

# Van Nhat Minh Vo

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## EDUCATION

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<b>University of Bonn – PhD student</b> <i>Program in Experimental Medicine</i> <i>Supervisor: Univ-Prof. Dr. rer. nat. Verena Hörr</i>	2022 – Present
<b>Tokyo Metropolitan University – Master Student</b> <i>Radiological Sciences</i> <i>Supervisor: Professor Shirakawa Takako</i>	2019 – 2021
<b>Hue University of Medicine and Pharmacy</b> <i>Medical Technology</i>	2012 – 2014
<b>National Technical College of Medicine No.II</b> <i>Medical Imaging Technician</i>	2007 – 2010

## RESEARCH INTEREST

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My research interests lie in the field of cardiovascular imaging, with a specific focus on utilizing magnetic resonance imaging (MRI) techniques for the diagnosis, characterization, and treatment evaluation of cardiovascular diseases. I am particularly interested in exploring and refining methods to quantify biomarkers that provide valuable insights into the structural and functional aspects of the cardiovascular system in animal models.

## PROFESSIONAL EXPERIENCE

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<b>Medizinische Klinik und Poliklinik II/ Cardiovascular Imaging Research Group, University Hospital Bonn, Bonn, Germany</b> <b>PhD Student Researcher</b> <i>Advisor: Univ-Prof. Dr. rer. nat. Verena Hörr</i>	2022 – Present (Graduation expected date: 2025)
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- Collaborate with the research team to develop research objectives and experimental design for cardiovascular imaging studies.
- Collect and analyze cardiovascular imaging data, including image acquisition, image processing, and quantitative analysis.
- Develop algorithms or software tools for image analysis processes and enhance data analysis efficiency.

<b>Philips Healthcare Company, Vietnam</b> <b>MRI-Product Specialist</b> <i>Manager: Hugo Luik</i>	2021 – 2022
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- Develop a comprehensive understanding of the features, functionality, and applications of our MRI systems and related products. Stay updated with the latest advancements in MRI technology and industry trends.
- Conduct product training sessions for customers to enhance their understanding of MRI system operation, imaging protocols, and post-processing techniques. Develop training materials, presentations, and user manuals as needed.

<b>The Jikei University Hospital, Japan</b> <b>Research Assistant</b> <i>Advisor: Associate Professor Hiroki Ohta</i>	2019 – 2021
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- Conduct data collection activities, including performing DSA procedures, operating Ultrasound machines, and assisting in MRI examinations. Ensure accurate and timely data acquisition and recording. Collaborate with the research team in analyzing collected data and interpreting results.
- Assist in the planning, implementation, and execution of research projects related to DSA, Ultrasound, and MRI. Collaborate with the research team in designing study protocols, data collection methods, and analysis strategies.

Manager: Hugo Luik

- Conduct comprehensive training sessions for healthcare professionals, including radiologists, technologists, and physicians, to enhance their knowledge and skills in MRI clinical applications. Develop training materials, presentations, and user manuals as needed.
- Provide on-site and remote support to customers regarding MRI system operation, image acquisition, and post-processing techniques. Troubleshoot technical issues, optimize imaging protocols, and ensure proper utilization of MRI equipment.

**Hue Central Hospital, Vietnam**

2014-2017

**Radiological Technologist**

Manager: Van Loi Nguyen, RT

- Perform Diagnostic Imaging: Conduct a variety of radiographic examinations, including X-rays, CT scans, MRI scans, mammography, and fluoroscopy, as prescribed by physicians.
- Equipment Operation: Operate and maintain imaging equipment, including X-ray machines, CT scanners, MRI machines, and other radiographic devices. Ensure proper functioning, cleanliness, and adherence to safety protocols.

**Hue University Hospital, Vietnam**

2011-2012

**Radiological Technologist**

Manager: Minh Loi Hoang, MD

- Perform Diagnostic Imaging: Conduct a variety of radiographic examinations, including X-rays, CT scans, MRI scans, mammography, and fluoroscopy, as prescribed by physicians.
- Equipment Operation: Operate and maintain imaging equipment, including X-ray machines, CT scanners, MRI machines, and other radiographic devices. Ensure proper functioning, cleanliness, and adherence to safety protocols.

## SELECTED MANUSCRIPTS

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\* Equal contribution;

1. Hiroki Ohta\*, **Nhat-Minh Van Vo\***, Junichi Hata, Koshiro Terawaki, Takako Shirakawa, Hirotaka James Okano. 2020  
"Utilizing Dynamic Phosphorous-31 Magnetic Resonance Spectroscopy for the Early Detection of Acute Compartment Syndrome: A Pilot Study on Rats". *diagnostics*. doi: [10.21203/rs.3.rs-143667/v1](https://doi.org/10.21203/rs.3.rs-143667/v1)

## CONFERENCES

1. **Minh Van Nhat Vo**, Hiroki Ohta, Junichi Hata, Koshiro Terawaki, Hirotaka James Okano, Takako Shirakawa. 2020  
"Acute Compartment Syndrome Model in Rats: An Early Evaluation with In Vivo Dynamic 31 P-MR Spectroscopy at 9.4 T". *ISMRM-JPC 2020*.
2. Mahyasadat Ebrahimi, Ali Nahardani, Shibarjun Mandal, Astrid Tannert, Sara Moradi, **Van Nhat Minh Vo**, Ute Neugebauer, Rainer Heintzmann, Verena Hoerr. "A Multiparametric MRI Study of Sepsis-Induced Renal Injury in Comparison to Histology". *European Molecular Imaging Meeting 2023*.
3. Mahyasadat Ebrahimi, Ali Nahardani, Sara Moradi, **Van Nhat Minh Vo**, Shibarjun Mandal, Astrid Tannert, Ute Neugebauer, Rainer Heintzmann, Verena Hoerr. "Analysis of Cardiac Function and Hemodynamics in Sepsis by MRI: A Preclinical Study at 9.4T". *European Molecular Imaging Meeting 2023*.
4. **Van Nhat Minh Vo**, Ali Nahardani, Katja Grün, Andrea Schrepper, Mahyasadat Ebrahimi, Sara Moradi, Marcus Franz, Verena Hoerr. "A Longitudinal MRI Study on Right Ventricular Function and Strain in Pulmonary Arterial Hypertension: A Preclinical Investigation at 11.7 T". *European Molecular Imaging Meeting 2023*.
5. Ali Nahardani, **Van Nhat Minh Vo**, Sara Moradi, Stefan Reuter, Verena Hoerr. "23Na Magnetic Resonance Imaging in Sepsis-Induced Acute Kidney Injury". *Sepsis 11<sup>th</sup> Update 2023*.

6. **Van Nhat Minh Vo**, Ali Nahardani, Sara Moradi, Chris Lippe, Verena Hoerr. “Evaluating Glucose Uptake in Brown Adipose Tissue by In-Vivo GlucoCEST MRI”. *2024 ISMRM & ISMRT Annual Meeting & Exhibition*.

7. Ali Nahardani, Sara Moradi, **Van Nhat Minh Vo**, Verena Hoerr. “<sup>23</sup>Na Magnetic Resonance Imaging in Sepsis- Induced Acute Kidney Injury: A Preclinical Study”. *2024 ISMRM & ISMRT Annual Meeting & Exhibition*.

## HONORS & AWARDS

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“Asian Human Resource Development Project for Medical Professionals” – Master Program – Funded by Tokyo Metropolitan Government, Japan 2019

Japan Exchange Program - Funded by University Hospital, Kyoto Prefectural University of Medicine, Japan. 2016

## PROFESSIONAL MEMBERSHIPS

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Vietnam Association of Radiological Technologist (VART).

International Society for Magnetic Resonance in Medicine (ISMRM)

## COMPUTER AND TECHNICAL SKILLS

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**Programming languages:** Matlab, Python

**Operating systems:** Linux, MacOS, Windows.

**Background knowledge:** Medicine

## REFERENCES

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**Univ-Prof. Dr. rer. nat. Verena Hörr** – Medizinische Klinik und Poliklinik II/ Cardiovascular Imaging Research Group, University Hospital Bonn, Bonn, Germany  
Email: [vhoerr@uni-bonn.de](mailto:vhoerr@uni-bonn.de)

**Dr. Ali Nahardani** – Medizinische Klinik und Poliklinik II/ Cardiovascular Imaging Research Group, University Hospital Bonn, Bonn, Germany  
Email: [ali.nahardani@ukbonn.de](mailto:ali.nahardani@ukbonn.de)

**Professor Shirakawa Takako** – Radiological Sciences Department, Tokyo Metropolitan University, Tokyo, Japan  
Email: [t-shirakawa@tmu.ac.jp](mailto:t-shirakawa@tmu.ac.jp)

