

# CURRICULUM VITAE

## Jason R Cook, MD

**CAMPUS ADDRESS:** Department of Surgery-Vascular Surgery  
982500 Nebraska Medical Center  
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### EDUCATION

2003 - 2007 BA, Biology with Honors & Environmental Studies, Grinnell College  
2007 - 2015 MD, Medicine, Icahn School of Medicine at Mount Sinai  
2009 - 2013 PhD, Biomedical Sciences, Icahn School of Medicine at Mount Sinai

### POST DEGREE TRAINING

6/2015 - 6/2020 Residency, Integrated Vascular Surgery, Barnes Jewish Hospital - Washington University

### ACADEMIC APPOINTMENTS

2020 - Present Assistant Professor of Surgery, Surgery, University of Nebraska Medical Center, Omaha, NE  
2009 - 2013 Graduate Student, Pharmacology & Systems Therapeutics, Icahn School of Medicine at Mount Sinai, New York, NY  
2009 - 2013 Head Physiology Teaching Assistant for the Medical School Ph, Physiology, Icahn School of Medicine at Mount Sinai, New York, NY  
2006 - 2006 Summer Undergraduate Research Program, Icahn School of Medicine at Mount Sinai, New York, NY  
2004 - 2007 Undergraduate Teaching Assistant for eight biology courses, Grinnell College, Grinnell, IA  
2015 - 2020 Resident Physician, General Surgery, Barnes Jewish Hospital - Washington University, St. Louis, MO

### CERTIFICATIONS AND LICENSES

Present Registered Physician in Vascular Interpretation (RPVI)  
Present Step 1/2/3 Pass  
Present Step 2CS Pass  
2015 - 2019 ATLS  
2019 - 2025 ACLS, Nebraska  
2019 - 2025 BLS, Nebraska  
2015 - 2020 State of Missouri License, Missouri, 2015017604  
2020 - 2021 State of Nebraska License, Nebraska, 32590  
2020 - 2023 DEA FC9283386

## GRANTS AND CONTRACT SUPPORT

### ACTIVE

Title: Nebraska Center for Heart and Vascular Research  
ID Number: 1P20GM152326-01  
Funding Agency: DHHS/NIH/NIGMS  
Project Period: 2024 - 2028  
Total Dollars: \$11,807,061  
Direct Cost: \$1,797,522  
Role: Other (Gundry)

### PENDING

Title: The role of cigarette smoke in the pathogenesis of abdominal aortic aneurysm (AAA)  
ID Number: 1R01HL165167-01A1  
Funding Agency: DHHS/NIH/NHLBI  
Project Period: 2023 - 2028  
Total Dollars: \$3,816,101  
Direct Cost: \$2,486,059  
Role: Co Investigator (Xiong)

### **NON-SPONSORED / OUTSIDE GRANTS INFORMATION**

Title: Junior Faculty Developmental Award for a two year project titled: Role of inflammation and endothelial cell dysfunction in aortic aneurysm progression in Marfan Syndrome.  
Funding Agency: COM Physician-Scientist Training Program  
Institution: University of Nebraska Medical Center  
Project Period: 2020 - 2022  
Total Dollars: \$200,000  
Direct Cost: \$200,000  
Role: Principal Investigator

Title: Mechanoregulation of cardiovascular physiology in Marfan Syndrome  
Funding Agency: Great Plains IDeA | Clinical and Translational Res  
Project Period: 2021 - 2022  
Total Dollars: \$40,000  
Direct Cost: \$40,000  
Role: Principal Investigator

Title: Molecular Pathophysiology of Organ-Specific Manifestations in Marfan Syndrome  
ID Number: T32GM007280-34S1  
Funding Agency: National Institutes of Health - NHLBI  
Institution: Icahn School of Medicine at Mount Sinai  
Project Period: 2010 - 2013  
Total Dollars: \$146,148  
Direct Cost: \$146,148  
Role: Student

Title: Integrated Pharmacological Sciences Training Program  
ID Number: T32GM062754  
Funding Agency: NIH  
Institution: Icahn School of Medicine at Mount Sinai  
Project Period: 2009 - 2010  
Total Dollars: \$0  
Direct Cost: \$0  
Role: Student

Title: Icahn School of Medicine Medical Scientist Training Program  
ID Number: T32GM007280  
Funding Agency: NIH  
Institution: Icahn School of Medicine at Mount Sinai  
Project Period: 2008 - 2009  
Total Dollars: \$0  
Direct Cost: \$0  
Role: Student

## **HONORS AND AWARDS**

### **INTERNATIONAL**

2014 Allan D. Callow MD/PhD Young Investigator Award, International Society of Applied Cardiovascular Biology, Cleveland, OH, USA

### **LOCAL**

2007 Bachelor of Arts in Biology Awarded with Honors, Grinnell College, Grinnell, IA, USA  
2009-2010 Rudin Foundation Scholar, Icahn School of Medicine at Mount Sinai, New York, NY, USA  
2010 Graduate Student Travel Award to attend International Marfan, Icahn School of Medicine at Mount Sinai, New York, NY, USA  
2010 Graduate Student Outstanding Teaching Award, Icahn School of Medicine at Mount Sinai, New York, NY, USA  
2011 Graduate Student Travel Award to attend Translational Opport, Icahn School of Medicine at Mount Sinai, New York, NY, USA  
2011 Outstanding Student Teaching in a Medical School Course, Icahn School of Medicine at Mount Sinai, New York, NY, USA  
2011 Graduate Student Travel Award to attend Experimental Biology, Icahn School of Medicine at Mount Sinai, New York, NY, USA

2012	Graduate Student Travel Award to attend American Society of, Icahn School of Medicine at Mount Sinai, New York, NY, USA
2012	Runner-up, Best Oral Presentation. Systems Biology & Disease, Icahn School of Medicine at Mount Sinai, New York, NY, USA
2012	Runner-up, Best Oral Presentation. Systems Biology & Disease, Icahn School of Medicine at Mount Sinai, New York, NY, USA
2012	Best Poster Award, Department of Pharmacology & Systems Ther, Icahn School of Medicine at Mount Sinai, New York, NY, USA
2012	MSTP Student Oral Presentation - 17th Annual Medical Student, Icahn School of Medicine at Mount Sinai, New York, NY, USA
2014	Alpha Omega Alpha Honor Society, Mount Sinai School of Medicine Lambda Chapter, New York, NY, USA

## COMMITTEE ASSIGNMENTS

### UNMC

2020 - Present	Member, Vascular Surgery Fellowship Clinical Competency Committee, University of Nebraska Medical Center
2020 - Present	Member, General Surgery Residency Clinical Competency Committee, University of Nebraska Medical Center
2020 - Present	Member, Aortic Program Strategy Committee, University of Nebraska Medical Center

## MISCELLANEOUS

2020 - Present	Ad hoc Reviewer, Reviewer for Annals of Vascular Surgery, Journal of the American College of Cardiology: Basic to Translational Science, and Journal of Endovascular Therapy
2022 - Present	Co-Director, PE Response Team (PERT), University of Nebraska Medical Center

## PRESENTATIONS

1. Cook JR; S. Lee-Arteaga; L. Carta; H. Nistala; M. del Solar; F. Ramirez. Conditional Inactivation of Fibrillin-1 in Aortic Tissue Compartments. 8th International Research Symposium on Marfan Syndrome; 2010. Airlie Center, Warrenton, VA
2. Cook JR; M. del Solar; F. Ramirez. Genetic Dissection of Vascular Pathology in MFS. Translational Opportunities for the Heritable Disorders of Connective Tissue; 2011. Portland, OR
3. F. Ramirez; L. Carta; M. del Solar; M. Lindsay; H. Dietz; Cook JR. Genetic Dissection of Aortic Disease in the Marfan Syndrome. American Society of Human Genetics; 2012. San Francisco, CA
4. Cook JR; F. Ramirez. Genetic Dissection of the cardiovascular disease in mice with severe Marfan Syndrome. 7th International Elastin Meeting; 2012. Ghent, Belgium
5. Cook JR; L. Carta; M. del Solar; M. Lindsay; H. Dietz; F. Ramirez. Genetic Dissection of Anatomical Compartments & Embryonic Linages in Vascular Pathology in MFS. Genetically Triggered Thoracic Aortic Aneurysms and Cardiovascular Conditions Thoracic Aortic Disease Summit; 2012. Chicago, IL
6. Cook JR; J.R. Hornick; M.A. Zayed. VH03 Lower Extremity Adductorplasty During Superficial Femoral Artery Stenting. Vascular Annual Meeting; 2014. San Diego, CA
7. Cook JR; L. Carta; L. Benard; E.R. Chemaly; E. Chiu; S.K. Rao; T. Hampton; P. Yurchenco; GenTAC Registry Consortium; K.D. Costa; R.J. Hajjar; F. Ramirez. Characterization of dilated cardiomyopathy in mice with Marfan syndrome. International Society of Applied Cardiovascular Biology; 2014. Cleveland, OH
8. Cook JR; L. Carta; L. Benard; E.R. Chemaly; E. Chiu; T. Hampton; N. Clayton; C. Nelson; B. Wentworth; R.J. Hajjar; F. Ramirez. Fibrillin-1 deficiency in cardiac basement membrane zone causes myopathy in Marfan Syndrome. American Society of Matrix Biology; 2014. San Diego, CA

9. Cook JR; C.A. Vlada; J.W. Ohman; G. Fortuna. Open device explant and extra-anatomic revascularization for an infected thoracic aortic endograft. *Midwestern Vascular Annual Meeting 4th Annual Meeting*; 2018. St. Louis, MO
10. S. Jayarajan; Cook JR; J. Jim; L.A. Sanchez. Type III Endoleaks Are Not Significantly Increasing Over Time. *Vascular Annual Meeting*; 2018. Boston, MA
11. Cook JR; J. Jim; L.A. Sanchez; S. Jayarajan. Preoperative and Intraoperative Predictors of Length of Stay Following Fenestrated Endovascular Aortic Aneurysm Repair (FEVAR). *Society for the Clinical Vascular Surgery*; 2018. Las Vegas, NV
12. Cook JR; Vlada, C; Ohman, J; Fortuna, G. Open device explant and extra-anatomic revascularization for an infected thoracic aortic endograft. *Midwestern Vascular Annual Meeting 4th Annual Meeting*; 2018. St. Louis, MO
13. Desmarais, T; Cook JR. Elimination of routine post procedure labs following routine carotid interventions and EVAR. *Department of Surgery 5th Annual Patient Safety and Quality Improvement Session*. Washington University; 2019. St Louis, MO
14. Cook JR; M.A. Henn; T. Ramayya; R. Handa; P. Kachroo; A.C. Braverman; J.W. Ohman. Gender-related Differences in Aortic Dissection in Marfan Syndrome. *Midwestern Vascular Annual Meeting 5th Annual Meeting*; 2019. Chicago, IL
15. Cook JR; L.A. Sanchez. EVAR Outcomes - Case Presentation. *Critical Issues America in Aortic Endografting*; 2019. Coral Gables, FL
16. Cook JR. Fibrillin-1 Microfibrils in Cardiovascular Physiology in The Marfan Syndrome; from bench to bedside and back again. *Cellular and Integrated Physiology*. 2021. University of Nebraska Medical Center
17. M. Patil; Cook JR. Airway Emergency. *Scary Cases Conference*; 2023 09/01. University of Nebraska Medical Center
18. Cook JR. The UNMC Pulmonary Embolism Response Team. *Heart and Vascular Conference*; 2023 09/29. Omaha, NE
19. Cook JR. The UNMC Ruptured Aorta Program. *Heart and Vascular Conference*; 2023 09/30. Omaha, NE
20. Tracey EL; Longo GA; Cook JR. Concurrent Pulmonary Embolisms and Acute Limb Ischemia Requiring Pulmonary Mechanical Thrombectomy and Initiation of Thrombolysis at Index Operation. *Midwestern Vascular Annual Meeting 47th Annual Meeting*; 2023 09/08. Minneapolis, MS
21. Cook JR. Approach to Managing Major Pulmonary Embolisms – An Evolution in Care. *Department of Pulmonary Medicine Grand Rounds*; 2023 04/01. University of Nebraska Medical Center

## PUBLICATIONS

### A. ARTICLES PUBLISHED IN SCHOLARLY JOURNALS

1. Cook JR; H. Nistala; F. Ramirez. Drug-based therapies for vascular disease in Marfan Syndrome; from mouse models to human patients. *Mount Sinai Journal of Medicine*. 2010; Vol. 77: p. 366-373
2. Harikiran Nistala; Sui Lee-Arteaga; Luca Carta; Jason R. Cook; Silvia Smaldone; Gabriella Siciliano; Aaron N. Rifkin; Harry C. Dietz; Daniel B. Rifkin; Francesco Ramirez. Differential effects of alendronate and losartan therapy on osteopenia and aortic aneurysm in mice with severe Marfan syndrome. *Human Molecular Genetics*. 19 : 4790-4798. 2010
3. Jason R. Cook; Silvia Smaldone; Carmine Cozzolino; Maria del Solar; Sui Lee-Arteaga; Harikiran Nistala; Francesco Ramirez. Generation of Fbn1 conditional null mice implicates the extracellular microfibrils in osteoprogenitor recruitment. *Genesis*. 50 : 635-641. 2012
4. Cook JR; F. Ramirez. Cardiovascular Manifestations in Marfan Syndrome and Related Diseases; multiple genes causing similar phenotypes. *Clinical genetics*. 2014; 0009-9163
5. Jason R. Cook; Luca Carta; Ludovic Bénard; Elie R. Chemaly; Emily Chiu; Satish K. Rao; Thomas G. Hampton; Peter Yurchenco; Kevin D. Costa; Roger J. Hajjar; Francesco Ramirez. Abnormal muscle mechanosignaling triggers cardiomyopathy in mice with Marfan syndrome. *Journal of Clinical Investigation*. 124 : 1329-1339. 2014
6. J. Galatioto; E. Chiu; J. R. Cook. Marfan syndrome: Exploring new options in management. *Drugs of the Future*. 39 : 479-485. 2014
7. Harikiran Nistala; Sui Lee-Arteaga; Luca Carta; Jason R. Cook; Silvia Smaldone; Gabriella Siciliano; Aaron N. Rifkin; Harry C. Dietz; Daniel B. Rifkin; Francesco Ramirez. Differential effects of alendronate and losartan therapy on osteopenia and aortic aneurysm in mice with severe Marfan syndrome [Human Molecular Genetics (2010) 19,24, 4790-4798] DOI: 10.1093/hmg/ddq409. *Human Molecular Genetics*. 23 : 6137. 2014

8. Jason R. Cook; Nicholas P. Clayton; Luca Carta; Josephine Galatioto; Emily Chiu; Silvia Smaldone; Carol A. Nelson; Seng H. Cheng; Bruce M. Wentworth; Francesco Ramirez. Dimorphic Effects of Transforming Growth Factor- $\beta$  Signaling during Aortic Aneurysm Progression in Mice Suggest a Combinatorial Therapy for Marfan Syndrome. *Arteriosclerosis, Thrombosis, and Vascular Biology*. 35 : 911-917. 2015
9. K. Desai; Cook JR; E. Brownie; M. Zayed. Tulip Piercing the aorta: a rare case of IVC filter aortic perforation and obstruction. *Journal of Surgical Case Reports*. 2018; Vol. 10: p. 1-3
10. Josephine Galatioto; Cristina I. Caescu; Jens Hansen; Jason R. Cook; Irving Miramontes; Ravi Iyengar; Francesco Ramirez. Cell type-specific contributions of the angiotensin II type 1a receptor to aorta homeostasis and aneurysmal disease-brief report. *Arteriosclerosis, Thrombosis, and Vascular Biology*. 38 : 588-591. 2018
11. Jason R. Cook; Thomas J. Desmarais; Jeffrey Jim. Multi-stage open surgical and endovascular treatment of progressive aortic degeneration in a patient with Marfan syndrome. *Vascular*. 2020
12. Kathryn Jespersen; Chenxin Li; Rishi Batra; Christopher A. Stephenson; Paul Harding; Kylie Sestak; Ryan T. Foley; Harrison Greene; Trevor Meisinger; Jason R. Cook; B. Timothy Baxter; Wanfen Xiong. Impact of Notch3 Activation on Aortic Aneurysm Development in Marfan Syndrome. *Journal of Immunology Research*. 2022 : 2022
13. Jespersen KE; li,chenxin; Batra R; Stephenson CA; Harding, Paul; Sestak KS; Foley RT; Greene HL; Meisinger TM; Cook JR; Baxter T. Impact of Notch3 Activation on Aortic Aneurysm Development in Marfan Syndrome. *Journal of Immunology Research*. 2022 Feb; Vol. 2022 Published

**B. ARTICLES ACCEPTED FOR PUBLICATION IN SCHOLARLY JOURNALS**

Not Applicable

**C. ARTICLES SUBMITTED FOR PUBLICATION IN SCHOLARLY JOURNALS**

Not Applicable

**D. BOOKS PUBLISHED, IN PREPARATION, SUBMITTED OR IN PRESS**

Not Applicable

**E. CHAPTERS IN BOOKS**

1. Jason R. Cook; Francesco Ramirez. Clinical, diagnostic, and therapeutic aspects of the marfan syndrome. 802. 2014. *Progress in Heritable Soft Connective Tissue Diseases*; 77-94
2. Cook JR. How You'll Intervene on Legs in Three to Five Years: Bioresorbable Scaffolds and Next-Generation Drug Delivery. *PMPH-USA Publishing*; 2017. *Current Vascular Surgery Northwestern Vascular Symposium*; 217-226
3. Cook JR; J.W. Ohman; L.A. Sanchez. *The Washing Manual*. 8th. Wolters Kluwer; 2019. Chapter 38, Thoracoabdominal Vascular Disease; 664-684
4. Cook JR; R.W. Thompson. *Thoracic Surgery Clinics: Thoracic Outlet Syndrome*. 1. Elsevier; 2021. Evaluation and Management of Venous Thoracic Outlet Syndrome; 27-45

## **F. BOOKS OR JOURNALS EDITED**

Not Applicable

## **G. ABSTRACTS AND PRELIMINARY COMMUNICATIONS**

1. Cheung SS; Cook JR. Successful Catheter-Directed Thrombolysis And Percutaneous Mechanical Thrombectomy For Sub-Acute Lower Limb Ischemia Secondary To Covid-19 Infection. Midwestern Vascular Annual Meeting 2021; Chicago. 2021
2. Cheung SS; Cook JR. Single Session Mechanical Thrombectomy For Acute Ivc, Bilateral Iliac, And Common Femoral Venous Thrombosis. Midwestern Vascular Annual Meeting 2021; 2021
3. Baxter BT; Eksi, Andrew; Lieber DJ; Cook JR; Thompson JR; MacTaggart JN. Neurogenic TOS: can the relative length of C-7 help with diagnosis?. 2023

## **H. PUBLISHED AUDIOVISUAL OR COMPUTER-BASED EDUCATIONAL MATERIALS AND COMPUTER SOFTWARE**

Not Applicable

## **I. PUBLISHED CONTINUING EDUCATION MATERIALS**

1. Cook JR; B. Downing; J. Jim. Writer for VSCORE: Anastomotic Aneurysms. The SCORE Portal. The SCORE Portal. <http://www.surgicalcore.org>. 2019 Mar
2. B Downing; Cook JR; J. Jim. Writer for VSCORE: Upper Extremity Occlusive Disease. The SCORE Portal. <http://www.surgicalcore.org>. 2019 Mar
3. Cook JR. Vascular Surgery - Vascular: Percutaneous Arterial Access Complications, Part 2 of 2 Quiz. The SCORE Portal. <http://www.surgicalcore.org>. 2020 Aug
4. Cook JR. TWIS: Vascular Surgery - Vascular: Renal artery Aneurysm Repair, Open and Endovascular, Part 2 of 2 Quiz. The SCORE Portal. <http://www.surgicalcore.org>. 2020 Sep

## **J. EDITORIALS**

1. Hakim AH; Cook JR. New Insights in Peripheral Arterial Disease; novel in silico mouse and disease-based computational models. JACC: Basic to Translational Science. 2021; [Editorial]

## **K. CONFERENCE PROCEEDING**

Not Applicable

## **EDUCATION/TEACHING ACTIVITY**

### **A. RESIDENT INSTRUCTION**

**Chalk Board Talk Moderator**

Other: SCORE Curriculum: Anatomy, TOS, Aortic Dissection AAA (TOS, AAA Repair), 1 hour 2021  
SCORE Curriculum: Presentation, Evaluation, Management (Carotid Endarterectomy), 1 hour 2021

**B. ADDITIONAL INSTRUCTION****General Surgery Medical Student Cohort Leader**

Mentor: UNMC, Weekly meeting with medical student cohort while students rotate on general surgery clerkship., 2021 - Present

**C. FACULTY ADVISING/MENTORING****Peer Reviewer for Multiple Journals**

Other: Ad hoc reviewer for multiple journals:  
- Vascular  
- Annals of Vascular Surgery  
- JACC: Basic and Translational Research, 2020 - Present