The qPMO network: quality management tools to improve research efficiency, reproducibility, data management and dissemination

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QUALITY

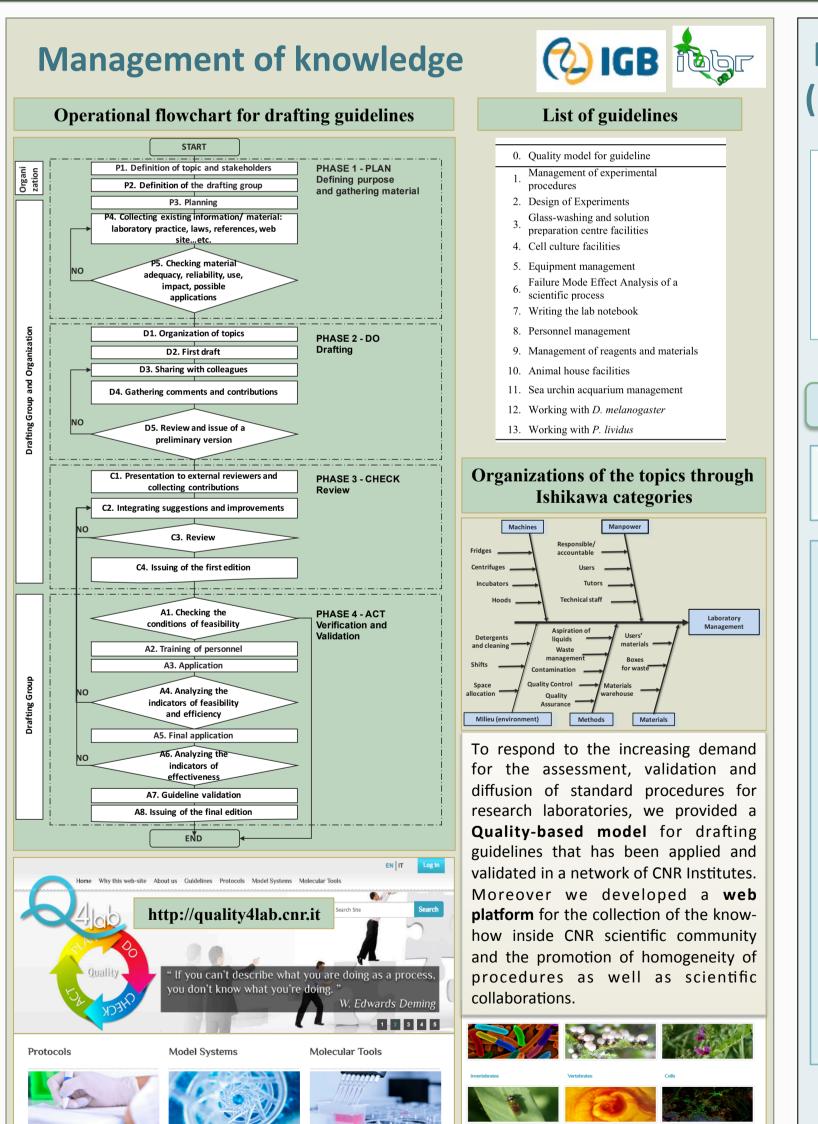
Quality management in scientific R&D has become an essential tool in ensuring that modern scientific development is implemented within a rigorous and robust quality framework. The need for Quality standards in non-regulated research is a matter of considerable current debate inside international research community.

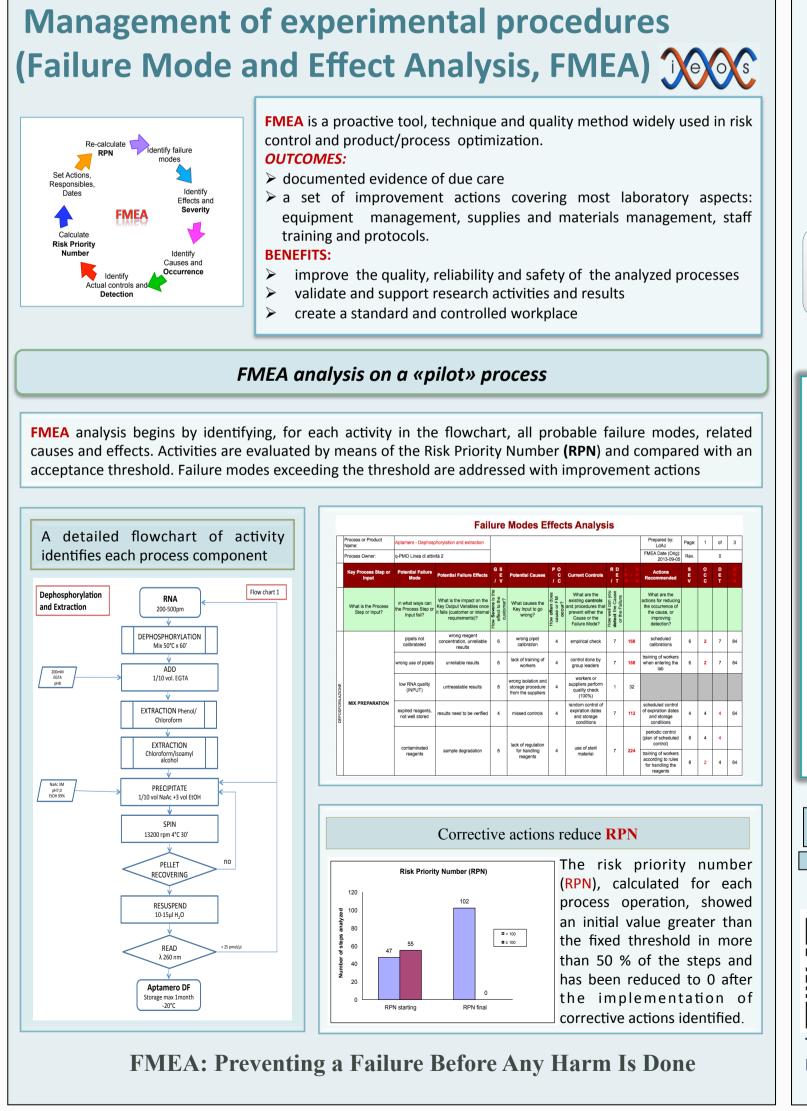
RESEARCH

The scientific world is facing the "quality revolution": not only results have been led to research and social community attention, but also reliability, safety and efficacy of discoveries and efficiency of fund exploitation.

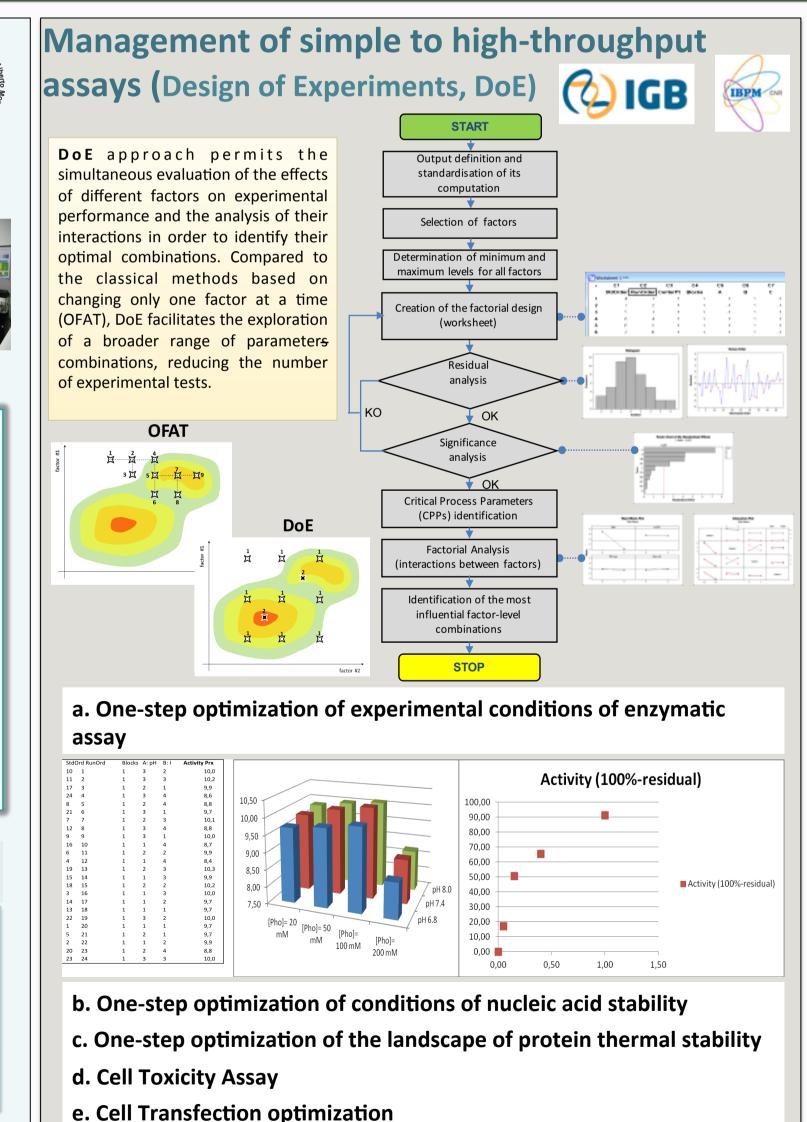
Quality and Project Management Openlab (qPMO)

The qPMO is a research network involving 5 different Institutes and two Departments of the Italian National Research Council (CNR), aimed at realizing a Total Quality Management (TQM) model for Life Sciences laboratories. This TQM OpenLab model will act as a uniform environment in which strong, innovation-oriented research projects can be designed and developed according to international Quality standards and with the planning of Horizon 2020. qPMO covers four different fields to experiment with a specific Quality approach to scientific research and to generate models for the implementation of Quality methodologies in science. Our goal is to demonstrate that a proper and accurate transfer of Quality culture and methodologies to intellectual and scientific production can facilitate and strengthen research, providing new tools to make it faster and more efficient without imposing any constraints on the research work itself.









PRODUCTS: 1. Publications Bongiovanni A., et al., (2015). Applying Quality principles and Project Management methodologies in biomedical research network's case study. *Accreditation and Quality Assurance* 20:203–213; Mancinelli S., et al., (2015). Applying Design of Experiments methodology to PEI toxicity assay on neural progenitor cells. Mathematical Models in Biology - Bringing Mathematics to Life (Springer); Digilio F.A., et al., (2016). Quality-based model for life sciences research guidelines. *Accreditation and Quality Assurance* 21: 221-230. **2. ICT tools** (quality4lab website, Help4Lab software).

- 3. Laboratory notebook (LN) layout.
- **4. Quality tools** (Quality management system for a research laboratory, certified ITALCERT; Research-related guidelines).
- 5. Dissemination (Training Courses; Seminars; Meeting organization; Undergraduate/PhD theses)