Methods for systematic next generation oncology biomarker development (OncoTrack)

Research Areas

Biomarker Research
Diagnostic, Genomic Biomarker

At a Glance

- Status: Active Consortium
- Year Launched: 2011
- Initiating Organization: Innovative Medicines Initiative
- Initiator Type: Government
- Location: Europe

Abstract

OncoTrack, “Methods for systematic next generation oncology biomarker development”, is an international consortium of more than 80 scientists that has launched collaborative academic-industry research projects to develop and assess novel approaches for identification of new markers for colon cancer. This five-year project brings together top scientists from European academic institutions offering a wide range of expertise, and partners them with pharmaceutical companies.

Mission

The goal of OncoTrack is to identify and characterize biological markers that will deepen understanding of the variable makeup of tumors and how this affects the way patients respond to treatment. OncoTrack aims to use cutting-edge, laboratory-based, genome sequencing techniques coupled to novel computer modeling approaches to study both the biological heterogeneity of colon cancers (i.e., patient to patient variability) as well as tumor variation within the patient, for example, by comparing primary tumors with metastases.
Consortium History

January 2011: Project started date
January 2011: First patients recruited
April-June, 2011: OncoTrack covered by GenomeWeb
2011: Annual meeting held in Vienna; first publication of OncoTrack published; sequencing of first samples started
December 2011: Hans Lehrack and team from Max Planck Institute for Molecular Genetics used computer power to create a virtual patient and analyzed the genetic makeup of the patient and its tumor; first report of OncoTrack published
December 2012: OncoTrack mentioned in “A blueprint for an international cancer epigenome consortium. A report from the AACR Cancer Epigenome Task Force”
April 2012: Meeting of the Scientific Coordination Team in Amsterdam
February 2013: OncoTrack mentioned in press release of the World Cancer Day
June 2014: Researchers from OncoTrack launched a spin-off company, Cellular Phenomics & Oncology Berlin-Buch GmbH

Structure & Governance

The project coordinator is the intermediary between the Innovative Medicine Initiative Joint Undertaking (IMI-JU) and OncoTrack in all scientific and industry-related concerns. The Managing Entity is the second intermediary between IMI-JU and OncoTrack and is concerned with funding-related matters concerning the participating academic institutions and small to medium-sized enterprises. Together with the assistance of one further European Federation of Pharmaceutical Industries and Associations (EFPIA) partner and one academic partner, they form the Project Executive.

The Scientific Coordination Team keeps track of the scientific progress and consists of all leaders of the Work Packages (WPs).

Each Work Package has an academic lead and a deputy lead from industry. They are jointly responsible for the milestones and deliverables of their WP and for engaging and communicating with all OncoTrack partners.

The Project Governing Board is composed of one representative nominated by each institution participating in OncoTrack.
OncoTrack has three advisory boards, which assist the governing bodies. They are the Scientific Advisory Board (SAB), Ethical Advisory Board (EAB), and the Intellectual Property (IP) Advisory Board.

OncoTrack has chosen an international SAB of experts keeping in mind the focus of the project on systems biology/genomics and clinical oncology. The members are as follows:

**Financing**

This project is funded by IMI, a public-private partnership between the European Union (EU) and EFPIA, resources of which are composed of financial contribution from the EU Seventh Framework Programme and EFPIA companies’ in kind contribution. Large pharmaceutical companies participating in IMI projects do not receive IMI funding. IMI contributed €16.1 million, EFPIA contributed €9.7 million in kind, and other sources contributed €4.9 million, for a total cost of €30.7 million.

**Intellectual Property**

The IMI intellectual property (IP) policy governs the IP regime of all projects funded by the IMI Joint Undertaking. To assist with specific IP queries, IMI has set up a dedicated IP Helpdesk, which can be contacted by emailing IMI-IP-Helpdesk@imi.europa.eu. The IMI IP policy can be accessed at http://www.imi.europa.eu/sites/default/files/uploads/documents/imi-ipr-policy01august2007_en.pdf

**Data Sharing**

According to IMI’s IP policy, the participants undertake to disseminate the data as soon as reasonably practicable but not later than one year after the termination or expiry of the project. The project agreement shall include a description of the material, which must be disseminated in accordance with the IP policy and referenced in the grant agreement. If the participants do not disseminate within such time periods without good reason, then the Executive Office has the right to disseminate such results in a manner consistent with the grant agreement.
Impact/Accomplishment

The project is based on the premise that this genetic and epigenetic information, combined with a description of the molecular pathology of the tumor, will allow OncoTrack to generate a more accurate in silico model of the cancer cell. This will facilitate the identification of predictive markers that can be used to guide the optimal therapy strategy — at the level of the individual patient — and will also provide ongoing prognostic guidance for the clinician.

This project not only will advance understanding of the fundamental biology of colon cancers but also will provide the means and approach for the identification of previously undetected biomarkers — not only in the cancer under study, but also potentially in other solid cancers and, in doing so, open the door for personalized management of the oncology patient.

Links/Social Media Feed

Homepage | http://www.oncotrack.eu/
Other website | http://www.imi.europa.eu/content/onco-track

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Updated: 04/08/2016