

ADLM Data Science Strategy Summary, 2026–2029

Introduction

Data science is increasingly central to laboratory medicine. As the volume and complexity of laboratory data grow, computational methods, statistical analysis, and domain expertise can improve diagnostic accuracy, operational efficiency, and patient outcomes.

ADLM has invested in data science through education, policy, partnerships, governance, and professional engagement; however, impact has sometimes been constrained by fragmentation and uneven visibility. This strategy aligns activities under a shared direction focused on demonstrating value in practice, empowering members to lead data-driven healthcare, and increasing the visibility and influence of laboratory data science.

This summary highlights ADLM's 2026–2029 priorities, objectives, and strategic pillars to advance the data science pillar of ADLM's 2024–2029 organizational strategic plan.

Key Priorities

- Convene a **standalone Data Science Symposium** as the primary in-person forum for advanced education, collaboration, and leadership
- Deliver an **integrated communications strategy** that sustains awareness and advances data science advocacy
- Build **strategic partnerships** (industry, regulators, peer societies) that enable standards-based, real-world impact
- Create **tiered education and professional development pathways** that move members from literacy to applied practice to leadership
- Promote **outcome-focused evidence** demonstrating how laboratory data science improves diagnostic practice, efficiency, and patient care.

Strategic Objectives

- **Demonstrate the value of laboratory data science.** ADLM will prioritize high-impact use cases, rigorous evaluation, and outcome-focused metrics to strengthen the evidence base for routine practice.
- **Empower ADLM members to lead data-driven healthcare.** ADLM will provide practical education, tools, and community to build member capacity and professional identity in laboratory data science.
- **Enhance visibility and awareness of ADLM's data science leadership.** ADLM will increase visibility of initiatives to deepen engagement, attract partners, and reinforce ADLM as a trusted convener and authority.

Core Strategic Pillars

- **Education.** Build a cohesive ecosystem spanning literacy, applied practice, and leadership through accessible learning, tiered pathways, a standalone Symposium, and mentorship/recognition.
- **Strategic partnerships.** Strengthen internal collaboration and pursue external partnerships (IVD, LIS/EHR, health AI, peer societies, regulators) to advance data access, standards-based analytics, and scalable impact.

- **Empowering evidence-based practice.** Advance laboratory data science as an evidence-based discipline through outcome studies, standardized metrics, workflow-ready playbooks, and shared case examples.
- **Communications.** Deliver consistent messaging that increases alignment across ADLM and builds trust and clarity with clinicians, industry, regulators, and partners.

Conclusion

With successful implementation over the next four years, laboratory data science will be recognized as an evidence-based discipline integral to routine practice, and ADLM members will have clear pathways from literacy to leadership. ADLM will be recognized by clinicians, industry, regulators, and partner organizations as a trusted convener and authority in data science for laboratory medicine.

Developed by the ADLM Data Analytics Steering Committee.