

Artificial Intelligence Transformed Analyses

# AIRAProstate

### **Platform for Prostate Image Analysis**

Automate Gleason grading, ISUP grouping, and prognostic marker quantification in core needle biopsy (CNB) and radical prostatectomy (RP) for accurate risk stratification, leading to better treatment decisions

### **AI-Driven Insights**

- Built on deep learning models trained on data from 10,000+ patients across six global centers to support accurate and consistent analysis
- Demonstrates high concordance with expert pathologists, achieving up to
   0.92 quadratic weighted kappa

#### **Robust Performance in Real-World Conditions**

- Validated on slides with artifacts, diverse staining protocols, and multiple scanner types to ensure consistent performance
- Benchmarked against leading commercial and academic AI solutions to assess reliability and accuracy

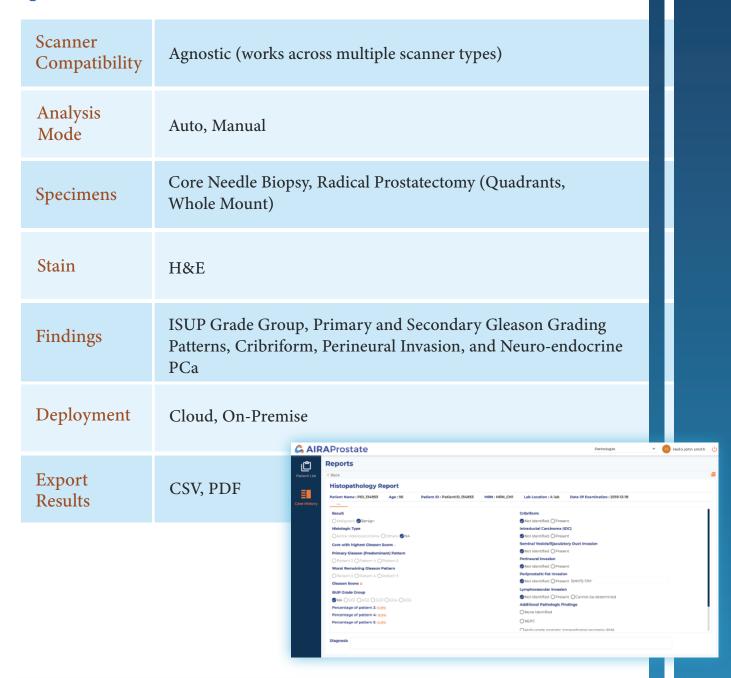
### **Comprehensive Case Review & Integration**

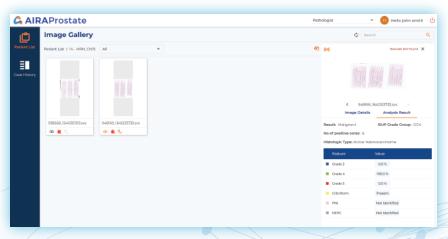
- WRN-Based Slide Review View all slides associated with a patient's MRN in a single platform for a streamlined, comprehensive case assessment
- Holistic Case History View
  Access linked MRNs to gain a complete diagnostic overview, supporting well-informed treatment decisions

#### **Advanced Image Analysis & Reporting Tools**

- Hands-free navigation, advanced annotation tools, and synchronized AI-result comparison for efficient viewing and analysis
- Generate customizable reports for both manual review and automated assessments, tailored to specific workflow needs

### **Specifications**



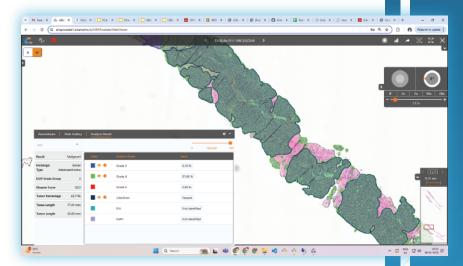


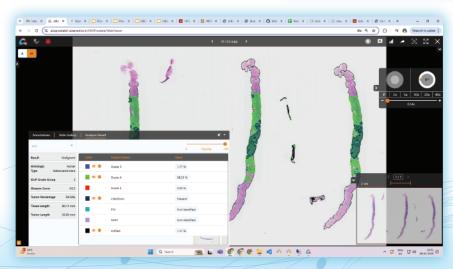
#### Automated, Standardized, and Reliable

- Minimizes variability in Gleason grading and ISUP classification, enhancing risk stratification
- Seamlessly integrates with existing image management systems, with ongoing expansions for broader compatibility
- Ockerized AI algorithms optimized for smooth deployment and interoperability
- Validated against consensus pathologists and clinical outcome to ensure diagnostic consistency and accuracy

#### Capabilities for Core Needle Biopsy (CNB)

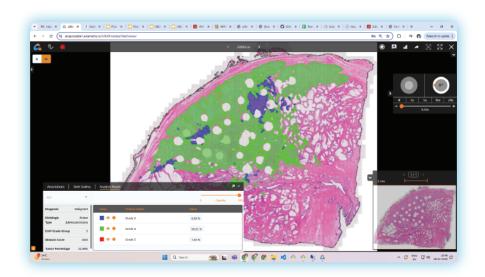
- Tumor identification (Adenocarcinoma)
- Gleason pattern 3, 4, 5 percentage estimation
- Tumor length & percentage assessment
- Cribriform pattern detection
- Perineural invasion analysis

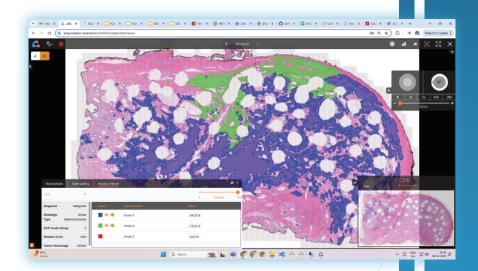




### **Capabilities for Radical Prostatectomy (RP)**

- Tumor percentage quantification
- Gleason grading & ISUP classification
- Small vs. large cribriform pattern identification
- Surgical Margin estimation





#### **Enhancing Diagnostic Efficiency & Communication**

- Enables faster, more accurate diagnoses by reducing interobserver variability
- Enhances pathologist-urologist collaboration for more effective treatment planning
- Improves efficiency with automated triage, tumor detection, and AI-driven annotations, saving time in clinical workflows
- AI-generated patient-specific modeling for prognosis and personalized treatment planning.

## **Experience the Future of Prostate Cancer Diagnostics**

See how AIRAProstate can streamline your workflow and enhance patient outcomes

Contact us for a demo at solutions@airamatrix.com

solutions@airamatrix.com



Artificial Intelligence