

MarLab: a marine research laboratory organized according to a quality management system

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Quality principles and methodologies have been widely used in industrial and business applications, giving positive advantages in terms of good management, results improvement and cost reduction. This approach has long been ignored in scientific research which by their nature are often far from the industrial and business fields. Our aim was to generate and apply a Quality management system (QMS) for a research lab, working in the area of Life Sciences. Specifically, we have selected a research laboratory, called MarLab, working with marine animal models in the scientific area of drug discovery and embryonic development. From among various others (i.e., GLP, ISO17025, etc.), we chose to implement the ISO 9001:2008 Quality system. As specified by the ISO standard and in agreement with the heads of the laboratory, we first defined the Quality policy. Next, we identified operational and support processes to be managed, stakeholders, recipients, and suppliers. We also generated the procedures, operating instructions, guidelines and forms to cover all laboratory aspects. Recently, MarLab received the certification of all activities according to the ISO 9001:2008 standard. To facilitate the management of the QMS we have also developed a modular software, Help4Lab. We expected that this QMS model could be a new laboratory organization, motivating the staff towards a continuous improvement of shared operations and enhancing communication between all management levels and personnel. Such a system would also ensure the reliability of the results of research laboratories. Furthermore, the QMS model would increase the prestige of the laboratory and the Public Research Institution.