

CERVICAL POSTERIOR OPEN & MISS INSTRUMENTATION — MASTERS MEETING

Future MISS Cervical Innovation Lab | Fully lateral posterior approaches + 3D imaging/navigation + robotics + precision drilling + full-endoscopic cervical surgery

04-05 September 2026 | Jabłonna near Warsaw, Poland | Language: English | Working draft v0.6 | Faculty availability integrated

FRIDAY, 04 SEPTEMBER 2026 — EXPERT WORKFLOWS, COMPETING TECHNIQUES & ADVANCED CADAVER LAB			
8 groups × 3 4 stations	GROUP I — A, B, C, D		GROUP II — E, F, G, H
08:00–08:30	Registration / coffee		
08:30–08:50	Opening: Masters Meeting philosophy — what are we trying to change in cervical surgery?		
08:50–09:00	Cadaver lab rules + station logistics 4 fixed cadaver stations: 2 × MISS screw / 1 × robotic–navigation / 1 × endoscopy FRESH SPECIMEN SET #1		
09:00–11:00	CADAVER LAB — FRESH SPECIMEN SET #1 4 FIXED STATIONS Groups A–D: one group per station		MASTERS FORUM 1 — “WHEN MISS? WHEN ENDOSCOPY? WHEN ROBOT? WHEN OPEN?” Groups E–H
	Station 1 — Group A MISS SCREW A: Upper cervical O–C / C1–C2 minimally invasive screw workflow	Stanisław Adamski	Moderation: rotating available faculty — peer-to-peer Masters Forum
	Station 2 — Group B MISS SCREW B: Subaxial / CTJ fully lateral screw + rod workflow; precision drilling integrated	Jan Hradil + Jakub Mocarski	• Indications and limits of fully lateral / paramedian posterior cervical MISS.
	Station 3 — Group C ROBOTIC–NAVIGATION: 3D navigation + Mazor X planning, verification and execution	Łukasz Bobiński + Adam Bębenek	• How experts choose between MISS, endoscopy, robotics and open conversion.
	Station 4 — Group D ENDOSCOPY: Full-endoscopic uniportal posterior cervical decompression	Varun Agarwal + Kajetan Łątka + Benedict Trnovec (faculty rotation)	• Technology that changes the operation vs. technology that only adds complexity.
11:00–11:15	Coffee break		
11:15–13:15	MASTERS FORUM 1 — Groups A–D		CADAVER LAB — FRESH SPECIMEN SET #1 4 FIXED STATIONS — Groups E–H
	Moderation: rotating available faculty — peer-to-peer Masters Forum		Station 1 — Group E MISS SCREW A: Upper cervical O–C / C1–C2 minimally invasive screw workflow
	• Indications and limits of fully lateral / paramedian posterior cervical MISS.		Stanisław Adamski
	• How experts choose between MISS, endoscopy, robotics and open conversion.		Station 2 — Group F MISS SCREW B: Subaxial / CTJ fully lateral screw + rod workflow; precision drilling integrated
	• Technology that changes the operation vs. technology that only adds complexity.		Jan Hradil + Jakub Mocarski
			Station 3 — Group G ROBOTIC–NAVIGATION: 3D navigation + Mazor X planning, verification and execution
14:15–16:15	CADAVER LAB — FRESH SPECIMEN SET #1 ADVANCED WORKFLOWS Groups A–D: rotate to the next station platform		MASTERS FORUM 2 — COMPLICATIONS, FAILURE ANALYSIS & PLAN B Groups E–H
	Station 1 — Group D MISS SCREW A: Advanced upper cervical O–C / C1–C2 construct, rod connection and reduction	Stanisław Adamski	Moderation: rotating available faculty — expert failure analysis
	Station 2 — Group A MISS SCREW B: Multilevel subaxial / CTJ fixation, rod delivery, fusion strategy + precision drilling	Jan Hradil + Jakub Mocarski	• Recognize → verify → rescue → convert: a common framework for expert failure analysis.
	Station 3 — Group B ROBOTIC–NAVIGATION: Advanced Mazor X / navigation planning for complex cervical trajectories	Łukasz Bobiński + Adam Bębenek	• Navigation/robotics mismatch, fixation compromise, endoscopic bleeding and loss of orientation.
	Station 4 — Group C ENDOSCOPY: Posterior refinement + anterior cervical endoscopy frontier	Varun Agarwal + Kajetan Łątka + Benedict Trnovec (faculty rotation)	• Explicit conversion thresholds: when persistence with MISS is no longer the best strategy.
16:15–16:30	Coffee break		
16:30–18:30	MASTERS FORUM 2 — Groups A–D		CADAVER LAB — FRESH SPECIMEN SET #1 ADVANCED WORKFLOWS — Groups E–H
	Moderation: rotating available faculty — expert failure analysis		Station 1 — Group H MISS SCREW A: Advanced upper cervical O–C / C1–C2 construct, rod connection and reduction
	• Recognize → verify → rescue → convert: a common framework for expert failure analysis.		Stanisław Adamski
	• Navigation/robotics mismatch, fixation compromise, endoscopic bleeding and loss of orientation.		Station 2 — Group E MISS SCREW B: Multilevel subaxial / CTJ fixation, rod delivery, fusion strategy + precision drilling
	• Explicit conversion thresholds: when persistence with MISS is no longer the best strategy.		Jan Hradil + Jakub Mocarski
18:30–18:50			Station 3 — Group F ROBOTIC–NAVIGATION: Advanced Mazor X / navigation planning for complex cervical trajectories
			Łukasz Bobiński + Adam Bębenek
			Station 4 — Group G ENDOSCOPY: Posterior refinement + anterior cervical endoscopy frontier
			Varun Agarwal + Kajetan Łątka + Benedict Trnovec (faculty rotation)
Faculty exchange / Day 1 debrief — “What I changed today”			

20:00	Faculty / participants dinner (optional programme item)			
SATURDAY, 05 SEPTEMBER 2026 — ADVANCED INTEGRATION, HYBRID PROCEDURES & FUTURE MISS CERVICAL				
8 groups × 3 fresh set #2	GROUP I — A, B, C, D		GROUP II — E, F, G, H	
08:20–08:30	Day 2 framing + NEW FRESH SPECIMEN SET #2 — four new cadaveric specimens; questions to deliberately test rather than merely discuss			
08:30–10:30	CADAVER LAB — FRESH SPECIMEN SET #2 ADVANCED INTEGRATION & TROUBLESHOOTING Groups A–D: rotate to the next station platform		MASTERS FORUM 3 — HYBRID CERVICAL PROCEDURES Groups E–H	
	Station 1 — Group C MISS SCREW A: Advanced upper cervical MISS — trajectory options, rod/reduction, fusion and bailout	Stanisław Adamski	Moderation: rotating available faculty — hybrid procedure design	
	Station 2 — Group D MISS SCREW B: Advanced subaxial / CTJ — multilevel screws, precision drilling, rod and fusion strategy	Benedict Trnovec + Jakub Mocarski	• How to combine MISS, navigation, robotics and endoscopy without duplicating complexity.	
	Station 3 — Group A ROBOTIC–NAVIGATION: Navigation/robotics troubleshooting, verification uncertainty and Plan B	Wiktor Urbański + Łukasz Bobiński + Adam Bębenek	• Two clinically plausible hybrid workflows: benefit, burden and failure points.	
	Station 4 — Group B ENDOSCOPY: Hemostasis, endpoint definition and working-channel limits	Varun Agarwal + Kajetan Łątka	• Which hybrid concept deserves a formal cadaver protocol or feasibility study?	
10:30–10:45	Coffee break			
10:45–12:45	MASTERS FORUM 3 — Groups A–D		CADAVER LAB — FRESH SPECIMEN SET #2 ADVANCED INTEGRATION & TROUBLESHOOTING — Groups E–H	
	Moderation: rotating available faculty — hybrid procedure design		Station 1 — Group G MISS SCREW A: Advanced upper cervical MISS — trajectory options, rod/reduction, fusion and bailout	Stanisław Adamski
	• How to combine MISS, navigation, robotics and endoscopy without duplicating complexity.		Station 2 — Group H MISS SCREW B: Advanced subaxial / CTJ — multilevel screws, precision drilling, rod and fusion strategy	Benedict Trnovec + Jakub Mocarski
	• Two clinically plausible hybrid workflows: benefit, burden and failure points.		Station 3 — Group E ROBOTIC–NAVIGATION: Navigation/robotics troubleshooting, verification uncertainty and Plan B	Wiktor Urbański + Łukasz Bobiński + Adam Bębenek
	• Which hybrid concept deserves a formal cadaver protocol or feasibility study?		Station 4 — Group F ENDOSCOPY: Hemostasis, endpoint definition and working-channel limits	Varun Agarwal + Kajetan Łątka
	Block output: select one hybrid workflow or unresolved technology problem to carry into the afternoon Innovation Lab.			
12:45–13:30	Lunch			
13:30–15:30	FUTURE MISS CERVICAL — FRESH SPECIMEN SET #2 INNOVATION LAB Groups A–D: controlled experiments, prototype workflows, instrument concepts		INNOVATION WORKSHOP — “NEXT PROCEDURE / NEXT INSTRUMENT / NEXT STUDY” Groups E–H	
	Station 1 — Group B MISS SCREW A INNOVATION: Prototype fully lateral O–C / C1–C2 workflow	Stanisław Adamski	Moderation: rotating available faculty — Future MISS Cervical workshop	
	Station 2 — Group C MISS SCREW B INNOVATION: Subaxial / CTJ access, screw/rod and precision-drilling instrument concepts	Benedict Trnovec + Jakub Mocarski	• Identify the key unresolved technical bottlenecks from the previous three lab blocks.	
	Station 3 — Group D ROBOTIC–NAVIGATION INNOVATION: Cervical-specific integrated workflow prototype	Wiktor Urbański + Łukasz Bobiński + Adam Bębenek	• Design one next procedure, one next instrument and one next study.	
	Station 4 — Group A ENDOSCOPY INNOVATION: Next-generation cervical endoscopic workflow & instrumentation	Varun Agarwal + Kajetan Łątka	• Prioritize concepts by clinical relevance, feasibility and testability in the next cadaver lab.	
15:30–15:45	Coffee break			
15:45–17:45	INNOVATION WORKSHOP — Groups A–D		FUTURE MISS CERVICAL — FRESH SPECIMEN SET #2 INNOVATION LAB — Groups E–H	
	Moderation: rotating available faculty — Future MISS Cervical workshop		Station 1 — Group F MISS SCREW A INNOVATION: Prototype fully lateral O–C / C1–C2 workflow	Stanisław Adamski
	• Identify the key unresolved technical bottlenecks from the previous three lab blocks.		Station 2 — Group G MISS SCREW B INNOVATION: Subaxial / CTJ access, screw/rod and precision-drilling instrument concepts	Benedict Trnovec + Jakub Mocarski
	• Design one next procedure, one next instrument and one next study.		Station 3 — Group H ROBOTIC–NAVIGATION INNOVATION: Cervical-specific integrated workflow prototype	Wiktor Urbański + Łukasz Bobiński + Adam Bębenek
	• Prioritize concepts by clinical relevance, feasibility and testability in the next cadaver lab.		Station 4 — Group E ENDOSCOPY INNOVATION: Next-generation cervical endoscopic workflow & instrumentation	Varun Agarwal + Kajetan Łątka
	Block output: each group submits one “next procedure”, one “next instrument” and one “next study” proposal for final consensus.			
17:45–18:15	Consensus, roadmap and close — mature principles vs experimental concepts; owners and next steps for Future MISS Cervical			

FACULTY — ROLES UNCHANGED | DAILY AVAILABILITY INTEGRATED (v0.6)

Faculty	Primary domain	Role in the Masters Meeting
Stanisław Adamski	Cervical MISS / upper cervical MISS	Fully lateral posterior corridor; O–C and C1–C2 MISS; navigation-based upper-cervical workflows; complex bailout discussion.
Wiktor Urbański	Cervical MISS / 3D imaging / navigation	Advanced O-arm/3D navigation workflow; reference-frame strategy, accuracy verification, technology limits; integration with MISS.
Jakub Mocarski	Precision drilling / bone work	High-speed drilling in constrained corridors; controlled bone removal; burr strategy; anatomy preservation; drill-related failure analysis.
Varun Agarwal	Spine endoscopy / cervical endoscopy	Full-endoscopic cervical strategy; posterior uniportal decompression/foraminotomy; advanced endoscopic workflow; anterior cervical endoscopy discussion where appropriate.
Jan Hradil	Cervical MISS	Subaxial and cervicothoracic MISS workflows; construct strategy; comparison of lateral/paramedian techniques and open conversion.
Łukasz Bobiński	Cervical robotics / Mazor X	Robotic cervical planning and execution; Mazor X workflow; navigation-robotics integration; robotic failure modes and rescue.
Benedict Trnovec	Cervical MISS + endoscopy	Hybrid MISS/endoscopic cervical approaches; endoscopic decompression; comparison of conventional MISS and full-endoscopic corridors.
Kajetan Łątka	Full-endoscopic spine surgery	Uniportal endoscopic strategy; posterior cervical endoscopy; endoscopic complications and limits; cross-comparison with alternative endoscopic workflows.
Adam Bębenek	Robotics / Mazor X / cervical surgery	Robotic instrumentation workflow; cervical technology integration; planning and execution; joint robotics troubleshooting station.

SESSION-LEVEL LEARNING OBJECTIVES — MINIMUM 2 PER TOPIC

Fixed cadaver station map: S1 = MISS Screw A | S2 = MISS Screw B | S3 = Robotic–Navigation | S4 = Endoscopy | 4 fresh specimens/day; Day 2 starts with 4 new specimens.

Day / Block	Station / Track	Topic	Learning Objective 1	Learning Objective 2	Innovation question / output
Day 1 / Opening	Plenary	Masters Meeting philosophy	Align participants around a peer-to-peer master-to-master format rather than a conventional competency course.	Define the major clinical and technical questions that should have an answer, hypothesis or next-step experiment by the end of Day 2.	Capture 3–5 “grand challenges” for Future MISS Cervical.
Day 1 / AM	Station 1 — MISS Screw A	Upper cervical MISS screws — O–C / C1–C2	Compare minimally invasive entry corridors and screw-trajectory options for O–C and C1–C2 fixation while preserving reliable anatomical and technological verification landmarks.	Execute trajectory preparation and screw-placement sequencing on a specimen and define the point at which limited exposure should be expanded or an alternative technique selected.	Which step most limits a truly minimally invasive upper-cervical screw workflow: access, trajectory control, implant geometry, rod connection or verification?
Day 1 / AM	Station 2 — MISS Screw B	Subaxial / CTJ MISS screws + rod workflow + precision drilling	Compare lateral/paramedian access and anchor strategies across subaxial and cervicothoracic segments using a tissue-sparing posterior corridor.	Integrate controlled high-speed drilling, screw insertion and rod delivery while preserving facet/laminar anatomy and maintaining reproducible orientation.	Is the dominant bottleneck access, drill geometry, implant geometry, screw trajectory or rod delivery?
Day 1 / AM	Station 3 — Robotic–Navigation	3D navigation + Mazor X integration	Compare navigation-only and robot-assisted planning/execution for representative cervical trajectories and identify where each platform adds unique value.	Perform planning, registration/verification and guided execution while defining clear conditions for re-verification, fallback or abandonment of the planned technology-dependent workflow.	Which steps could be simplified, removed or automated in a cervical-specific navigation/robotics platform?
Day 1 / AM	Station 4 — Endoscopy	Full-endoscopic uniportal posterior cervical decompression	Perform docking, laminoforaminotomy/bony decompression and nerve-root decompression through a full-endoscopic posterior cervical working channel.	Compare expert strategies for orientation, hemostasis, burr use and endpoint definition in the constrained cervical corridor.	Is instrument geometry, endoscope position, irrigation/hemostasis or orientation the main constraint in posterior cervical endoscopy?
Day 1 / AM	Masters Forum 1	When MISS? When endoscopy? When robot? When open?	Defend a complete operative strategy for difficult O–C, C1–C2, subaxial and CTJ cases using more than one viable pathway.	Identify the decision point at which the operative corridor, technology, fixation strategy or open conversion should change.	Record areas of genuine expert disagreement for deliberate testing in the lab.
Day 1 / PM	Station 1 — MISS Screw A	Advanced upper cervical MISS — O–C / C1–C2 construct, rod connection and reduction	Refine the sequence of limited exposure, trajectory preparation, screw insertion, rod connection and reduction for O–C/C1–C2 constructs.	Compare construct solutions and bailout options when ideal screw trajectory, rod alignment or reduction cannot be achieved through the planned corridor.	Can a minimum-incision, maximum-verification upper-cervical construct workflow be defined for formal cadaver validation?
Day 1 / PM	Station 2 — MISS Screw B	Multilevel subaxial / CTJ MISS fixation + precision drilling	Construct a multilevel subaxial-to-CTJ fixation plan that accounts for changing anatomy, anchor options, rod delivery and transition-zone mechanics.	Use precision drilling and controlled bone work to preserve anatomy while maintaining access for screw placement, decompression where required and fusion-bed preparation.	Which subaxial/CTJ step would benefit most from a redesigned access tool, drill, screw system or rod-delivery solution?
Day 1 / PM	Station 3 — Robotic–Navigation	Advanced robotic/navigation planning for complex cervical trajectories	Compare robotic and navigation-only planning for complex upper- and subaxial-cervical trajectories, including access constraints and planned-versus-achievable trajectory mismatch.	Design a rescue pathway for registration uncertainty, access conflict, reference-frame problems or loss of robotic workflow continuity.	What should a cervical-specific robotic workflow do differently from a thoracolumbar workflow?
Day 1 / PM	Station 4 — Endoscopy	Advanced cervical endoscopy — posterior refinement + anterior frontier	Refine posterior endoscopic decompression with emphasis on difficult foraminal anatomy, bone work, hemostasis and endpoint definition.	Critically appraise anterior endoscopic cervical access and define the prerequisites that separate expert demonstration from appropriate hands-on use.	Should anterior full-endoscopic cervical surgery become a dedicated pilot lab, and under what faculty, equipment and specimen conditions?
Day 1 / PM	Masters Forum 2	Complications, failure analysis & Plan B	Analyze failure modes across MISS exposure, navigation, robotics, drilling, fixation and endoscopy using a recognize → verify → rescue → convert framework.	Define explicit conversion thresholds for situations in which persistence with a minimally invasive or technology-dependent approach is no longer the best strategy.	Use failures to generate design requirements for future instruments and workflow safeguards.
Day 2 / AM	Station 1 — MISS Screw A	Upper cervical MISS troubleshooting — trajectory, construct, fusion and bailout	Analyze difficult O–C/C1–C2 screw and construct scenarios and compare alternative trajectories, fixation points and conversion strategies.	Refine rod/reduction and fusion-bed strategy while preserving the tissue-sparing objective and defining explicit limits of the planned MISS corridor.	Which upper-cervical bailout can remain minimally invasive, and which failure should trigger immediate corridor expansion or open conversion?

Day 2 / AM	Station 2 — MISS Screw B	Advanced subaxial / CTJ MISS — multilevel screws, drilling, rod and fusion strategy	Optimize screw trajectory preparation and controlled drilling across subaxial/CTJ anatomy while preserving facet, laminar and pedicle landmarks.	Compare multilevel rod-delivery and fusion strategies and determine when additional exposure or a hybrid approach improves the overall operation.	Which implant or access feature most limits a truly lateral multilevel cervical/CTJ construct?
Day 2 / AM	Station 3 — Robotic–Navigation	Navigation/robotics troubleshooting + Plan B	Analyze and recover from realistic navigation/robotic problems including verification uncertainty, reference-frame disturbance and trajectory conflict.	Compare robot-assisted execution with a navigation-only or conventional fallback while preserving the same operative objective and verification discipline.	Design the shortest reliable verification pathway after suspected technology failure.
Day 2 / AM	Station 4 — Endoscopy	Endoscopic decompression — hemostasis, endpoints and working-channel limits	Refine posterior endoscopic decompression with emphasis on hemostasis, neural-element control and endpoint definition.	Define expert limits of the working-channel corridor and thresholds for additional decompression, alternative access or conversion.	Which single change to the endoscope, access set or powered instrumentation would most expand safe cervical use?
Day 2 / AM	Masters Forum 3	Hybrid cervical procedures	Design at least two clinically plausible hybrid workflows in which MISS, endoscopy, navigation and/or robotics complement rather than duplicate one another.	Identify the additional complexity, equipment burden and failure points introduced by each hybrid concept and determine whether the potential benefit justifies them.	Select one hybrid workflow for a future cadaver protocol or prospective feasibility study.
Day 2 / PM	Innovation Station 1 — MISS Screw A	Prototype fully lateral O–C / C1–C2 workflow	Convert upper-cervical observations from prior blocks into a deliberately simplified, verification-rich prototype MISS screw workflow.	Identify which current step, implant or instrument should be removed, redesigned or moved in the sequence to reduce tissue disruption or access conflict.	Produce a candidate “next upper-cervical MISS procedure” for future cadaver validation.
Day 2 / PM	Innovation Station 2 — MISS Screw B	Next-generation subaxial / CTJ MISS screw, access and drilling concepts	Convert subaxial/CTJ observations into a prototype workflow integrating corridor creation, precision drilling, screw placement, rod delivery and fusion preparation.	Define at least one instrument or implant modification that could reduce access conflict or simplify multilevel posterior cervical MISS.	Produce one testable “next instrument” or “next construct” concept for the following laboratory cycle.
Day 2 / PM	Innovation Station 3 — Robotic–Navigation	Cervical-specific robotics / integrated navigation prototype	Redesign the planning → registration → guidance → verification sequence specifically for cervical anatomy and small working corridors.	Identify redundant steps, cervical-specific failure points and opportunities to integrate imaging, navigation and robotic guidance more efficiently.	Produce a candidate cervical-specific technology workflow and the minimum experiment needed to test it.
Day 2 / PM	Innovation Station 4 — Endoscopy	Next-generation cervical endoscopic workflow & instrumentation	Translate endoscopic limitations observed during the course into a modified procedural sequence or instrument concept.	Define how endoscopy could interface with MISS fixation, navigation or powered instrumentation without simply adding equipment and complexity.	Produce one next endoscopic procedure, instrument concept or hybrid workflow suitable for cadaver testing.
Day 2 / PM	Innovation Workshop	Next procedure / next instrument / next study	Convert the meeting’s observations into concrete proposals for procedure design, instrumentation, technology integration and research.	Prioritize proposals according to clinical relevance, feasibility and what can realistically be tested in the next cadaver laboratory or multicenter project.	Each group produces one next procedure, one next instrument and one next study.
Day 2 / Close	Plenary	Consensus, roadmap and close	Agree on a concise list of technical principles sufficiently mature for current expert practice and a separate list of concepts that remain experimental.	Define owners and next steps for the highest-priority Future MISS Cervical projects.	End with a living roadmap rather than a post-test.

PARTICIPANT ROTATION MATRIX — WORKING DRAFT

FIXED STATION MAP — S1 MISS SCREW A | S2 MISS SCREW B | S3 ROBOTIC-NAVIGATION | S4 ENDOSCOPY | 4 fresh specimens/day; Day 2 starts with 4 new specimens.

Group	D1 09:00–11:00 / 11:15–13:15	D1 14:15–16:15 / 16:30–18:30	D2 08:30–10:30 / 10:45–12:45	D2 13:30–15:30 / 15:45–17:45	Parallel track
A	S1 — MISS Screw A	S2 — MISS Screw B	S3 — Robotic–Navigation	S4 — Endoscopy	Masters / Innovation Forum during the opposite half-block
B	S2 — MISS Screw B	S3 — Robotic–Navigation	S4 — Endoscopy	S1 — MISS Screw A	Masters / Innovation Forum during the opposite half-block
C	S3 — Robotic–Navigation	S4 — Endoscopy	S1 — MISS Screw A	S2 — MISS Screw B	Masters / Innovation Forum during the opposite half-block
D	S4 — Endoscopy	S1 — MISS Screw A	S2 — MISS Screw B	S3 — Robotic–Navigation	Masters / Innovation Forum during the opposite half-block
E	S1 — MISS Screw A	S2 — MISS Screw B	S3 — Robotic–Navigation	S4 — Endoscopy	Masters / Innovation Forum during the opposite half-block
F	S2 — MISS Screw B	S3 — Robotic–Navigation	S4 — Endoscopy	S1 — MISS Screw A	Masters / Innovation Forum during the opposite half-block
G	S3 — Robotic–Navigation	S4 — Endoscopy	S1 — MISS Screw A	S2 — MISS Screw B	Masters / Innovation Forum during the opposite half-block
H	S4 — Endoscopy	S1 — MISS Screw A	S2 — MISS Screw B	S3 — Robotic–Navigation	Masters / Innovation Forum during the opposite half-block

Rotation principle: each group has four 2-hour cadaver exposures across the meeting and visits each fixed station platform once. There are 4 fresh cadaveric specimens on Day 1 and a completely new set of 4 fresh specimens on Day 2 (8 specimens total). The opposite half-block is used for the Masters / Innovation Forum.

EQUIPMENT / STATION REQUIREMENTS — WORKING SPECIFICATION

Priority	Requirement
MANDATORY	Cadaver lab configured as exactly 4 simultaneous stations: TWO dedicated MISS screw instrumentation stations, ONE robotic–navigation station, and ONE full-endoscopic cervical station.
MANDATORY	Specimen logistics: 4 fresh cadaveric specimens for Day 1 + 4 NEW fresh cadaveric specimens for Day 2 (8 total), with one dedicated specimen per station per day. Specimen anatomy should support the planned cervical work for that station.
MANDATORY	Two complete MISS screw instrumentation sets running in parallel, covering planned O–C/C1–C2 and subaxial/CTJ work, limited posterior corridors, screw insertion, rod connection/reduction and fusion-bed preparation.
MANDATORY	One complete robotic–navigation station: intraoperative 3D imaging + navigation plus Mazor X/robotic platform if retained as an advertised pillar, including all frames, disposables, registration and verification components for specimen use.
MANDATORY	One complete full-endoscopic uniportal cervical station with continuous irrigation, RF/coagulation, cervical access cannulas, punches/rongeurs, graspers and endoscopic high-speed drill/burr system.
MANDATORY	High-speed drilling is an INTEGRATED capability rather than a separate fifth station: conventional high-speed drill/burr set available at MISS Screw B, with endoscopic drilling capability at the endoscopy station.
MANDATORY	Appropriate implants, rods, reduction tools, navigation/robotic disposables, endoscopy consumables and backup instrumentation sufficient to keep all four stations active throughout each laboratory day.
MANDATORY	Video display/capture from navigation, robotics and endoscopy systems where feasible, to support immediate master-to-master comparison, debrief and Innovation Lab review.
CONDITIONAL	Dedicated anterior cervical endoscopic access instrumentation and a faculty member with current hands-on anterior cervical endoscopic practice if anterior endoscopy is to be advertised as hands-on rather than demonstration/discussion.
DESIRABLE	Prototype or alternative MISS screw/rod/access instruments that faculty wish to compare during the Future MISS Cervical Innovation Lab, provided they are compatible with laboratory rules and specimen use.