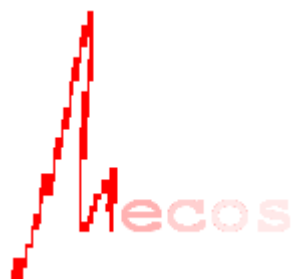


Microscopy combine MECOS-C2

Specification of the MECO-PARAS technique for tests on helminth eggs and protozoa

Microscopy platform	1 M-9 automatic movement, focusing, brightness adjustment; manual lens change	1/4/8/50/200 O-9 automatic movement, focusing, changing resolutions, brightness settings, immersion 1/4/8/50/200 glasses of a batch of loaded slides; Walk-Away mode
Loading of glasses 25x76 mm	1	1/4/8/50/200
Microscopy method	Passing light; reflected light (optional)	
Resolution	Of the μm of the specimen per pixel of shooting - the aperture of the lens: 0.45-0.25; 0.23-0.75; 0.2-0.85 (option); 0.17-1.0 (option) 0.14-1.25 (option)	
Specimen types	Wet specimens on slide 76x26x1 mm under cover glass 15x15 – 22x22 mm ether/vinegar-formalin sedimentation	
Slide glass map	at a resolution of 3.4 μm automatically	
select the boundaries of the scan area	- interactively on the window of the specimen live video; - automatically on the preset area; - interactively on the glass map; - automatically on the glass map by contrasting boundaries of the specimen / by the boundaries of the cover glass	
Results automatically (2AR) with fixation in the DB	2D/3D panorama of the scanning area (BC 2D/3D) in the MECOS format: - with 2D VS focusing by extrapolation on the scanning area / with autofocus of each frame; - with layer-by-layer shooting at the depth of focus of 3D VS with automatic / specified number of 3D layers. When using 2D VS, automatic detection of helminth eggs in the VS, repeated automatic survey of detected objects at a resolution of 0.23 μm with the formation of subgalleries sorted by species; When using 3D BC, automatic detection of helminth eggs and protozoa in the VS with the formation of subgalleries sorted by species	
Scanning speed of 2D VS mm^2/sec at resolution:	10 At 0.45; 3 at 0.23	13 at 0.45; 4 at 0.23
Results 1 Opinion (1AR) by 2AR controlled on the workplace of the platform	Control and adjustment of automatic sorting of subgalleries using browser with 3D built-in atlas helminths and protozoa (Opisthorchis felineus / Taenia solum / Himenolepis nana / Enterobius vermicul / Trichuris trichiura / Ascaris l. fertile / Ascaris l. unfertile / Diphilobothrium L. / Strongyloides ster. / Entamoeba histolyt. / Lamblia interstin. / Balantidium coli / Entamoeba coli / Endolimax nana / Iodamoeba Biitschlii / Entamoeba Hartmanni / Chilomastix mesnily / Enteromonas hominis / Blastocystis hominis / Dicrocoelium lanceut. / Toxocara mystax / Toxascaris leonine / Nanophyetus schikhobalowi / Ceyptosporidium parvum); Monitoring and correcting missed detections using a VS browser with map navigation, VS moving and zooming, viewing 3D depth, fixing missed detections in subgalleries; The possibility of forming a new type of analysis object and a subgallery; 1AR conclusion on the form	
1AR by 2AR control at the LIN workplace	Installation of PARAS browsers in the LIN workplace. Export selected 2AR from the DB to the LIN. Interactive analysis of the 2AR in the LIN workplace. Import 1AR from the LIN to the DB	
2AR Accuracy Statistics	Automatic collection of statistics adjustments 2AR when forming 1AR to decide on the possibility of using 2AR as 1AR without control	
Internet working with AR on a remote access server http://mecosvirt.ru	Export of ARs selected from the DB to the remote access server with simultaneous placement of up to 5 or up to 100 (optional) AR on the exporter page at the server; a personal office for visitors to the exporter's page; individual/collective AR viewing by built-in browsers without additional software and downloads; providing adjustment GOA tools with the formation and forwarding of 1AR additions/corrections to the exporter	
Internet working with AR on the MECOSMonitor support server	automatic export of 1ARs selected from the combine DB to the cloud support server Training DB for automatic training of PARAS analyzers; Remote update by the manufacturer of combine software versions after modernizations	



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 Patent RU No. 2703106
 ISO 13485-2017 GMP

Analysis results form

Lab ID	specimen ID	Physician ID	Date
Type and method of preparation		Material assessments	
Helminth eggs, number of detections		Protozoa, number of detections	
Himenolepis nana		Balantidium coli	
Enterobius vermicularis		Blastocystis hominis	
Trichuris trichiura		chilomastix mesnili	
Ascaris l. fertile		Endolimax nana	
Ascaris l. unfertile		Entamoeba coli	
Diphilobothrium latum		Entamoeba Hartmanni	
Clonorchis sinensis		Entamoeba histolytica	
Dicrocoelium lanceatum		Entamoeba hominis	
Fasciola hepatica		Iodamoeba butschlii	
Fasciolopsis buski		Lambliia intestinalis	
Heterophyes heterophyes			
Hymenolepis nana			
Hymenolepis diminuta			
Metagonimus yokogawai			
nanophyetus salmincola			
Opisthorchis felineus			
Opisthorchis viverrine			
Paragonimus westermani			
Schistosoma haematobium			
Schistosoma intercalatum			
Schistosoma japonicum			
Schistosoma mansoni			
Strongyloides stercoralis			
Taenia solium			
Toxocara mystax			
Toxocara leonina			
Trichostrongylus			

Muscle fibers without delineation	
Muscle fibers with delineation	
Connective tissue	
Indigestible Plant Fiber	
Digestible Plant Fiber	
Intracellular starch	
Extracellular starch	
Normal iodophilic flora	
Pathological iodophilic flora	
Fat drops	
Blocks	
Needles	
Drops of neutral fat	
Drops of fatty acids	
Salts of fatty acids (soaps)	
Calcium oxalate crystals	
Tripel phosphate crystals	
Charcot-Leiden	
Mucus	
Cylindrical epithelium	
Leukocytes	
Erythrocytes	
Yeast cells	
Mycelium	

To view the virtual slide:	Area mm sq	%	µm resolution
Consultation LIS	Telemedicine consultation		Export to maintenance server
Gallery adjustments:	Helminth eggs %		Protozoa %
New type for gallery, name, detections			