Name Participants of WG3	**Andreas Daiber**
Affiliation	University Medical Center Mainz, Germany
Scientific expertise, up to 5 key words	redox biochemistry, oxidative stress and environmental research in cardiovascular disease
Motivation for participation in WG3	NRF2 activation as an antioxidant strategy to prevent cardiovascular complications
Short narrative biosketch, including scientific background/ education/major achievements etc.	Born in 1970 in Balingen, Germany. 1990-1996: he studied Chemistry at the University of Konstanz. 1997: Master in Chemistry; 2000: PhD in Biochemistry. 2001: postdoc in Medical Chemistry (Prof. Dr. Volker Ullrich, Konstanz). 2002-2004: postdoc in Experimental Cardiology (Prof. Dr. Thomas Münzel) at the University Medical School Hamburg-Eppendorf. 2004-2008: assistant professor in Molecular Medicine (Prof. Dr. Thomas Münzel) at University Medical Center Mainz. 2008: full professor in Molecular Cardiology. PI in 12 research projects funded by private/public funding bodies, plus >20 significant research grants from the pharmaceutical industry. 2011: guest professorship at the Université Joseph Fourier at Grenoble, France (Prof. Dr. Uwe Schlattner). From 2014-2016 he was the Chair of COST Action BM1203 (EU-ROS). Memberships in national and international scientific communities (SFRBM/SFRRE, ASBMB, DGK), reviewer activities for numerous scientific journals (e.g. *FRBM, Redox Biology, Eur. Heart J.*) and funding bodies, editorial board positions (*Oxid. Med. Cell. Longev., Cardiovasc. Res.*, *Antioxidants, FRBM*), guest editor (*Antioxid. Redox Signal.*, *Redox Biology, Br. J. Pharmacol*.). He published >150 original research articles, >100 reviews, 25 book chapters, >150 conference abstracts and holds 2 patents with Boehringer Ingelheim. h-index: 71; citing articles: >7000. Special research interests: redox biochemistry, oxidative stress and environmental research in cardiovascular disease.
Current research topics/ongoing projects	Currently, we investigate the impact of environmental stressors (traffic noise and air pollution in the form of particulate matter) on the cardiovascular system and the brain. Noise exposure triggers systemic oxidative stress via the phagocytic NADPH oxidase (NOX-2), inflammation and dysregulation of the circadian clock, all of which promotes cardiovascular risk factors such as hypertension and hyperglycemia. Air pollution in the form of ultrafine (nano)particles confers the most striking effects on vascular function even after acute challenges whereas fine (micro)particles obviously need longer exposure times to induce chronic effects.
Nfr2-related methodologies/ infrastructure/ equipment	HPLC assay for bilirubin and biliverdin Hmox1 knockout mice (crossed with CadhCre and LysMCre) NRF2 induction luciferase reporter assay
Available sample collections/datasets; interested in sharing; yes/no	Several small cohort patient samples related to cardiometabolic disease. Multiple animal study samples (hypertension, diabetes, sepsis, environmental risk factors. Can be discussed at request.
Available cohorts/ ongoing/planned	-

human studies/grant applications	
Interested in STSM: outgoing/hosting (year 1/later); yes/no	Can be discussed later.