

# PhD course "Personalized Medicine in cancer research – from bedside to basic science to bedside"

This PhD course is offered by the Doctoral School of Clinical Science and Biomedicine, Aalborg University and Clinical Cancer Research Center, Aalborg University Hospital (CCRC-Aalborg UH)

**Organizers:** Ole Thorlacius-Ussing, Professor, MD, DMSc (otu@rn.dk), Department of Surgery; Ursula Falkmer, Professor, MD, PhD (u.falkmer@rn.dk), Department of Oncology, CCRC-Aalborg UH

**Lecturers:** Ole Thorlacius-Ussing, Morten Ladekarl, Oluf Røe, Lone Sunde, Charlotte K. Lautrup, Ursula Falkmer, Lykke Grubach, Martin Bøgsted, Mads Sønderkær, Rasmus F. Brøndum, Karen Dybkær, Britt E. Laursen, Inge Søkilde Pedersen, Henrik Krarup, Tarec C. El-Galaly, Lone Jørgensen, Shona Pedersen, Marianne Tang Severinsen

**ECTS:** Estimated 3.0

**Time:** 27 – 29 October 2021

Place: Hotel Amerika (If Covid-19 prevents a residential course, it will be held online)

**Zip code:** 9500

City: Hobro

Number of seats: 15

Deadline: 15 September 2021

**Description:** This PhD course is aimed at PhD students working within the field of translational and clinical cancer research. The course will touch on several topics related to translational cancer research, including basic science methodologies, statistics and bioinformatics, and the key points in clinical trials. The basic science lectures touch upon molecular pathology, tumour heterogeneity, molecular biology as well as the currently used methods to elucidate these topics. The bioinformatic lectures will focus on workflows for personalized medicine, biomarker development, interpretation of sequencing data, and clinical implications. The clinical lectures will discuss current clinical questions from bedside - basic science - bedside, clinical evidence for PM, drug development and legal aspects.

Literature: Relevant book chapters and scientific articles will be advised.

**Prerequisites:** The PhD students will be involved in a presentation of their own scientific projects (gunshot model). It is expected that all PhD students have read the scientific papers that will be circulated 4 weeks before the course.

**Evaluation:** Participants are expected to attend all lectures as well as to present their own projects and actively take part in scientific discussions.

Further information: Secretary assistant Lise Tordrup Elkjær, lit@rn.dk / +45 9766 3869.



# **Programme**

# Day 1, Wednesday 27 October 2021

Time	Lecture	Organizer/Lecturer
12.00-12.30	Arrival	
12.30-13.30	Lunch and welcome	
13.30-13.40	Introduction	O. Thorlacius-Ussing, U. Falkmer
13.40-14.00	Personalized medicine: introduction From bedside – laboratory – bedside	M. Ladekarl
14.00-14.20 14.20-14.40	PhD presentation no. 1 PhD presentation no. 2	
14.45-15.15	Molecular biology: principles and technologies	K. Dybkær
15.15-15.45	Clinical proteomics and metabolomics	S. Pedersen
15.45-16.15	Break	
16.15-17.15	Next generation sequencing/ whole genome sequencing	I.S. Pedersen, M. Sønderkær, H. Krarup
17.15-18.00	Molecular pathology: solid tumours and haematological malignancies	L. Grubach
18.00-18.20 18.20-18.40	PhD presentation no. 3 PhD presentation no. 4	
19.00-20.00	Dinner	
20.00-	Further discussions and get-together students	and lecturers



# Day 2, Thursday 28 October 2021

Time	Lecture	Organizer/Lecturer
08.00-08.30	Breakfast	
08.30-09.10	Patient-reported outcome research	L. Jørgensen
09.10-09.55	Clinical genetics	L. Sunde, C. K. Lautrup
09.55-10.10	Break	
10.10-11.15	Bioinformatics and statistics in biomarker development	M. Bøgsted, R.F. Brøndum
11.15-12.00	Finding and targeting genomic alterations	B. E. Laursen
12.00-13.00	Lunch	
13.00-14.00	Clinical drug development	T. C. El-Galaly
14.00-14.20 14.20-14.40 14.40-15.00 15.00-15.20	PhD presentation no. 5 PhD presentation no. 6 PhD presentation no. 7 PhD presentation no. 8	
15.20-16.30	Break, walk and talk	
16.30-16.50 16.50-17.10 17.10-17.30 17.30-17.50 17.50-18.10 18.10-18.30 18.30-18.50	PhD presentation no. 9 PhD presentation no. 10 PhD presentation no. 11 PhD presentation no. 12 PhD presentation no. 13 PhD presentation no. 14 PhD presentation no. 15	
18.50-19.00	General discussion	All students and tutors/lecturers
19.00-20.00	Dinner	
20.00-	Further discussions and get-together students	and lecturers



# Day 3, Friday 29 October 2021

Time	Lecture	Organizer/Lecturer
08.30-09.00	Breakfast	
09.00-11.15	Ongoing clinical trials: pancreas cancer, Nanoknife protocol, ProSeq studies	O. Thorlacius-Ussing, M. Ladekarl, M.T. Severinsen
11.15-11.30	Break	
11.30-12.15	GDPR and ethics	U. Falkmer
12.30-13.15	Lunch	
13.15-14.00	Mesothelioma and lung cancer	O. Røe
14.00-14.45	Clinical evidence and future aspects for PM Future concepts	M. Ladekarl, O. Røe
14.45-15.00	Course evaluation	O. Thorlacius-Ussing, U. Falkmer
15.00	End of course	