



CARPEM Scientific Advisory Board

Report of January 11th, 2016

Presents at the Scientific Advisory Board :

Michael Karin, School of Medicine, University of California, San Diego, CA, USA

Peter Krammer, German Cancer Research Cancer (DKFZ), Heidelberg, Germany

Alain Puisieux, Centre de lutte contre le cancer Léon Bérard, Lyon, France

Francisco X. Real, Spanish National Cancer Research Centre, Madrid, Spain

Arnaud Roth, Geneva University Hospital, Switzerland

Robert Schreiber, Washington University School of Medicine, St Louis, MO, USA

Report:

The main aim of the meeting was to update the SAB members of the activities of the consortium at the mid-term and to discuss strategic issues related to consortium priorities for the second half of the period.

Sunday, January 10

CARPEM Director presented a summary of the consortium composition and governance, followed by a brief presentation of budget use, achievements in the three major programs, number of collaborations established between the groups, and other consortium activities. It was emphasized that CARPEM is one of the 8 SIRIC consortia approved by the French InCA, 3 of which are located in the Paris metropolitan area. It is the only SIRIC consortium that is not specifically associated with a Comprehensive Cancer Center. At the end, the Director provided a set of questions to the SAB to guide further discussions and recommendations.

Monday, January 11

After a brief introduction by the Director, 6 presentations served to provide examples of interactions and achievements in the three programs. This was followed by an extensive discussion between SAB members and CARPEM members, mainly centered about the perspectives for the project in the second half of the funding period and about strategic considerations. Subsequently, the chairman of the SAB presented a summary of the SAB discussions to the members of the CARPEM steering committee.

Summary assessment of the CARPEM SAB

The members of the SAB agreed on warmly congratulating the CARPEM Director, steering committee, and consortium members for an excellent activity over the first half period. While the SAB has not had access to the InCa evaluation of all SIRIC teams, it appears that CARPEM has received a very favorable review. This is particularly relevant given the fact that CARPEM was unique at facing the challenge of building up the consortium from scratch and bringing together several institutions whose agendas had to be coordinated.

The SAB considers that the CARPEM consortium is uniquely endowed - in the international landscape - with the knowledge and capacity to provide major advances at the interface of cancer genomics and cancer immunology. This occurs at a time when both areas are rapidly expanding and acquiring a major prominence in the fields of precision medicine and cancer care. In addition to this unique expertise, the SAB also acknowledges the achievements and potential in the areas of translational informatics and in social/ethical aspects of precision and genomic medicine.

The SAB would make a few recommendations for future meetings, should they be held:

- the detailed report of scientific activities and achievements should be enhanced by a more narrative description of the views of the steering committee of CARPEM on the strengths, weaknesses and challenges of the consortium. It should also better highlight achievements that are highly dependent on collaborative work, which is the main goal establishing the CARPEM consortium;
- it would be desirable for the SAB to hold a meeting with the leaders of all the groups involved in the consortium;
- an overview of the collaborations between different groups might allow a better assessment of the potential of the consortium.

The SAB was very satisfied with the presentations of scientific projects. They were of high quality, generally emphasized the achievements, collaborations, and potential of the consortium, and covered a wide range of aspects related to the priorities of CARPEM. The emphasis on the potential for synergies in the area of cancer genomics and immunotherapy was particularly highlighted, as were the data warehouse activities. Regarding the ethical/social issues program, the SAB acknowledged the depth and breadth of the activities performed.

SAB recommendations for the second half period

1. CARPEM is in a unique position to make important and internationally competitive contributions linking cancer genomics with immune therapy for precision medicine. This should be one of the major priorities of the consortium.
2. CARPEM members are well positioned to make important contributions in the area of genome sequencing but this area of action might be left to the priority criteria of each of the groups since there is much competitive activity in this area. Furthermore, this might be too dependent on the governmental decisions regarding cancer genome sequencing projects. Therefore, it might be more appropriate to set up collaborative strategies for genome sequencing rather than directly investing in this area.
3. Considering the expertise of its members, CARPEM is extremely well suited to promote projects linking extensive immunological analysis with tumor genomics and detailed clinical annotation.

The SAB held extensive discussions on the specific tumors to be studied and types of studies to be conducted. Several points were made:

- CARPEM should carefully consider projects where there is a niche for optimal competitiveness and correlation of genomic data with immunotherapeutic outcome (i.e. highly mutated, therapeutically challenging, high incidence tumors, such as lung cancer);

- longitudinal assessment and in-depth genomic and immunological profiling (including novel aspects such as neoepitope identification and TCR analysis), and clinical annotation could be extremely informative;
- consideration should be given to the establishment of alliances to include assessment of tumor heterogeneity (i.e. single cell sequencing) and high depth plasma cfDNA sequencing;
- a focus on therapeutically relevant studies would be of great importance, both in the context of standard therapy or clinical trials;
- the CARPEM steering committee should set up an internal call for proposals from the consortium teams in order to prioritize and select a small number of projects to pursue. This should be made in a context where the current activities of the consortium are minimally compromised and where the support to innovative emerging collaborative project is still feasible;
- the overall strategic aim should be that the activities of this second term allow to guarantee the procurement of future funding to further increase the success of the ongoing projects.

4. The achievements of CARPEM in the area of social/ethics aspects of precision medicine could be enhanced by increasing the international projection of the team members. In addition, this should include novel aspects and stakeholders such as precision medicine economics. The latter is regarded by the SAB as an area of great importance that deserved further development.