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MONTHLY BRIEFING · FREE

Microtherapy Developments

What's new in image-guided therapy, once a month — with sources.

RESEARCH
Studies from PubMed, each linked to its source

PRODUCTS
Scored on a public 6-category, 60-point rubric

CONFERENCES
The meetings worth planning for

INDUSTRY
Approvals, funding, new centres

THIS MONTH · NOVEMBER 2026

Automated Hybrid Marker Cuts Spinal Navigation Registration Time from 22.6 to 2.8 Seconds

8	2	3	3
studies	products scored	conferences	industry news

THERAPIES	Studies on predicting biopsy complications, MRI-guided liver ablation outcomes, and spinal navigation registration accuracy.
ROBOTICS	Robotic platforms for CT-guided needle insertion, lung biopsy, and bone intervention under early clinical and animal study.
PRODUCTS	Atlas Laser Robot Arm 35/60 GOOD · EmeryGlide Guidewire 43/60 GOOD
CONFERENCES	RSNA 2026 Nov 29–Dec 3 · SIR 2027 Mar 20–24 · ECIO 2027 May 1–5
INDUSTRY	New regulatory clearances for thrombectomy, vascular closure, and embolization plug devices.

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Prof. Dr. Michael Friebe

informational only · not medical advice

microtherapy.world newsletter - 2026-11

Sent 2026-11-01

Automated Hybrid Marker Cuts Spinal Navigation Registration Time from 22.6 to 2.8 Seconds

This issue covers everything relevant published between 2026-10-01 and 2026-11-01, automatically gathered from PubMed and web search, alongside newly evaluated products on the site.

Image-guided therapies

Development and validation of a nomogram for predicting chest drainage after CT-guided percutaneous lung biopsy: a multicenter retrospective study.

Frontiers in oncology - 2026

A multicenter study of 2,492 patients developed and externally validated a ridge logistic regression nomogram using nine pre-procedural variables to predict the need for chest drainage after CT-guided percutaneous lung biopsy, offering a practical risk-stratification tool for interventional planning.

https://pubmed.ncbi.nlm.nih.gov/42935747/

MRI-guided microwave ablation of hepatic malignancies: 4-year institutional outcomes.

PloS one - 2026

A 4-year single-center review of MR-guided microwave ablation for 21 hepatic malignancies in 16 patients (mostly HCC) assessed safety and efficacy using CIRSE-classified complications, local tumor progression, and progression-free survival, supporting MRI guidance as a viable ablation platform for liver tumors.

https://pubmed.ncbi.nlm.nih.gov/42932317/

A Dual-Modal Hybrid Marker for Automatic Registration and Coordinate Hand-Over in C-Arm CT-Guided Spinal Navigation.

Sensors (Basel, Switzerland) - 2026 Oct 12

A novel dual-modal hybrid registration frame for C-arm CT-guided spinal navigation achieved markedly better accuracy than manual registration (mean target registration error 0.538 mm vs 1.565 mm) while cutting registration time from 22.6 to 2.8 seconds, demonstrating a path toward faster, more precise automated spinal navigation.

https://pubmed.ncbi.nlm.nih.gov/42944296/

An Analysis of CT-Guided Percutaneous Core Needle Biopsy of Tibial Lesions: How Successful Are We?

Journal of surgical oncology - 2026 Oct 29

A quaternary sarcoma center review of 272 tibial lesion patients (43 undergoing CT-guided core needle biopsy) evaluated diagnostic performance and factors affecting biopsy success, providing data to help optimize image-guided bone tumor sampling strategies.

https://pubmed.ncbi.nlm.nih.gov/42954045/

New on the webpage

Atlas Laser Robot Arm

Initial score: 35/60 - GOOD

https://microtherapy.world/products/atlas-laser-robot-arm-a04b3c4a

EmeryGlide Guidewire - trackr. Platform (Nano4Imaging)

Initial score: 43/60 - GOOD

https://microtherapy.world/products/emeryglide-guidewire-nano4imaging

Robotic-assisted surgeries

Robots for CT-guided needle insertion: clinical implementation and future perspectives.

Japanese journal of radiology - 2026 Oct 24

A review of clinical implementation of robotic systems for CT-guided needle insertion, outlining current platforms and future perspectives for this growing interventional radiology technology.

https://pubmed.ncbi.nlm.nih.gov/42925378/

First-in-human pilot study of a robotic-assisted system for image-guided trans-thoracic lung biopsy: Clinical feasibility and exploratory post-hoc AI trajectory analysis.

European journal of radiology - 2026 Nov

First-in-human pilot study of the ANT-C patient-mounted robotic needle-guidance platform for CT-guided trans-thoracic lung biopsy under local anesthesia, demonstrating technical feasibility in 30 evaluable patients with exploratory AI-based trajectory analysis.

https://pubmed.ncbi.nlm.nih.gov/42492116/

Sample Adequacy PD-L1 and NGS in NSCLC: Shape-Sensing Robotic Assisted Bronchoscopy Versus CT Guided Lung Biopsy.

Lung - 2026 Oct 15

Single-center retrospective study comparing shape-sensing robotic-assisted bronchoscopy versus CT-guided transthoracic lung biopsy for sample adequacy in PD-L1 and NGS testing in NSCLC patients.

https://pubmed.ncbi.nlm.nih.gov/42875565/

A novel robot for CT-guided bone needle insertion with a rotational drilling and force-feedback speed control mechanism: preliminary evaluation in swine.

Japanese journal of radiology - 2026 Oct

Preliminary swine evaluation of a novel robot for CT-guided bone needle insertion featuring rotational drilling and force-feedback speed control, representing an early step toward robotic bone biopsy/intervention.

https://pubmed.ncbi.nlm.nih.gov/42287345/

Upcoming conferences

RSNA 2026 (Radiological Society of North America Annual Meeting)

November 29 - December 3, 2026, McCormick Place, Chicago, Illinois, USA - World's largest radiology and medical imaging meeting; features a growing interventional/IR track and the AI Showcase, with technical exhibits running Nov. 29-Dec. 2.

https://www.rsna.org/annual-meeting

SIR 2027 Annual Scientific Meeting (Society of Interventional Radiology)

March 20-24, 2027, Los Angeles Convention Center, Los Angeles, CA, USA - Premier North American gathering for interventional radiologists, covering interventional oncology, vascular intervention, embolization and emerging image-guided technologies.

https://www.sirweb.org/education/events/sir-2027-annual-scientific-meeting/

ECIO 2027 (European Conference on Interventional Oncology)

May 1-5, 2027, Palma de Mallorca, Spain - CIRSE-organized annual meeting dedicated specifically to interventional oncology, with 2027 programme adding new AI and liver-treatment focused sessions.

https://www.ecio.org/about/what-is-ecio/

Other relevant information

E2 (Endovascular Engineering) wins FDA clearance for H?lo thrombectomy and blood return system

On October 13, 2026, Endovascular Engineering, Inc. announced FDA 510(k) clearance for both the H?lo thrombectomy system and H?lo Return blood return system, indicated for thrombus/embolus removal from pulmonary arteries and venous vasculature, supported by data from the ENGULF IDE study.

https://citoday.com/news/fda-clears-e2-helo-thrombectomy-system-and-integrated-blood-return-system-1

Haemonetics receives FDA approval for PerQseal Elite large-bore vascular closure system

On October 19, 2026, Haemonetics announced FDA approval of the PerQseal Elite vascular closure system, a sutureless, fully bioabsorbable patch-based device for large-bore arterial closure (14-22F sheaths) following structural heart and endovascular

procedures, following its acquisition of Vivasure Medical earlier in the year.
https://haemonetics.gcs-web.com/news-releases/news-release-details/haemonetics-announces-fda-approval-perqsealr-elite-vascular

Shape Memory Medical receives ANVISA authorization for IMPEDE embolization plug family in Brazil

On October 6, 2026, Shape Memory Medical announced that Brazil's ANVISA granted market authorization for the IMPEDE Embolization Plug, IMPEDE-FX Embolization Plug, and IMPEDE-FX RapidFill, extending access to its shape-memory-polymer peripheral embolization devices in one of Latin America's largest endovascular markets.
https://www.financialcontent.com/article/bizwire-2026-10-6-shape-memory-medical-receives-anvisa-market-authorization-for-impede-embolization-plug-family-in-brazil

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