

Methodological Niche x Core Services Matrix

This matrix maps out the structural separation between the **5 methodological pillars** and **6 core service offerings** of SPECTRA, explicitly dividing high-level strategic alignment from full project execution.

Methodological Niche Axis	Research & Methodology Consultation	Publication Planning & Medical Writing	Systematic Review & Meta-Analysis	Medical Fact Checking	Education Innovation Strategy	One-on-one Academic Coaching
Omni-Spectrum Design Architecture (<i>Interventions, Cohorts, In-vitro Experiments</i>)	Mapping and auditing design-specific protocols for addressing research strategies, data collection, and grants preparation.	Crafting manuscripts to meet journal publication standards and clinical study reports (CSRs) aligning with study design-specific reporting guidelines such as the STROBE checklist for cohorts.	Designing rigorous study screening, search parameters, and risk-of-bias assessments using standardized guidelines such as PRISMA and Cochrane.	Line-by-line verification of clinical trial registries, statistical outputs, and protocols against final text.	Translating complex trial data, molecular mechanisms, or clinical guidelines into accredited medical education assets.	Guiding master's and doctoral students through milestone project (clinical, epidemiological or experimental) timelines, operations, and dissertation defences.
Gold-Standard Cochrane Literature Synthesis (<i>PECO/PICO, Literature search strategies, Data extraction, Risk of Bias, Meta-Regression</i>)	Upfront consulting on PECO/PICO formulation, hypothesis viability, and review protocol architecture prior to registration.	Formatting review protocol for registration. Mapping target-journal selection, timelines, and formatting strategies for publishing systematic reviews – <i>Excluding protocol drafting, screening, and writing.</i>	End-to-end development of the review protocol, database searching, screening, extraction, risk-of-bias modelling, data synthesis, and final paper drafting.	Verifying completed secondary literature datasets to check data point accuracy, bias scoring, and heterogeneity consistency.	Designing university-grade or professional Evidence-Based Practice (EBP) training programs based on the Cochrane Handbook.	Coaching masters and doctorate students step-by-step through the milestone systematic review pipeline up to publication-ready standards.
Preclinical Metrology & Assay Optimization (<i>3D Cultures, Mouse Models, Omics technologies</i>)	Designing strict assay protocols and statistical boundaries to ensure pipeline reproducibility for non-human studies.	Translating complex molecular mechanisms and high-dimensional basic science data into lucid, high-impact manuscripts.	Standardizing preclinical data extraction and synthesis frameworks to systematically review outcomes of animal and cell models.	Verification of basic science papers, laboratory figures, blots, and assay outputs against raw data or primary sources.	Architecting specialized advanced laboratory training curricula and continuing education modules.	Helping laboratory scientists structure basic science theses, clear peer-review roadblocks, and master data visualization.
Psychometrics & Instrument Validation (<i>Conceptual frameworks, Item & Scale Constructions, Content Validity, Factor Analyses</i>)	Conceptualizing, guiding, engineering, and statistically validating custom health surveys, patient outcomes, and clinical assessment scales.	Crafting manuscripts reporting psychometric scale performance and structural integrity of instruments and constructs.	Synthesizing literature on instrument psychometrics and heterogeneities of behavioral measures using standardized guidelines such as COSMIN.	Meticulous auditing of scale scoring, psychometric parameters, and metric cross-references.	Integrating psychometric measurement principles into training/validation frameworks for healthcare professionals.	Coaching clinicians and doctoral candidates on navigating instrument development and scale validation metrics.
Endpoint Augmentation & Outcome Blueprint (<i>Immunological Pathways, Biomarkers, PROs</i>)	Advising on the strategic integration of surrogate biomarkers and PROs to capture robust efficacy, effectiveness, and safety data – <i>Deep-dive expertise in immunological markers and oncology PROs.</i>	Advising on talking points discovered from complex biological and patient-reported endpoints and crafting manuscripts and regulatory narratives that report heavyweight methodologies and outcomes.	Structuring screening syntax and synthesizing evidence to review global clinical literature evaluating responsiveness of biological markers or PROs – <i>including quality-of-life endpoints.</i>	Line-by-line verification of reported adverse events, safety metrics, biomarker threshold cutoffs, and efficacy indices against raw datasets.	Developing medical education modules translating complex clinical trial endpoints or the adoption of bedside biomarkers for healthcare professionals.	Mentoring doctoral students on defining clear endpoint variables and structuring safety monitoring plans for clinical dissertations.

🔗 Important Scope Note on **Gold-Standard Cochrane Literature Synthesis**: To maintain pricing transparency, **Publication Planning & Medical Writing** covers the high-level strategic alignment, journal selection, and PRISMA compliance framing for systematic reviews. The actual hands-on execution—including review protocol development, literature searching, screening and selection, data extraction and synthesis, statistical meta-analysis, and manuscript drafting—is exclusively handled under our **Systematic Review & Meta-Analysis service tier** (package starting at **\$7,000 CAD**).