aviesan

alliance nationale
pour les sciences de la vie et de la santé · **ITMO Cancer**

Ex Post Analysis of the K-Env Programme (2012-2017)

The K-Env programme was led by ITMO Cancer Aviesan in the frame of the 2nd (2009-2013) and 3rd (2014-2019) Cancer Plans. The programme had two main ambitions: to develop new tools to assess the impact of environmental factors on the onset of cancer, and to improve the understanding of the mechanisms underlying the apparition of cancer in the aftermath of environmental factor exposure. This document recapitulates the main elements of the ex post analysis of the K-Env programme made in June 2020.

Main Figures

- 152 eligible projects
- 43 funded projects
- Average selection rate: 28%
- 38 laureates (45% women)
- 82 partners
- €18,2M
- laureates median age: 49 y.o.

Multidisciplinarity Projects, Chemical Factors as Main Focus

Outcomes of the programme*
(31 funded projects between 2012 and 2015)

- 102 recruitments (3,4 per project)
- 30 international collaborations
- 1 new research team
- 5 patents
- 1 start-up
- 37 original articles
- 37 % of the projects with an additional funding (lever effect)

* At the date of the analysis (June 2020)

The multidisciplinary nature of the K-Env programme was reflected in the consortia composition of the projects. Almost 50% of them gathered at least 3 disciplines, involving mathematics, physics or chemistry with biology and medicine

Almost 60% of the projects focused on chemical factors, namely endocrine disruptors and pesticides. They were respectively the focus of 44% and 20% of the projects addressing effects of environmental chemical risk on cancer.

Improvement on effects detection and knowledge of their mechanisms

New tools (assays or models) for the detection of environmental factors effects were developed. Studies described new environmental factors effects, including synergetic effects, and characterised cellular or molecular mechanisms underlying known effects of factors such as endocrine disruptors. New ligands of hormonal receptors were identified, including a compound used in chemotherapy. The multidisciplinary component of the K-Env programme was reflected in the variety of domains of the journals publishing the results.

Tools Developed*
(31 funded projects between 2012 and 2015)

- Detection assays: biological activity, DNA damages, protein of interest
- Detection assays for exposure assessment
- Mathematical models and algorithms: image processing, surgery, biological responses to exposure

* At the date of the analysis (June 2020)

In relation with the society's interest for environmental risk research, almost 10% of the projects has had an echo in national mainstream medias.

The intrinsic multidisciplinarity nature of the topic "Environment and Cancer" was reflected in the number of consortia involving more than 3 disciplines. Fundamental research was broadly predominant, resulting in new tools and scientific advances which allowed the K-Env programme to reach its objectives.