



**REQUEST FOR USE OF FUNDS FROM THE GOVERNING COUNCIL SPECIAL FUND:  
D. SCIENTIFIC EQUIPMENT**

1. In line with the IARC Medium-Term Strategy and Implementation Plan for 2010–2014 (see document GC/52/6), which highlighted the paramount importance of performing interdisciplinary research, investments have been made during the last three years to reinforce the interaction between laboratory-based and epidemiology research. Constant upgrade and acquisition of scientific instruments are essential to support this strategy.
2. These investments allowed the establishment of three centralized platforms for studies on genetics, biomarkers and carcinogenic mechanisms (next-generation sequencing (NGS), mass spectrometry platform, and the platform for the detection of multiple infectious agents), and the acquisition of equipment for DNA extraction and of a slide scanner for tumour validation.
3. To complement these investments, additional support is required to maintain and upgrade IARC capacity to handle and process large numbers of biological samples and to acquire a pyrosequencing system. The four liquid handling systems in particular represent routine pieces of equipment which are difficult to obtain from extra-budgetary sources.
4. The optimal utilization of IARC platforms and the increasing workload linked to the development of epidemiology projects require specialized robotics that would automatically and efficiently perform sample preparation and extraction to provide high-quality data at a reduced labour cost. These needs concern the immunoassay platform for biomarker measurement; the Luminex platform for pre-PCR sample handling and the NGS platform for post-PCR applications.
5. The pyrosequencing system is an essential tool of the epigenetic platform to conduct quantitative and sensitive analysis of DNA methylation in high-throughput settings. This system has been instrumental in establishing collaborations with groups internally and externally. The current model is no longer cost effective or adapted to the low sample volumes commonly required.
6. The annual maintenance costs of the requested equipment will be covered by the regular budget as well as by collaborative programmes through grant applications.

7. The Scientific Council was requested to advise the Director and the Governing Council on the proposed request to use funds from the Governing Council Special Fund to purchase the following equipment:

- a. Pyrosequencing system 96-well PyroMark Q96 MD
- b. Liquid handling system for pre-PCR procedures
- c. Liquid handling system for immunoassays
- d. Liquid handling system for PCR products
- e. Liquid handling system for ChiP assays

**Requested budget**

|   | <b>Approximate price (€)</b> |
|---|------------------------------|
| Pyrosequencing system 96-well PyroMark Q96 MD | 120 215                      |
| Liquid handling system for pre-PCR procedures | 106 450                      |
| Liquid handling system for immunoassays       | 74 000                       |
| Liquid handling system for PCR products       | 109 630                      |
| Liquid handling system for ChiP assays        | 75 000                       |
| Total   | 485 295                      |

8. The Scientific Council considered the Director's proposal to request a contribution of €485 295 from the Governing Council Special Fund for essential scientific equipment, to complement earlier investments, to maintain and upgrade IARC capacity to handle and process large numbers of biological samples and to acquire a pyrosequencing system. The Scientific Council recommended that the suggested purchases be approved by the Governing Council.

9. The Governing Council is requested to approve the use of €485 295 from the Governing Council Special Fund.