

WEEKLY AI INTELLIGENCE REPORT

Radiology and Medical Imaging

Week 25 | 13 to 20 June 2026

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Compiled from publicly available sources (indexed peer-reviewed literature, official press releases, regulatory databases). Does not constitute medical, regulatory, or financial advice.

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SECTION 0

EXECUTIVE SUMMARY

*Key trends, week of 13 to 20 June 2026***[TREND] AGENTIC AI: CLINICAL THRESHOLD CROSSED**

The MIRA publication in Nature (17 June) demonstrates that an AI agent integrated with EHRs surpasses physicians in diagnostic accuracy, including imaging. Conceptual breakthrough: from decision support toward automation of clinical reasoning.

[FDA] PCCP FRAMEWORK ADOPTED FOR ADAPTIVE AI

Final order classifying quantitative ML imaging software with PCCP as Class II (17 June). Enables post-market algorithm updates without a new 510(k) for each change, a major accelerator for adaptive AI in radiology.

[ALERT] MIDJOURNEY MEDICAL: CLAIMS VS REALITY

Announcement of whole-body ultrasound scanner (Butterfly Network, 74 million dollars). Documented gap: 60-second claim versus approximately 20 minutes in prototype. No FDA authorization. Strong critical response from radiologists.

[MARKET] CONSOLIDATION BY PRIVATE EQUITY

TA Associates invests in AIRS Medical (SwiftMR, 1,700-plus institutions). 1,524 FDA medical AI authorizations in Q1 2026 (plus 28% vs Q4 2025), 76% in radiology. Consolidation around players with proven commercial traction.

[WATCHPOINT] LLM LIMITATIONS IN RADIOLOGY CONFIRMED

Two independent studies (European Radiology, Scientific Reports, 17-19 June) demonstrate that zero-shot LLMs (GPT-4.1, GPT-4o, Claude 3.5 Sonnet, Gemini 1.5 Pro) are insufficient for autonomous verification of radiology reports and fracture detection. Domain specialization remains essential.

SECTION 1

PEER-REVIEWED PAPERS

Source: PubMed | Verified indexing | No preprints | 13-20 June 2026

ARTIMES: AI-assisted volumetric response criteria in pleural mesothelioma

Groot Lipman KB et al. (Netherlands Cancer Institute / 14 international cohorts) | [The Lancet Oncology](#) | 17 June 2026

Multicenter retrospective study (14 cohorts, 10,926 CT scans, 2,080 patients) developing automated volumetric response criteria (ARTIMES) for pleural mesothelioma. A deep learning segmentation model (internal DSC 94-95%) replaces the inadequate mRECIST criteria for crescent-shaped tumor growth. ARTIMES detects progression a median of 5 weeks earlier (124 vs 162 days, $p < 0.0001$) and shows better correlation with overall survival at the trial level (R 88% vs 6% for mRECIST).

Key metrics: Internal DSC 94-95%. Patient-level concordance index: 0.83 vs 0.73 (mRECIST, $p = 0.023$). Early detection: minus 5 weeks. Validation: 8 clinical trials, 4,674 CT scans, 943 patients.

Clinical relevance: First multi-validated AI radiological response framework for mesothelioma. Potential as a primary endpoint in future trials. Segmentation architecture transferable to other tumors with complex geometry.

PMID 42309108 DOI 10.1016/S1470-2045(26)00084-7

MIRA: Toward autonomous medical AI agents integrated with the electronic health record

Multicenter team (Nature publication) | [Nature](#) | 17 June 2026

Landmark Nature paper presenting MIRA (Medical Intelligence Reasoning Agent), an AI agent integrated with electronic health records that outperforms physicians in diagnostic accuracy including imaging interpretation and treatment planning. The agent works iteratively across the full patient record for complex diagnostic tasks in a multimodal context.

Key metrics: Diagnostic performance superior to physicians on evaluated benchmarks. Native EHR integration. Multi-step reasoning on multimodal data including imaging.

Clinical relevance: Conceptual breakthrough toward autonomous medical agentic AI. Directly relevant to radiology: such an agent can trigger, interpret, and integrate examinations into an autonomous care pathway. Strong signal for anticipating the evolution of radiological work models.

PMID 42310457 DOI 10.1038/s41586-026-10675-5

GPT-4.1 and Llama 3.3 70B fail to detect clinically relevant errors in radiology reports (zero-shot)

TU Munich / University of Basel team | [European Radiology](#) | 19 June 2026

Zero-shot evaluation of GPT-4.1 and Llama 3.3 70B for detection of 4 error types in 256 radiology reports (CT, MRI, radiograph). Heterogeneous performance: GPT-4.1 reaches 85.4% on inappropriate recommendations (radiograph) but only 16.3% on physiologically impossible errors (CT). No model achieves sufficient reliability for autonomous clinical deployment.

Key metrics: 256 reports, 4 error types. GPT-4.1: 85.4% (inappropriate recommendations, XR) vs 16.3% (physiologically impossible errors, CT). Zero-shot, no domain fine-tuning.

Clinical relevance: Evidence that current general-purpose LLMs are unreliable for automated verification of radiology reports on high-impact clinical errors. Guides deployments toward supervised or domain-specific RAG architectures.

PMID 42319406 DOI 10.1007/s00330-026-12697-z

Zero-shot multimodal LLMs vs trained CNN: pediatric wrist fracture detection

Haupt M et al. (Carl von Ossietzky University Oldenburg) | [Scientific Reports](#) | 17 June 2026

Head-to-head comparison of GPT-4o, Claude 3.5 Sonnet, and Gemini 1.5 Pro (zero-shot) versus Inception v3 CNN trained on GRAZPEDWRI-DX (1,000 children, 2,298 radiographs). The CNN achieves AUROC 0.905 while all LLMs perform near chance (accuracy below 55%, MCC approximately 0). LLM bounding boxes are frequently inconsistent with expert annotations.

Key metrics: CNN: AUROC 0.905, AUPRC 0.920. LLMs: accuracy below 55%, MCC approximately 0 across all three models. Dataset: 500 fractures / 500 non-fractures, patient level.

Clinical relevance: Rigorous demonstration that current multimodal LLMs are unsuitable for pediatric fracture detection without domain specialization. Decisive argument for hybrid architectures (LLM plus specialized visual models).

PMID 42310365 DOI 10.1038/s41598-026-58763-w

AI-enhanced right ventricular quantification on myocardial perfusion PET/CT

Shanbhag A, Miller RJH, Slomka PJ et al. (Cedars-Sinai / 11-site multicenter) | [Journal of Nuclear Medicine](#) | 18 June 2026

Multicenter study (11 sites, 25,444 patients) using deep learning to automatically segment and quantify right ventricular activity from attenuation correction CT in myocardial perfusion PET. Peak resting RV activity is associated with increased risk of death or MI (HR 1.17-1.19 per SD) independently of classic factors including myocardial flow reserve.

Key metrics: 25,444 patients, 11 sites, median follow-up 4.1 years. 6,009 events (death/MI). HR 1.17 (NH3) and 1.19 (Rb) per SD in adjusted analysis.

Clinical relevance: Demonstrates utility of automatic segmentation for extracting prognostic biomarkers from routine images without additional workload. Immediately applicable in PET/CT centers. Repositions the RV as an AI quantification target in nuclear cardiac imaging.

PMID 42315311 DOI 10.2967/jnumed.125.271894

Meningioma segmentation with calibrated uncertainty quantification on brain MRI

Guenoun Y et al. (UCSF Center for Intelligent Imaging) | [NPJ Digital Medicine](#) | 19 June 2026

Deep learning framework using evidential ensembles for meningioma segmentation on MRI with calibrated aleatoric and epistemic uncertainty. Trained on 1,655 MRI scans (788 patients), validated on 353 external patients. Uncertainty maps align with ambiguous regions identified by neuroradiologists.

Key metrics: Median Dice 0.93 (internal test, 68 scans), 0.92 (external validation, 353 patients). Well-calibrated volumetric credible intervals.

Clinical relevance: Directly addresses the clinical trust problem in AI: provides not only a segmentation but a pixel-by-pixel reliability estimate. Essential paradigm for safe clinical adoption.

PMID 42321390 DOI 10.1038/s41746-026-02902-0

The AI implementation gap in trauma radiography: standalone versus discretionary fracture detection

Semmelweis University Budapest team | [European Radiology Experimental](#) | 16 June 2026

Study on 2,317 trauma radiographs comparing standalone AI (results systematically displayed) versus discretionary AI (radiologist decides when to consult). Standalone AI achieves 90.7-94.1% accuracy. Discretionary AI does not systematically improve radiologist sensitivity, suggesting the access mode conditions benefits as much as algorithmic performance.

Key metrics: 2,317 trauma radiographs. Standalone AI: 90.7-94.1% accuracy. Discretionary AI: no significant improvement in radiologist sensitivity versus solo reading.

Clinical relevance: Counter-intuitive but robust result: on-demand AI does not produce the same benefits as systematically integrated AI. Integration modality is as critical as model performance.

PMID 42301372 DOI 10.1186/s41747-026-00763-6

Predicting early-stage breast cancer disease-free survival with multimodal deep learning on MRI and clinical data

Yu Y, Liang C, Wu L et al. (Guangdong Provincial Hospital / Southern Medical University) | [NPJ Breast Cancer](#) | 17 June 2026

Multimodal model (DCCA: dynamic contrast MRI plus DWI plus clinical text data) for predicting disease-free survival in 1,120 patients with early-stage breast cancer (multicenter retrospective). C-index 0.742 (training) and 0.735 (external validation). The MuS score identifies subgroups likely to benefit from adjuvant therapy (HER2+, HR+, T2 stage).

Key metrics: C-index 0.742 (n=459 training), 0.735 (n=661 external validation). Independent prognostic value after clinicopathological adjustment.

Clinical relevance: Illustration of multiparametric MRI combined with AI for personalized therapeutic stratification. Reproducible multimodal fusion architecture for other cancers.

PMID 42310310 DOI 10.1038/s41523-026-00991-4

SECTION 2

INDUSTRY & REGULATION

Sources: Official registers | Press releases | FDA databases

[FDA] FDA final order: PCCP classification of ML imaging software as Class II*U.S. Food and Drug Administration | 17 June 2026*

The FDA published a final order classifying quantitative ML-based imaging software with a Predetermined Change Control Plan (PCCP) as Class II devices (21 CFR Part 892, FDA-2026-N-6535). This framework allows manufacturers to modify their algorithms post-market under pre-approved protocols, without a new 510(k) submission for each update. A major step forward for adaptive AI in radiology.

Source: [Federal Register FR-2026-06-17/2026-12165](#)

[ALERT] Midjourney Medical: whole-body ultrasound scanner claims versus reality*Midjourney Medical / Butterfly Network | 17-19 June 2026*

Midjourney's medical subsidiary announced a partnership with Butterfly Network (up to 74 million dollars over 5 years) for a whole-body ultrasound scanner. Claims: 60-second exam, early multi-pathology detection. Documented reality: prototype takes approximately 20 minutes, no FDA authorization, no published clinical efficacy data. The radiology community (Francis Deng/Hopkins, Laura Heacock/NYU Langone) raised significant clinical objections.

Source: [Radiology Business, 19 June 2026](#)

[MARKET] TA Associates invests in AIRS Medical (SwiftMR)*AIRS Medical / TA Associates | 16-17 June 2026*

TA Associates invested in AIRS Medical, developer of SwiftMR, a deep learning solution for MRI reconstruction and image enhancement. SwiftMR is deployed in more than 1,700 institutions across 40-plus countries, processing approximately 6 million exams per year. The investment targets geographic expansion and product development.

Source: [Radiology Business, 17 June 2026](#)

[REGULATION] FDA: 1,524 medical AI authorizations, 76% in radiology (Q1 2026: plus 28%)*FDA / The Imaging Wire | 17-18 June 2026*

Update to the FDA AI device database: 1,524 total authorizations as of 31 March 2026, of which 1,164 are in radiology (76%). Q1 2026 recorded 92 new authorizations, a 28% increase versus Q4 2025. Top vendors: Siemens Healthineers, Aidoc, Viz.ai, Gleamer.

Source: [The Imaging Wire, 17 June 2026](#)

[PARTNERSHIP] Rad AI plus Yale New Haven Health: large-scale ambient radiology reporting*Rad AI / Yale New Haven Health | Announced SIIM 10 June, coverage 13 June*

Announced at SIIM 2026 (Pittsburgh): Rad AI and Yale New Haven Health (16-plus outpatient sites, 5 hospital campuses) deploy the Rad AI ambient reporting solution. First-week result: 12% efficiency gain. Yale New Haven Health processes approximately 1.5 million imaging exams per year.

Source: [Rad AI official press release](#)

[ALERT] AI device recalls: radiology carries 52% higher risk (JAMA Network Open)*JAMA Network Open | Published 11 June, coverage 15 June 2026*

Analysis of 903 FDA-authorized medical AI devices: 5% recalled. Radiology devices carry a 52% higher recall risk than average. Key risk factor: absence of clinical study data in the submission dossier. Recalls occur predominantly within 2 years of authorization.

Source: [Radiology Business, 15 June 2026](#)

SECTION 3

MEDIA HIGHLIGHTS

[AuntMinnie](#) | [Radiology Business](#) | [The Imaging Wire](#) | [MobiHealthNews](#) | [Healthcare IT News](#)

SIIM 2026: supplemental PACS as an AI imaging workflow validation tool

[AuntMinnie.com](#) | 17 June 2026

SIIM 2026 Pittsburgh coverage: presentation arguing a dedicated secondary PACS allows validation of AI imaging outputs in a controlled environment before integration into the main workflow.

Link: <https://www.auntminnie.com/imaging-informatics/artificial-intelligence/article/1...>

Midjourney Medical: 74 million dollars for whole-body ultrasound, radiology community responds

[Radiology Business](#) | 19 June 2026

In-depth analysis of the Midjourney Medical announcements, the gap between marketing claims and clinical reality, and the radiology community response.

Link: <https://radiologybusiness.com/topics/healthcare-management/healthcare-economics/...>

Private equity in radiology AI: TA Associates and AIRS Medical

[Radiology Business](#) | 17 June 2026

Analysis of the TA Associates investment in AIRS Medical, signaling sustained private equity interest in radiology AI assets generating recurring revenue at scale.

Link: <https://radiologybusiness.com/topics/artificial-intelligence/private-equity-inve...>

FDA: top 10 AI vendors by number of authorizations

[The Imaging Wire](#) | 17 June 2026

Mapping of the main FDA-authorized radiology AI market players. Essential data for comparative evaluation of technology partners and competitive market analysis.

Link: <https://theimagingwire.com/2026/06/17/top-10-radiology-ai-vendors-by-number-of-f...>

Human oversight essential for AI-augmented radiology — Mayo Clinic

[MobiHealthNews](#) | 18 June 2026

Statement by Yashbir Singh (Mayo Clinic): human oversight remains a structural necessity, not a transitional measure, in AI radiology workflows.

Link: <https://www.mobihealthnews.com/video/human-oversight-needed-ai-augmented-radiolo...>

Imaging roundup: data protection, automated reporting, and AI news

[Healthcare IT News](#) | 17 June 2026

Weekly roundup covering AI imaging initiatives: data encryption, automated reporting solutions, and related developments for the week of 13-20 June 2026.

Link: <https://www.healthcareitnews.com/news/imaging-roundup-ai-protects-medical-data-a...>

SECTION 4

PROFESSIONAL SOCIETIES

SIIM | ACR | ESR | Official publications

SIIM Annual Meeting 2026 (Pittsburgh, 10-12 June): AI enters the operational era

Active coverage week of 13-20 June 2026

Dominant theme: transition from experimentation to systemic implementation ("workflow intelligence"). Highlights: (1) Publication of the joint ACR-SIIM Practice Parameter on AI imaging governance. (2) Presentation on LLMs in complex digital tasks with limited performance on structured calculations. (3) Discussion on AI billing models. (4) Governance transition: Dr. Safdar passes the presidency to Dr. Adam Towbin. (5) Woojin Kim named SIIM Fellow (FSIIM).

Source: <https://noah-news.com/ais-shift-from-experimentation-to-routine-in-medical-imaging-accelerates-at-siim/>

ACR-SIIM Practice Parameter on AI in imaging: official publication

June 2026

Publication of the first joint ACR-SIIM reference framework defining best-practice parameters for deployment, validation, and monitoring of AI systems in medical imaging. Reference document for institutions seeking to structure AI governance within a framework recognized by the two leading North American professional societies.

SECTION 5

KEY OPINION LEADERS

LinkedIn | Public statements | Week of 13-20 June 2026

Eric Topol, MD

Director, Scripps Research Translational Institute | Cardiologist, digital epidemiologist

LinkedIn post of 12 June commenting on a rigorous study comparing general-purpose LLMs (OpenAI, Anthropic, Google) versus specialized models (OpenEvidence, UpToDate AI) for medical information. Counter-intuitive result: general-purpose models substantially outperform specialized models. Direct implication for clinical tooling strategies: domain specialization does not yet equate to performance superiority. Relevant to AI tool selection in radiology.

Source: [LinkedIn](#), 12 June 2026

Woojin Kim, MD

Chief Medical Officer, Aidoc | SIIM Fellow (FSIIM), named 10 June 2026

Named Fellow of SIIM (FSIIM) at the SIIM Annual Meeting 2026, the highest distinction for contribution to imaging informatics. Woojin Kim is a central figure in the operational deployment of AI in radiology.

Source: [LinkedIn](#), 10 June 2026

Yashbir Singh, PhD

Researcher, Mayo Clinic, AI and Medical Imaging

Statement published this week (MobiHealthNews): human oversight remains a structural necessity, not a transitional measure, in AI radiology workflows. Warning against premature autonomization of detection systems without validated continuous monitoring protocols. Position consistent with FDA recall data (JAMA Network Open).

Source: [MobiHealthNews](#), 18 June 2026

Radiology community (Deng / Heacock / D'Anna)

Radiologists, Johns Hopkins / NYU Langone / CDI Milan

Collective response published in Radiology Business (19 June) following the Midjourney Medical announcement: clinical skepticism on claimed timelines (60 seconds vs approximately 20 minutes in reality), questions about absent clinical validation data and regulatory implications (no FDA authorization). Illustrates growing vigilance of the radiology community toward unvalidated public claims.

Source: [Radiology Business](#), 19 June 2026

QUALITY ASSURANCE NOTE

This report is compiled by Dr. Sergey Morozov from publicly available sources: peer-reviewed papers indexed in PubMed (valid PMIDs and DOIs, no preprints or arXiv), official press releases, regulatory databases (FDA), and specialist media. It does not constitute medical, regulatory, or financial advice. PubMed publication dates verified within the 13-20 June 2026 window. The Curt Langlotz LinkedIn post regarding RCR Global AI (29-30 June, London) could not be confirmed within the exact 13-20 June window and was not included. The FSIIM appointment of Woojin Kim is dated 10 June (SIIM meeting) and is included given active coverage during the report week.