

Section 5a: Schedule of Requirements and Technical Specifications

All below items/equipment are equally approved. Please see details in the tendering document.

Lot 1: Filling, sealing, freezing machines, and accessories.

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| ANDROVISION SOFTWARE MODULES | <ul style="list-style-type: none"> CASA Software with PC and monitor For automatic sperm motility includes PC monitor and all accessories 110 V / 60 Hz and 220 V / 50 Hz | Andro vision |
| COLOUR CAMERA FOR ANDROVISION | <ul style="list-style-type: none"> high speed, high resolution With power supply unit. For motility, concentration, morphology membrane integrity (viability), DNA fragmentation, 110 V / 60 Hz and 220 V / 50 Hz SOFTWARE OPTIONS | camera |
| ANDROVISION SOFTWARE MODULE: | <ul style="list-style-type: none"> For Dose Calculation | AndroVision |
| ANDROVISION SOFTWARE MODULE: | <ul style="list-style-type: none"> Quality Control of holding and post thaw semen samples, with link to native semen analysis | AndroVision |
| ANDROVISION SOFTWARE MODULE | <ul style="list-style-type: none"> Morphology & Morphometry Interactive, semi-automatic system for evaluation of sperm morphology and morphometry with stained and unstained preparations | AndroVision |
| PHASE CONTRAST MICROSCOPE | <ul style="list-style-type: none"> Motic, heated, with phototube for CASA System negative phase, 10x objective power supply 100 - 240 V requires temperature control unit for heating stage | microscope |
| CORD WITH COUNTRY-SPECIFIC PLUG TYPE G AND C13 | <ul style="list-style-type: none"> on site of the device,250V / 5A, length 1,8 m | Cord |
| CONTROL UNIT HT 200 | <ul style="list-style-type: none"> for heating systems | Control unit |
| WARMING PLATE, 180 X 180 MM | <ul style="list-style-type: none"> for heating systems requires control unit Power input: 10 W | Warming plate |
| CORD WITH COUNTRY-SPECIFIC PLUG TYPE G AND C13 | <ul style="list-style-type: none"> on site of the device,250V / 5A, length 1,8 m | Warming plate |
| ACHROMAT OBJECTIVE 40X | <ul style="list-style-type: none"> for Motic microsc. | objective |
| HEATING BLOCK 180 X 180 MM | <ul style="list-style-type: none"> for reaction vials | block |
| LABORATORY HEATING PLATE | <ul style="list-style-type: none"> with preset temperature +37°C integrated control unit, external power supply, heated area: 470 x 260 mm | heating plate |
| CORD WITH COUNTRY- | <ul style="list-style-type: none"> on site of the device,250V / 5A, length 1,8 m | Cord |

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| SPECIFIC PLUG TYPE G AND C13 | | |
| COUNTING CHAMBER 20µM, 4 AREAS | <ul style="list-style-type: none"> • Standard Count", 25/package | chamber |
| PIPETTE | <ul style="list-style-type: none"> • 0.5 to 10 µl, for loading counting chambers | Pipette |
| TIP FOR PIPETTE | <ul style="list-style-type: none"> • 12050/0515 10 µl, 96 tips per rack | Tip |
| TIP 10 µL | <ul style="list-style-type: none"> • for pipette 12050/0515 loose, 1000/bag | bag |
| ELECTRONIC MIXING PIPETTE, | <ul style="list-style-type: none"> • 100 µl to 1 ml Used with AndroVision for preparing precisely diluted samples of semen for concentration measurement Includes charger | pipette |
| TIP FOR ELECTRONIC PIPETTE PIPETTE: | <ul style="list-style-type: none"> • 12050/0510 and 12050/0516, 96/rack 768 tips (8 x 96) / box; for up to 1000 µl | box |
| TIP FOR ELECTRONIC PIPETTE | <ul style="list-style-type: none"> • 12050/0516, 250/bag | bag |
| UNIVERSAL PIPETTE HOLDER | <ul style="list-style-type: none"> • for 5 pipettes | holder |
| CLEANING KIT | <ul style="list-style-type: none"> • for microscopes Kit consists of: cotton plugs, lens cleaning paper, bag bellow, aluminum tray, cleaning instruction | set |
| TEST TUBE | <ul style="list-style-type: none"> • 2.0 ml with cap 250/package | package |
| RACK | <ul style="list-style-type: none"> • for test tubes 1.5 ml and 2 ml, blue 80 places, numerically coded, can be autoclaved Dimensions: 210 x 65 x 27 mm (L x W x H) | Rack |
| SPERMAC STAIN KIT, | <ul style="list-style-type: none"> • 4 x 50 ml, for Morphology Evaluation | Kit |
| EOSIN G STAIN, | <ul style="list-style-type: none"> • 2% solution for live/dead cells, 50 ml | pcs |
| NIGROSIN STAIN, 4% SOLUTION FOR LIVE/DEAD CELLS, 50 ML | <ul style="list-style-type: none"> • 4% solution for live/dead cells, 50 ml | pcs |
| ADJUSTABLE SINGLE CHANNEL PIPETTE, YELLOW | <ul style="list-style-type: none"> • autoclavable, 10 - 100 µl | pcs |
| PIPETTE TIP, | <ul style="list-style-type: none"> • 10 - 100 µ yellow, 1000/bag | bag |
| MICROSCOPE SLIDE, | <ul style="list-style-type: none"> • 76 x 26 mm, 50/box | box |
| COVER GLASS, | <ul style="list-style-type: none"> • 18 x 18 mm 100/box | box |
| IMMERSION OIL, | <ul style="list-style-type: none"> • 8 ml | pcs |

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| ANDROMED, | • 200 ml | pcs |
| MINISTRAW, CLEAR, 0.25 ML, 2000/ BAG | • 0.25 ml, 2000/ bag | bag |
| MEDIUM STRAW, TRANSPARENT | • , 0.5 ml, 2500/ bag | bag |
| MPP QUATTRO | • Automated Filling and Sealing Machine | pcs |
| MPP QUATTRO FILLING NOZZLE | • for 0.25 ml straws, length 56 mm | pcs |
| MPP QUATTRO FILLING NOZZLE | • for 0.5 ml straws, length 56 mm | pcs |
| MPP QUATTRO SUCTION NOZZLE | • for 0.25 ml straws | pcs |
| MPP QUATTRO SUCTION NOZZLE | • for 0.5 ml straws | pcs |
| MPP QUATTRO AND MPP UNO STRAW HOPPER | • for 0.25 and 0.5 ml straws | pcs |
| SEMEN CONE | • 200 ml, disposable, 100/bag | bag |
| FIXING UNIT | • for needle blocks MPP Uno and Quattro stainless steel | pcs |
| WASHER | • for all Filling and Suction Nozzles, 5000/bag | bag |
| MPP UNO/QUATTRO FILLING AND SUCTION TUBING, | • 380mm,1000/bag | bag |
| STRAW SEAL TESTER | • to check sealing of straws (0.25 ml/0.5 ml), | pcs |
| COOLINGCASTLE, | • Cold Handling Cabinet, | pcs |
| ICECUBE | • 14 S-A 230V: Automatic Freezer w/o screen Accessories | pcs |
| ICECUBE 14 S: FREEZING RACK | • Capacity: 36 straws | pcs |
| LOADING DEVICE FOR STRAW RACK | • Rack: 16821/5036 | pcs |
| IceCube 14 S: | • Handling Rack with 2 threaded bars | pcs |
| SPACER | • for IceCube 14 S | pcs |
| TP 60 PRESSURIZED LN2 TANK: | • Volume: 60 | pcs |
| ROLLER BASE | • for pressure container TR60, TP60 and TP100 | pcs |
| ICECUBE 14 S: | • Pliers Used with rack: 16821/5036 | pcs |
| STAINLESS STEEL FUNNEL | • for goblets ø 65 mm | pcs |

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| GOBLET, DIAMETER | • 35 mm, white 25/bag | pcs |
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| ALUMINUM CANE, | • 2 x 13 mm used with goblets | pcs |
| IDENTIFICATION ROD | • for 0.25 ml straws, white, 140 mm long | pcs |
| IDENTIFICATION ROD | • for 0.5 ml straws, white, 140 mm long | pcs |
| BOVINE/CAMEL | • AV casing, 30 cm, with valve Accessories | pcs |
| INNER LINER | • for Bovine AV, smooth, latex, brown, approx. 78 x 650 mm | pcs |
| INNER LINER | • for bovine AV rough latex, brown, approx. 78 x 650 mm | pcs |
| DISPOSABLE INNER LINER | • for bovine AV with integrated semen collection vial | pcs |
| DIRECTOR CONE | • made of latex for bovine vagina, 27 cm long | pcs |
| SEMEN COLLECTION | • vial, 15 ml, graduated graduated, plastic, with lid | pcs |
| WARMING BAG, | • 35 cm | pcs |
| RUBBER RING | • for Bovine AV | pcs |
| LUBRICATION STICK, | • 50 cm long | pcs |
| REPROJELLY, | • non spermicidal lubricant, 3 l | pcs |
| PUMP | • for lubricant ReproJelly, ReproJelly, 3 l (11907/3000 | pcs |
| THERMOMETER | • up to +100°C, graduation 0.1°C, red filling | pcs |
| ARTIFICIAL VAGINA | • for Sheep and Goats | pcs |
| INNER LINER | • (smooth) for AV for for pig/sheep/goat | pcs |
| SEMEN COLLECTION VIAL | • , 4 ml, tulip shape, graduated | pcs |

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| SEMEN COLLECTION VIAL, | <ul style="list-style-type: none"> • 8 ml tulip shape, graduated | pcs |
| SILICONE PLUG | <ul style="list-style-type: none"> • for semen collection vial 4 ml (Ref. 11323/0004) | pcs |
| INSULATED WARMING BAG | <ul style="list-style-type: none"> • for 250 ml glass bottle | pcs |
| SEMEN COLLECTION GLOVE | <ul style="list-style-type: none"> • Size M, non-spermicidal, latex free, powder free | box |
| On-job training | Training in operating the selling filling machine and production of frozen Semen for Bulls, Rams and Buck | Person |
| MOBILE LIQUID NITROGEN GENERATOR | Voltage: 230 VAC. Phase:: Single Phase. Temperature: 16 C to 25 C. Generation Rate: more than 6.0L – up to 10 L per day. Purity: 98.6% (< 1% oxygen). (in job training) | generator |
| On-job training | Training in operating liquid nitrogen machine and production of liquid nitrogen. | Person |
| OVINE SNP50 DNA ANALYSIS | for major and minor genes according to illumina microarray chip Fixed Markers: 54,241 evenly distributed SNPs across the genomeum Genome-Wide Genotyping Array Microarray Ovine iScan or equivalent With a detailed analyzing report giving explanation of the data obtained from the Microarray categorizing the analyzed animals according to their genetic makeup giving recommendation about each animal. | Sample |
| SEMEN COLLECTION SHELTER | Shelter dimensions: (m - W x D x H): 10 x 4 x 3.5 | Shelter |
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| LIQUID NITROGEN | <ul style="list-style-type: none"> • - 196 c liquid nitrogen. • 4 year contract. | kg |
| SCISSORS | Stainless steel, long 70 cm Ɂ serrated scissors for freezing process | scissor |
| SCISSORS | Long 50 cm, Ɂ Stainless steel serrated scissors for freezing process | scissor |

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| TWEEZES(TONGS) | Long 50 cm, 3 Stainless steel serrated scissors for freezing process | Tweezes |
| GLYCEROL | Glycerol: pure & clear, colorless, viscous, sweet, tasting liquid, molecular formula($\text{HOCH}_2\text{CHOHCH}_2\text{OH}$)density 1.26g/cm^3 Soluble in H_2O ,Impurities 0.1% water (Karl 1 Fischer),6%,propane -1,2,3 trial (56-81-5) | litter |
| GLUCOSE POWDER | Glucose Powder. Pure 99.2% Anhydrous, come in sturdy plastic 500 gm bottle | Kg |
| RAFFINOSE | D-(+)- Raff nose powdered pent hydrate 99%. $\text{C}_{18}\text{H}_{32}\text{O}_{16} \cdot 1.5\text{H}_2\text{O}$. Soluble in water 500gm. Purity greater than 95%,molecular weight594.5 ,storage at room temperature | 200gm |
| CITRIC ACID | Citric acid: 99 % pure, white or colorless, anhydrous powder, acidic< taste, soluble in water | 500gm |
| SODIUM CITRATE | Tri –sodium citrate $\text{C}_6\text{H}_5\text{Na}_3\text{O}_7 \cdot 2\text{H}_2\text{O}$, Colorless or white, purity than 95% | 500gm |
| TRIES AMINO METHANE | Tries (hydroxymethyl) amino methane, $\text{NH}_2\text{C}(\text{CH}_2\text{OH})$ 99%,made in UK,77-86-1,F.W.121.14 EINECS201-064-4 Formula white 121.4 ,powder | kg |
| LUBRICATING GEL | Viscous bland lubricant that is non spermicidal for gynecological and rectal exams. Gallon bottle. | 5litter |
| DOUBLE DISTILLED WATER | Double Distilled Water, polling pointe 100c, melting point 100 c , specific gravity 1, colorless , odorless ,PH:5-7,, EC" electrical conductivity (1). Efficiency : $\leq 1\mu\text{S/cm}$, silicon concentration $\leq 0.05\text{mg/dl}$,phospha0te concentration $\text{PO}_4 < 0.05\text{mg/l}$, sodium conc. Na $< 0.2\text{mg}$,potassium conc. $< 0.02\text{mg/l}$ | 18 litter |
| FILTER PAPER | 100 cotton ,linter cellulose, PH tolerant 0-12 ,thermos table up to 100c | box |
| ALCOHOL | Ethanol $\text{C}_2\text{H}_6\text{O}$,99% colorless | litter |

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| TEST TUBE | Plastic made. disposable , Volume 10 ml , | 50/ unit |
| YELLOW TIPS | Plastic pipit 1000 per bag | bag |
| SPONGE | a sponge connected to a silk string, saturated with around 60 mg of artificial progesterone hormone | Sponge |
| HORMONES | PMSG hormone bottles (5 ml hormone bottles, and another 30 ml bottles of distilled water for Hormone dilution) : PG-6000 | Bottle |