

# Cody R. Hou

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## Education

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University of Minnesota, Twin Cities Medical School  
M.D. Aug 2020 – Present  
Minneapolis, MN

University of Minnesota, Twin Cities  
B.S. in Biochemistry, *summa cum laude* (GPA: 3.991/4.0)  
Minor in German, Honors student Sep 2016 – May 2020  
Minneapolis, MN

## Honors and Awards

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- Sarnoff Cardiovascular Research Fellowship (2022)
- B.A. and Robert Dyar Memorial Scholarship (2020)
  - Merit-based full tuition medical school scholarship
- Phi Beta Kappa (2019)
- Undergraduate Research Scholarship (2017)
- University of Minnesota Gold Scholar Award and Presidential Scholarship (2016)
  - National Merit Semifinalist full tuition undergraduate scholarship

## Research Experience

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Sarnoff Fellowship Jul 2022 – Jul 2023  
Ellinor Lab, Broad Institute of MIT and Harvard Cambridge, MA

- Utilized machine learning on cardiac magnetic resonance imaging to investigate lung phenotypes and their genetic association with cardiovascular disease

NIH T35 Mescher Scholar Jul 2021 – Aug 2021  
Boulware Lab, University of Minnesota Minneapolis, MN

- Investigated how cerebral perfusion pressure and blood pressure influence cardiovascular and neurocognitive outcomes in cryptococcal meningitis

Wilson Scholar May 2021 – Jul 2021  
Benditt Lab, Lillehei Heart Institute, University of Minnesota Minneapolis, MN

- Evaluated definitions of inappropriate sinus tachycardia in published literature

Summer Research Scholar/Research Assistant May 2019 – May 2020  
Dudley Lab, Lillehei Heart Institute, University of Minnesota Minneapolis, MN

- Analyzed efficacy of novel drug analogs on mitochondrial oxidative stress in cardiac muscle cells to treat heart failure with preserved ejection fraction

## Selected Publications

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- **Hou CR**, Cortez D. Novel *ACTN2* missense variant is associated with idiopathic ventricular fibrillation: a case report. *Eur Heart J Case Rep* 2022 Jul 22;6(7):ytac229. DOI: 10.1093/ehjcr/ytac229.
- El-Bokl A, Siddeek H, **Hou CR**, Leslie A, Jimenez E, Cortez D. Pediatric Micra leadless pacemaker implantation via internal jugular and femoral veins: experience with 11 patients. *Future Cardiol.* 2022; 18:679-686. DOI: 10.2217/fca-2021-0139.
- **Hou CR**, Olshansky B, Cortez D, Duval S, Benditt D. Inappropriate sinus tachycardia: an examination of existing definitions. *Europace* 2022; 24:1655-1664. DOI: 10.1093/europace/euac057.
- Zhao M, Zhao M, **Hou CR**, Post F, Herold N, Walsleben J, Meng Z, Yu J. Left atrial appendage closure yields favorable cardio- and cerebrovascular outcomes in patients with non-valvular atrial fibrillation and prior stroke. *Front Neurol* 2022; 12:784557. DOI: 10.3389/fneur.2021.784557.
- Zhao M, **Hou CR**, Xiong X, Post F, Herold N, Yu J. Safety and effectiveness of left atrial appendage closure in patients with non-valvular atrial fibrillation and prior major bleeding. *Expert Rev Med Devices* 2021; 18:1-9. DOI: 10.1080/17434440.2021.2011718.
- Liu M, Liu H, Feng F, Xie A, Kang GJ, Zhao Y, **Hou CR**, Zhao X, Dudley S. Magnesium deficiency causes a reversible, metabolic diastolic cardiomyopathy. *J Am Heart Assoc* 2021; 10:e020205. DOI: 10.1161/JAHA.120.020205.
- Zhao M, Post F, Muenzel M, **Hou CR**, Keil T, Yu J. Impact of sex differences on outcomes in patients with non-valvular atrial fibrillation undergoing left atrial appendage closure: A single-center experience. *Int J Med Sci* 2021; 18:1990-1998. DOI: 10.7150/ijms.53221.
- Urbach J\*, **Hou CR\***, Lesser J, Stanberry L, Garberich R, Caye D, Sorajja P, Gössl M. Computer tomographic angiography-derived risk factors for vascular complications in percutaneous transfemoral transcatheter aortic valve replacement. *Am J Cardiol* 2019; 124:98-104. DOI: 10.1016/j.amjcard.2019.03.043. (\*Equal contribution.)

## Abstracts

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- **Hou CR**, Rämö J, Kany S, Friedman S, Ellinor PT, Pirruccello J. Deep learning-derived characterization of lung tissue predicts future diagnosis of heart failure. American Heart Association Scientific Sessions 2023, Philadelphia, November 2023.
- **Hou CR**, Cortez D. Novel *ACTN2* missense variant is associated with idiopathic ventricular fibrillation. American College of Cardiology 71<sup>st</sup> Annual Scientific Session, Washington, D.C., April 2022.
- **Hou CR**, Olson S, Lesser J, Stanberry L, Garberich R, Caye D, Sorajja P, Gössl M. Risk evaluation for vascular complication severity with transfemoral aortic valve replacement. American College of Cardiology 67<sup>th</sup> Annual Scientific Session, Orlando, March 2018.

## Leadership

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Advisor (current), Vice President Sep 2022 – Present  
 Medicine and Machine Learning Group Minneapolis, MN

- Developed an introductory R programming language course for medical students

Co-President Mar 2021 – Mar 2022  
 Asian Pacific American Medical Student Association Minneapolis, MN

- Led initiatives to highlight medical issues in the Asian American, Native Hawaiian, and Pacific Islander community

## Leadership (continued)

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Treasurer	Mar 2021 – Mar 2022
Cardiology Interest Group	Minneapolis, MN
<ul style="list-style-type: none"> <li>Managed group finances to support medical student-held events promoting cardiology</li> </ul>	
Orientation Chair	Mar 2021 – Mar 2022
Anki Club	Minneapolis, MN
<ul style="list-style-type: none"> <li>Established videos to help incoming students master Anki, a learning tool for medical school</li> </ul>	
Student Technology Council Representative	Sep 2021 – Mar 2022
Medical Student Council	Minneapolis, MN
<ul style="list-style-type: none"> <li>Collected input from medical students to create technology resources during distance learning</li> </ul>	

## Professional Organizations

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- American Heart Association (2022 – Present)
- American College of Physicians (2022 – Present)
- American Medical Association (2021 – Present)
- American College of Cardiology (2017 – Present)

## Skills

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- Languages: Japanese (advanced); German (advanced); Chinese (intermediate)
- Computer skills: Python, R, Linux shell, Google BigQuery, machine learning with fastai (PyTorch wrapper), Adobe Lightroom/Photoshop

## Hobbies

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- Photography (portfolio: <https://www.codyhou.com/photography/>)
- Electric guitar
- Road cycling
- Language learning