

## **DIRECTOR'S RESPONSE TO THE REVIEW OF THE SECTION OF GENETICS**

1. The Section of Genetics (GEN) was reviewed in October 2010 and the Scientific Report was presented to the Scientific Council in January 2011 (see document SC/47/WP4). The current document provides a summary of the responses taken by the Director following the Review.

### **Section of Genetics (GEN)**

2. The provision of adequate bioinformatics support was identified as a significant risk to the Section. The Agency subsequently invested to provide a computing cluster with adequate data storage capacity (as detailed in document SC/48/6). A medium sized Hewlett Packard high performance computing cluster is installed (96 central processing units (CPU), 4GbRAM/CPU, 48 TB of data storage). The capacity of the computing cluster is expandable as required.

3. A new P2 scientist position in bioinformatics was created in the regular budget 2012–2013 for the Genetic Cancer Susceptibility Group (GCS). Within GCS, there is currently an LY5 bioinformatician and two bioinformatics orientated doctoral students. The new P2 post will complement the in-house development of these more junior staff. Additionally, the Biostatistics (BST) and Information Technology Services (ITS) Groups are assisting in data analysis and management of the IT infrastructure, respectively.

4. Close collaboration with the Bioinformatics Cluster at the neighbouring French cancer centre, the Centre Léon Bérard, has been a key element in the developments since the Review and ensures adequate support in this area for the activities across the Section.

### **Genetic Cancer Susceptibility Group (GCS)**

5. Given the recent appointment of Dr James McKay as Head of GCS at the time of the peer-review exercise, a further "light-touch" review of the developing aims of GCS at the 48<sup>th</sup> session of the Scientific Council was suggested. This has been scheduled and is covered in document SC/48/6. The latter document outlines the vision for GCS which defines its role in distinction to the Genetic Epidemiology Group (GEP).

6. In line with the recommendation of the Scientific Council, the purchase of next-generation sequencing equipment occurred after further discussion with colleagues both in-house and outside the Agency, which shaped the choice of platform selected. This equipment is now installed in GCS as recommended by the Scientific Council.

7. A separate budget is planned for the Genetic Services Platform, located within GCS, to ensure this is not a drain on the GCS regular budget.
8. Post-doctoral capacity has been expanded by the award of two IARC postdoctoral fellowships in 2011 to GCS.

### **Genetic Epidemiology Group (GEP)**

9. The Scientific Council expressed concern about the case ascertainment and correct diagnostic attribution.
10. All large GEP studies on lung, upper aerodigestive and kidney cancer now involve pathology review of slides. This is done either internally (i.e. for lung and upper aerodigestive cancer) or using a network of pathologists (as in kidney cancer). Funding from extra-budgetary sources has been identified to support a P2 scientist in pathology within GEP to the end of 2012. A protocol for accurate assessment of HPV involvement in head and neck cancer involving tumour tissue DNA, RNA and immunohistochemistry has been established.
11. It was also recognized that access to a scanner for electronic storage of pathology images and distribution among collaborating pathologists would greatly enhance the work of GEP and other Groups across the Agency. A request for support from the Scientific Council for the Director to approach the Governing Council is presented in document SC/48/12. Currently access has been arranged through a short-term agreement by outsourcing this effort, although this is not a feasible medium-term solution.
12. A lack of collaboration with other Groups at IARC was made by the Scientific Council. Since the Review, GEP has initiated new collaborations with the Section of Infections on a large HPV head and neck cancer study funded by the European Union.
13. The vacant P3 scientist post was filled promptly with the appointment of Dr Ghislaine Scelo. Dr Scelo was the Principal Investigator on a successful NCI, USA grant award for a pooled genome-wide analysis of kidney cancer risk with a value to the Agency of US\$ 1 462 687.
14. An additional large NCI grant has also been awarded to GEP on the subject of one carbon metabolism pathway and lung cancer with a value to the Agency of US\$ 2 421 282.