CURRICULUM VITAE

PERSONAL DATA

Name: **Jason Neal MacTaggart**

Contact: Department of Surgery
982500 Nebraska Medical Center
Omaha, NE 68198-2500

Phone: 402-559-9549

EDUCATION

Undergraduate		Sep 1992 - May 1996
	Wartburg College Waverly, IA B.A., Biology, Magna Cum Laude	
Medical	University of Iowa College of Medicine Iowa City, IA Doctor of Medicine	Aug 1996 – May 2000

POSTDOCTORAL TRAINING:

Internship/Residency	University of Nebraska Medical Center Omaha, NE Categorical General Surgery Resident	Jul 2000 – Jun 2003
	University of Nebraska Medical Center Omaha, NE Categorical General Surgery Resident	Jul 2005 – Jun 2007
Vascular Fellowship	University of California San Francisco San Francisco, CA Vascular and Endovascular Surgery Fellowship	Jul 2007 – Jun 2009

Research Training

University of Northern Iowa — Spring 1996
Exercise Physiology
Preceptor – Fred Kolkhorst, PhD

University of Iowa — Summer 1997
Internal Medicine
Preceptor – John Weiler, MD

University of Nebraska Medical Center — Jul 2003 – Jun 2005
Omaha, NE
Vascular Biology Postdoctoral Research
Mentor – B. Timothy Baxter, MD

Institute for Systems Biology — July 25 – 29, 2011 Seattle, WA
Introduction to Systems Biology

Post-graduate Training

Endoluminaries Meeting — October 15-16, 2010
Cook Medical
Toronto, Canada

Rising Vascular Surgeons Course — September 28-30, 2011
Cook Medical
Bloomington, IN

Embolic Therapies — March 7-8, 2012
Cook Medical
Atlanta, GA

Fenestrated Stent Graft Training Course — September 19-21, 2012
Cook Medical
Tampa, FL

Endovascular Skills for Hemorrhage Control — October 5, 2015
American College of Surgeons
Chicago, IL

Endovascular Skills for Hemorrhage Control — October 18, 2016
American College of Surgeons Washington D.C.

Transcaval Endoleak Embolization Course — April 2-3, 2018
Terumo Medical/University of Alabama
Birmingham, AL

Advanced Peripheral Vascular Disease November 19-20, 2019
Critical Limb Ischemia Course
Terumo Medical/Advanced Cardiac and Vascular
Amputation Prevention Center
Wyoming, MI

ACADEMIC/STAFF APPOINTMENT

University of Nebraska Medical Center
Department of Surgery, Section of Vascular Surgery
Omaha, Nebraska

- Assistant Professor of Surgery — Jul 2009 – 2016
- Associate Professor of Surgery — July 2016 – Present

Nebraska/Western Iowa VA Medical Center
Department of Surgery, Section of Vascular Surgery
Omaha, Nebraska

- Attending Surgeon (6/8) — Sep 2009 – Present

University of Nebraska Graduate Faculty — **June 2019 – Present**

University of Nebraska-Omaha
Department of Biomechanics
Omaha, NE

- Adjunct Associate Professor — Nov 2019 - Present

LICENSURE

2003 - 2022	State of Nebraska License, Nebraska, 22606
2007 - 2022	State of California License, California, A99020
2017 - 2024	Nebraska DEA BM6881987
2020 – 2024	Iowa DEA FM7296292
2013 - 2021	State of Iowa License, Iowa, MD-41149
2017 – 2022	Iowa Board of Pharmacy, 1248469

CERTIFICATION

Diplomat American Board of Surgery (Vascular Surgery)
Certificate #: 102184
Issued: May 24, 2011
Expires: December 31, 2021

Basic Life Support (BLS) Issued:
June 03, 2021
Recommended Renewal: June 2023

Advanced Cardiac Life Support (ACLS)
Issued: June 25, 2021
Recommended renewal: June 2023

GRANTS AND RESEARCH SUPPORT

Active

Calcification of the femoropopliteal artery and its effects on biomechanics
Funding Agency: NIH R01 (NHLBI)
Project Period: 4/01/22 – 3/31/27
Budget: $387,350.00
Role: Co-Principal Investigator (Kamenskiy-MacTaggart)

Effects of Aortic Compliance and Windkessel Reduction on Cardiac and Aortic Pathophysiology
Funding Agency: NIH R01 (NHLBI)
Project Period: 2019-2024
Budget: $3,040,498
Role: Co-Investigator (PI: Anastasia Desyatova)

Optimized Stents for the Femoropopliteal Artery (Renewal)
Funding Agency: NIH R01 (NHLBI)
Project Period: 3/1/20 – 2/28/25
Amount: $2,695,295
Role: Co-Principal Investigator (PI: Dr. Kamenskiy)

Completed

Rapid Acute Endovascular Management of Non-Compressible Truncal and Junctional Hemorrhage and Long-Term Analysis of Stent-Graft Durability in Young Military Trauma Populations - W81XWH-16-2-0034, Log 14361001
Funding Agency: Department of Defense

Project Period: 10/01/16-10/01/20
Amount: $1,429,240
Role: Co-Principal Investigator (Kamenskiy-MacTaggart)

Optimal Stent Selection for the Femoropopliteal Artery
Funding Agency: NIH R01 (NHLBI)
Project Period: 12/1/14 – 11/30/20 (With no cost extension) Amount:
$3,568,587 (Direct cost $2,377,118)
Role: Co-Principal Investigator (Kamenskiy-MacTaggart)

Concurrent Development of Ex Vivo and In Vivo Models for Study of Vascular Injury, Remodeling and Regeneration
Funding Agency: UNMC Mary and Dick Holland Regenerative Medicine Program
Project Period: 2015-2019
Budget: $300,000
Role: Investigator (PI: Baxter)

Non-Invasive Treatment of Abdominal Aortic Aneurysm Clinical Trial (N-TA3CT)
Funding Agency: NIH
Project Period: 8/15/2011-6/31/2018
Total Dollars: $5,000,005 (Direct cost $1,316,718)
Role: Site Principal Investigator (National PI - Baxter)

AquaBlade catheter for treatment of Aortic Dissection
Funding Agency: UNMC Proof of Concept grant Project
Period: 2017 - 2018
Budget: $210,000
Role: Co-Principal Investigator (Kamenskiy-MacTaggart)

Endovascular Skills for Trauma and Resuscitative Surgery (ESTARS) Curriculum Analysis and Development of Strategic Transition Plan - FA4600-12-D-9000
Funding Agency: Department of Defense
Project Period: 08/10/16 - 02/10/18 Amount:
$253,054
Role: Principal Investigator

Evaluation of Supera Pro Devices for Overall Performance and Ease of Use, With Focus on Deployment Accuracy in Diseased Arteries
Funding Agency: Abbott Vascular
Project Period: 2016-2017
Budget: $38,630
Role: Co-Principal Investigator (Kamenskiy-MacTaggart)

Quantitative Assessment of the Influence of Vascular Mimetic Implant Supera and Its Competitor Conventional SFA Stent on the Natural Limb-Induced Deformations of the Femoropopliteal Artery: A Pilot Study
Funding Source: Abbott Vascular
Project Period: 8/1/14 – 12/1/14 Amount:
$9110
Role: Co-Principal Investigator (Kamenskiy-MacTaggart)

Assessment of the Retrievable Endovascular Arterial Markers in a Cadaver Model of Peripheral Arterial Disease: A Pilot Study
Funding Agency: Abbott Vascular
Project Period: 2015
Budget: $6,294
Role: Co-Principal Investigator (Kamenskiy-MacTaggart)

Mechanical and Morphological Analysis of a Novel Electrospun Nanofiber Arterial Substitute in a Swine Model of Atherosclerosis Funding Agency: Nebraska Research Initiative
Project Period: 2012 – 2015
Funded: $100,000
Role: Principal Investigator

Modeling-Assisted Imaging to Optimize Surgical Interventions
Funding Agency: University of Nebraska - Lincoln/University of Nebraska Medical Center
Project Period: 07/01/2010 - 06/30/2011
Role: Co-Principal Investigator (Dzenis-MacTaggart)

PATENTS AND INVENTIONS

Automated Retrievable Hemorrhage Control System. US10758386B2. Patent granted Sept 1, 2020.

Automatically deployable intravascular device system. PCT/US19/40489. Filed July 3, 2019.

Stent-graft. PCT/US19/30041.Docket No 18104PCT. Filing date: April 30, 2019.

Bypass Graft with Segmentally Variable Tension and Longitudinal Pre-stretch. Provisional patent application. October 2018.

Surgical Devices and Methods (additional modifications to intravascular cutting device Aquablade). PCT/US18/37334. June 2018.

Windkessel-preserving aortic stent-graft. Provisional patent application. April 2018.

Manufacturing Technology of Biaxially Non-Linear and Anisotropic Nanofiber-based Vascular Graft Materials. Provisional patent application. January 2018.

Fluid Jet Arterial Surgical Device. US9782195B2. Patent granted Oct 10, 2017.

Modular Endovascular Trainer. Provisional patent application 62/501,164. May 2017.

Automated Retrievable Hemorrhage Control System. PCT/US16/21728. WO2016/145163. Filed Mar 10, 2016.

Surgical Snare Device. PCT/US15/28227. WO 2015/168249. Filed Apr 29, 2015.

Temporary Endovascular Graft Repair of the Aorta (TEGRA) with Vascular Access, Hemorrhage Control, and Intravascular Navigation Equipment (VAHCINE) kit. 2013.

CONSULTING POSITIONS

Reviewer Journal of Vascular Surgery	2009 – Present
Journal of the American College of Surgeons *Ad hoc reviewer*	2013 – Present
Journal of Biomaterials Applications *Ad hoc reviewer*	2014 – Present
Vascular and Endovascular Surgery *Ad hoc reviewer*	2015 – Present
Journal of the American College of Cardiology *Ad hoc reviewer*	2015 – Present
PLOS one *Ad hoc reviewer*	2016 – Present
American Journal of Physiology Heart and Circulatory Physiology *Ad hoc*	2018 – Present
Acta Biomaterialia *Ad hoc reviewer*	2020 – Present
JVS Vascular Science *Ad hoc reviewer*	2020 – Present

DoD MRMC Broad Agency Announcement for Extramural Medical 2017, 2018
Research Combat Casualty Care – Ad Hoc Proposal Reviewer

HONORS & AWARDS

University of Nebraska New Investigator Award 2018
Joseph P. Gilmore Distinguished New Investigator Award 2016
University of Nebraska Medical Center Most Promising Invention Award 2013-14
American College of Surgeons, Nebraska Chapter Research Award 2006
Alpha Omega Alpha Honor Medical Society – University of Nebraska 2005
2004-2007 University of Nebraska Department of Surgery American Board of Surgery InTraining Exam highest score award

MEMBERSHIPS AND PROFESSIONAL SOCIETIES

Active

American Medical Association
Alpha Omega Alpha Medical Honor Society
Association for Academic Surgery
Society for Vascular Surgery
American Heart Association
Faculty American College of Surgeons
Biomedical Engineering Society
Midwestern Vascular Surgical Society
European Society for Vascular Surgery
International Society of Endovascular Specialists
International Society for Applied Cardiovascular Biology

COMMITTEES

UNMC Transfusion Committee 2009 – 2018
UNMC Operating Room New Products Committee 2009 – 2014
UNMC Department of Surgery Promotion and Tenure Committee 2013
Nebraska Medicine Cardiovascular Value Analysis Team 2015 – 2018 UNMC
Research and Development Committee 2016 – Present Society for Vascular
Surgery Research and Education Committee 2019 – Present

MODERATOR/JUDGE/DISCUSSANT

1. Annual Meeting of the International Academy of Cardiovascular Sciences: North American Section. Session Moderator. Omaha, Nebraska. September 10-12, 2015.
2. Midwest Student Biomedical Research Forum Abstract and Oral Presentation Judge. Creighton University. Omaha, Nebraska. February 22, 2020.
3. Vascular Research Initiatives Moderator. Online Session 2 November 12, 2020.
4. Midwest Student Biomedical Research Forum Abstract and Oral Presentation Judge. February 27, 2021. (Virtual).

ORAL PRESENTATIONS

1. **MacTaggart JN**, Xiong W, Knispel R, Baxter BT. "Deletion of CCR2 But Not CCR5 or CXCR3 Inhibits Aortic Aneurysm Formation." Society of University Surgeons, 2nd Annual Academic Surgical Congress. Phoenix, Arizona, February 6-9, 2007.
2. **MacTaggart JN**, Monahan TS, Hiramoto JS, Schneider DB, Chuter TAM, Eichler CM, Reilly LM. "Cryopreserved Superficial Femoral Vein: An Alternative Conduit for

Reconstruction of Infected Prosthetic Aortic Grafts" Society for Vascular Surgery Annual Meeting. Plenary Session. Denver, Colorado, June 2009.

3. Kamenskiy AV, Dzenis YA, Desyatova AS, Lynch TG, **MacTaggart JN**, Pipinos II. Toward Optimal Hemodynamics in the Endarterectomized Carotid: A Finite Element Study. 5th Annual Academic Surgical Congress. San Antonio, TX. Feb 3-5, 2010.
4. Gupta PK; Gupta H; Miller WJ; Lynch TG; **MacTaggart JN**; Johanning JM; Longo GM; Pipinos II. Predictors of Cardiac Events after Major Vascular Surgery. 5th Annual Academic Surgical Congress; 2010 Feb 3-5. San Antonio, TX
5. Gupta PK; Gupta H; Miller WJ; Johanning JM; Lynch TG; **MacTaggart JN**; Longo GM; Pipinos II. Corticosteroid Use, Symptomatic Status, and Smoking Are Associated with Stroke after Carotid Surgery in the ACS NSQIP. 5th Annual Academic Surgical Congress; 2010 Feb 3-5. San Antonio, TX
6. Bochkarev V; Pipinos II; **MacTaggart JN**. Antegrade mesenteric bypass with bifurcated greater saphenous vein: a final option for chronic mesenteric ischemia after failed angioplasty and stenting. Southwestern Surgical Congress 62nd Annual Meeting; 2010 March 21-24. Tucson, AZ
7. Gupta PK; Natarajan B; Gupta H; Fang X; Balters M; Johanning JM; Lynch TG; Longo GM; MacTaggart JN; Pipinos II. Suprarenal Abdominal Aortic Aneurysm: Which Patients Would Benefit More From Fenestrated Endograft Rather Than Open Repair?. 2011 Vascular Annual Meeting; 2011 June 16-18. Chicago, IL
8. Gupta PK; Natarajan B; Reddy YM; Gupta H; Balters M; Johanning JM; Lynch TG; Forse AR; Longo GM; MacTaggart JN; Pipinos II. Thirty Day Outcomes Following Brachiocephalic and Brachiobasilic Arteriovenous Fistula Formation: National Benchmarks for Standard of Care. 2011 Vascular Annual Meeting; 2011 June 16-18. Chicago, IL
9. Gupta PK; Natarajan B; Reddy YM; Gupta H; Balters M; Johanning JM; Lynch TG; Longo GM; MacTaggart JN; Pipinos II. Open Revascularization for Chronic Mesenteric Ischemia. 2011 Vascular Annual Meeting; 2011 June 16-18. Chicago, IL
10. Gupta PK; Natarajan B; Gupta H; Fang X; Balters M; Johanning JM; Lynch TG; Forse RA; Longo GM; MacTaggart JN; Pipinos II. Contemporary Outcomes Following Endovascular versus Open Repair of Abdominal Aortic Aneurysm. 2011 Vascular Annual Meeting; 2011 June 16-18. Chicago, IL
11. Kamenskiy AV, Dzenis YA, **MacTaggart JN**, Johanning J, Longo MG, Lynch TG, Pipinos II. Biaxial Mechanical Properties of the Human Carotid Artery and Materials used for Patch Angioplasty. 34rd Annual Meeting of the Midwestern Vascular Surgical Society. Indianapolis, IN. Sep 9-11, 2010.
12. Kamenskiy AV, Dzenis YA, **MacTaggart JN**, Lynch TG, Kazmi SAJ, Pipinos II. Nonlinear Mechanical Behavior of the Common, External and Internal Carotid Arteries In Vivo. 35th Annual Meeting of the Midwestern Vascular Surgical Society. Chicago, IL. Sep 1517. 2011.
13. Gupta PK; Natarajan B; Gupta H; Fang X; Balters M; Johanning JM; Lynch TG; Longo GM; Mactaggart JN; Pipinos II. Endovascular Repair of Abdominal Aortic Aneurysm does not improve survival versus Open Repair in Patients Sixty Years or Younger. 35th

Annual Meeting of the Midwestern Vascular Surgical Society; 2011 Sept 15-17. Chicago, IL

14. Gupta PK; Natarajan B; Gupta H; Fang X; Balters M; Johanning JM; Lynch TG; Longo GM; Mactaggart JN; Pipinos II. Suprarenal Abdominal Aortic Aneurysm: Which Patients Would Benefit More From Fenestrated Endograft Rather Than Open Repair?. 35th annual Meeting of the Midwestern Vascular Surgical Society; 2011 Sept 15-17. Chicago, IL
15. Kamenskiy AV, Pipinos II, **MacTaggart JN**, Dzenis YA. Evaluation of Predictive Capabilities of Fung-Type and Structurally-Motivated Constitutive Models for Describing the Complex Mechanical Behavior of Soft Tissues. 48th Annual Technical Conference of Society of Engineering Science. Evanston, IL. October 12-14. 2011.
16. Kamenskiy AV, Pipinos II, **MacTaggart JN**, Dzenis YA. Comparative Analysis of S Based and Invariant-Based Soft Tissue Constitutive Models: Experimental Evaluation of Predictive Capabilities. 4th International Conference on the Mechanics of Biomaterials and Tissues. Waikoloa, HI. December 11-15. 2011.
17. MacTaggart JN. Endoleaks. Medical Grand Rounds, University of Nebraska Medical Center; 2012 Jan 18. Omaha, Nebraska
18. Bikhchandani J, Kamenskiy A, Talukdar A, Mukkai DK, Otuwa N, Dzenis Y, Pipinos I, **MacTaggart J**. Changes in Carotid Artery Geometry Following Revascularization: Endarterectomy Versus Stenting. 7th Annual Academic Surgical Congress. Las Vegas, NV. Feb 14-16. 2012.
19. Grossman L; Gupta PK; Ramanan B; Mactaggart JN; Baxter BT; Fang X; Lynch TG; Pipinos II. Aortic Surgery for Aortic Graft Infections: Defining National Benchmarks for Standards of Care. 36th Annual Meeting of the Midwestern Vascular Surgical Society; 2012 Sept 6-18. Milwaukee, WI
20. Ramanan B; Gupta PK; Lynch TG; Gupta H; Longo GM; **Mactaggart JN;** Baxter BT; Johanning JM; Pipinos II. In-Hospital and Post-Discharge Venous Thromboembolism after Vascular Surgery. 36th Annual Meeting of the Midwestern Vascular Surgical Society; 2012 Sept 6-18. Milwaukee, WI
21. Gupta P; Ramanan B; Mactaggart JN; Fang X; Balters M,; Longo GM; Lynch TG; Johanning JM; Pipinos II. Risk Index for Predicting Perioperative Stroke or Death Risk in Asymptomatic Patients undergoing Carotid Endarterectomy. Scientific Papers Sessions. 2012 Annual Clinical Congresss of the American College of Surgeons; 2012 Sept 30-Oct 4. Chicago, IL
22. Kamenskiy AV, Bikhchandani J, Pipinos II, Gupta PK, Dzenis YA, **MacTaggart JN.** Geometric and Hemodynamic Effects of Carotid Artery Stenting. The American College of Surgeons Clinical Congress. Chicago, IL. Sep 30 – Oct 4. 2012.
23. **MacTaggart JN**. Modern Management of Blunt Aortic Injury. Creighton University artment of Surgery Grand Rounds. Omaha, Nebraska. April 1, 2013.
24. Kamenskiy AV; Kazmi SA; Pemberton MA; Pipinos II; Dzenis YA; Lomneth CS; Phillips NY; **MacTaggart JN**. Biaxial Mechanical properties of the Human Thoracic and Abdominal Aorta, Common Carotid, Subclavian, Renal and Common Iliac Arteries. 9th Annual Academic Surgical Congress; 2014 Feb 4-6. San Diego, CA

25. **MacTaggart JN**. Modern Vascular and Endovascular Surgery. Nebraska State Assembly Association of Surgical Technologists. Omaha, Nebraska. March 1, 2014.
26. **MacTaggart JN** and Kamenskiy AV. What are we doing with all of these femoropopliteal arteries? Nebraska Organ Recovery Services. Omaha, Nebraska. April 2, 2014.
27. Kamenskiy A; Lomneth C; Pipinos I; Longo GM; Johanning JB; Baxter T; **MacTaggart J.** Method to Quantify Femoropopliteal Artery Deformation During Knee Flexion. American Heart Association, Arteriosclerosis, Thrombosis, and Vascular Biology Scientific Sessions; 2013 May 1-3. Buena Vista, FL
28. Kamenskiy AV, Pipinos II, Phillips NY, Dzenis YA, **MacTaggart JN**. Effects of Age on the Mechanical Properties and Structural Characteristics of the Human Femoropopliteal Arteries. Biomedical Engineering Society Annual Meeting. San Antonio, Texas. October 2014.
29. **MacTaggart JN** and Kamenskiy AV. Femoropopliteal artery disease. Nebraska Organ Recovery Services. Omaha, Nebraska. March 11, 2015.
30. Kamenskiy A; Nusz SD; Hunter W; Desyatova AS; Ruhlman M; Pipinos II; MacTaggart JN. Effects of Demographics and Clinical Risk Factors on Human Femoropopliteal Artery Histopathology. Thrombosis and Vascular Biology Scientific Sessions; 2015 May 7-9. San Francisco, CA
31. Kamenskiy A, Miserlis D, Adamson P, Adamson M, Knowles T, Neme J, Koutakis P, Phillips N, Pipinos I, **MacTaggart J**. Detailed morphometric analysis of 3D vascular anatomy of the chest, abdomen, pelvis and upper thigh for the optimized design of endovascular devices targeted to different patient populations. BMES/FDA Frontiers in Medical Devices Conference: Innovations in Modeling and Simulation. Washington DC. May 18-20, 2015.
32. Kamenskiy A and **MacTaggart J**. Structure, Properties and Function of the Human Femoropopliteal Artery. 13th United States National Congress on Computational Mechanics. San Diego, California. July 26-30, 2015.
33. **MacTaggart JN**. Detection and management of Abdominal Aortic Aneurysms. AAA Outreach Program. Omaha, Nebraska. August 5, 2015.
34. **MacTaggart JN** and Kamenskiy AV. Biomechanics of Femoropopliteal Artery Disease. Annual Meeting of the International Academy of Cardiovascular Sciences: North American Section. Omaha, Nebraska. September 10-12, 2015.
35. Desyatova AS, **MacTaggart JN**, Lomneth CS, Dzenis YA, Kamenskiy AV. Effects of Stenting on the Natural Limb Flexion-Induced Deformations of the Human Femoropopliteal Artery. 6th International Conference on Mechanics of Biomaterials and Tissues. Big Island, HI. December 6-10. 2015.
36. Kamenskiy AV, Seas A, Desyatova AS, Deegan P, Bowen G, **MacTaggart JN**. *In Situ* Longitudinal Pre-Stretch in the Human Femoropopliteal Artery. 6th International Conference on Mechanics of Biomaterials and Tissues. Big Island, HI. December 6-10. 2015.
37. **MacTaggart J,** Poulson W, Maheen A, Seas A, Thorson K, Phillips N, Desyatova A, Kamenskiy AV. Morphometric Roadmaps to Improve Device Delivery for

FluoroscopyFree Balloon Occlusion of the Aorta. 11th Annual Academic Surgical Congress. Jacksonville, FL. February 2-4. 2016.

38. Poulson W, Kamenskiy AV, Sim S, Deegan P, **MacTaggart J**. The Popliteal Artery Demonstrates More Elastin Breaks than the Superficial Femoral Artery. Scientific Forum program at the American College of Surgeons 2016 Clinical Congress. Washington, DC. Oct 16-20. 2016.
39. Desyatova A, Poulson W, Deegan P, Lomneth C, **MacTaggart J**, Kamenskiy AV. Effect of Ageing on Arterial Stresses Due to Limb Flexion. International Society for Applied Cardiovascular Biology 15th Biennial Meeting. Banff, Alberta, Canada. Sept 7-10. 2016.
40. **MacTaggart J**. Endovascular Skills and Technology for Shock and Trauma. Omaha VA Medical Center. March 17, 2017.
41. Desyatova A, **MacTaggart J,** Poulson W, Deegan P, Lomneth C, Kamenskiy AV. Torsion and Intramural Stresses in the Human Femoropopliteal Artery Due to Limb Flexion. Predictive Computational Vascular Mechanics. 5th International Conference and Mathematical Biomedical Engineering – CMBE 2017. Pittsburgh, PA. 10-12 April. 2017.
42. Poulson W, Kamenskiy AV, Deegan P, Lomneth C, Seas A, **MacTaggart JN**. Effects of Different Stent Designs on Limb-Flexion Induced Axial Compression, Bending, and Torsion. Plenary Session 6 Vascular Annual Meeting. San Diego CA. May 30 – June 3. 2017.
43. Maleckis K, Dzenis Y, Kamenskiy AV, **MacTaggart J**. Biomimetic Nanofiber-Based Graft Material for Vascular Applications. 7th International Conference on Mechanics of Biomaterials and Tissues. Waikoloa, HI. Dec 10-14, 2017.
44. Marmie B, Sanderfer C, Fuchs J, Pipinos M, Tommeraasen M, Aylward P, Kamenskiy AV, **MacTaggart J**. Feasibility of Fluoroscopy-Free Endovascular Navigation in Trauma Patients of Different Ages. 13th Annual Academic Surgical Congress. Jan 30 – Feb 01, 2018.
45. **MacTaggart JN,** Evans C, Schlitzkus L, Schiller A, Kamenskiy AV. DoD Funded Endovascular Training at a Civilian Institution: The Nebraska Experience. Pan-American Endovascular Trauma Management Meeting. Houston, TX. February 8-9, 2018.
46. **MacTaggart JN**. Translational Arterial Biomechanics: Pushing on Arteries that Push Back. Invited Research Presentation. Plenary Session 2. Vascular Annual Meeting. Boston MA. June 20 – 23, 2018.
47. Serio S and **MacTaggart JN**. Transcaval Repositioning of Renal Artery Snorkel Stent and Coil Embolization of Type 1 Gutter Endoleak. Midwestern Vascular Surgical Society. St. Louis MO. September 13-15, 2018.
48. **MacTaggart JN**, Evans C, Schlitzkus L, Schiller A, Kamenskiy A. Integrated DoD training and ESTARS: The Nebraska Experience. Pan American Endovascular Trauma and Resuscitation Management. Denver, Colorado. November 17-18, 2019.
49. Kamenskiy A, Aylward P, Desyatova A, DeVries M, Wichman C, **MacTaggart J**. Endovascular Repair of Blunt Thoracic Aortic Trauma is Associated with Increased Left Ventricular Mass, Hypertension, and Off-Target Aortic Remodeling. Vascular Research Initiatives Online Session 2 November 12, 2020.

ORAL POSTER PRESENTATIONS

1. Kamenskiy A, Nusz S, Hunter W, Desyatova A, Ruhlman M, Pipinos I, **MacTaggart J**. Effects of Demographics and Clinical Risk Factors on Human Femoropopliteal Artery Histopathology. American Heart Association Arteriosclerosis, Thrombosis and Vascular Biology Scientific Sessions. San Francisco, California. May 7-9, 2015.

2. Poulson W, Forney E, Adamson A, **MacTaggart JN**, Kamenskiy AV. Geometric Features of the Carotid Artery at Baseline Improve Prediction of Stenosis Severity at Follow-up. Midwestern Vascular Surgical Society. Chicago, IL. September 7-9. 2017.

POSTER PRESENTATIONS

1. **MacTaggart JN**, Hansen MR and Kolkhorst FW: Effect of the Access Fat Conversion Activity Bar on Fat Utilization and Time to Exhaustion. American College of Sports Medicine 44th Annual Meeting. Denver, Colorado, May 28-31, 1997.

2. **MacTaggart JN**, Johanning JM, Xiong W, Pipinos II, Knispel R, Baxter BT: NADPH Oxidase Inhibition Suppresses Aortic Aneurysm Formation. Society of University Surgeons 2nd Annual Academic Surgical Congress. Philadelphia, Pennsylvania, February 6-9, 2006.

3. **MacTaggart JN**, Johanning JM, Xiong W, Pipinos II, Knispel R, Baxter BT: NADPH Oxidase Inhibition Suppresses Aortic Aneurysm Formation. Research Initiatives in Vascular Disease. Washington, DC, March 30-31, 2006.

4. Gupta PK; Arya S; Natarajan B; Fang X; Gupta H; Balters M; Johanning JM; Lynch TG; Longo GM; **MacTaggart JN**; Pipinos II. Suprarenal Abdominal Aortic Aneurysm: Which Patients Would Benefit From Fenestrated Endograft Rather Than Open Repair? Poster at Society of Vascular Surgery Meeting; Chicago, Illinois. 2011.

5. Gupta PK; Natarajan B; Gupta H; Fang X; Balters M; Johanning JM; Lynch TG; Forse RA; Longo GM; **MacTaggart JN**; Pipinos II. Contemporary Outcomes Following Endovascular versus Open Repair of Abdominal Aortic Aneurysm. Poster at Society of Vascular Surgery Meeting; Chicago, Illinois. June, 2011.

6. Kamenskiy AV**,** Pipinos II, **MacTaggart JN**, Dzenis YA. Nonlinear Coupled Modeling of Patched Carotids: Towards Biomechanics-Assisted Optimization of Grafts and Surgery Interventions. 4th International Conference on The Mechanics of Biomaterials and Tissues. Big Island, HI. December 11-15. 2011.

7. Gupta PK; Natarajan B; Reddy YM; Gupta H; Balters M; Johanning JM; Lynch TG; Longo GM; **MacTaggart JN;** Pipinos II. Open Revascularization for Chronic Mesenteric Ischemia. Poster at Society of Vascular Surgery Meeting; Chicago, Illinois. June, 2011.

8. Kamenskiy A; Lomneth C; Pipinos I; Longo GM; Johanning JB; Baxter BT; **MacTaggart JN.** Method to Quantify Femoropopliteal Artery Deformation During Knee Flexion. American Heart Association, Arteriosclerosis, Thrombosis, and Vascular Biology Scientific Sessions. Buena Vista, FL. May 1-3, 2013.

9. Seas A, Kamenskiy AV, **MacTaggart JN**, Baxter BT. Semi-Automated Quantitative Characterization of Elastin in the Wall of the Human Superficial Femoral Artery. SURP UNMC. Omaha, NE. Aug. 2014.

10. Kamenskiy AV, Nusz S, Hunter W, Desyatova A, Ruhlman M, Pipinos I, **MacTaggart J**. Effects of Demographics and Clinical Risk Factors on Human Femoropopliteal Artery Histopathology. Atherosclerosis, Thrombosis and Vascular Biology / Peripheral Vascular Disease Conference. San Francisco, CA. May 7-1. 2015.

11. Seas A, **MacTaggart JN**, Kamenskiy AV. Effects of Demographics and Risk Factors on the Elastic Strain Energy of Human Superficial Femoral Arteries. 6th International Conference on Mechanics of Biomaterials and Tissues. Big Island, HI. December 6-10. 2015.

12. Poulson W, Kamenskiy AV, Deegan P, Lomneth C, **MacTaggart J**. Effects of Tethering Branches on Limb Flexion-Induced Deformations of the Human Femoropopliteal Artery. Atherosclerosis, Thrombosis and Vascular Biology. Nashville, TN. May 5-7. 2016.

13. Reilly A, Poulson W, Sim S, Deegan P, Kamenskiy AV, **MacTaggart J**. Femoropopliteal Artery Calcification Is Associated With Ageing, Diabetes, Elastin Fiber Degradation, And Anisotropic Stiffening. International Society for Applied Cardiovascular Biology 15th Biennial Meeting. Banff, Alberta, Canada. Sept 7-10. 2016.

14. Kamenskiy AV, Seas A, Poulson W, Deegan P, Sim S, Desyatova A, **MacTaggart J**. Constitutive Description of Human Femoropopliteal Artery Ageing. International Society for Applied Cardiovascular Biology 15th Biennial Meeting. Banff, Alberta, Canada. Sept 710. 2016.

15. Desyatova A, Poulson W, Deegan P, Lomneth C, **MacTaggart J**, Kamenskiy AV. The Effect of Limb Flexion on Torsional Deformations and Stresses in the Human Femoropopliteal Artery. Biomedical Engineering Society Annual Meeting. Minneapolis, MN. Oct 5-8. 2016.

16. Seas A, **MacTaggart J**, Castellanos Mariajose, Kamenskiy AV. Use of Neural Networks to Predict Peripheral Artery Pathology. Biomedical Engineering Society Annual Meeting. Minneapolis, MN. Oct 5-8. 2016.

17. Poulson W, Kamenskiy AV, Deegan P, Lomneth C, **MacTaggart J**. The Popliteal Artery Demonstrates Significantly Higher Torsion Than the Superficial Femoral Artery During

Limb Flexion. Scientific Forum at the American College of Surgeons 2016 Clinical Congress. Washington, DC. Oct 16-20. 2016.

18. Maleckis K, Deegan P, Sievers C, Desyatova A, **MacTaggart J**, Kamenskiy AV. Mechanical Evaluation of Peripheral Artery Stents. BMES/FDA Frontiers in Medical Devices Conference. College Park, MD. May 16-18. 2017.

19. Poulson W, Rodgers A, Batra R, Deegan P, Kamenskiy AV, **MacTaggart J.** Intramural Structural Changes in Human Femoropopliteal Arteries With Age. Arteriosclerosis, Thrombosis, and Vascular Biology. Minneapolis, MN. May 4-6, 2017.

20. **MacTaggart JN**; Evans CH; Schlitzkus LL. Endovascular Skills for Trauma and Resuscitative Surgery (ESTARS) Curriculum Analysis and Development of Strategic Transition Plan. Combat Casualty Care Research Program; 2017 Dec 12. Fort Detrick, MD

21. Desyatova A, **MacTaggart J**, Romarowski R, Poulson W, Conti M, Kamenskiy AV. Effect of Aging on Mechanical Stresses, Deformations, and Hemodynamics in Human Femoropopliteal Artery Due to Limb Flexion. 7th International Conference on Mechanics of Biomaterials and Tissues. Waikoloa, HI. Dec 10-14, 2017.

22. Sanderfer C, Marmie B, Fuchs J, Tommeraasen M, Pipinos M, Aylward P, Kamenskiy A, **MacTaggart J**. Effects of Belly Curvature on the Accuracy of Simulated Fluoroscopy-Free Endovascular Navigation. Military Health System Research Symposium. Kissimmee, FL. August 20-23, 2018.

23. Maleckis K, Deegan P, Kalil T, **MacTaggart J**, Kamenskiy A. Safe Balloon Occlusion Pressures and Volumes for Resuscitative Endovascular Balloon Occlusion of the Aorta. Military Health System Research Symposium. Kissimmee, FL. August 20-23, 2018.

24. Maleckis K, Kamenskiy A, Lichter E, Deegan R, **MacTaggart J**. Mechanically Biomimetic Nanofibrillar Elastomeric Vascular Graft Demonstrates Rapid Endothelialization and Complete Integration into the Porcine Iliac Artery Wall as Opposed to Conventional ePTFE. International Society for Applied Cardiovascular Biology. Bordeaux, France. Sept 16-19, 2018.

25. Maleckis K, Desyatova A, Kamenskiy AV, Aylward P, **MacTaggart J**. Windkessel Aortic Stent-Graft. Biomedical Engineering Society (BMES) meeting. Atlanta, GA. Oct 17-20. 2018.

26. Aylward P, Kamenskiy A, Wichman C, Lyons C, Prathivadhi-Bhay S, Pipinos M, Venkataraman V, Poulson W, **MacTaggart J**. Stent Design Affects Femoropopliteal Artery Stenosis Rates. Boston, MA. May 13, 2019.

27. Kamenskiy A, Maleckis K, Keiser C, Aylward P, Desyatova A, **MacTaggart J**. Biomimetic Reinforced Nanofibrillar Elastomeric Bypass Grafts with Physiologic Pre-Stretch for BelowKnee Lower Extremity Peripheral Artery Disease. Combined International Symposium for Applied Cardiovascular Biology and Vascular Tissue Engineering. Zurich, Switzerland. June 19-21, 2019.

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2. **MacTaggart JN**, Johanning JM, Lynch TG, Pipinos II. "Acrylic cement pulmonary embolus masquerading as an embolized central venous catheter fragment." Journal of Vascular Surgery, 43(1):180-3, Jan 2006.

3. Xiong W, Knispel R, **MacTaggart JN**, Baxter BT. Effects of tissue inhibitor of metalloproteinase 2 deficiency on aneurysm formation. Journal of Vascular Surgery, 44(5):1061-6, Nov 2006.

4. **MacTaggart JN**, Xiong W, Knispel R, Baxter BT. Deletion of CCR2 But Not CCR5 or CXCR3 Inhibits Aortic Aneurysm Formation. Surgery, 142(2):284-8, Aug 2007.

5. B. Timothy Baxter; **Jason MacTaggart**. Pathogenesis of Aortic Aneurysms. Comprehensive Vascular and Endovascular Surgery. 465-472. 2009

6. Xiong W, **MacTaggart JN**, Knispel R, Worth J, Zhu Z, Li Y, Sun Y, Baxter BT, Johanning J. Inhibition of reactive oxygen species attenuates aneurysm formation in a murine model. Atherosclerosis, 202(1):128-34, Jan 2009.

7. Xiong, W, Knispel R, **MacTaggart JN**, Greiner TC, Weiss SJ, Baxter BT. MT1-MMP regulates macrophage-dependent elastolytic activity and aneurysm formation in vivo. Journal of biochemistry, 284(3):1765-71, Jan 2009.

8. Xiong, W, **MacTaggart JN**, Knispel R, Worth J, Peridsky Y, Baxter BT. Blocking TNF-alpha attenuates aneurysm formation in a murine model. J Immunol, 183(4):2741-6, Aug 2009.

9. Gupta PK; Gupta H; Miller WJ; Johanning JM; Lynch TG; **MacTaggart JN;** Longo GM; Pipinos II. Corticosteroid Use, Symptomatic Status, and Smoking Are Associated with Stroke after Carotid Surgery in the ACS NSQIP Database. The Journal of surgical research. 2010 Aug; Vol. 158 (2): p. 303

10. Kamenskiy, AV, Dzenis YA, **MacTaggart JN**, Desyatova AS, Pipinos II. In vivo threedimensional blood velocity profile shapes in the human common, internal and external carotid arteries. Journal of Vascular Surgery, 54(4):1011-20, Oct 2011.

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12. Kamenskiy AV, Dzenis YA, **MacTaggart JN**, Lynch TG, Jaffar Kazmi SA, Pipinos II. Nonlinear mechanical behavior of the human common, external and internal carotid arteries *in vivo*. J Surg Research, 176(1):329-36, Jul 2012.

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17. Gupta PK, Ramanan B, **MacTaggart JN**, Sundaram A, Fang X, Gupta H, Johanning JM, Pipinos II. Risk index for predicting perioperative stroke, myocardial infarction, or death risk in asymptomatic patients undergoing carotid endarterectomy. J Vasc Surg. 57(2): 318-326, Feb 2013.

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33. Gupta PK, Ramanan B, Grossman L, Gupta H, Fang X, **MacTaggart JN,** Lynch TG, Baxter BT, Pipinos II. Outcomes of Aortic Surgery for Abdominal Aortic Graft Infections. Vasc Endovascular Surg. 2016 50(4): 256-260.

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36. Desyatova A, Poulson W, Deegan P, Lomneth C, Seas A, Maleckis K, **MacTaggart J**, Kamenskiy AV. Limb flexion-induced twist and associated intramural stresses in the

human femoropopliteal artery. Journal of the Royal Society Interface. 14(128): 2017. PMID: 28330991.

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47. **MacTaggart J**, Poulson W, Seas A, Deegan P, Lomneth C, Desyatova A, Maleckis K, Kamenskiy A. Stent Design Affects Femoropopliteal Artery Deformation. Ann Surg. 2019 Jul;270(1):180-187. PMID: 29578912.

48. Desyatova A, **MacTaggart J**, Kamenskiy AV. Effects of Longitudinal Pre-Stretch on The Mechanics of Human Aorta Before and After Thoracic Endovascular Aortic Repair (TEVAR) In Trauma Patients. Biomechanics and Modeling in Mechanobiology. Sep 2019. PMID: 31489481.

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51. Jadidi M, Habbibnezhad M, Anttila E, Maleckis K, Desyatova A, **MacTaggart J**, Kamenskiy A. Mechanical and structural changes in human thoracic aortas with age. Acta Biomaterialia. 2020 Feb 103:172 – 188. PMID:31877371.

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53. Samuels JM, Sun K, Moore EE, Coleman JR, Fox CJ, Cohen MJ, Sauaia A, **MacTaggart JN**. Resuscitative endovascular balloon occlusion of the aorta – Interest is widespread but need for training persists. Journal of Trauma and Acute Care Surgery. 2020 Oct 89(4):e112-e116. PMID: 33009200.

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COMMENTARY

1. **MacTaggart JN**. Back-Table Tailored Stent Grafts: Surgeon Modified, Surgeon Approved. Invited Commentary. JAMA Surgery. 149(5): 449-450. 2014.

BOOK CHAPTERS

1. Baxter BT and **MacTaggart JN**. "Pathogenesis of Aneurysms". In Greenfield's Surgery Scientific Principles and Practice, 4th Ed. Eds. Michael W Mulholland et al. Lippincott Williams & Wilkins, 2005.

2. Baxter BT and **MacTaggart JN**. "Pathogenesis of Aortic Aneurysms" In Comprehensive Vascular and Endovascular Surgery, 2nd Ed. Eds. John W Hallett et al. Mosby, 2009.

3. Rapp JH and **MacTaggart JN**. "Arteries". In Current Surgical Diagnosis and Treatment, 13th Ed. Ed. Gerard M Doherty. Appleton and Lange, 2010.

4. **MacTaggart JN** and Longo GM. "Endovascular Reconstruction of the Aortic Arch" In Contemporary Vascular Surgery. Eds. Mark K Eskandari et al. People's Medical Publishing House, 2011.

5. **MacTaggart JN** and Baxter BT. "Management of Acute Limb Ischemia Complicating Aortic Reconstruction" In Current Therapy in Vascular and Endovascular Surgery. Eds. James Stanley et al. Saunders, 2014.

ABSTRACTS

1. Gupta PK, Gupta H, Miller WJ, Lynch TG, **MacTaggart JN**, Johanning JM, Longo GM, Pipinos II; Predictors of Cardiac Events after Major Vascular Surgery. Quick shot oral presentation at the 5th Annual Academic Surgical Congress, February 3 - 5, 2010, San Antonio, Texas.

2. Gupta PK, Gupta H, Miller WJ, Johanning JM, Lynch TG, **MacTaggart JN**, Longo GM, Pipinos II Corticosteroid Use, Symptomatic Status, and Smoking Are Associated with Stroke after Carotid Surgery in the ACS NSQIP. Quick shot oral presentation at the 5th Annual Academic Surgical Congress, February 3 - 5, 2010, San Antonio, Texas.

3. Kamenskiy AV, Dzenis YA, **MacTaggart JN**, Johanning JM, Longo GM, Lynch TG, Pipinos II. Biaxial Mechanical Properties Of The Human Carotid Artery And Materials Used For Patch Angioplasty. Oral presentation at the 2010 Scientific Meeting of the Midwestern Vascular Society, September 9-11 2010, Indianapolis, Indiana.

4. Gupta PK, Natarajan B, Fang X, Balters M, Johanning JM, Lynch TG, Longo GM, **MacTaggart JN**, Pipinos II. Endovascular repair of abdominal aortic aneurysm does not improve survival versus open repair in patients sixty years or younger. Oral presentation at the 2011 Midwestern Vascular Surgical Society Annual Meeting, September 15-17, Chicago, Illinois.

TEACHING AND MENTORING ACTIVITIES

UNMC M1 Summer Externship Program	June 2011
UNMC General Surgery Resident Vascular Exposures Cadaver Lab	2012 – 2016
UNMC M3 Peripheral Vascular Disease Lecture	2012 – 2014
UNMC M4 Surgery Boot Camp Suturing Workshop	2013 – Present
University of Nebraska Lincoln Engineering Senior Design Project	2012 – 2013 2015 – 2016
CASEA research laboratory trainee mentoring	2013 – Present
UNMC General Surgery Resident Endovascular Simulation Curriculum	2016 – Present

STUDENTS & TRAINEES

Surgery Residents

2017 – Paul Aylward, MD. Surgery UNMC.
Project 1: Restenosis after femoropopliteal artery stenting
Project 2: Blind navigation of endovascular equipment

2015 – 2017 William Poulson, MD. Surgery UNMC.
Project 1: Effects of stenting on limb flexion-induced deformations of the femoropopliteal artery.
Project 2: Assessment of bending, torsion, axial and radial compression of the femoropopliteal artery with limb flexion.
Project 3: Quantitative analysis of femoropopliteal artery histopathology.
Project 4: Development of perfused cadaver system.

Post-doctoral Fellows

2017-2018 Kaspars Maleckis. Surgery. UNMC.

Project 1: Assessment of balloon occlusion and rupture pressures in thoracic and abdominal aortas in subjects of different ages.
Project 2: Mechanical properties of femoropopliteal stents.
Project 3: Comparison of femoropopliteal artery stents abrasiveness using multilayered artery-mimic nanofiber tubes.
Project 4: Interaction of vascular smooth muscle cells with the nanofiber maters under cyclic stretch and compression.
Project 5: Nanofiber-based stent-graft for young aortas with Windkessel effect.
Project 6: Nanofiber axially pre-stretched bypass graft for lower extremity applications.

2015-2018 Anastasia Desyatova. Surgery. UNMC.
Role: Consultant on NIH F32 fellowship.
Project: Computational Tool to Assess Performance of the Aortic Trauma Stent Grafts.

Graduate Students

2016-2020 Majid Jadidi. UNL Mechanical & Materials Engineering Dpt. PhD program.
Role: Graduate committee member.
Project 1: Growth and remodeling of the femoropopliteal artery using constrained mixture theory.
Project 2: Assessment of bending stresses associated with flattening of the biaxial sample during testing.

2016- Eric Anttila. UNL Mechanical & Materials Engineering Dpt. PhD program.
Role: Graduate committee member.
Project: Experimental and computational assessment of the femoropopliteal artery stents.

2015 – 2016 Kaspars Maleckis. UNL Mechanical & Materials Engineering Dpt. PhD program.
Project 1: Development of the nanofiber-based vascular graft with arterymimicking properties. Submitted AHA post-doctoral fellowship.
Project 2: Experimental assessment of bending, torsion and compression of the lower extremity stents.

Medical Students

2018 Kevin Sun. UNMC:
Project: Survey of trauma surgeons on REBOA practice and opinion
2017 -2020 Christian Sanderfer. UNMC
Project 1: Endovascular balloon occlusion navigation using an electronic simulator and morphometric roadmaps 2017 Blake Marmie. UNMC.

Project 1: SureSnare prototype development
Project 2: Endovascular balloon occlusion navigation using an electronic simulator and morphometric roadmaps

2016 Anna Adamson. UNMC.
Project: Morphometric changes in the human carotid artery with ageing and disease.

2016 Eric Forney. UNMC
Project: Morphometric changes in the human carotid artery with ageing and disease.

2016 Cole Sievers. UNMC.
Project: Comparative analysis of the femoropopliteal artery stents.

2016 Hannah Johnke. UNMC.
Project: Detailed Morphometric Characterization of the Femoropopliteal Artery in Patients with Peripheral Arterial Disease at Baseline and After Endovascular Stenting.

2016 Alexis Rogers. UNMC.
Project: Closed Loop Fixed Pressure System.

2016 Noah Hammond. UNMC.
Project: Arterial Storage Solution.

2016 – 2018 Ethan Monhollon. UNMC. UneMed.
Project: Development of the REBOAKen model for endovascular training.

2016 Austin Reilly. UNMC.
Project: Medial calcification in the femoropopliteal artery.

2015 – 2016 Joseph Marion. UNMC.
Project: Long-term effects of trauma stent-grafts on aortic morphometry in young trauma patients.
Current position: General Surgery Intern, University of Minnesota.

2015 – 2016 Patrick Kirkland. UNMC.
Project: Long-term effects of trauma stent-grafts on aortic morphometry in young trauma patients.

2013 – 2016 Peter Adamson. UNMC.
Project 1: Morphometric analysis of human vascular system in different age groups.
Project 2: Quantification of elastin characteristics in the femoropopliteal artery histological sections.
Current position: Orthopedic Surgery Residency at UTMB.

2013 – 2015 Micah Adamson. UNMC.
Project 1: Morphometric analysis of human vascular system in different age groups.
Project 2: Quantification of elastin characteristics in the femoropopliteal artery histological sections.
Current position: Orthopedic Surgery Residency at UTMB.

2015 Katherine Thorson. UNMC.
Project: Morphometric analysis of human vascular system using computed tomography angiography scans.
Current position: UNMC medical student.

2012 – 2013 Tom Knowles. Creighton University Medical Center.
Project: Morphometric analysis of human vascular system in different age groups.
Current position: Surgery Residency at the University of Oregon Medical Center.

2012 – 2013 Jamil Neme. Creighton University Medical Center.
Project: Morphometric analysis of human vascular system in different age groups.
Current position: Family Medicine Residency at the University of Nebraska Medical Center.

2012 – 2015 Nicholas Phillips. UNMC. Also undergraduate UNL Biological Systems Engineering student in 2012, 2013, 2014 and 2015.
Project 1: Assessment of mechanical properties in various human arteries.
Project 2: Measurement of limb flexion-induced deformations in the human femoropopliteal artery.
Current position: Anesthesia Resident – Johns Hopkins.

Undergraduate Students

2017-2019 Thomas Kalil. Electrical Engineering. Notre Dame
Project: Algorithm for real-time tracking of aortic deformations with a digital camera

2017,2018 Margarita Pipinos. University of Michigan.
Project: Morphometric analysis of vascular anatomy in the chest, abdomen, and pelvis and endovascular navigation using electronic simulator and morphometric roadmaps

2014-2017 Andreas Seas. MD/PhD student Duke University.
UNMC summer student in 2014 and 2015.
Project 1: Automated image analysis of elastin characteristics in the human femoropopliteal artery.
Project 2: Bootstrapping techniques to determine unique set of constitutive parameters for the human femoropopliteal artery four-fiber family model.
Project 3: Demographics-based constitutive model for the human femoropopliteal artery.
Recipient of Barry Goldwater Scholarship.

2015 Nick Bohlim. Undergraduate summer student. UNL. Biological Systems Engineering.

	Project: Determination of equivalent strains in human femoropopliteal artery plaques.
2015	Maheen Akhter. Undergraduate summer student. USC. Project 1: Physical model of the femoropopliteal artery. Project 2: Morphometric analysis of human vascular system using computed tomography angiography scans.
2014 – 2015	Grant Bowen. Undergraduate summer student. Rhodes College, TN. Project 1: Measurement of longitudinal pre-stretch in various human arteries. Project 2: Quantitative histological analysis of femoropopliteal artery sections.

Laboratory Personnel

2016 –	Sylvie Sim MS. Researcher. UNMC. Project: Assessment of cell viability in an ex vivo artery subjected to flow, pressure, axial load and torque loads.
2015 – 2019	Paul Deegan MS. Researcher. UNMC. Project 1: Mechanical and structural characterization of human arteries. Project 2: Computer-aided design of the lower extremity stents. Project 3: Quantitative analysis of femoropopliteal artery histopathology. Project 4: Development of perfused cadaver system.
2014 – 2015	Sheridan Nusz. Researcher Technologist. UNMC. Project 1: Mechanical testing of arteries. Project 2: Processing of histopathological sections. Current position: US Army Research Laboratory.
2013	Justin Kitson. Researcher Technologist. UNMC. Project 1: Mechanical testing of arteries. Project 2: Processing of histopathological sections. Current position: Certified anesthesiologist assistant, Case Western Reserve University.