

## **EuroLife Summer School July 9-13, 2018**

### **Molecular Mechanisms in Cancer - Translating Discoveries into Personalized Therapies**

Organizing institution and location: Leiden University Medical Center LUMC, Albinusdreef 2, Leiden, the Netherlands

#### **Organizers**

Prof.dr. Peter ten Dijke, Leiden University Medical Center, Leiden, the Netherlands

Prof. dr. Arne Ostman, Karolinska University, Stockholm, Sweden

Mrs. Julia Theirlynck, Secretariat Cell and Chemical Biology LUMC

#### **Programme outline**

##### **8 July**

##### **Arrival**

18.00-20.00 Informal getting together in 'Paleijhs', main building of LUMC ground floor K-00-166

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##### **9 July**

##### **Lecture Hall 4: 1<sup>st</sup> floor K-01-84, route 762**

##### **The basics of cancer biology and the unmet clinical need**

8.45-9.00 Registration

9.00-9.10 Opening remarks by the Dean of medical faculty (Prof.dr. Pancras Hogendoorn)

9.10-9.20 Theme of the day introduction by moderator (Peter ten Dijke)

9.20-10.20 The hallmarks of cancer (Anne-Marie Cleton-Jansen, Leiden University Medical Center, the Netherlands)

##### **Paleijhs, K-00-166**

10.20-10.50 Coffee/tea break

##### **Lecture Hall 1, 1<sup>st</sup> floor K-01-103, route 768**

10.50-11.50 Tumor microenvironment (Arne Ostman, Karolinska Institute, Stockholm, Sweden)

##### **Lecture Hall 4: 1<sup>st</sup> floor K-01-84, route 762**

11.50-12.50 Drug resistance: a recurrent theme in cancer therapy (Judith Kroep, Leiden University Medical Center, The Netherlands)

12.50-13.30 Lunch

13.30-14.30 Practical: cancer pathology (Arantza Farina Sarasqueta and Hans Morreau, Leiden University Medical Center, the Netherlands)

14.30-17.00 Breakout session in small groups with assignment: defining the challenges and unmet clinical need in (clinical) cancer research with plenary discussion thereafter

17.00-18.30 Social Activity/ Guided tour through city of Leiden, meeting point: in front of Museum Volkenkunde, Steenstraat 1, Leiden (10 min walk from LUMC)

19.00 Dinner on your own

- 10 July**      **Lecture Hall 4: 1<sup>st</sup> floor K-01-84, route 762**  
**Emerging technologies and their application**
- 8.15-8.30      Theme of the day introduction by moderator (Arne Ostman)
- 8.30-9.30      Imaging hallmarks of cancer and signaling pathways in living mice (Laila Ritsma, Leiden University Medical Center, Leiden, the Netherlands)
- 9.30-10.30     Organoids and Crispr-cas9-mediated gene editing; creating new in vitro cancer models (Jarno Drost, Princess Maxima Center, Utrecht, the Netherlands)
- 10.30-11.00    Coffee/tea break
- 11.00-12.00    Single cell analysis – investigating intratumor heterogeneity (Lennart Kester, Hubrecht Institute for Developmental Biology and Stem Cell Research, Utrecht, the Netherlands)
- 12.00-13.00    Signal transduction proteomics – towards personalized cancer treatment (Alfred Vertegaal, Leiden University Medical Center, Leiden, the Netherlands)
- 13.00-13.30    Lunch
- 13.30-14.30    **Keynote lecture** Drug therapy: Exploiting synthetic lethality to improve cancer therapy (Rene Bernards, Netherlands Cancer Institute, Amsterdam, The Netherlands)
- 14.30-15.00    Discussion on career choices, mentorship, advice to master and PhD students with Keynote lecturer Rene Bernards
- 15.00            Photo Session
- 15.15-17.30    Pitch presentations by students (coffee/tea provided during this session)
- 17.30-18.00    General discussion on statements and reflection of the day
- 18.00            Dinner on your own

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- 11 July**      **Lecture Hall 4: 1<sup>st</sup> floor K-01-84, route 762**  
**Targeting signaling pathways**
- 8.15-8.30      Theme of the day introduction by moderator (Lukas Huber)
- 8.30-9.30      TGF- $\beta$  signaling in invasion and metastasis (Peter ten Dijke, Leiden University Medical Center, Leiden, The Netherlands)
- 9.30-10.30     Wnt signaling in cancer stem cells (Madelon Maurice, Utrecht University, The Netherlands)
- 10.30-11.00    Coffee/tea break
- 11.00-12.00    Tumor cell metabolism (Boudewijn Burgering, Utrecht University, The Netherlands)

- 12.00-13.00 Translational cancer epigenetics (Elisabeth Hessman, University Medical Center, Gottingen, Germany)
- 13.00-13.30 Lunch
- 13.30-14.30 P53-based cancer therapy (Sonia Lain, Karolinska Institute, Stockholm, Sweden)
- 14.30-15.30 Targeting signaling pathways in tumor angiogenesis (David Baker, Leiden University Medical Center, The Netherlands)
- 15.30-17.30 Pitch presentations by students (coffee/tea provided during this session)
- 17.30-18.00 General discussion on statements and reflection of the day
- 18.00 Dinner on your own

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**Lecture Hall 4: 1<sup>st</sup> floor K-01-84, route 762**

- 12 July      **New frontiers in cancer research and therapy****
- 8.15-8.30 Theme of the day introduction by moderator (Arne Ostman)
  - 8.30-9.30 Cancer on a chip (Dik van Gent, Erasmus University, Rotterdam, The Netherlands)
  - 9.30-10.30 Functional genomics and stratification of breast cancer patients (Catherine Tomasetto, University of Strasbourg, France)
  - 10.30-11.00 Coffee/tea break
  - 11.00-12.00 Dissecting pro-metastatic cancer - immune interactions utilizing genetically engineered mouse models of metastatic breast cancer (Karin de Visser, Netherlands Cancer Institute, The Netherlands)
  - 12.00-13.00 Old drugs, novel ways out: drug resistance toward cytotoxic chemotherapeutics (Sjaak Neefjes, Leiden University Medical Center, Leiden, The Netherlands)
  - 13.00-13.30 Lunch
  - 13.30-15.00 Lab tour of genomics, proteomics, metabolomics and microscope core facilities (Peter van Veelen and others, Leiden University Medical Center, The Netherlands)
  - 15.00-17.00 Pitch presentations by students (coffee/tea provided during this session)
  - 17.00-17.30 General discussion on statements and reflection of the day
  - 18.00 Social activity/Boat trip and dinner. Meeting point: Babbels, Boisoitkade 1, Leiden (25 min walk)

**Lecture Hall 4: 1<sup>st</sup> floor K-01-84, route 762**

**13 July Bringing discoveries into clinical practice and academic-industry partnerships**

- 8.15-8.30 Theme of the day introduction by moderator (Peter ten Dijke)
- 8.30-9.30 Proof-of-concept studies in the preoperative window period (Onno Kranenburg, UMC Utrecht Cancer Center, The Netherlands)
- 9.30-10.30 Implementing new discoveries into clinical practice (Neeltje Steeghs), Netherlands Cancer Institute, Amsterdam, The Netherlands)
- 10.30-11.00 Coffee/Tea break
- 11.00-12.00 Clinical drug development (Geert Jan Groeneveld, CHDR, Leiden, The Netherlands)
- 12.00-13.00 Start-ups and spin-offs/Entrepreneurship, and Intellectual property rights (Rob Mayfield, LURIS, Leiden University Medical Center, The Netherlands)
- 13.00-13.30 Lunch
- 13.30-15.00 Pitches from two small biotechnology companies: Henriette Lanz, Mimetas, Leiden; Leo Price, Ocello 3D Screening, Leiden; The Netherlands and they will challenge students to come up with plans for possible start-ups
- 15.00-15.20 Closing remarks and presenting of certificates to students

**Departure**