

Theodor Abart

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Birthdate/-place: 21.12.1998, Graz

Citizenship: Austrian



Experience

Aug. 2021 – ongoing	Research Assistant in Mechanical Circulatory Support Research Medical University of Vienna, Department of Cardiac Surgery, Vienna, Austria
Feb. 2021 – July 2021	Internship in Cardiovascular Research Medical University of Vienna, Center for Medical Physics and Biomedical Engineering, Vienna, Austria
Oct. 2016 – ongoing	Voluntary Paramedic/EMT (NFS – NKV) & Vice Head of District Branch (since 2021) Austrian Red Cross
Aug. 2019 – Sept. 2019	Internship in Pharmaceutical Software Dev. Österreichischer Apothekerverband 1090 Wien

Education

Sept. 2021–Jun. 2023	Master Studies: Medical Engineering & eHealth University of Applied Sciences - Technikum Vienna, Vienna, Austria. Completed with distinction.
Sept. 2018– Jun. 2021	Bachelor Studies: Biomedical Engineering University of Applied Sciences - Technikum Vienna, Vienna, Austria. Completed with distinction.
Sept. 2009–Jun. 2017	Secondary School Diploma Bundesgymnasium und Bundesrealgymnasium Keimgasse, Mödling, Austria

Further Qualifications

Skilled **programming** in **MATLAB** and **Python 3.8**; experience with **Simulink**, excellent in **Microsoft Office**, profound knowledge of **microcontroller** programming in **C** and **embedded systems**. Basic skills in **database development** (SQL) and keen interest in **statistics**.

Team player with basic **leadership skills** based on years of experience in NGO management, background in professional endurance sports. Actively participating in **scientific societies** and regularly attending **scientific conferences** and meeting as a presenter and participant.

Professional **experience** with **working in clinical environment**, knowledge of medical and technical aspects of intensive care unit and operating room. Skilled in interaction with **patients** and **clinicians**. Certified by TÜV Austria as **Quality and Regulatory Affairs Manager-Junior for Medical Devices**.

Language Skills

English	C1
German	C2

Professional Memberships

International Society for Mechanical Circulatory Support; ISMCS ; www.ismcs.org	Member and Assistant Secretary, responsible for the society's organizational matters
European Society for Artificial Organs; ESAO ; www.esao.org	Student Member, young ESAO Member & conference attendee
International Society for Heart and Lung Transplantation; ISHLT ; www.isHLT.org	Member and conference attendee

Assistance in Research Studies

The ARIES HeartMate 3 Pump IDE Study

Prospective, randomized, double-blinded, placebo-controlled study comparing T-ASS vs. placebo in advanced heart failure patients receiving the HM3 as LVAD. **Investigator**, Principal Investigator: Daniel Zimpfer, Sponsor: Abbott Medical Devices, ClinicalTrial.gov ID: *NCT04069156*

HM3 SNOOPY – Noninvasive Cardiovascular Diagnostics of LVAD Patients

Prospective, observational pilot study: Noninvasive Cardiovascular Diagnosis of Patients With Fully Magnetically Levitated Blood Pumps. **Investigator**, Principal Investigator: Thomas Schlöglhofer, Daniel Zimpfer, *NCT04641416*

VerifyNow Study – Aspirin Responsiveness in long term MCS Patients and Adverse Events

Observational single center study to assess platelet function inhibitor performance in patients on long term mechanical circulatory support and the relationship between platelet function inhibitor responsiveness adverse Events. **Investigator**, Principal Investigator: Thomas Schlöglhofer, Daniel Zimpfer, EkNr. 2460/2020 (Institutional Review Board Medical University of Vienna)

Scientific Publications and Conference Presentations

Oral Conference Presentation:

T. Abart, C. Gross, F. Kohout, A. Schaefer, J. Riebandt, G. Laufer, D. Wiedemann, D. Zimpfer, T. Schloeglhofer, (210) Early Markers for Hemocompatibility Related Adverse Events Based on Routinely Available Pump Parameters from HeartMate 3 Left Ventricular Assist Device Patients, *The Journal of Heart and Lung Transplantation*, 42, Issue 4, Supplement, 2023. Doi: 10.1016/j.healun.2023.02.1514

Scientific Paper:

G. Widhalm, **T. Abart**, M. Noeske, L. Kumer, K. Ebenberger, C. Atteneder, A. Berger, G. Laufer, D. Wiedemann, D. Zimpfer, H. Schima, M. Wagner, T. Schlöglhofer. Human Factors Evaluation of HeartMate 3 Left Ventricular Assist Device Peripherals: An Eye Tracking Supported Simulation Study. *J Med Syst.* 2023 May 3;47(1):58. doi: 10.1007/s10916-023-01950-3. PMID: 37133553; PMCID: PMC10156833.

Scientific Paper (under revision):

T. Schlöglhofer, C. Gross, **T. Abart**, A-K. Schafer, C. Marko, M. Röhrich, G. Widhalm, F. Kaufmann, I. Weigl, H. Al Asadi, B. Karner, J. Riebandt, D. Wiedemann, G. Laufer, H. Schima, D. Zimpfer. HeartMate 3 Snoopy: Non-invasive cardiovascular diagnosis of patients with fully magnetically levitated blood pumps during echocardiographic speed ramp tests. (under revision at JHLT)

Oral Conference Presentation (Accepted for ESAO 2023):

T. Abart, C. Gross, A.K. Schaefer, C. Marko, M. Röhrich, G. Widhalm, J. Riebandt, D. Wiedemann, F. Moscato, H. Schima, D. Zimpfer, T. Schlöglhofer. Exceeding the Limits of Current Pump Monitoring: Non-Invasive Diagnosis of Left Ventricular Unloading with the HeartMate 3 Snoopy.

Oral Conference Presentation:

T. Abart, D. Wiedemann, G. Widhalm, H. Schima, G. Laufer, D. Zimpfer, T. Schlöglhofer. Clinical Utility of Routinely Available Heartmate 6 Total Artificial Heart Pump Parameters and Logfiles. *ESAO Abstract Book. The International Journal of Artificial Organs.* 2022;45(9):729-796. doi:10.1177/03913988221117047

Research Abstract:

T. Schlöglhofer, C. Gross, **T. Abart**, M. Röhrich, F. Kaufmann, I. Weigel, G. Widhalm, M. Maw, A-K. Schaefer, C. Marko, J. Riebandt, D. Wiedemann, G. Laufer, H. Schima. CARD23: HeartMate 3 SNOOPY: Noninvasive Cardiovascular Diagnosis Of Patients With Fully Magnetically Levitated Blood Pumps. *ASAIO Journal* 68, no. Supplement 2 (June 2022): 56–56. doi:10.1097/01.mat.0000841028.94272.e5

Research Abstract:

T. Schlöglhofer, M. Röhrich, **T. Abart**, C. Marko, H. Schima, G. Laufer, C. Schukro, D. Zimpfer. BIO31: In Vitro Analysis Of Confirm Rx Implantable Cardiac Monitor Performance For Cardiac Arrhythmia Detection During Heartmate 3 Left Ventricular Assist Device Support. *ASAIO Journal* 68(Supplement 2):p 26, June 2022. doi:10.1097/01.mat.0000840860.50072.02