

ITMO Cancer

Position of the ITMO Cancer Aviesan on recommendations outlined in the interim report of the EU Mission Board Cancer

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ITMO Cancer Aviesan aims to federate all research teams working on cancer research, regardless their research organization affiliation. It hence submits concrete actions to improve the performance and the competitiveness of French cancer research, to promote its visibility and to ensure proper coordination between institutions. It leads strategic thinking to coordinate scientific programming and its operational implementation in the cancer research scientific community, fosters interdisciplinary exchanges in the cancer community and speeds up transfer of fundamental knowledge to clinical application.

According to these national missions, the ITMO Cancer Aviesan is entitled to consult the French cancer research community on the recommendations of the Mission Board Cancer. To this end, at the time of the publication of the Mission report, we have conducted a large survey towards the cancer researchers, in particular, heads of research laboratories involved in cancer research and the committee experts of ITMO Cancer Aviesan. The present paper takes into account the results of this survey.

Overall, we acknowledge with fulfilment that a large part of the recommendations from the progress report of the Europe Cancer Mission is in line with the scientific orientations of the ITMO Cancer Aviesan, and for the most part they meet the proposals made within the framework of the future Ten-Year Strategy established by the National Cancer Institute (INCa) in partnership with the ITMO Cancer Aviesan: improving cancer prevention; limiting the side-effects of treatments and improving the quality of life of those affected by the disease; addressing poor prognosis cancers in adults and children.

Specific comments on recommendations:

The French cancer research community is warmly in phase with <u>Recommendation 1</u> "Launch UNCAN.eu - a European initiative to understand Cancer". The frame line of ITMO Cancer Aviesan actions and Strategic Orientations through the Cancer Plans 2 and 3 (and after) is to sustain basic research in order to decipher mechanisms that underlie cancer aggressiveness and plasticity, resistance to treatment and ability to relapse.

ITMO Cancer Aviesan has also been involved in funding several French groups involved in national or international programmes to assess individual cancer risks, namely Multipli, in Plan France Médecine Génomique, and ICGC (International Cancer Genome Consortium). Many French teams are trained to contribute in a major way to the Recommendation 2 "Develop an EU-wide research programme to identify (poly)genic risk scores".

Recommendations 3 & 4: "Support the development and implementation of effective cancer prevention strategies and policies within Member States and the EU" & "Optimise existing screening programmes and develop novel approaches for screening and early detection", The French community is sensitized to the fact that prevention is a crucial leverage for fighting against cancer. Research efforts on prevention should help to avoid a large part of cancers and to propose treatments at early stages. ITMO Cancer Aviesan, in partnership with INCa, programmed twice already a call for proposals on characterisation of preneoplastic lesions and stratification of their risks of malignancy. Moreover, we have initiated a collaboration with the American National Cancer Institute (NCI) on the subject and plan to establish research network among French and US researchers.

Environmental and behavioral risks represent another important issue regarding cancer prevention. The ITMO Cancer Aviesan has contributed to increase the knowledge in this field through dedicated calls of proposals and partnerships. In this respect, the ITMO Cancer Aviesan has identified that the issue of environmental risks is not sufficiently emphasized in the Cancer Mission Board report and thus suggests that this crucial challenge, which is presently scattered within recommendations 5 & 9, could be rather included and further developed in recommendations 3 & 4.

Recommendations 5 & 12: "Advance and implement personalised medicine approaches for all cancer patients in Europe" & "Accelerate innovation and implementation of new technologies and create Oncology-focused Living Labs to conquer cancer". In its Strategic Orientations, the ITMO Cancer Aviesan already pointed out the need to develop and improve personalized medicine through novel approaches gathering different scientific disciplines. To this end ITMO Cancer Aviesan regularly programmed interdisciplinary calls for proposals devoted to encourage physicists, mathematicians, engineers, chemists, structuralists, informaticians, and other scientists to participate to cancer research. Several editions of a call dedicated to system biology took place as well. These calls have prepared, and continue to prepare, French scientists to deal with personalized medicine issues. Progress in personalized medicine also includes the implementation of new technologies (recommendation 12). Likewise, the ITMO Cancer Aviesan yearly launches a call for proposals to acquire key-, or high tech-, innovative technologies and equipments. However, remaining at state of art in terms of equipments is a heavy investment because of their cost and very quick evolution of technologies. This concern should definitely be considered at the European level.

Recommendations 6 & 7: "Develop an EU-wide research programme on early diagnostic and minimally invasive treatment technologies" & "Develop an EU-wide research programme and policy support to improve the quality of life of cancer patients and survivors, family members and carers, and all persons with an increased risk of cancer". Thanks to its long-standing policy of Cancer plans, France is accustomed to prompt cancer prevention and reduction of treatments consequences and side-effects. These recommendations are in line with two among three axes of the planned decennial strategy which will be enacted at the end of this year. The call of proposals released by ITMO Cancer Aviesan, in partnership with INCa, dealing with preneoplasia (see above) opens up new prospects on this range. It should be emphasized as well the need for European comparative research programs on both prevention and quality of life during and after treatment, taking into account the cultural dimension (health-related beliefs, methods of support from family and friends, stigmatisation, barriers to returning to work, etc.). On the same ground, comparative programs on health education, integrating primary prevention based on health behaviors, but also

therapeutic education during and after treatment, including a comparative study of the obstacles to the success of such programs should be of interests.

ITMO Cancer Aviesan organises very regularly task forces and workshops with cancer research scientists from wide panels of disciplines. The need of secured access and data quality is a real concern for them. Moreover, the data should not be restrained to coming from the sole therapeutics assays. ITMO Cancer Aviesan thus fully supports Recommendation 8: "Create a European Cancer Patient Digital Centre where cancer patients and survivors can deposit and share their data for personalised care". It is of particular importance for rare cancers among which childhood cancers. Linked to the Recommendation 5 mentioned above, it is worth noting that more and more cancers are becoming "rare diseases" because of the accuracy of the definition of their profile. Structuration at European level is obviously essential for rare cancers.

In line with <u>Recommendation 9:</u> "Achieve Cancer health equity in the EU across the continuum of the disease", ITMO Cancer Aviesan wishes to underline the importance of "oblivion right". France started to implement this concept through law during the last Cancer Plan. We do think it should be generalized within European borders. European policy should pay attention to all sort of discriminations and inequities. It should also be adamant on pain management, encouraging research and universal practice. (see also above, reco 7).

Recommendation 10: "Set up a network of Comprehensive Cancer Infrastructures within and across all EU Member States to increase quality of research and care". In partnership with ITMO Cancer Aviesan, INCa and DGOS from the French ministry of health, have implemented this type of structures called "SIRIC" at the national French level since 2012. To network these centers at European level would benefit to every country involved.

Recommendation 11: "Childhood cancers and cancers in adolescents and young adults: cure more and cure better". Childhood cancers and cancers in adolescents and young adults represent a major concern of French health authorities. The ITMO Cancer Aviesan contributes to this challenge through its interdisciplinary calls that pave the road to new approaches for understanding and treatment of rare and/or poor prognosis cancers, among which are several childhood cancers and cancers in adolescents and young adults. Indeed, ITMO Cancer Aviesan, through these calls for proposals, has constantly attracted onco-paediatric cancer research topics with nearly 150 projects submitted since 2012 and more than 25% funded. Given the scarcity of the samples and the cases for one type or subtype of childhood cancer, it is crucial to share samples, data and results at European level to make substantial progresses.

In conclusion, numerous actions driven by the ITMO Cancer Aviesan meet most of the proposed recommendations. Accordingly, we fully support them and are confident that French researchers will willingly join European initiatives programmed on these topics in the coming years.

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