

Title course: “Translational Cancer Research – The Scientific Methodology, Technologies, Infrastructure and Clinical Validation Trials and Implementation”

This PhD course is offered by the Doctoral School of Clinical Science and Biomedicine, Aalborg University, autumn 2013.

Criteria for participation: Enrolled in a PhD programme at a Danish University

Evaluation: To pass the course, it is expected that the participants will attend all lectures and present and discuss 1) a priori given highly selected article on the course topic or 2) the status of her/his PhD project including hypothesis, aims, findings and conclusions.

Contents: Lectures, workshops, journal clubs and student presentations.

Language: English

ECTS: Estimated 3.0

Head of Course: Professor Hans E Johnsen (haej@rn.dk) Aalborg University Hospital, and The Clinical Cancer Research Center, Aalborg University Hospital (CCRC-Aalborg UH)

Number of Participants: 12

Dates and Times: 12-14 November 2013

Place: Klitgården Refugium, Damstedvej 39, DK-9990 Skagen, tel. +4596 79 19 99, e-mail: info@klitgaarden.dk

Deadline for application: 1 October 2013

Application form: To be filled out online at Aalborg University's Doctoral School, in the course calendar

Confrontation hours (contact hours): 20 hours

Preparation, expected to be 100% of the confrontation hours: 20 hours

Participant activity, expected to be 50% of the confrontation hours: 10 hours

Further Information: Secretary Assistant Anne Lindblom Hansen (e-mail: a.lindblom@rn.dk), phone +45 99326873

Description of the course:

This PhD course will focus on the classic research strategies to obtain diagnostic as well as therapeutic improvements as the background for a paradigm shift from "one fits all" to individualized strategies in clinical practice.

The complex cancer biology model for oncogenesis will be presented documenting the importance of the translational approach for the future - requiring new multidisciplinary engagements. Based on highly selected lectures and papers, we will discuss novel, cutting edge technologies (Multiparametric Flow Cytometry and Cell Sorting, Microarray Technologies, Gene Sequencing, Biobanking), Cancer models (Cancer Cell Lines and Mice Models) and the future design of trials (treatment, diagnostics) and endpoints while adhering to scientific rigor when interpreting results and decisions.

The course will include lectures, workshops and journal clubs. The outcome for participants will be insight into new technologies and approaches allowing the future researchers to participate in the translation of scientific discoveries into cost-effective and meaningful clinical improvements in patient care.

Literature hands out:

1. "The Unwritten Rules of PhD Research" Marian Petre & Gordon Rugg Open University Press, 2010, paperback, ISBN 0 335 237029

Final programme**Tuesday 12 November 2013****1st day Course:**

15.00 -16.00 **Arrival, Coffee and Welcome**

16.30-18.00 Course introduction and “Personalised medicine – need, goals and frame”
Lecturer Hans E Johnsen, Professor

18.30-19.30 Dinner

19.30 Get together

Wednesday 13 November 2013**2nd day Course:**

07.30-08.30 Breakfast

08.30-09.00 Lecture on “MicroRNA in Cancer”
Lecturer Karen Dybkær, Associate Professor

09.00-09.30 Work shop I

09.30-10.00 Journal club I

10.00-10.30 Break

10.30-11.30 Student 1+2 project presentation (20 min and 10 min for discussion)

11.30-12.00 Lecture on “Statistical issues in translational cancer research”
Lecturer Martin Bøgsted, Professor

12.00-13.30 Lunch+ walk and talk

Lecturer Martin Bøgsted, Professor, continued

13.30-14.00 Work shop II

14.00-14.30 Journal club II

14.30-15.30 Student 3+4 project presentation (20 min and 10 min for discussion)

15.30-16.00 Lecture on “Microarray Technologies”
Lecturer Julie Støve Bødker, cand scient PhD

16.00-16.30 Work shop III

16.30-17.00 Journal club III

17.00-18.00 Student 5+6 project presentation (20 min and 10 min for discussion)

18.00-19.00 Dinner

19.00-21.00 Evening programme: Skagen Museum Round Tour

Thursday 14 November 2013

3rd day Course:

07.30-08.30 Breakfast

08.30-09.00 Lecture on “Bioinformatics: Gene Sequencing”
Lecturer: Andreas Petri, cand scient PhD

09.00-10.00 Student 7+8 project presentation (20 min and 10 min for discussion)

10.00-10.30 Break

10.30-11.00 Lecture on “Multiparametric flow cytometry and cell sorting”.
Lecturer Alexander Schmitz, cand scient PhD

11.00-11.30 Work shop IV

11.30-12.00 Journal club IV

12.00-13.00 Lunch

13.00-14.00 Student 9+10 project presentation (20 min and 10 min for discussion)

14.00-14.30 Lecture on “Technical: Gene Sequencing”
Lecturer Malene Krag Kjeldsen, cand scient PhD

14.30-15.00 Work shop V

15.00-15.30 Journal club V

15.30-16.00 Break

16.00-17.00 Student 11+12 project presentation (20 min and 10 min for discussion)

17.00-17.45 Lecture on “Novel drug design and trials”
Lecturer: Sakari Kauppinen, Professor

18.00 End of course + Dinner