



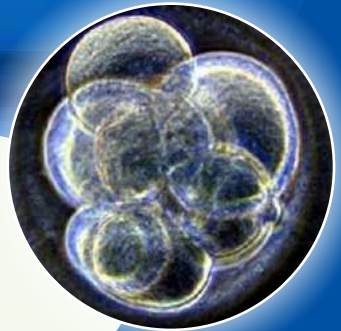
**IRSI**

*Indonesian Reproductive Science Institute*



Bogor Agricultural University  
Veterinary Medicine

## International Training Program For Embryologist



Course : **\$5500 USD**

Course Management

**Organization : IRSI**

**Board of advisors :**

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*Prof. Arief Boediono, PhD*

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**Registration And Futher Information**

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[www.irsi-bunda.com](http://www.irsi-bunda.com)

## Setting Up

- Design Including workspace floor plan, minimization of contamination, and flow of activities.
- Comprehensive list of equipment required to run a lab with capability of IUI, IVF and ICSI
- Staffing
- Numbers
- Qualifications

## Quality Control

- Climate Control
- Security features
- Safety features and practices
- Auditing of laboratory
- Quality assurance measures
- Laboratory case load management - batch and non - batch work flow
- Investigating adverse incidences

## Practice (Hands On)

- Knowledge on how to use the above equipment
- Care for the above equipment i.e. maintenance, servicing and basic trouble shooting
- Standardization and calibration of equipment
- Oocyte handling
- Embryo handling: grading, selection, polar body biopsy, and embryo transfer
- ICSI procedure
- Embryo biopsy and PGD
- Gamete and embryo slow freezing, vitrification and thawing
- Andrology: Sample preparation for conventional IUI, IVF and ICSI.  
Plus for unique situations such HIV infection, Hepatitis B, and surgically extracted sperm samples

## Clinical training in the following areas: (Time Permitting)

- Investigating male and female infertility
- Couple counselling and selection
- Ovulation induction
- Ovulation monitoring
- OHSS and its management
- Oocyte retrieval
- Embryo transfer
- Luteal support
- Endometriosis and adenomyosis
- Management of poor responders
- PCOS and its management
- Hysteroscopy

### TRAINING TOPIC

#### Andrology Laboratory :



1. Sperm Analyze : Manual  
Casa (Computer assisted Semen analysis)  
Staining and sperm assessment morphology  
Fructose test
2. Sperm Preparation : For IUI  
Swim Up  
Density Gradient/Two layers albumin gradient  
Retrograde ejaculation  
For IVF/ICSI :  
Swim Up  
TLAG  
Simple washing (Cryptozoosperm,  
Sperm biopsy from PESA, TESE)  
Retrograde ejaculation
3. Freezing Sperm : ( Vitrification )





- Media : Media preparation D - 1 (the day before OPU)  
Media preparation D - 0 (on the day OPU)  
Media extended on D3 go to D5  
Media transfer embryo  
Media for vitrification and warning
- Searching oocytes on OPU
- Denudation techniques
- Insemination (IVF conventional)
- Setting up ICSI Procedure and troubleshooting micromanipulator
- Fertilization check
- Embryos grading
- Blastocysts cultured
- Embryos transfer procedures
- Vitrification and warming (Oocytes and embryos)
- Assisted hatching
- Biopsy embryo and tubing sample
- PGS

## Design

including workspace floor plan, minimization of contamination, and flow of activities.

Comprehensive list of equipment required to run a lab with capability of IUI, IVF and ICSI

Staffing:

Numbers

Qualifications

## Quality control

Climate control

Security features

Safety features and practices

Auditing of laboratory

Quality assurance measures

Laboratory case load management- batch and non-batch work flow

Investigating adverse incidences

## Discussion and Trouble Shooting

5 t - -	Time	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1	08.00-10.00	Set Up Andrologi Lab	Manual Sperm Analyse WHO 2010	Sperm Preparation	Insemination Intra Uterine	Sperm Morfologi (Staining)
	10.00-12.00	spermatogenesis	Manual Sperm Analyse with CASA	Sperm Preparation	Sperm Cryo Preservation	Fruktosa Test
		Break Time	Break Time	Break Time	Break Time	Break Time
	13.00-15.00	oogenesis	Practice Sperm Analyse (manual)	Pratice Sperm Analyze Manual	Pratice Sperm Analyze Manual	Pratice Sperm Analyze Manual
	15.00-16.00	discussion	discussion	discussion	discussion	discussion
Week 2		Sperm Freezing	Sperm Analyse with CASA (Practice)	Density Gradient	Sperm Freezing And Thawing	Quality Control Sperm Analyse
	10.00-12.00	Sperm Thawing	Swim Up Preparation	Sperm Selection	Sperm Preparation	Quality Control Sperm Preparation
		Break Time	Break Time	Break Time	Break Time	Break Time
	13.00-15.00	Sperm Morfology,	retrograde specimen processing techniques	Sperm Morfology (Practice)	Sperm Morfology (Practice)	Quality Assurance Andrology Lab
	15.00-15.00	discussion	discussion	discussion	discussion	discussion
Week 3		History Of ART	Set Up Embryology Lab	Semen Analisis and Preparation For ART	Searching Oocyte	Check fertilization D1
	10.00-12.00	Hormonal and Stimulation For IVF	Media for IVF	Sperm Preparation For IVF Conventional	Grading Oocyte	Scoring of Embryo D2, D3, D4 and Blastocyst
		Break Time	Break Time	Break Time	Break Time	Break Time
	13.00-12.00	Gametogenesis	Quality Control Procedures	Sperm Preparation For ICSI	Insemination (Conventional)	Blastocyst Culture
	13.00-15.00	embryogenesis	Basic Equipment required for IVF		ICSI	Embryo Transfer
Week 4		Assisted Hatching	Chek PN, Cleavage and scoring embryo	Sperm Preparation For IVF Conventional (practice)	Searching Oocyte (practice)	Insemination IVF Conventional (practise)
	10.00-12.00	Embryo Transfer Loading				
		Break Time	Break Time	Break Time	Break Time	Break Time
	13.00-12.00	vitrification set up for routine use	Media Preparation (Practice)	Sperm Preparation For ICSI (practice)	Handling Oocyte (Practice)	Handling Oocyte (Practice)
	13.00-15.00	Vitrification and warming oocytes and embryos				Embryo Transfer Loading (Practice)
Week 5		Media Preparation (Practice)	epididymal/testicular sperm retrieval and preparation	Micromanipulation Set Up	Handling Oocyte (Practice)	Sperm Preparation For IVF Conventional (practice)
	10.00-12.00			Searching Oocytes (practice)	Media Preparation (Practice)	
		Break Time	Break Time	Break Time	Break Time	Break Time
	13.00-12.00	Sperm Preparation for ICSI (practice)	cryopreservation of epididymal/ testicular sperm retrieval	Hyase Prosedure (Practice)	Hyase Prosedure (Practice)	Insemination IVF Conventional (practise)
	13.00-15.00			Denude Prosedure	Denude Prosedure	
Week 6		Vitrification and warming oocytes and embryos	Media Preparation (Practice)	Check PN, Cleavage and Scoring Embryo	Check PN, Cleavage and Scoring Embryo	Sperm Preparation for ICSI (practice)
	10.00-12.00	FET (for routine use in lab)	Sperm Preparation for ICSI (practice)	Sperm Preparation For IVF Conventional (practice)		
		Break Time	Break Time	Break Time	Break Time	Break Time
	13.00-12.00	Searching Oocytes (practice)	Hyase Prosedure (Practice)	Insemination IVF Conventional (practise)	set up microscope for ICSI (practise)	ICSI techniques (practise)
	13.00-15.00	Handling Oocyte (Practice)	Denude Prosedure (Practice)		ICSI techniques (practise)	

Week 7		Media Preparation (Practice)	Searching Oocytes (practice)	Media Preparation (Practice)	Searching Oocytes (practice)	Media Preparation (Practice)
	10.00-12.00	Vitrification and warming oocytes and embryos	Handling Oocyte (Practice)	Sperm Preparation For IVF Conventional (practice)	Handling Oocyte (Practice)	
		Break Time	Break Time	Break Time	Break Time	Break Time
	13.00-12.00	Searching Oocytes (practice)	Sperm Preparation for ICSI (practice)	Insemination IVF Conventional (practice)	History of cryopreservation	ICSI techniques (practise)
	13.00-15.00	Sperm Preparation for ICSI (practice)	set up microscope for ICSI (practise)		Slow Freezing vs Vitrification	
Week 8	08.00-10.00	Searching Oocytes (practice)	Media Preparation (Practice)	Searching Oocytes (practice)	Media Preparation (Practice)	quality control and assurance
	10.00-12.00	Sperm Preparation for ICSI (practice)		Handling Oocyte (Practice)		
		Break Time	Break Time	Break Time	Break Time	Break Time
	13.00-12.00	ICSI techniques (injection of spermatozoon into the oocyte)	Sperm Preparation for ICSI (practice)	Vitrification and warming oocytes and embryos	ICSI techniques (injection of spermatozoon into the oocyte)	Handling Oocyte (Practice)
		13.00-15.00				
Week 9	08.00-10.00	Searching Oocytes (practice)	Handling Oocyte (Practice)	Media Preparation (Practice)	Searching Oocytes (practice)	Searching Oocytes (practice)
	10.00-12.00	Sperm Preparation For IVF Conventional (practice)	Sperm Preparation for ICSI (practice)			Handling Oocyte (Practice)
		Break Time	Break Time	Break Time	Break Time	Break Time
	13.00-12.00	Insemination IVF Conventional (practise)	set up microscope for ICSI (practise)	ICSI techniques (injection of spermatozoon into the oocyte)	Vitrification oocytes and embryos	ICSI techniques (injection of spermatozoon into the oocyte)
		13.00-15.00		icsi Technic		

Week 10	08.00-10.00	Media Preparation (Practice)	Handling Oocyte (Practice)	Vitrification oocytes and embryos	Media Preparation (Practice)	Searching Oocytes (practice)
	10.00-12.00	Searching Oocytes (practice)	Sperm Preparation for ICSI (practice)			Handling Oocyte (Practice)
		Break Time	Break Time	Break Time	Break Time	Break Time
	13.00-12.00	Insemination IVF Conventional (practice)	set up microscope for ICSI (practise)	Warming / thawing oocytes and embryos	ICSI techniques (practice)	Assisted Hatching (practice)
	13.00-15.00					
week 11	08.00-10.00	Vitrification and warming oocytes and embryos	Media Preparation (Practice)	Vitrification and warming oocytes and embryos	Searching Oocytes (practice)	Media Preparation (Practice)
	10.00-12.00		Searching Oocytes (practice)		Handling Oocyte (Practice)	Sperm Preparation for ICSI (practice)
		Break Time	Break Time	Break Time	Break Time	Break Time
	13.00-12.00	AH (practice)	ICSI techniques	Embryo transfer (practice)	ICSI techniques (practice)	Sperm Preparation For IVF Conventional (practice)
	13.00-15.00					
Week 12	08.00-10.00	Check Fert D-1 (practice)	Check Fert D-1 (practice)	Check Fert D-1 (practice)	Media Preparation (Practice)	Sperm Preparation for ICSI (practice)
	10.00-12.00	Check cleavage (practice)	Check cleavage (practice)	Check cleavage (practice)	Searching Oocytes (practice)	Sperm Preparation For IVF Conventional (practice)
		Break Time	Break Time	Break Time	Break Time	Break Time
	13.00-12.00	ICSI techniques (injection of spermatozoon into the oocyte)	Embryo transfer (practice)	Vitrification and warming oocytes and embryos	ICSI techniques	Quality Control In ART Lab
	13.00-15.00					



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## **Course Director**

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