



DGK.

Deutsche Gesellschaft
für Kardiologie e. V.

5th DGK Translational Workshop

Wednesday, 25 September 2024

In conjunction with **DGK Herztage 2024 | 26 - 28 September**
Congress Center Hamburg
Congressplatz 1, 20355 Hamburg

Herzmedizin.de/HT2024

Wir danken unseren Förderern für die Unterstützung*



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TOPIC

Models of human myocardium in functional medical research: opportunities and challenges

PROGRAMME COMMITTEE

KEK members Peter Kohl, Nicolle Kränkel, Christoph Maack, Renate Schnabel, Katrin Streckfuß-Bömeke, Laura Zelarayan

AIMS AND LEARNING OBJECTIVE

- Review existing model systems of human myocardium
- Substantiate relevance of native human tissue for heart research
- Explore ethical & regulatory framework in Germany and elsewhere
- Identify recommendations for DGK and DZHK engagement

OUTCOME

- Position paper on use of human cardiac tissue in Germany

FORMAT

- Experts provide short talks as a basis for discussion.
- The day ends with a plenary discussion and joint statement, as well as the assignment of writing tasks for a position paper.



PROGRAMME

09:00 – 09:15 **Registration**

09:15 – 09:30 **Welcome and opening remarks**
Katrin Streckfuß-Bömeke (Würzburg)

09:30 – 12:00 **Session 1:**
Model systems to mimic human myocardium – Pros and cons / limitations of different species for heart analysis
Chairs: Nicolle Kränkel (Berlin), Renate Schnabel (Hamburg)

09:30 – 09:45 **Introductory lecture: Why do we need new human cardiac model systems? Limitations of different systems / critical perspective / historical reflection**
Thomas Eschenhagen (Hamburg)

09:45 – 10:00 **Zebrafish**
Daniela Panakova (Kiel)

10:00 – 10:15 **Mouse**
Laura Zelarayan (Göttingen)

10:15 – 10:30 **Rabbit**
Callum Zgierski-Johnston (Freiburg)

10:30 – 10:45 **Pig**
Angelika Schnieke (München)

10:45 – 11:00 **Human induced pluripotent stem cell cardiomyocytes in 2D**
Katrin Streckfuß-Bömeke (Würzburg)

11:00 – 11:15 **Human Engineered heart tissue/myocardium**
Wolfram Zimmermann (Göttingen)

11:15 – 11:35 Coffee

11:35 – 12:00 **Panel Discussion (speakers)**
Models of human myocardium: What works, what doesn't, where do we go from here

12:00 – 13:00 Lunch break & meeting photo

13:00 – 15:00 **Session 2:**
Human myocardial tissue in translational research
Chairs: Christoph Maack (Würzburg), Katrin Schröder (Frankfurt)

13:00 – 13:15 **Research on human heart tissue: an overview**
Samuel Sossalla (Gießen)

13:15 – 13:30 **Multiomic mapping of the human heart**
Rafael Kramann (Aachen)

- 13:30 – 13:45 Human cardiac tissue slices: benefits and limitations for live-cell research**
Thomas Seidel (Erlangen)
- 13:45 – 14:00 Human primary cells: isolation and function of cardiomyocytes**
Christina Molina (Hamburg)
- 14:00 – 14:15 Computational models of the human heart: linking information across species and scales**
Axel Lowe (Karlsruhe)
- 14:15 – 14:30 Clinical implications of human tissue research: utility and limitations**
Hendrik Milting (Bad Oeynhausen)
- 14:30 – 15:00 Panel Discussion (speakers)**
Where are we right now? What can animal models and human myocardium achieve in translational research? What are the hurdles? Why do we need human tissue (healthy and diseased) in research?

15:00 – 15:30 *Coffee*

- 15:30 – 17:00 Session 3:
Issues of using human cardiac material**
Chairs: Laura Zelarayan, Peter Kohl (Freiburg)
- 15:30 – 15:45 The legal dimension of access to donor and recipient tissue**
Hannah Kappler (Freiburg)
- 15:45 – 16:00 The ethical dimension of access to donor and recipient tissue**
Ursula Klingmüller (Heidelberg)
- 16:00 – 16:15 The experience in Austria – what is different?**
Bruno Podesser (Wien)
- 16:15 – 17:00 Panel Discussion (speakers)**
Law and ethics: non-clinical use of donor tissue (e.g., for research, quality control, and teaching). How to design control experiments for studies employing human cardiac cells and tissue?
- 17:00 – 18:00 Plenary Discussion and Conclusion**
Chairs: Peter Kohl (Freiburg), Katrin Streckfuß-Bömeke (Würzburg)
- 17:00 – 17:45 Lessons learned, joint statement. Where do we stand regarding the use of human tissue in Germany; what are low-hanging fruit; where do we need to move goal posts; what could be the role of DGK / DZHK? All**
- 17:45 – 18:00 Wrap-up, follow-up tasks, planning for Position Paper**
KEK
- In attendance:
Medical Writer James O'Reilly (Freiburg)