

Final Report of the International Course

The international course [From Melanocyte Development to Melanoma Therapies - Basic Science and Clinical Applications](http://training.curie.fr/course/iceland2015) (training.curie.fr/course/iceland2015), occurred at the University of Iceland, in Reykjavik June 21-24, 2015. Major advances in basic research of melanoma have led to novel treatment options that are making a difference for melanoma patients. However, multiple challenges lie ahead and further progress is necessary, particularly with respect to resistance to the novel therapies. Our course taught the basic biology and development of the melanocyte how these cells are transformed into melanoma, and how the disease is diagnosed and treated. A particular emphasis was on novel therapeutic options and the resistance that arises against the new drugs. Another main issue was to bring together the future leaders in the field with an MD and/or a PhD background.

The course had seven main themes: (i) Introduction to melanocytes and melanoma. (ii) Clinical diagnosis and prognosis, (iii) Histology and histopathology, (iv) Molecular and (epi)genetic techniques, (v) Experimental animals, (vi) High throughput data analysis, and (vii) Therapy, current clinical practice and preclinical advances.

The objective of this course was clearly defined. In recent years, research into melanocytes and melanoma has led to giant steps in treatment of melanoma patients. The goal of this course was to teach students about the basic biology of melanoma with a particular emphasis on therapeutic options. The students learnt about this rapidly advancing field, and since the students came from both basic and clinical sciences, they learnt from each other in order to advance melanoma diagnosis and therapy in the future.

Hosting the course in Iceland allowed us to bring together European and American students and taught them about the latest advances in the field. This three day course was followed by a three day meeting "Melanoma: from basic science to clinical applications" (<http://www.melanoma2015.is>) where leaders in the field will talk about their latest results. This allowed us to include some of the most important players in the field as teachers in the course. This meeting was highly appreciated by the 120 participants.

The success of the course relied on the active contribution of participants who were proactive and participated in all of the events organized including: (i) presentation of their own scientific project with a 8 minutes oral presentation, and (ii) participation in the "career development" workshop during the last day of the course.

The course will have a broad view of the melanocyte lineage, including the establishment of the lineage during embryonic development and the renewal of melanocytes from normal melanocyte stem cells. The similarities between the cellular and molecular mechanisms that occur during development, renewal and melanomagenesis will be explored for further clinical advancement. Lectures on epigenetics, genomics and clinical aspects of melanoma will bring a broader view of the field for the PhD students, postdoctoral fellows and junior scientists attending the course.

Lunches and Dinners were attended by both teachers and students giving opportunities for further discussions and this time was used as round tables.

In figures, 28 students (3 Master students, 17 PhD/MD-PhD students, 4 Post-docs, and 4 MD) with 17 females and 11 males participated to this course. We got a feed-back from the survey of the course from 23 students. These students came from Iceland (8), France (7), North America (4), Sweden (2) and also

from UK, Belgium, Luxembourg, Germany, Holland and Hungary. Overall, they were either satisfied or highly satisfied by this course.



Students and teachers at the university



Students and teachers at the blue Lagoon

In conclusion, it was a real pleasure for the organizers, the teachers and the students to participate to this course. We are ready to organize a similar course in 2017. The location is still unclear, but an option is taken in Israel.

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