Michael A. Noble and Family Award for Laboratory Quality (Noble Prize)

We are pleased to announce once again that the Noble Family will be offering an award for the best poster about quality in pathology and laboratory medicine. The winner will receive a cash prize of at least **$1,000**.

Please note: If your abstract is solicited for an oral presentation at PathDay and you also wish to be considered for the Michael Noble and Family Award, you will need to provide a poster as well.

Application Process

If you will be applying for the **Michael A. Noble and Family Award for Laboratory Quality (Noble Prize)**, please complete the application by filling out the abstract submission form at https://pathology.ubc.ca/pathology-day-abstract-submission/ by **March 28th**.

If you have any questions about the application process, please contact **Donald Kinloch** at Donald.kinloch@ubc.ca.

Purpose of the Noble Prize

The goal of offering the Noble Prize is to encourage **Quality Management and Improvement** thinking into the process of learning through the experience of participating in relevant research projects. Incorporating established quality principles increases the opportunities for positive learning and successful project development.

The foundation of quality principles is based on requirements developed as accepted indicators of Quality Management and Improvement, drawing from the work of:

- **Deming** (Plan-Do-Study-Act)
- **Crosby** (Zero Error)
- **Robert Galvin/Bill Smith** (Six Sigma)
- **Taichi Ohno** (Lean)

Poster Structure and Content

Posters should clearly define how quality is addressed and include the following elements:

- **Recognition of Error Risk**
- **Error Prevention**

- **Monitoring for Error**
- **Error Awareness**
- **Error Correction**
- **Reproducibility**
- **Costs of Error**

Assessment Criteria

The following criteria will be used to assess the posters:

1. **Leadership Quality Commitment**
   Projects should demonstrate visible commitment to quality by setting clear goals, providing resources, and leading by example.
2. **Customer Focus**
   Organizations should prioritize understanding and meeting customer needs and expectations, delivering products and services that exceed customer satisfaction.
3. **Quality Awareness**
   Every employee should be aware of the importance of quality in their work, with training programs emphasizing error prevention and high-quality outcomes.
4. **Quality Measurement – Quality Control**
   Regular measurement of quality is essential to assess processes and identify areas for improvement, including tracking defects and errors.
5. **Zero Defects Planning**
   Organizations should adopt a "Zero Defects" mindset, planning and designing processes to eliminate errors entirely.
6. **Process Approach**
   A focus on understanding, managing, and optimizing processes ensures consistent delivery of value and improved performance.
7. **Standardization**
   Standardized processes ensure consistency in quality while allowing for flexibility when appropriate.
8. **Fact-Based Decision Making**
   Decisions should be driven by data and analysis, using performance metrics, audits, and customer feedback to make informed improvements.
9. **Continuous Quality Measurement and Improvement**
   Regular measurement of quality is essential to assess processes and identify areas for improvement.
10. **Cost of Quality (COQ) Evaluation**
    Organizations must track and understand the cost of poor quality, including rework, scrap, and lost opportunities, to motivate error prevention.

Application of Quality Principles

While these principles are largely focused on production and industry, they are applicable to research, teaching, and healthcare. Candidates applying for the Noble Family Prize in Quality should ensure that at least **seven (7)** of these principles are evident in their proposal or presentation.

Appendix: Indicators of Quality in Various Research Contexts

A. Science Laboratory-Based Research

1. Ethical Standards and Compliance
2. Proper Documentation
3. Standardization of Protocols
4. Sample Integrity and Management
5. Control and Baseline Comparisons
6. Calibration and Maintenance of Equipment
7. Accuracy and Precision of Results
8. Validation of Methods (Internal Reproducibility)
9. External Reproducibility
10. Peer Review and Critical Evaluation

B. Patient-Based Research

1. Ethical Compliance and Informed Consent
2. Patient Safety and Well-Being
3. Study Design and Methodological Rigor
4. Clear Inclusion and Exclusion Criteria
5. Blinding and Minimization of Bias
6. Standardized and Validated Outcome Measures
7. Data Quality and Integrity
8. Patient Follow-up and Retention
9. Adherence to Regulatory and Institutional Guidelines
10. Generalizability and Relevance of Findings

C. Education Improvement Research

1. Clear Research Questions and Objectives
2. Appropriate Research Design
3. Rigor in Data Collection
4. Validity and Reliability of Instruments
5. Ethical Considerations and Participant Consent
6. Representative Sample
7. Data Analysis Transparency
8. Peer Review and External Evaluation
9. Reproducibility and Replicability

10. Impact and Relevance to Educational Practice

D. Safety-Based Research

1. Risk Assessment and Hazard Identification
2. Clear Definition of Safety Objectives
3. Robust Study Design
4. Use of Standardized Safety Metrics
5. Ethical Compliance and Worker/Participant Safety
6. Data Integrity and Reliability
7. Contextual Relevance
8. Practical Applicability
9. Cross-Disciplinary Integration
10. Regulatory and Standards Alignment

E. Clinical Laboratory Testing Research

1. Accuracy and Precision of Test Results
2. Validation of Test Methods
3. Quality Control (QC) Procedures
4. Proficiency Testing and External Validation
5. Calibrated and Well-Maintained Equipment
6. Standardization of Procedures
7. Sample Integrity and Handling
8. Compliance with Regulatory Standards
9. Data Management and Traceability
10. Continuous Monitoring and Improvement

F. Laboratory Internal Audit/Management Review

1. Compliance with Regulatory Requirements
2. Corrective and Preventive Actions (CAPA)
3. Control of Non-Conforming Work
4. Proficiency Testing and Interlaboratory Comparisons
5. Equipment Calibration and Maintenance
6. Personnel Competency and Training
7. Quality Control (QC) Procedures
8. Document Control
9. Customer Feedback and Complaints
10. Internal Audit Program