



# Lebanese Agricultural Research Institute LARI

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Preparing my PhD in evolutionary genetics in Sheep



# Lebanese Agricultural Research Institute

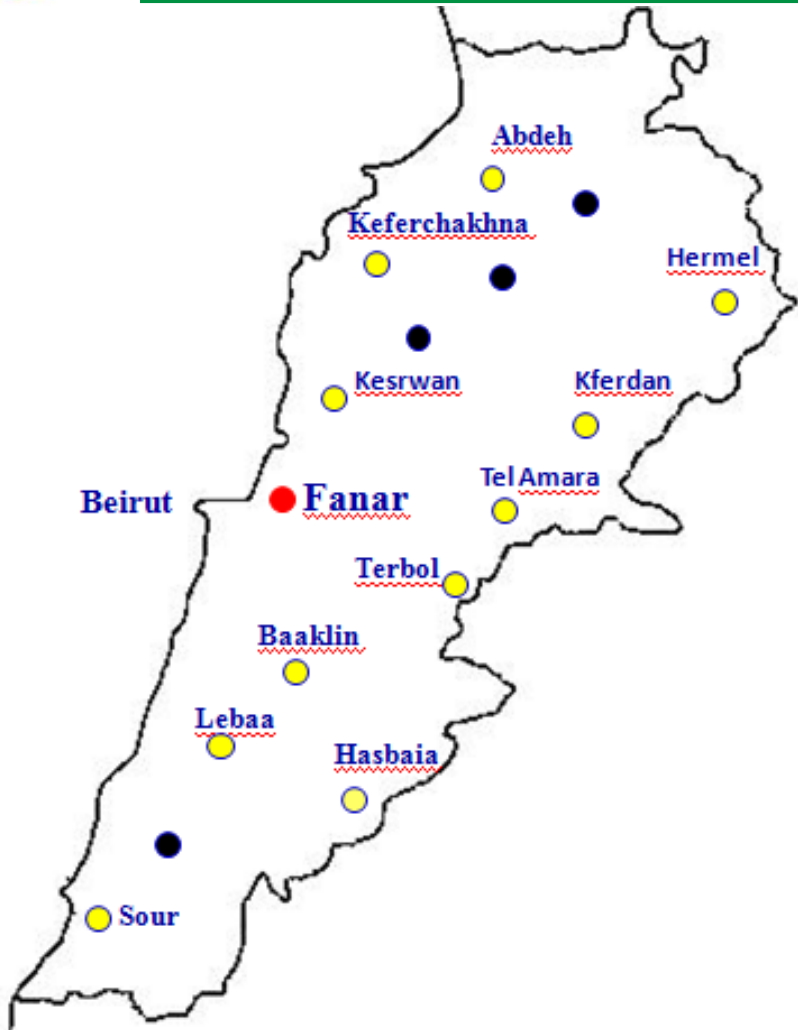
## LARI

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- ▶ LARI is a governmental organization under the Minister of Agriculture Supervision.
- ▶ Founded on the 7<sup>th</sup> of July 1957.
- ▶ The Institute is involved mainly in agriculture and food safety.



# Lebanese Agricultural Research Institute LARI

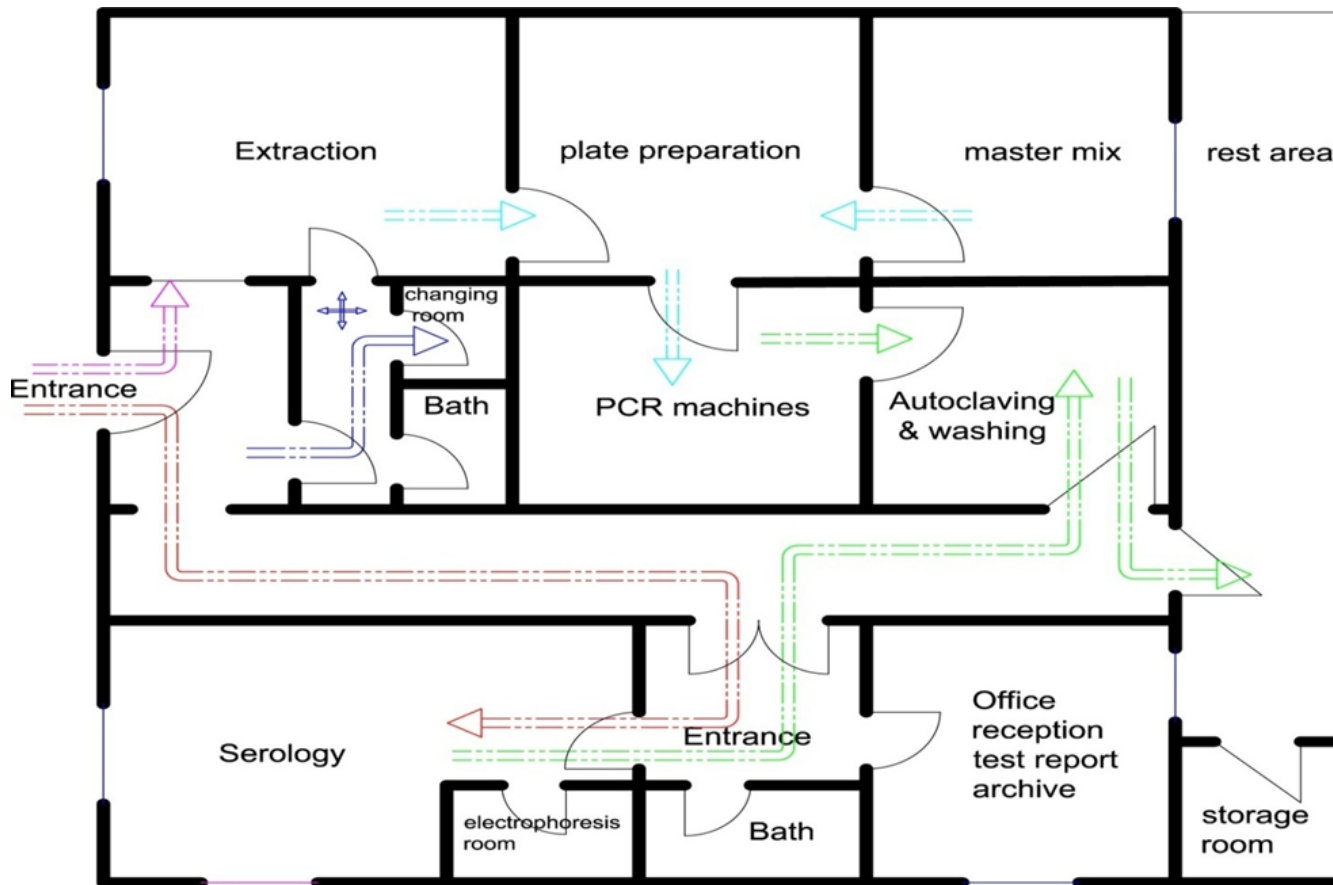


- 12 stations
- 120 Lab.
- 500 Employees
- 200 hectares of experimental land



# Animal Health Laboratory – Fanar LARI

The new lab..... inauguration in 2009

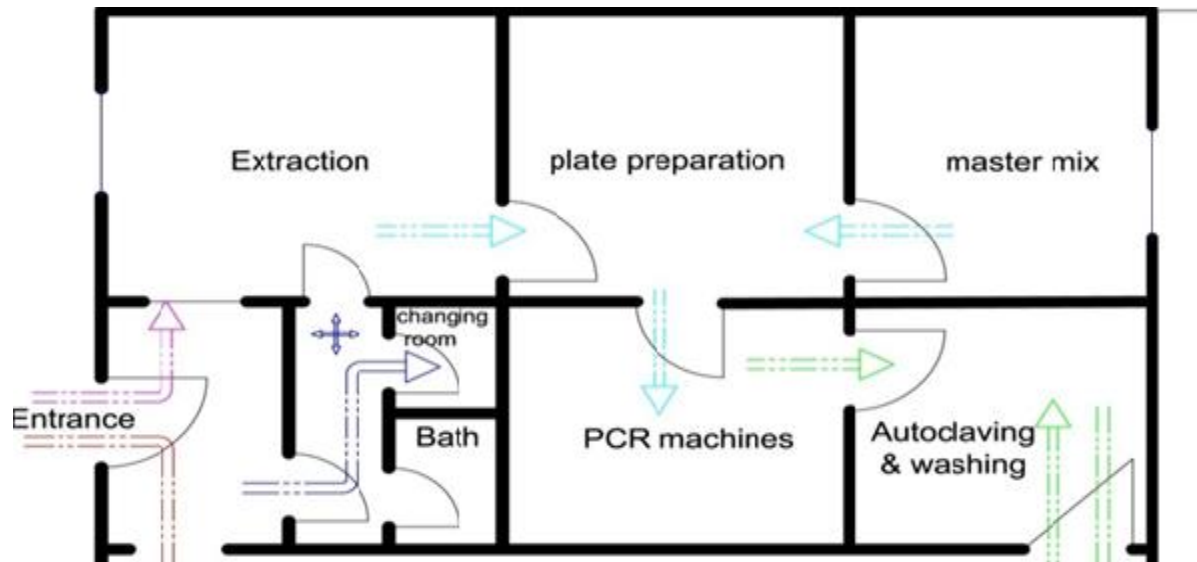




# Animal Health Laboratory – Fanar LARI

## The Molecular Biology unit : BSL 2

- Organized in order to respect the One way, one way out
- equipped with a ventilation system containing HEPA filter.
- Sealed windows
- Hand washing station: sink, soap & alcohol gel and paper towels
- Alarm system for fire/gas and fire extinguisher.
- No right angles
- Resin benches





# Animal Health Laboratory – Fanar LARI





# Animal Health Laboratory – Fanar LARI

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- Each room is equipped with all the necessities material and machines required for the specific activity performed within it
  - Biosafety Cabinet Class II B2
  - Set of micropipette and tips
  - Refrigerator and freezer
  - Centrifuge
  - Waste container
  - .....





# Animal Health Laboratory – Fanar LARI

## The serology unit: BSL 1

- One big room with ventilation system w/o HEPA filter
- Hand washing station: sink, soap & alcohol gel and paper towels
- No right angles
- Resin benches







# Animal Health Laboratory – Fanar LARI

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- The serology lab is equipped with :
  - Fume Hood
  - ELISA reader
  - Set of micropipette and tips
  - 2 combined Refrigerator/freezer: one for samples and one for Kits
  - Centrifuge
  - Incubator
  - Waste container
  - .....



# Animal Health Laboratory – Fanar LARI

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Lab activities:

1. Serological Unit: Antibodies detection for more than 15 diseases : poultry and ruminants.
  - ELISA, HA/HI, CFT
2. PCR unit: Antigen detection for AIV, NDV, FMDV, BTV.



# Samples reception

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- The samples are transported to the lab through ice box
- Labeled submitted with application form filled by the Vet.
- this sample must be collected in tightly closed non-fragile containers or tubes.
- The containers /tubes are disinfected before conservation in refrigerator.



# Standards Practices in the Lab

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1. Access to the laboratory (Molecular biology unit) is restricted when work with pathogen organisms
2. Mechanical pipetting devices are used
3. Eating, drinking, smoking, are not permitted in the work area.
4. Persons wear their PPE during work: disposable gloves and lab coats
5. Persons wash their hands:
  - after handling biological materials
  - when exiting the laboratory.



# Standards Practices in the Lab

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7. Using of disposable labware
8. Work surfaces are decontaminated before and after manipulation and after any spill of viable material:
  - Ethanol and bleach
  - RNA away / DNA away for the biosafety cabinets
9. All contaminated liquid or solid wastes are decontaminated with bleach or Virkon (and autoclaved) before disposal.



# Animal Health Laboratory & the Veterinary services

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- High collaboration with the VS
- More than 70% of the samples are received through VS of MOA.
- More than one plan was implemented to control the spread of Animal diseases:
  - ✓ Annual survey for Avian flu and Newcastle disease.
  - ✓ Annual survey pre and post vaccination for the transboundary diseases (BT, FMD) and Brucellosis and PPR
  - ✓ Emergency response planning for avian flue



# Biosafety and Biosecurity management

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- NO Biorisk assessment and management procedures in our lab
- NO Biosafety/Biosecurity's Manual.
- NO Biorisk investigator.

JUST personal knowledge acquired through training in reference laboratories and workshops





**THANK YOU FOR  
YOUR  
ATTENTION**