



CENTER for REPRODUCTIVE MEDICINE
Glickman Urological and Kidney Institute and Obstetrics –
Gynecology and Women’s Health Institute
Cleveland Clinic

Duration: WEEK 1 August 4th- August 8th, 2008 and WEEK 4, August 25th-27th

Locations: TT3-06 (Research Center) and Clinical Andrology Laboratory A19.1.

Training Modules: Andrology Module

Working hours: 9:30am – 4:30pm

Lunch break: 12:30 – 1:00pm

Course In charge: Ashok Agarwal, Ph.D.

Training Faculty: Rakesh Sharma, PhD, Reda Mahfouz, M.D., Sajal Gupta, MD, Ashok Agarwal, Ph.D

Training Day	Morning (9.00am-Noon)	Afternoon (2-4.00pm)
Monday 8.04.08	<p>Welcome and overview of the training: Dr. Ashok Agarwal</p> <p>Basics of semen analysis, Course faculty: Rakesh Sharma, PhD.:</p> <ul style="list-style-type: none"> • Sample collection, • Delivery and analysis • Overview of instrument set up • Microscope, phase contrast and microscope factor • Criteria of selecting / counting sperm • Calculating sperm count and motility • Recording Lab Results in the 	<p>Orientation and Practical Basis of semen analysis, sample collection, delivery and analysis</p> <p style="text-align: center;">Course faculty: Sajal Gupta, MD</p> <ul style="list-style-type: none"> • Practical Session on sperm count and motility • Analyze a minimum of 10-20 aliquots for sperm count and motility • Scoring of QC beads of unknown concentration • Recording results and calculate variability and CV • Hands on practice for round cell and Endtz

	<p>note book</p> <ul style="list-style-type: none"> • Demonstration of sperm count and motility • Prepare sample into multiple aliquots with different dilutions. Record the dilutions • Repeat analysis 5 times 3-4 fields each time • Record the readings in note book • Enter information in a excel file 	
Tuesday 8.05.08	<p>Routine semen analysis Macroscopic parameters, round cell, viability (EN), HOS, Endtz test, sperm count and motility-overview. Course faculty: Reda Mahfouz, M.D Overview of Viability testing: Power point presentation on Eosin Nigrosin Staining</p> <ul style="list-style-type: none"> • Demonstration • Preparation of smears for viability staining by Eosin – Nigrosin • Scoring of slides for reporting Viability • When viability should be a part of semen analysis • Q & A • Counting of round cells • Q & A • Power point presentation on HOS test • Overview of Hypo osmotic swelling • Demonstration • Preparation of sample for HOS • Scoring of slides for reporting HOS • When should HOS testing be a part of semen analysis • Demonstration of Endtz testing • Q & A • Counting of round cells • Q & A 	<p>Practice Session Semen Analysis + EN + HOS +ENDTZ</p> <p>Course faculty: Rakesh Sharma, Phd</p> <ul style="list-style-type: none"> • Preparation of smears for viability staining by Eosin – Nigrosin • Scoring of slides for reporting Viability • When viability should be a part of semen analysis • Counting of round cells • Preparation of sample for HOS • Scoring of slides for reporting HOS • When viability should be a part of semen analysis • Demonstration of Endtz testing
Wednesday 8.06.08	<p>Practical Session Sperm antibody detection Immunobead (Discussion + Demo) Course faculty: Debbie Garlak, MT</p>	<p>Practical Session: Fructose Detection</p>
Thursday	Sperm morphology evaluation	Sperm morphology evaluation

8.07.08	<p>WHO and Strict criteria Sperm preparation and staining (Discussion + Demo) Course faculty: Sajal Gupta, MD</p> <ul style="list-style-type: none"> • Overview of sperm morphology • WHO classification- Main highlights • Types of abnormalities • Kruger's strict criteria – Main highlights Types of abnormalities. Demonstration • Preparing smears for morphology 	<p>WHO and Strict criteria Sperm preparation and staining (Discussion + Demo) Course faculty: Sajal Gupta, MD</p> <ul style="list-style-type: none"> • Overview of sperm morphology • WHO classification- Main highlights • Types of abnormalities • Kruger's strict criteria – Main highlights Types of abnormalities. Demonstration • Preparing smears for morphology
Friday 8.08.08	<p>Sperm preparation methods Sperm wash (wash + re suspend) - Discussion + Demo Density gradient Swim up Course faculty: Reda Mahfoz, MD</p> <p>Power point presentation –Overview</p> <ul style="list-style-type: none"> • Need for sperm preparation • Sperm preparation methods • Types of sperm preparations • Sperm wash (wash + resuspend) • Density gradient separation • Swim up • Q & A • Demonstration • Wash and resuspend • Swim-up • Density gradient • Q & A 	<p>Practical Session: Density gradient Swim up</p> <p>Course faculty: Reda Mahfoz, MD</p>

WEEK 4

Training Day	Morning (9.00am-Noon)	Afternoon (2-4.00pm)
<p>Monday 8.25.08</p>	<p>Basics of semen analysis, Course faculty: Rakesh Sharma, PhD.:</p> <ul style="list-style-type: none"> • Sample collection, • Delivery and analysis • Overview of instrument set up • Microscope, phase contrast and microscope factor • Criteria of selecting / counting sperm • Calculating sperm count and motility • Recording Lab Results in the note book • Demonstration of sperm count and motility • Prepare sample into multiple aliquots with different dilutions. Record the dilutions • Repeat analysis 5 times 3-4 fields each time • Record the readings in note book • Enter information in a excel file 	<p align="center">Orientation and Practical Basis of semen analysis, sample collection, delivery and analysis</p> <p align="center">Course faculty: Sajal Gupta, MD</p> <ul style="list-style-type: none"> • Practical Session on sperm count and motility • Analyze a minimum of 10-20 aliquots for sperm county and motility • Scoring of QC beads of unknown concentration • Recording results and calculate variability and CV • Hands on practice for round cell and Endtz
<p>Tuesday 8.26.08</p>	<p align="center">Routine semen analysis Macroscopic parameters, round cell, viability (EN), HOS, Endtz test, sperm count and motility-overview.</p> <p align="center">Course faculty: Reda Mahfouz, M.D.</p> <p>Overview of Viability testing: Power point presentation on Eosin Nigrosin Staining</p> <ul style="list-style-type: none"> • Demonstration • Preparation of smears for viability staining by Eosin – Nigrosin • Scoring of slides for reporting Viability • When viability should be a part of semen analysis • Q & A • Counting of round cells • Q & A • Power point presentation on HOS test • Overview of Hypoosmotic swelling • Demonstration 	<p align="center">Practice Session Semen Analysis + EN + HOS +ENDTZ</p> <p align="center">Course faculty: Rakesh Sharma, Phd</p> <ul style="list-style-type: none"> • Preparation of smears for viability staining by Eosin – Nigrosin • Scoring of slides for reporting Viability • When viability should be a part of semen analysis • Counting of round cells • Preparation of sample for HOS • Scoring of slides for reporting HOS • When viability should be a part of semen analysis • Demonstration of Endtz testing

	<ul style="list-style-type: none"> • Preparation of sample for HOS • Scoring of slides for reporting HOS • When should HOS testing be a part of semen analysis • Demonstration of Endtz testing • Q & A • Counting of round cells • Q & A 	
<p>Wednesday 8.27.08</p>	<p>Sperm morphology evaluation WHO and Strict criteria Sperm preparation and staining (Discussion + Demo) Course faculty: Sajal Gupta, MD</p> <ul style="list-style-type: none"> • Overview of sperm morphology • WHO classification- Main highlights • Types of abnormalities • Kruger's strict criteria – Main highlights Types of abnormalities. Demonstration • Preparing smears for morphology 	<p>Practical Session: Scoring and evaluation of proficiency slides for WHO and Strict criteria. Course faculty: Sajal Gupta, MD</p> <ul style="list-style-type: none"> • Hands on training with PT slides – 3 slides • Practice scoring 5 slides- verification of results • Recording information