



HONORING **INDIVIDUALS** FOR  
NEW **INVENTIONS, PATENTS,**  
& **LICENSED TECHNOLOGIES**

INNOVATION  
**2023**  
AWARDS

THURSDAY **NOVEMBER 2**  
HILTON OMAHA  
**5:00 PM**



*tech transfer for nebraska*

**MISSION**

*UNeMed fosters innovation, advances research, and engages entrepreneurs and industry to commercialize novel technologies*

402-559-2468 | [unemed@unmc.edu](mailto:unemed@unmc.edu) | [unemed.com](http://unemed.com) | @UNeMed

4460 Farnam St., Ste. 3000, Omaha, Nebraska, 68198-6099

# INNOVATION AWARDS SCHEDULE

## Welcome

**Michael Dixon, PhD**  
President and CEO,  
UNeMed

## Opening Remarks

**Kenneth Bayles, PhD**  
Vice Chancellor for Research,  
University of Nebraska Medical Center

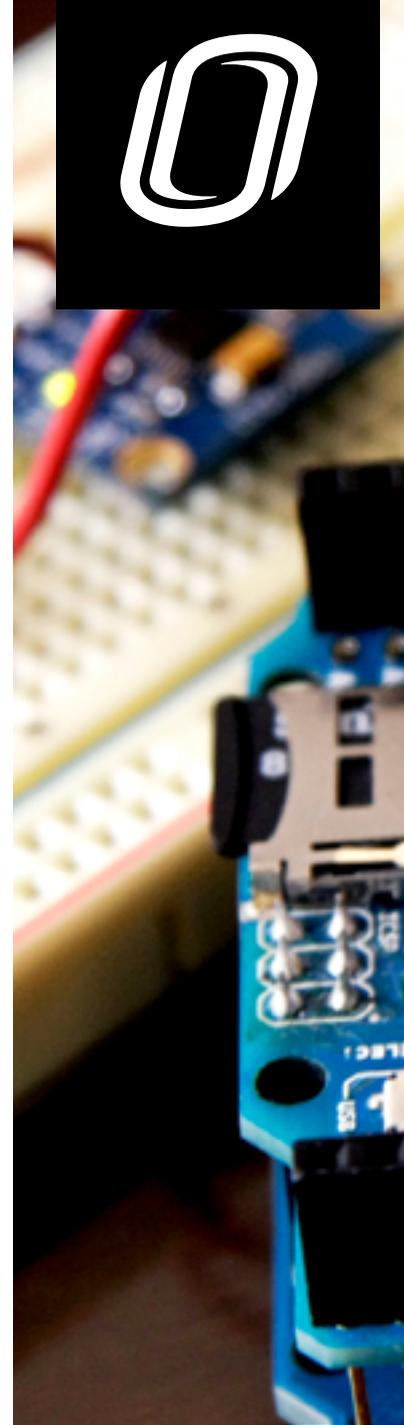
## Innovation Rewind: The Year in Review

**Michael Dixon, PhD**  
President and CEO,  
UNeMed

## Presentation of Awards:

- New Inventions
- Issued Patents
- Licensed Technologies
- Most Promising New Invention
- Startup of the Year
- Emerging Inventor

**Matt Boehm, PhD**  
Director of Licensing,  
UNeMed





On behalf of UNMC and UNO leadership and UNeMed staff, we welcome you to the 2023 Research Innovation Awards ceremony as we celebrate all those who make our continued existence possible: You, the innovative UNMC and UNO faculty, staff and students who we honor today.

Our mission is simple: *UNeMed fosters innovation, advances research, and engages entrepreneurs and industry to commercialize novel technologies.*

Innovations all have the same humble beginning—an idea or a hypothesis. The path for an idea to become a product that improves the lives of millions is a daunting and perilous journey fraught with many obstacles. That is why UNeMed was created 30 years ago. We are here to help provide the advice, pathways and connections for your idea to grow and make the world a better place.

The Innovation Awards represent the culmination of Innovation Week as we celebrate the creators of novel technologies. Today, we will recognize the inventors who have submitted new inventions, received U.S. patents, and had a technology successfully licensed. We will also honor a UNO-UNMC collaborative team as awardees of the 2023 Most Promising New Invention, and look to the future by recognizing University Medical Devices, Inc. as the 2023 Startup of the Year.

We will also honor Rebekah Gundry, PhD, as our Emerging Inventor of the year.

The UNeMed staff is committed to helping you develop your inventions and make vital connections with industry. Please draw upon our expertise, and visit us at 4460 Farnam Street (Annex 14 on the campus map). Our goal is to help you create relationships that will enable your work to benefit the lives of people throughout Nebraska and around the world.

Sincerely,

A handwritten signature in blue ink, which appears to read "Michael Dixon".

Michael Dixon, PhD  
President and CEO, UNeMed

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## INNOVATION WEEK HISTORY

Innovation Week dates back to 1998 when UNeMed and the Intellectual Property Office began hosting the Inventor's Recognition Reception, specifically tailored to honor UNMC researchers who had applied for or received patents in the previous year.

In 2007, UNMC restructured its technology transfer efforts into one organization, merging UNeMed with the Intellectual Property Office. UNeMed—under the leadership of then-CEO, James Linder, MD—transformed the Inventor's Recognition Reception into the Research Innovation Awards.

The awards ceremony was the final event in a week of activities that celebrated research and innovation at UNMC. In addition to recognizing researchers who received a U.S. patent, UNeMed also added emerging inventor and lifetime achievement awards. In 2008 it also added the "Most Promising New Invention" as an annual award. In 2013, UNeMed presented for the first time ever, an "Innovator of the Year" Award. In 2018, another distinction was added when UNeTech—the University's new incubator and accelerator program—presented the first Startup of the Year award. That same year, UNeMed and the University of Nebraska at Omaha formalized their relationship for UNO's deep roster of innovative researchers, faculty, staff and students.

Innovation Week is now about far more than recognizing a handful of scientists with issued patents. It's a celebration that recognizes, rewards and encourages innovative thoughts and ideas, whether they come from the most seasoned and esteemed researcher or a first-year student who might know a better way. The program has grown into the Research Innovation Awards Banquet, an exclusive, invitation-only event that brings together innovators and leadership from two different campuses.

Last year, the Most Promising New Invention was a new system for making wearable device better at measuring blood pressure. The system was created by Song-young Park, PhD, and his doctoral student, Cody Anderson, both of UNO's School of Health and Kinesiology.

The 2022 Startup of the Year award went to UNMC researchers Howard Gendelman, MD, and Benson Edagwa, PhD, for their company, Exavir Therapeutics. They are developing novel therapies for the treatment, prevention and elimination of HIV and other viral infections.

Finally, UNeMed's 2022 Emerging Inventor was Bin Duan, PhD, in recognition of his innovative work in biomaterials and tissue engineering.

Dr. Duan has been an inventor on 13 new inventions submitted over the previous five years, including two in the fiscal year ending in 2022. He is also an inventor on six pending provisional and non-provisional patent applications.

His work focuses on novel biomaterials and biofabrication techniques—including 3D bioprinting—to enhance the body's own regenerative processes and promote various types of tissue repair and regeneration. He has developed numerous hydrogels and tissue-engineered scaffolds for various clinical applications including bacterial biofilm prevention, localized drug delivery, muscle and nerve regeneration, and postoperative abdominal adhesion prevention.



*Dr. Park*



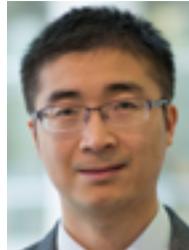
*Anderson*



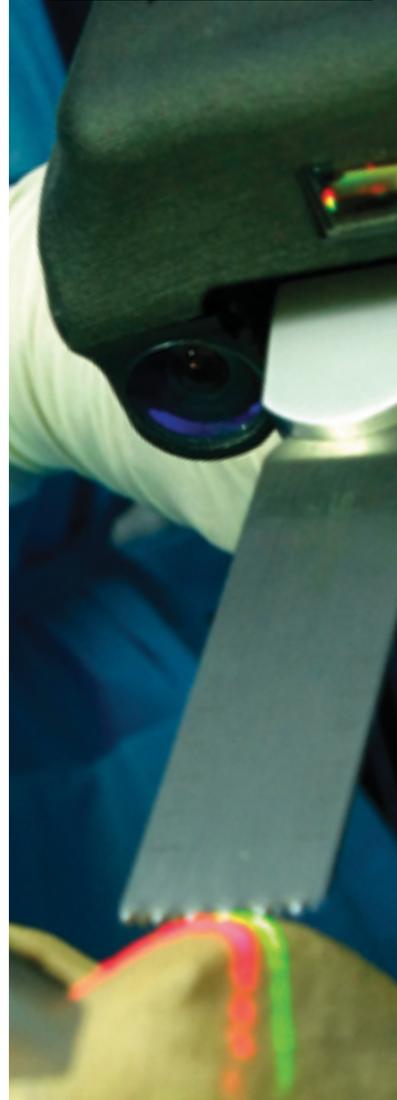
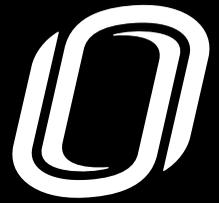
*Dr. Gendelman*



*Dr. Edagwa*



*Dr. Duan*



## INNOVATION WEEK HISTORY: AWARDEES

### Most Promising New Inventions

2023	<i>Optimized Vascular Stent</i>	<ul style="list-style-type: none"><li>• Alexey Kamenskiy, PhD</li><li>• Anastasia Desyatova, PhD</li><li>• Ali Akbar Ahmadi</li><li>• Jason MacTaggart, MD</li></ul>
2022	<i>System for Measuring Blood Pressure in Wearable Electronic Devices</i>	<ul style="list-style-type: none"><li>• Cody Anderson</li><li>• Song-young Park, PhD</li></ul>
2021	<i>Improved Self-Pacing Treadmill</i>	<ul style="list-style-type: none"><li>• Brian Knarr, PhD</li><li>• Travis Vanderheyden</li><li>• Russell Buffum</li></ul>
2020	<i>Anterior Cervical Space Spreader</i>	<ul style="list-style-type: none"><li>• Joseph McMordie, MD</li><li>• Daniel Surdell, MD</li></ul>
2019	<i>PDE4B Selective Inhibitors</i>	<ul style="list-style-type: none"><li>• Corey Hopkins, PhD</li></ul>
2018	<i>Multiplex Assay for Rapid Detection of HSV1, HSV2, EBV and CMV by qPCR</i>	<ul style="list-style-type: none"><li>• Catherine Gebhart, PhD</li><li>• Varun Kesharwani, PhD</li></ul>
2017	<i>Nanofiber Sponges for Hemostasis</i>	<ul style="list-style-type: none"><li>• Jingwei Xie, PhD</li><li>• Shixuan Chen, PhD</li><li>• Mark Carlson, MD</li></ul>
2016	<i>Compositions for Modulated Release of Proteins and Methods of Use Thereof</i>	<ul style="list-style-type: none"><li>• Joyce Solheim, PhD</li><li>• Tatiana Bronich, PhD</li></ul>
2015	<i>Emergency Medicine Care Portfolio: Wound Irrigation System &amp; Oral Airway Management</i>	<ul style="list-style-type: none"><li>• Michael Wadman, MD, FASEP</li><li>• Thang Nguyen, MSN, APRN, FNP-C</li></ul>
2014	<i>Orthogonal AquaBlade</i>	<ul style="list-style-type: none"><li>• Jason MacTaggart, MD</li></ul>
2013	<i>Targeted Glyoxalase-1 Gene Transfer to Prevent Cardiovascular and End-Organ Complications in Diabetes</i>	<ul style="list-style-type: none"><li>• Keshore Bidasee, PhD</li></ul>
2012	<i>Small Molecule in Vivo Inhibitors of the N-Terminal Protein Interacting Domain of RPA1</i>	<ul style="list-style-type: none"><li>• Gregory Oakley, PhD</li></ul>
2011	<i>Novel Target for the Treatment of Renal Fibrosis</i>	<ul style="list-style-type: none"><li>• Babu Padanilam, PhD</li></ul>
2010	<i>Noninvasive Monitoring of Functional Behaviors in Ambulatory Human Populations</i>	<ul style="list-style-type: none"><li>• Stephen Bonasera, MD, PhD</li></ul>
2009	<i>Novel Antibiotic Compounds</i>	<ul style="list-style-type: none"><li>• Paul Dunman, PhD</li></ul>
2008*	<i>Anti-HIV Peptides and Methods of Use Thereof</i>	<ul style="list-style-type: none"><li>• Guangshun (Gus) Wang, PhD</li></ul>
2008*	<i>Sex Hormone Binding Globulin: New Target for Cancer Therapy</i>	<ul style="list-style-type: none"><li>• Janina Baranowska-Kortylewicz, PhD</li></ul>

*\*In 2008 the Most Promising New Invention award was shared.*

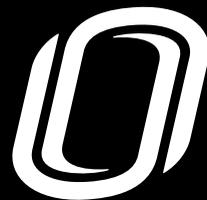


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## INNOVATION WEEK HISTORY: AWARDEES

### Special Awards

2023	Rebekah Gundry, PhD	Emerging Inventor
2023	University Medical Devices	Startup of the Year
2022	Bin Duan, PhD	Emerging Inventor
2022	Exavir Therapeutics	Startup of the Year
2021	Hanjun Wang, MD	Innovator of the Year
2021	Ensign Pharmaceutical	Startup of the Year
2020	COVID-19 Inventors	Innovators of the Year
2020	BreezMed	UNeTech Startup of the Year
2019	Benson Edagwa, PhD	Emerging Inventor
2019	FutureAssure	UNeTech Startup of the Year
2018	Biomechanics Dept., UNO	Innovator of the Year
2018	Centese, Inc.	UNeTech Startup of the Year
2017	Donny Suh, MD	Emerging Inventor
2016	Irving Zucker, PhD	Innovator of the Year
2015	Tammy Kielian, PhD	Innovator of the Year
2014	Marius Florescu, MD	Emerging Inventor
2013	Howard Gendelman, MD	Innovator of the Year
2012	Tammy Kielian, PhD	Emerging Inventor
2011	Jonathan Vennerstrom, PhD	Lifetime Achievement
2010	Amarnath Natarajan, PhD	Emerging Inventor
2009	Rodney Markin, MD, PhD	Lifetime Achievement
2008	Dong Wang, PhD	Emerging Inventor
2007	Robert LeVeen, MD	Lifetime Achievement



Find event photos on UNeMed's Flickr page: <http://bit.ly/UNePics>



## NEW INVENTION NOTIFICATION CONTRIBUTORS



Rizwan Ahmad  
Ali Akbar Ahmadi  
Cody Anderson\*  
Christopher Aretz  
Ogechukwu Ariwodo\*  
Md Ashaduzzaman  
Janina Baranowska-Kortylewicz  
Aaron Barksdale\*  
Susmita Barman  
Dhundy Bastola\*  
Bernard Baxter  
Elizabeth Beam  
Zach Benton-Slocum  
Piero Bianco  
Michelle Black\*  
Elizabeth Bockoven  
Mallory Bosley  
Mara Jana Broadhurst\*  
Abraham Campos\*  
Mark Carlson\*  
Angelica Carmona  
Chase Castro  
Jason Christensen  
Gary Cochran\*  
Dean Collier  
Aaron Decker  
Pallavi Deol  
Anastasia Desyatova  
Punita Dhawan\*  
Austin Doctor  
Amy Drayton  
Bin Duan\*  
Alex Dzewaltowski\*  
Benson Edagwa\*  
Joel Elson\*  
Margaret Emerson  
Aleksandr Fadeev  
Iram Fatima\*  
Daniel Firestone  
Lisa Fuchs  
Tracy Gady  
Flobater Gawargi  
Howard Gendelman\*  
Deanna Gibson  
Garrett Gloeb  
Nathan Goergen  
Susan Greni  
Rebekah Gundry  
Channabasavaiah Gurumurthy  
Xiaoyu (George) Hao  
Mahmudul Hasan  
Corey Hopkins\*  
Deanna House  
Chenyu (Victor) Huang  
Sam Hunter  
Farhana Islam  
Jayce Ivester  
Jason Johanning  
Sravan Jonnalagadda\*  
Rana Kadry  
Alexey Kamenskiy  
Erin Kearns  
Joseph Khoury  
So-Youn Kim  
David Kingston\*  
Brian Knarr\*  
Rachel Knight  
Balawant Kumar  
Ling Li  
Steven Lisco  
Bo Liu  
Bethany Lowndes\*  
Brian Maass  
Jason MacTaggart\*  
Krishnaiah Maddeboina\*  
Philippe Malcolm\*  
Wuttiporn (Shane) Manatsathit\*  
Evan Marsh\*  
Jared Marx  
Viktoriya Mashinson  
Joseph John McBride  
Tess McKinney  
Abraham Mechesso  
Shaheed Merani  
Mane Polite Mesidor  
Ananya Mitra

INNOVATION  
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\*Multiple

## NEW INVENTION NOTIFICATION CONTRIBUTORS

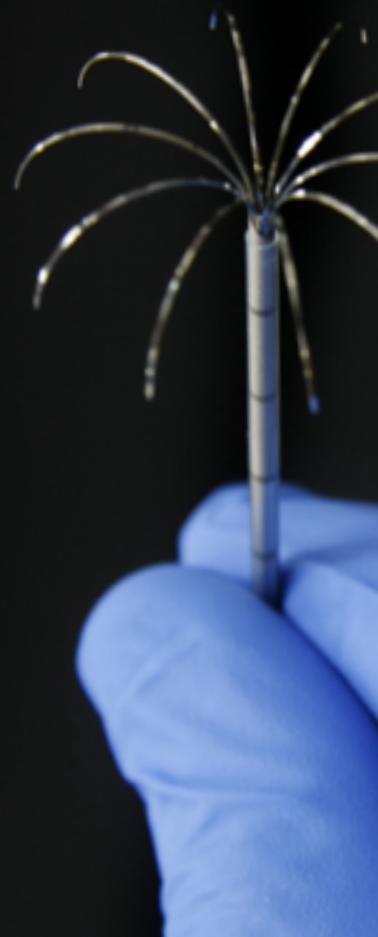
Jami Monico  
R. Lee Mosley  
Syed Muntazir Andrabi  
Sara Myers \*  
Caroline Ng\*  
Thang Nguyen\*  
Kwangsung Oh  
Sudipta Panja  
Song-Young Park  
Peter Pellegrino  
Faruq Pradhan\*  
Prakash Radhakrishnan  
Eric Rasmussen\*  
Hiva Razavi  
Pukhraj Rishi  
Donald Ronning  
Melissa Rosenthal\*  
Jack Rygg\*  
Marat Sadykov  
Yury Salkovskiy\*  
Stephen Salzbrenner\*  
Mithun Sattur  
Peter Schindler\*  
Andrew Schnaubelt  
Anna Schwartz  
Wen Shi  
Amar Singh  
Ka-Chun Siu  
Rakesh Srivastava

Matthew Stephany  
Paul Taylor  
Patrick Thomas  
William Thorell  
Paul Trippier\*  
Patrick Twohig  
Marian Urban  
Michael Wadman\*  
Andrew Walski  
Dong Wang  
Guangshun (Gus) Wang\*  
Hanjun Wang\*  
Justin Weeks  
Xin Wei  
Noah Wester  
Troy Wildes  
John Windle  
Thomas Windle  
Jingwei Xie\*  
Wanfen Xiong  
Wen Xue\*  
Seok-Yeong Yu  
Lubaba Zaman  
Wesley Zeger  
Rui Zhao  
Siwei Zhao  
Xin Zhong  
Jorge Zuniga

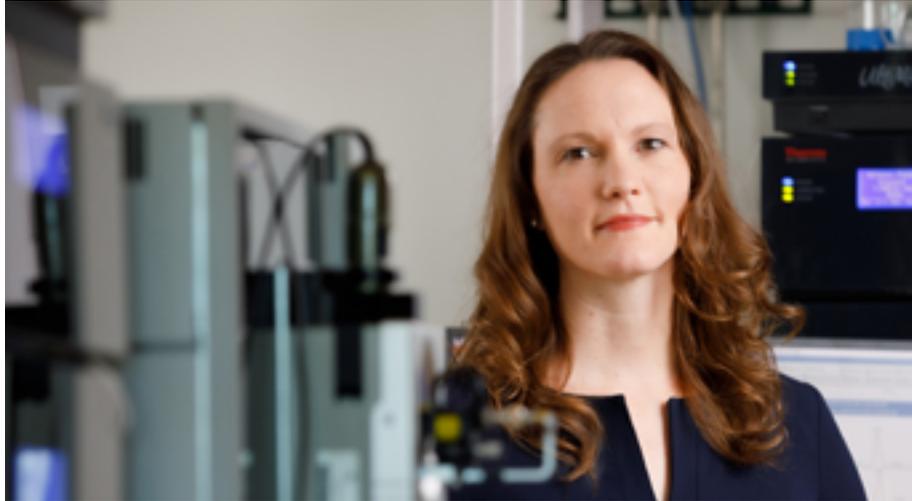
## CREATORS OF LICENSED TECHNOLOGY

Aaron Barksdale  
Abraham Campos  
Howard Gendelman\*  
Hani Haider  
Brian Knarr  
Jared Marx  
R. Lee Mosley\*  
Mai Mostafa

Thang Nguyen  
Katherine Olson  
Aimin Peng  
Adam Rosen  
Michael Wadman  
James Wahl  
Ling Wang  
Sam Wilkins



## EMERGING INVENTOR



### **Rebekah Gundry, PhD**

*Stokes-Shackelford Professor and Chair, Department of Cellular and Integrative Physiology; Director, Center for Heart and Vascular Research, University of Nebraska Medical Center*

Rebekah Gundry, PhD, is our 2023 Emerging Inventor of the year, in recognition of her inventions and research accomplishments in the field of mass spectrometry, bioinformatics and the cell surfaceome.

Dr. Gundry is an inventor on eight new inventions submitted over the last five years. Her inventions include surface expressed proteins, unique to pancreatic beta cells, that could be used for developing targeted therapies, and a kit for isolating and analyzing glycans.

Dr. Gundry's work focuses on developing and applying novel mass spectrometry-based technologies and bioinformatic tools to better understand cell surface glycoproteins and glycans.

One of her technologies, CellSurfer, can be used to identify cell surface N-glycoproteins. Along with CellSurfer, she has also developed the Visual Inventory of Surface Proteins (VISUN) database, which is a catalog of experimentally verified surface proteins from a variety of cell and tissue types.

Combining CellSurfer and VISUN allows Dr. Gundry to identify surface glycoproteins that are unique to a specific cell type. These proteins represent potential targets for the development of biomarkers or for development of targeted therapeutics. Several pharmaceutical companies have expressed interest in collaborating with Dr. Gundry to explore the use of her CellSurfer and VISUN platforms for the development of therapeutics.

Dr. Gundry received her doctorate from Johns Hopkins University School of Medicine in 2006, and performed post-doctoral training at Johns Hopkins from 2006-2010. In 2010 Dr. Gundry joined the faculty at the Medical College of Wisconsin. She joined the University of Nebraska Medical Center in August 2019.

Find event photos on UNeMed's Flickr page: <http://bit.ly/UNePics>

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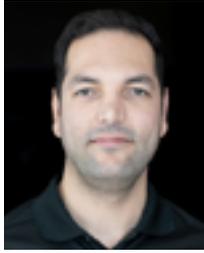
## MOST PROMISING NEW INVENTION



**Alexey Kamenskiy, PhD**  
*Professor and Chair, Department of Biomechanics, University of Nebraska at Omaha*



**Anastasia Desyatova, PhD**  
*Assistant Professor, Department of Biomechanics, University of Nebraska at Omaha*



**Ali Akbar Ahmadi**  
*Doctoral Graduate Assistant, Department of Biomechanics, University of Nebraska at Omaha*



**Jason MacTaggart, MD**  
*Associate Professor, Department of Surgery, Vascular Surgery, University of Nebraska Medical Center*

### Optimized Vascular Stent

The success rate of a surgically implanted vascular graft in the leg is little worse than a coin flip, disturbingly low odds when potential for amputation hangs in the balance. A cross-campus collaboration of UNO engineers and a UNMC clinician are working on an elegant solution to change that.

UNO's Alexey Kamenskiy, PhD, Anastasia Desyatova, PhD, Ali Akbar Ahmadi, and UNMC vascular surgeon Jason MacTaggart, MD, are designing a new stent for use in the legs to treat patients with peripheral artery disease.

Peripheral artery disease causes blockages of arteries in the legs and is often treated with metal mesh tubes called stents to keep the arteries propped open. The stents need to be strong enough to withstand the bending of the legs but not too strong to cause damage to the blood vessels. Current stents don't accommodate the delicate balance between the two and often fail, causing old symptoms to return, repeat surgery, or amputation.

The inventors' improved stent designs could lead to fewer patients needing repeat surgery, saving them from expensive hospital bills while improving their overall health. That potential makes this invention UNeMed's Most Promising New Invention of 2023.

Since 2014, Dr. Kamenskiy and Dr. MacTaggart have received \$6.3 million from the NIH to improve biomechanical understanding of and develop an optimized stent for the femoropopliteal artery in the legs.

That funding helped the team collect data about the mechanical and structural characteristics of human femoropopliteal arteries from 990 people of differing ages and risk factors. They've also studied 12 different commercial stents for peripheral artery disease.

With their combined data on the human arteries and current commercial stents, the team uses computational simulations to map stent-artery interactions to create an optimized set of parameters for new stents. Their new designs bend and twist with the artery during walking, and will help arteries stay open longer.

The research team is currently prototyping and testing their optimally designed stents in a preclinical pig model.





## STARTUP OF THE YEAR



**Michael Wadman, MD, FACEP**

*Professor and Chairman, Department of Emergency Medicine, University of Nebraska Medical Center, Nebraska Medicine*



**Thang Nguyen, PhD, MSN, FNP-C**

*Assistant Professor and Research Scientist, Department of Emergency Medicine, University of Nebraska Medical Center, Nebraska Medicine*



**Wesley Zeger, DO, FACEP**

*Executive Vice Chair and Professor, Department of Emergency Medicine, University of Nebraska Medical Center, Nebraska Medicine*

### University Medical Devices, Inc.

In March 2020, as SARS-CoV-2 was sweeping the globe, UNMC Emergency Medicine clinicians quickly realized everyone—from providers to patients—disliked the nasal swab. And with swab supply chains over-stressed, there were plenty of good reasons to find a better way to collect nasopharyngeal samples.

The result was MicroWash, a simple—almost pleasant—alternative to the more traditional nasal swab. Inventors on the MicroWash project are UNMC/Nebraska Medicine clinicians Michael Wadman, MD, FACEP; Thang Nguyen, PhD, MSN, FNP-C; and Wesley Zeger, DO, FACEP. MicroWash was licensed in March of 2022, becoming the cornerstone technology of a new startup, University Medical Devices, Inc.

MicroWash (pictured on back cover) is a fast, comfortable, and self-contained nasopharyngeal irrigation device designed to collect specimens from the nasal cavity.

University Medical Devices was accepted into NMotion's 2022 Growth Accelerator cohort, and has been building momentum ever since. Based in Omaha, University Medical Devices is aggressively pursuing multiple patents here and abroad, and was recently awarded its first US patent. They are in the process of closing on a \$1.5 million seed round. University Medical Devices has scaled up manufacturing and kitting to be able to produce over 500,000 MicroWash kits per month and has launched an aggressive, forward-looking marketing and PR campaign.

University Medical Devices has assembled a highly talented and experienced team to lead the company. The team includes James Young, MBA, Founder and CEO, serial entrepreneur, operations leader and sales strategist; Nicholas Lorenzo, MD, MHCM, CPE, FAAPL, Founder, Executive Chairman and Chief Strategy Officer; Anne Bueltel, COO, serial healthcare entrepreneur, C-Suite executive; Kenneth K. Kleinheinz, MS, MBA; Brian Sears, Senior Director of Business Development, and Joseph Vandenack, a seasoned tax attorney.

Drs. Wadman and Nguyen, serve as the Chief Medical Officer and Chief Technology Officer, respectively, and lend their considerable talents and efforts to the development of MicroWash and several other devices that will make University Medical Devices a multi-product company in the years to come.

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## TECHNOLOGIES LICENSED

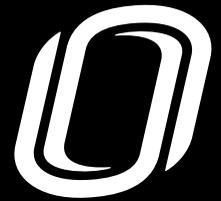
<b>Mastl Antibody</b>	<ul style="list-style-type: none"><li>• Aimin Peng</li><li>• James Wahl</li><li>• Ling Wang</li></ul>
<b>Parkinson's Disease Biomarkers</b>	<ul style="list-style-type: none"><li>• Howard Gendelman</li><li>• R. Lee Mosley</li><li>• Mai Mostafa</li><li>• Katherine Olson</li></ul>
<b>Computer Aided Orthopedic Surgery System</b>	<ul style="list-style-type: none"><li>• Hani Haider</li></ul>
<b>Softball Pitching Analysis System</b>	<ul style="list-style-type: none"><li>• Brian Knarr</li><li>• Adam Rosen</li><li>• Sam Wilkins</li></ul>
<b>Oropharyngeal Specimen Collection Device</b>	<ul style="list-style-type: none"><li>• Aaron Barksdale</li><li>• Abraham Campos</li><li>• Jared Marx</li><li>• Thang Nguyen</li><li>• Michael Wadman</li></ul>
<b>Parkinson's Disease Therapy</b>	<ul style="list-style-type: none"><li>• Howard Gendelman</li><li>• R. Lee Mosley</li></ul>

## INVENTORS WITH ISSUED PATENTS

Daniel Anderson	Eric Markvicka*
Janina Baranowska-Kortylewicz	Amarnath Natarajan
Michael Duryee	Amol Patil
Benson Edagwa	Larisa Poluektova
Shane Farritor*	Stephen Rennard
Daniel Firestone	Stephen Salzbrenner
Howard Gendelman	Tyler Scherr
Santhi Gorantla	Nicholas Stergiou
Timothy Greiner*	Geoffrey Thiele
Channabasavaiah Gurumurthy*	Hanjun Wang
Hani Haider*	Dong Wang
Zhenshan Jia	Jingwei Xie
Jason Johanning	Irving Zucker
Zbigniew Kortylewicz	

\*Multiple

Find event photos on UNeMed's Flickr page: <http://bit.ly/UNePics>



## PATENTS ISSUED

### 1. “Systems and Techniques for Estimating the Severity of Chronic Obstructive Pulmonary Disease in a Patient”

*U.S. Patent No. 11,386,998 — issued July 12, 2022*

- Amol Patil
- Nicholas Stergiou
- Stephen Rennard

### 2. “Robotic Device with Compact Joint Design and Related Systems and Methods”

*U.S. Patent No. 11,406,458 — issued August 9, 2022*

- Shane Farritor
- Eric Markvicka

### 3. “Non-Human Animal Having Human IL-34 and Use Thereof”

*U.S. Patent No. 11,419,317 — issued August 23, 2022*

- Santhi Gorantla
- Larisa Poluektova

### 4. “Methods for Producing a Nanofiber or Microfiber Structure”

*U.S. Patent No. 11,427,936 — issued August 30, 2022*

- Jingwei Xie

### 5. “Distal Radius Plating System”

*U.S. Patent No. 11,446,067 — issued September 20, 2022*

- Daniel Firestone

### 6. “Antiviral Prodrugs and Formulations Thereof”

*U.S. Patent No. 11,458,136 — issued October 4, 2022*

- Benson Edagwa
- Howard Gendelman

### 7. “On-Board Tool Tracking System and Methods of Computer Assisted Surgery”

*U.S. Patent No. 11,464,574 — issued October 11, 2022*

- Hani Haider

### 8. “Local Control Robotic Surgical Devices and Related Methods”

*U.S. Patent No. 11,484,374 — issued November 1, 2022*

- Shane Farritor
- Eric Markvicka

### 9. “Single-Arm Robotic Device with Compact Joint Design and Related Systems and Methods”

*U.S. Patent No. 11,504,196 — issued November 22, 2022*

- Shane Farritor

## PATENTS ISSUED

### 10. “Single Site Robotic Device and Related Systems and Methods”

U.S. Patent No. 11,529,201 — issued December 20, 2022

- Shane Farritor
- Eric Markvicka

### 11. “Kit for Detecting Coronary Artery Disease Comprising an MAA Protein Adduct and Reagents that Bind to Antibodies”

U.S. Patent No. 11,542,341 — issued January 3, 2023

- Daniel Anderson
- Geoffrey Thiele
- Michael Duryee

### 12. “Treatment Methods Using DNA Editing with Single-Stranded DNA”

U.S. Patent No. 11,549,126 — issued January 10, 2023

- Channabasavaiah Gurumurthy

### 13. “Precision Syringe Plunger”

U.S. Patent No. D975,274 — issued January 10, 2023

- Tyler Scherr

### 14. “DNA Editing Using Relatively Long Single-Stranded DNA and CRISPR/Cas9 to Increase Success Rate in Methods for Preparing Transgenic Embryos and Animals”

U.S. Patent No. 11,555,208 — issued January 17, 2023

- Channabasavaiah Gurumurthy

### 15. “Healthcare Provider Interface for Treatment Option and Authorization”

U.S. Patent No. 11,557,386 — issued January 17, 2023

- Stephen Salzbrenner

### 16. “Method and Apparatus for Computer Aided Surgery”

U.S. Patent No. 11,564,745 — issued January 31, 2023

- Hani Haider

### 17. “Method for Subtyping Lymphoma Types by Means of Expression Profiling”

U.S. Patent No. 11,574,704 — issued February 7, 2023

- Timothy Greiner

### 18. “Polyethylene Glycol-Conjugated Glucocorticoid Prodrugs and Compositions and Methods Thereof”

U.S. Patent No. 11,583,541 — issued February 21, 2023

- Dong Wang
- Zhenshan Jia



## PATENTS ISSUED

### 19. “Robotic Surgical Devices, Systems and Related Methods”

*U.S. Patent No. 11,595,242 — issued February 28, 2023*

- Shane Farritor
- Eric Markvicka

### 20. “Apparatus for Assessing User Frailty”

*U.S. Patent No. 11,602,278 — issued March 14, 2023*

- Jason Johanning

### 21. “Compositions and Methods for the Treatment and Imaging of Cancer”

*U.S. Patent No. 11,607,464 — issued March 21, 2023*

- Janina Baranowska-Kortylewicz
- Zbigniew Kortylewicz

### 22. “Robotic Surgical Devices, Systems and Related Methods”

*U.S. Patent No. 11,617,626 — issued April 4, 2023*

- Shane Farritor

### 23. “Method for Determining Lymphoma Type and Providing Treatment”

*U.S. Patent No. 11,646,099 — issued May 9, 2023*

- Timothy Greiner

### 24. “Quinoxaline Compounds and Uses Thereof”

*U.S. Patent No. 11,661,411 — issued May 30, 2023*

- Amarnath Natarajan

### 25. “Methods for Administration and Methods for Treating Cardiovascular Diseases with Resiniferatoxin”

*U.S. Patent No. 11,679,075 — issued June 20, 2023*

- Hanjun Wang
- Irving Zucker

## INVENTION MILESTONES

The following lists denote the total number of new invention notifications individual inventors have submitted to UNeMed over the years. Inventors with four or less inventions are not listed.

### 40+ Inventions

Thang Nguyen.....	70
Howard Gendelman .....	69
Michael Wadman.....	60

### 30-39 Inventions

Surinder Batra .....	37
Sam Sanderson.....	36
Dong Wang .....	32
Hani Haider .....	31
Jingwei Xie .....	31

### 20-29 Inventions

Mark Carlson .....	27
Thomas McDonald .....	27
Guangshun Wang.....	26
Steven Hinrichs .....	22
Jason Johanning .....	22
Brian Knarr .....	21
Janina Baranowska- Kortylewicz .....	20

### 15-19 Inventions

Amarnath Natarajan.....	19
Dmitry Oleynikov.....	19
Benson Edagwa .....	18
Jason MacTaggart .....	18
Wesley Zeger.....	18
Nicholas Stergiou .....	17
Thomas Porter.....	16
Travis Vanderheyden.....	16
Bin Duan .....	15
Jonathan Vennerstrom.....	15
Hanjun Wang.....	15
Jorge Zuniga .....	15

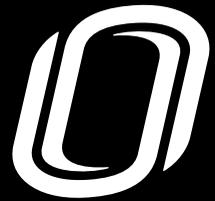
### 10-14 Inventions

R. Lee Mosley, 14; Stephen Rennard, 14; Irving Zucker, 14; Geoffrey Thiele, 13; Gregory Bennett, 12; Abraham Campos, 12; Tammy Kielian, 12; Michael (Tony) Hollingsworth, 11; Corey Hopkins, 11; Alexey Kamenskiy, 11; Nicholas Markin, 11; Sara Myers, 11; Ka-Chun Siu, 11; Steven Carson, 10; Nora Chapman, 10; Christine Cutucache, 10; Channabasavaiah Gurumurthy, 10; Steven Lisco, 10; Babu Padanilam, 10; Myron Toews, 10.

### 5-9 Inventions

Ercole Cavalieri, 9; Punita Dhawan, 9; Marius Florescu, 9; Nicholas Heimann, 9; John Jackson, 9; Iraklis Pipinos, 9; Richard Reinhardt, 9; Paul Trippier, 9; Mara Jana Broadhurst, 8; Russell Buffum, 8; Ioannis Chatzizisis, 8; Deepta Ghate, 8; Timothy Greiner, 8; Rebekah Gundry, 8; Matthew Halanski, 8; James Hammel, 8; Kathleen Healey, 8; Zhenshan Jia, 8; Bhavesh Kevadiya, 8; Marilyn Larson, 8; Rongshi Li, 8; Aaron Mohs, 8; Prabakaran Narayanasamy, 8; David Oupicky, 8; Eleanor Rogan, 8; Byers Shaw, Jr., 8; James Talmadge, 8; Jialin Zheng, 8; Iqbal Ahmad, 7; Walker Arce, 7; Hamid Band, 7; Bernard Baxter, 7; Kenneth Bayles, 7; Liliana Bronner, 7; Jesse Cox, 7; Michael Duryee, 7; Joel Elson, 7; Maurice Godfrey, 7; Maneesh Jain, 7; Maximillian Kurz, 7; Milankumar Patel, 7; Larisa Poluektova, 7; Wen Shi, 7; Amar Singh, 7; Rakesh Srivastava, 7; Daniel Anderson, 6; Vimla Band, 6; Dhundy Bastola, 6; Elizabeth Beam, 6; Jennifer Bredehoft, 6; Keely Buesing, 6; Siddappa Byrareddy, 6; W. Scott Campbell, 6; Neal Grandgenett, 6; Santhi Gorantla, 6; Shantaram Joshi, 6; Peter Kador, 6; Sachin Kedar, 6; Bethany Lowndes, 6; Jatinkumar Machhi, 6; Philippe Malcolm, 6; Rodney Markin, 6; Gregory Oakley, 6; William Tapprich, 6; Joseph Vetro, 6; James Wahl, 6; Feng Xie, 6; James Campbell, 5; George Casale, 5; Prithviraj Dasgupta, 5; Alex Dzewaltowski, 5; Kai Fu, 5; James Gehringer, 5; Gregory Gordon, 5; Mahmudul Hasan, 5; Javeed Iqbal, 5; Peter Iwen, 5; Deepak Khazanchi, 5; Lynell Klassen, 5; Yuri Lyubchenko, 5; Krishnaiah Maddeboina, 5; Joseph John McBride, 5; Sheryl Paskevich, 5; Prakash Radhakrishnan, 5; Alicia Schiller, 5; Andrew Schnaubelt, 5; Pankaj Singh, 5; Marcus Snow, 5; Siwei Zhao, 5.

*720 inventors with four or less.*



## UNEMED STAFF



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**MISSION**

*UNeMed fosters innovation, advances research, and engages entrepreneurs and industry to commercialize novel technologies*

