**Working Group on Cardiovascular Magnetic Resonance**  
Charité and HELIOS Berlin, Germany

Experimental and Clinical Research Center, a joint cooperation between the Charité Medical Faculty and the Max-Delbrueck Center for Molecular Medicine; and HELIOS Hospital Berlin Buch, Department of Cardiology and Nephrology, Berlin, Germany

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**Clinical and Research Setting**

Main interest: clinically oriented research, collaboration with physicists and engineers world-wide

(e.g. Peter Kellman, NIH, Michael Markl NWU, Rob von der Geest, LU, group of Thoralf Niendorf, MDC, group of Tobias Schaeffter, PTB)

**Myocardial Tissue Differentiation**

Selected topics with selected references

- **Inflammatory disorders**
  - Abdel-Aty et al., JACC 2005; Zagrosek et al., JACC cvi 2009; von Knobelsdorff-Brenkenhoff/Schueler et al., Circ cvi 2017

- **Cardiotoxicity**
  - of alcohol
    - Zagrosek et al., JAMA 2010
  - of anthracyclines
    - Gulati et al., EHJ 2016; Muehlberg et al., oral presentation at SCMR: O006

- **Cardiac involvement in musculo-skeletal disorders**
  - Schmacht et al., Circ CVI, 2016; Blaszczyk et al., oral presentation at SCMR: F014

- **Remodelling, Risk and Intervention**
  - Bohl et al., CMR 2009; Boye et al., JACC 2009; Rudolph et al., JACC 2009; Toepper et al., ICTS 2010; von Knobelsdorff-Brenkenhoff et al., JACC 2017

**Interaction between Vavular Disease, Aorta and Myocardial Tissue**

Selected topics with selected references

- **Aortic and vavalular morphology**
  - Wassmuth et al., EHJ cvi 2014

- **Flow assessment**
  - Traber et al., EUR Rad 2015; Richau et al., JCMR 2017

**Experimental CMR at 7 Tesla**

Selected topics with selected references

- Participation in technical development
  - Dingler et al., JMRI 2011; Hezel et al., PloS One 2013

- Volunteers
  - von Knobelsdorff-Brenkenhoff et al., Eur Rad 2010 and JCMR 2013

- Patients
  - Prothmann et al., PLoS One, 2016

- Experimental CMR at 7 Tesla
  - (e.g. Peter Kellman, NIH, Michael Markl NWU, Rob von der Geest, LU, group of Thoralf Niendorf, MDC, group of Tobias Schaeffter, PTB)

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**CMR - basic assessment**

Selected topics with selected references

- **Evaluation of confounders**
  - Rudolph et al., BMBF 2015; Blaszczyk et al.; MAGMA, 2016; Zange et al., poster presentation at SCMR P208

- **Normal values and scan optimization**
  - Dieringer et al., JMRI 2011; Hezel et al., PloS One 2013
  - Wassmuth et al., JCMR 2013; Funk et al., Proceedings EuroCMR 2016; Toepper et al., poster presentation at SCMR P208

**Participation in technical development**

- Dingler et al., JMRI 2011; Hezel PloS One 2013

- Volunteers
  - von Knobelsdorff-Brenkenhoff et al, Eur Rad 2010 and JCMR 2013

- Patients
  - Prothmann et al., PLoS One, 2016

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**T1 Mapping in a patient with systemic inflammation.**

**Late gadolinium enhancement in a patient with acute myocarditis.**

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**Aortic and vavalular morphology**

- Wassmuth et al., EHJ cvi 2014

**Flow assessment**

- Traber et al., EUR Rad 2015; Richau et al., JCMR 2017

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**Contact us at SCMR**

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