

## Curriculum Vitae

### Dr. med. Christine Quast

born in Aachen, Germany

present position:

address:

Attending  
Department of Cardiology,  
Pulmonology and Vascular Medicine  
University Hospital Düsseldorf  
Moorenstrasse 5, 40225 Düsseldorf, Germany  
Tel.: +49 (0)211-81-18801  
Fax: +49 (0)211-81-18812



✉ eMail: [Christine.Quast@med.uni-duesseldorf.de](mailto:Christine.Quast@med.uni-duesseldorf.de)

🆔 Orcid: 0000-0002-0405-989X

### EDUCATION AND TRAINING

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|-------------|--|
| 2003 – 2010 | Medical School, RWTH Aachen University, Aachen, Germany  |
| 2010 – 2017 | Residency, Division of Cardiology, Pulmonology and Vascular Medicine, University Hospital Düsseldorf, Germany  |
| 2011        | Thesis: “Deletion und Inhibition des Chemokinrezeptors CCR1 führen im murinen Modell der myokardialen Ischämie/Reperfusion zu verbesserter linksventrikulärer Funktion” (RWTH Aachen, <i>magna cum laude</i> ) |
| 2011-2013   | Postdoctoral Research Fellowship, Department of Molecular Cardiology (Chair: Prof. Dr. Jürgen Schrader), Heinrich Heine University Düsseldorf, Germany   |
| 2017        | Board Certification, Specialist in Internal Medicine and Cardiology  |
| 2019        | Board Certification Intensive Care Medicine  |
| 2021        | Board Certification Interventional Cardiology (DGK)  |
| 2022        | Board Certification Cardiovascular Emergency and Intensive Care (DGK)  |

## GRANTS AND AWARDS

- 2022 – present      Advanced Clinician Scientist Track (duration 3 years), Medical Faculty, Heinrich-Heine-University, Düsseldorf, Germany
- 2019 – present      Co-PI in CRC TRR259, Project S01 “Animal models”
- 2019                  Best poster price of the session, ESC Congress Munich
- 2018                  Kurt und Erika Palm foundation research award, Deutsche Herzstiftung (third place)
- 2017                  Research grant by Forschungskommission, Medical Faculty, Heinrich Heine-University Düsseldorf, project title: “Role of inflammation and myocardial adaption to experimental aortic valve stenosis”
- 2013                  Research grant by Deutsche Stiftung für Herzforschung (DSHF), project title: „Role of leukocyte associated ecto-nucleotide cascade and adenosine receptors in inflammation in TAC-induced heart failure”

## MEMBERSHIPS

Deutsche Gesellschaft für Kardiologie, Herz- und Kreislaufforschung e.V. (DGK)

European Society of Cardiology (ESC)

American College of Cardiology (ACC)

## MAJOR PUBLICATIONS

1. **Quast C**, Kober F, Becker K, Zweck E, Hoffe J, Jacoby C, Flocke V, Gyamfi-Poku I, Keyser F, Piayda K, Erkens R, Niepmann S, Adam M, Baldus S, Zimmer S, Nickenig G, Grandoch M, Bönner F, Kelm M, Flögel U. Multiparametric MRI identifies subtle adaptations for demarcation of disease transition in murine aortic valve stenosis. *Basic Res Cardiol.* (2022);117(1):29
2. **Quast C**, Zimmer S, Adam M, Baldus S, Nickenig G, Kelm M. Clinical Advances in Aortic Diseases: from Aortic Valve to Bifurcation. *Dtsch Med Wochenschr.* (2019);144(11):734-38
3. Niepmann ST, Steffen E, Zietzer A, Adam M, Nordsiek J, Gyamfi-Poku I, Piayda K, Sinning JM, Baldus S, Kelm M, Nickenig G, Zimmer S, **Quast C**. Graded murine wire-induced aortic valve stenosis model mimics human functional and morphological disease phenotype. *Clin Res Cardiol.* (2019);108(8):847-56

4. Veulemans V, Piayda K, Afzal S, Polzin A, **Quast C**, Jung C, Westenfeld R, Zeus T, Kelm M, Hellhammer K. Cost-comparison of third generation transcatheter aortic valve implantation (TAVI) devices in the German Health Care System. *Int J Cardiol.* (2019);278:40-45
5. Piayda K, Wimmer AC, Veulemans V, Afzal S, Sievert H, Gafoor S, Erkens R, Polzin A, **Quast C**, Jung C, Westenfeld R, Kelm M, Hellhammer K, Zeus T. Balloon Valvuloplasty Followed by Transcatheter Aortic Valve Implantation as a Staged Procedure in Patients With Low-Flow Low-Gradient Aortic Stenosis. *J Invasive Cardiol.* (2018);30(12):437-42
6. Hellhammer K, Piayda K, Afzal S, Kleinebrecht L, Makosch M, Hennig I, **Quast C**, Jung C, Polzin A, Westenfeld R, Kelm M, Zeus T, Veulemans V. The Latest Evolution of the Medtronic CoreValve System in the Era of Transcatheter Aortic Valve Replacement: Matched Comparison of the Evolut PRO and Evolut R. *JACC Cardiovasc Interv.* (2018);11(22):2314-22
7. **Quast C**, Alter C, Ding Z, Borg N, Schrader J. Adenosine Formed by CD73 on T Cells Inhibits Cardiac Inflammation and Fibrosis and Preserves Contractile Function in Transverse Aortic Constriction-Induced Heart Failure. *Circ Heart Fail.* (2017);10(4). pii: e003346
8. Borg N, Alter C, Görltdt N, Jacoby C, Ding Z, Steckel B, **Quast C**, Bönner F, Friebe D, Temme S, Flögel U, Schrader J. CD73 on T-Cells Orchestrates Cardiac Wound Healing After Myocardial Infarction by Purinergic Metabolic Reprogramming. *Circulation.* (2017);136(3):297-13
9. Ding Z, Temme S, **Quast C**, Friebe D, Jacoby C, Zanger K, Bidmon HJ, Grapentin C, Schubert R, Flögel U, Schrader J. Epicardium-Derived Cells Formed After Myocardial Injury Display Phagocytic Activity Permitting In Vivo Labeling and Tracking. *Stem Cells Transl Med.* (2016);5(5):639-50
10. Temme S, Grapentin C, **Quast C**, Jacoby C, Grandoch M, Ding Z, Owenier C, Mayenfels F, Fischer JW, Schubert R, Schrader J, Flögel U. Noninvasive Imaging of Early Venous Thrombosis by <sup>19</sup>F Magnetic Resonance Imaging With Targeted Perfluorocarbon Nanoemulsions. *Circulation.* (2015);131(16):1405-14

## MAJOR RESEARCH INTERESTS

- Aortic valve disease: Hemodynamics, valvular and aortic properties, myocardial adaption
- Cardiac Inflammation in cardiovascular diseases, purinergic signaling
- Cardiometabolism, Insulin resistance in cardiovascular disease