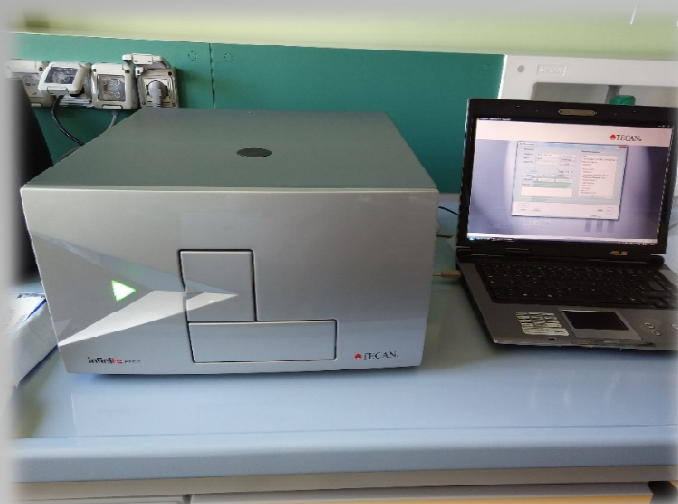






## LABORATORY OF CELLULAR AND MOLECULAR NUTRITION







## LABORATORY OF FUNCTIONAL FOOD



## DEVELOPMENT OF FUNCTIONAL BREAD





## SAMPLES OF BREADS



## LABORATORY OF AGRICULTURAL CONTAMINATION (DIBAF)



# ICP OES (INDUCTIVELY COUPLED PLASMA OPTICAL EMISSION SPECTROMETER), OPTIMA 8000DV

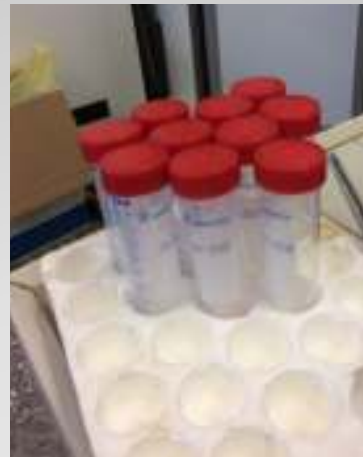


• ICP OES. Theoretical training

• ICP OES  
• Testing of soil samples

• ICP OES  
• Data analyses

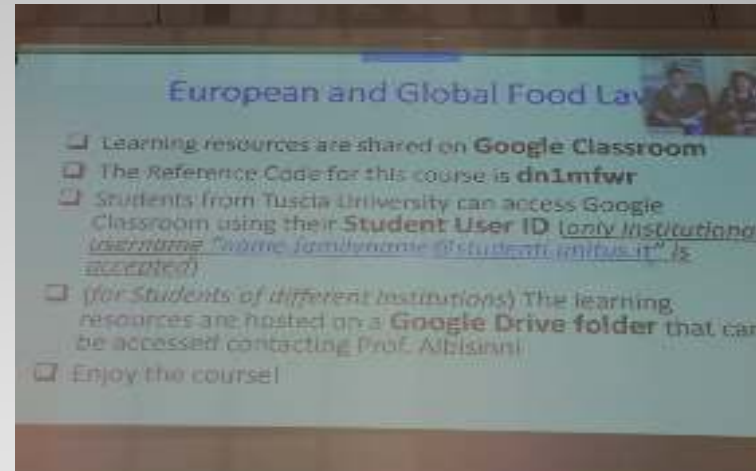
## Detection of Hg in soil samples from Armenia





## MASTER CLASSES FOR PhD STUDENTS

- Food science
- GIS and remote sensing
- Experimental data management
- Global food law
- Dietetics
- Functional food





# Erasmus project as a link and opportunity

With Dr. Carlo Calfapietra  
and Dr. Chiara Baldaccini  
(National Research Council  
(CNR), Institute of Agro-  
Environmental & Forest  
Biology (IBAF))

**Istituto di Superiore di  
Sanita**



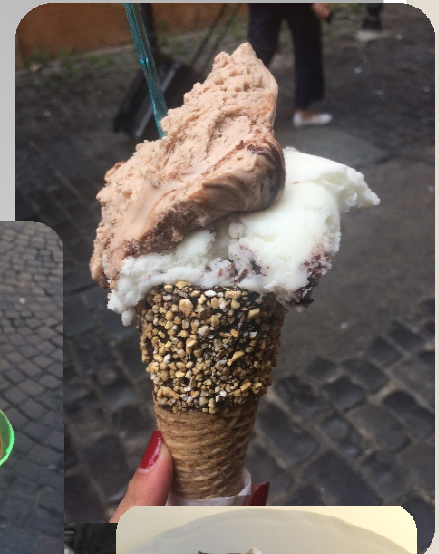
**Centro Grandi  
Attrezzature**



**Sapienza –  
Università di  
Roma**



# Discovering Food Culture



## Joint publications



## Joint projects





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**Grazie per l'attenzione**  
**Thanks for your attention**