CURRICULUM VITAE

**ARSHAD QUADRI, M.D.**

PERSONAL

Home Address: 110 High Ridge Road

West Hartford, Connecticut 06117

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[cardiaq@gmail.com](mailto:cardiaq@gmail.com)

EDUCATION

Premedical: **St. Xavier High School**, Patna, India 1961-1969

**Patna Science College**, Patna, India 1969-1970

# MBBS,

Medical: Darbhanga Medical College

L.N. Mithila Universtiy Darbhanga, India, 1971-1978

Post Graduate: **ECFMG certification 1981**

# PLAB ( Professional and Linguistic Assessment Board) GMC, UK. 1981. FRCS ( Primary) London, UK 1984.

**FLEX, #520-506022, 1991**

**American Board of Surgery, June l996 (General Surgery) American Board of Thoracic Surgery, June 1997 (Cardiothoracic surgery) American Board of Thoracic Surgery, Recertification, May, 2008**

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| --- | --- | --- |
| Licensure in the USA | Massachusetts | 1992 (Inactive) |
|  | **Connecticut, #034528,** | **1995 (Current**) |
| Licensure in the India: | New York, #192308,  Indian Medical Board, | 1993 (inactive)  1980 |

Licensure in the UK: General Medical Council 1981 (inactive)

Postgraduate Clinical

Education & Training:

# Rotating Intern.

Darbhanga Medical College Hospital Darbhanga India 1977-1978

**House Officer in General Surgery** Darbhanga Medical College Hospital Darbhanga, India, 4/78-3/79

**Resident House Officer** Holy Family Hospital Patna, India, 4/79-12/7

**Senior House Office** (General Surgery) St. Mary’s Hospital

Newport, I.O.W. England, 8/81-1/83

**Senior House Officer** (Ortho & Emergency Medicine) Ryde Hospital

I.O.W., England, 1/83-10/85

Broomfield Hospital

**Senior House Officer** (Orthopaedics) Broomfield, Chelmsford, Essex, U.K., 5/85-10/85

**Clinical Fellow in Orthopaedics** Berkshire Medical Center Pittsfield, Massachusetts, 7/86-6/87

# Resident in Surgery

Berkshire Medical Center Pittsfield, Massachusetts, 7/87-6/91

Berkshire Medical Center

**Chief Resident** (General Surgery) Pittsfield, Massachusetts, 7/91-6/92

**Fellow** (Cardiothoracic Surgery) Long Island Jewish Medical Center

Long Island, New York, 7/93-6/94

**Chief Fellow** (Cardiothoracic Surgery) Long Island Jewish Medical Center Long Island, New York, 7/93-6/94

:

Hospital

Appointments: St. Francis Hospital & Medical Center

114 Woodland Street

Hartford, Connecticut 06105

Attending Surgeon, Department of Surgery, 1995 - Present

Long Island Jewish Medical Center Long Island, New York

Division of Cardiothoracic Surgery, 7/94-5/95

Employment: **Attending Physician**: 7/94-5/95

Div of Cardiothoracic Surgery, Long Island Jewish Medical Center

# Cardiothoracic Surgeon,

Cardiac & Thoracic Surgical Associates, L.L.C. 6/95 – 2018 345Main Street

West Hartford Ct. 06117 USA

Professional

Societies **Society of Thoracic Surgeons;**

# Fellow, American College of Surgeons;

**The European Society of Thoracic Surgery;**

**The European Association of Cardiovascular Surgery**;

Presentations: **“A Focused Beam Ultrasonic Technique for Determining the Elastic Coefficients of Bone Over Small Areas”,**

presented at

Symposium for Mechanical Engineers, Cincinnati, OH, 6/87

# “A New Endoscopic Valvulotome for Peripheral Vascular Surgery

American College of Surgeons Clinical Congress, San Francisco, CA, 10/90

# “A New Endoscopic Valvulotome for Peripheral Vascular Surgery”,

*Prize winning paper,*

5th International Vascular Symposium, New York, NY, 5/91

# “Arch and Beyond” Endovascular Grafting of Aorta;

CARDIOVASCULAR CONFERENCE, 08/2008

St. Francis Hospital and Medical Center, Hartford, CT

**“Arch and Beyond” Endovascular Grafting of Aorta;** Surgical Grand Rounds, 9/2008

St. Francis Hospital and Medical Center, Hartford, CT

**“Beyond Club Mitrale: Percutaneous Therapies for Mitral Valve Disase**; CARDIOVASCULAR CONFERENCE, 8/2009

St. Francis Hospital and Medical Center, Hartford, CT

# Transcatheter – Mitral Valve Replacement

TRANSCATHETER CARDIOVASCULAR THERAPEUTICS – Washington D.C. 2010

# Antegrade TMVI: Acute Study In Animal Model;

EUROPCR, 2011, Paris, France

Heart Valve Society – May 7-9 2015

Monte Carlo, Monaco Presentation

Mitral valve Implantation via Trans-apical Approach

TVT Meeting Chicago 2015-2016

TMVR BOX Presentation

Houston Aortic Symposium Feb. 23, 24& 25 2017

Frontiers in Cardiovascular Disease

Presentation

Clinical Practice Special Focus:

*I have been in private practice since 1995 performing 150 to 200 major cardiac & thoraci surgeries every year.*

*A large number of these cases are Coronary Artery Bypass. Over 90% of these cases are performed using Off-Pump technique.*

*Having a particular interest in Aortic surgery. I routinely perform Aortic Valve Repalcement and Aortic Root Reconstruction using both standard and valve sparing Technique.*

*I use state of the art Technique for repair of Aneurysmal Disease of the Aorta. Using both* ***Open*** *and Endovascular techniques.*

*I routinely perform Mitral Valve Repair and Replacement, this is very relevant as the heart failure is a growing problem, and an overwhelming population of patients that suffer with Mitral Regurgitation.*

*Quality of patient care is most important to me, and is reflected in the low Mortality*

*And MACE rate maintained in my practice, following the STS database standard.*

*I am very familiar in the latest development in percutaneous heartvalve implantation. Invented & Developing a heart valve for Implantation in the Mitral Valve Percutaneously.*

*My other interests are surgeries for heart failure, I have very keen enthusiasm for Left Ventricular Assist Devices. I am familiar with all approved devices. And have Implanted ABIOMED AB 5000 in several patients.*

*Routinely perform thoracic surgery using MIS techniques eg. VATS lobectomy, and other VATS procedures. Lung cancer management and other thoracic diseas management is quite a Substantial part of my practice.*

*My practice also includes a wide variety of techniques related to rhythm management, like Pacemaker implantation and AICD insertion and MAZE procedure.*

Non Clinical & Entrepreneur

Experience : FOUNDER & CEO; 1989

Berkshire Research and Development Pittsfield

(product got acquired by Olympus corp.)

FOUNDER, CHAIRMAN, CMO, CSO (current)

CardiAQ Valve Technology, Irvine

CA 92620

Special Awards: The Robert Tracy Award presented to Senior Surgical Resident for

# Excellence in Vascular Surgery, 6/89

The Ralph Zupanic Award presented to Senior Surgical Resident

# For Exceptional Performance, 6/90

**“A New Valvulotome for In-Situ Vein Grafts”,** prize winning paper at the 5th International Vascular Symposium, New York, NY 1991

**U.S. PATENT,#5,049,154**, Awarded 9/17/91 for “Intraluminal Valvulotome for Endovascular Surgery”, manufactured by

Olympus Corporation.

**U.S. PATENT,#5,282,826,** Awarded 2/1/94 for “Adjustable Angle Dissector for Thorascopic and other forms of Minimally Invasive Surgery.”

**U.S. PATENT, #7,425,21**, Awarded 2008 for System and method for Endovascular Grafting of Bifurcated and Branched Vessels

**U.S. PATENT**, 8092520 Awarded 2012 Vascular Prosthesis Connecting Stent.

Patents &

Publication **“Biochemical Characterization of a Cardiac-Derived Neutrophil Chemotactic Factor”** IRB approved clinical research Project

St. Francis Hospital, Hartford, CT (2005- ongoing), Arshad Quadri, M.D. and Salwa Elgebaly, PhD

Development of Branch Graft Technique/Mechanisms (Endo-Aortic graft)

work in progress

Trans Catheter – Mitral Valve Replacement (Work in Progress)

# System and method for Endovascular grafting of Bifurcated and Branched Vessels

U.S. PATENT #7,425,21

# Balloon – Expandable, Self-expanding, Vascular

Prosthesis Connecting Stent (WO 2007/05887)

# Percutaneous Valve Prosthesis and System and Method For Implanting the same. (W) 2008/13915

**“Fecal Fistula”, a case report**. Quadri A.

Indian Journal of Surgery, Jan. l980

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# “Continuous Single Layer Bowel Anastomosis:

**An Alternative to Traditional Techniques”,** McQuilkin PA, Quadri A, Basile RM Bulletin, Berkshire Medical Center, 1991

# “A New Endoscopoic Valvulotome for In-Situ Vein Grafts”, Quadri A., Sadighi PJ, Basile RM

Change JB, ed. Modern Vascular Surgery,

Vol.5, Springer-Verlag, New York, NY 1992: 342-355

# “Emergency Coronary Bypass Surgery Resulting From Failed Percutaneous Angioplasty: The Long Island Jewish Medical Center Experience & Review of Literature”,

Rupp EA, Palazzo RS, Quadri A, Graver M, Berkshire Medical Journal,

Vol.IV:2, pg 14, Summer 1996, and published in Current Surgery, 53: 283-86

# “Dysphagia Due to a Vascular Ring”, Duke P, Epstein N, Quadri A

Journal of the Hoffman Heart Institute Of Connecticut, Vol.4, No. 2, page 7-9, Dec1998

PERCUTANEOUS VALVE PROSTHESIS AND SYSTEM AND METHOD FOR IMPLANTING ...

US Pat. App 12309680 - Filed Jul 27, 2007

US 2009/0306768 Al Quadri (43) Pub. Date: Dec. ...

VALVE PROSTHESIS AND SYSTEM AND METHOD FOR IMPLANTING SAME

1. Inventor: Arshad Quadri, West Hartford, ...

VASCULAR IMPLANT AND DELIVERY SYSTEM

US Pat. App 12761349 - Filed Apr 15, 2010

US 2010/0298931 Al Quadri et al. (43) Pub. Date: Nov. ... VASCULAR IMPLANT AND

DELIVERY SYSTEM (54) (76) Inventors: Arshad Quadri, West Hartford, CT (US); ... Overview - Abstract - Drawing - Description - Claims

System and method for endoluminal grafting of bifurcated and ...

US Pat. App 10960296 - Filed Oct 8, 2004

US 2005/0154444 Al Quadri (43) Pub. Date: Jul. ...

FOR ENDOLUMINAL GRAFTING OF BIFURCATED AND BRANCHED VESSELS

1. Inventor: Arshad Quadri, West Hartford, ... Overview - Abstract - Drawing - Description - Claims Adjustable intra-luminal valvulotome

US Pat. 5049154 - Filed Aug 7, 1989 - Issued Sep 17, 1991 - Berkshire Research & Development, Inc.

17, 1991 [54] ADJUSTABLE INTRA-LUMINAL VALVULOTOME [75] Inventor:

Arshad Quadri, Pittsfield, Mass. [73] Assignee: Berkshire Research & Development, Inc.,

..

US Pat. 5282826 - Filed Mar 5, 1992 - Issued Feb 1, 1994 - Quadtello Corporation United States Patent m Quadri [54] DISSECTOR FOR ENDOSCOPIC AND LAPAROSCOPIC USE [75] Inventor: Arshad Quadri, Pittsfield, Mass. ...

Overview - Abstract - Drawing - Description - Claims Adjustable intra-liminal valvulotome

US Pat. 5133725 - Filed Nov 16, 1990 - Issued Jul 28, 1992 - Berkshire Research and Development, Inc.

28, 1992 [54] ADJUSTABLE INTRA-LIMINAL VALVULOTOME [75] Inventor:

Arshad Quadri, Pittsfield, Mass. [73] Assignee: Berkshire Research and Development, Inc., ...

US Pat. App 12084586 - Filed Nov 9, 2006

US 200902163 14A1 (54) BALLOON-EXPANDABLE, SELF-EXPANDING,

VASCULAR PROSTHESIS CONNECTING STENT (76) Inventor: Arshad Quadri, West Hartford, ...

DELIVERY SYSTEM FOR VASCULAR IMPLANT

US Pat. App 12572180 - Filed Oct 1, 2009

(i9) United States (12) Patent Application Publication Quadri et al. ... Inventors: Arshad Quadri, West Hartford, CT (US); J. Brent Ratz, Winchester, ...

Overview - Abstract - Drawing - Description - Claims HEART VALVE

US Pat. App 12569856 - Filed Sep 29, 2009

Date: Apr. 1, 2010 (54) HEART VALVE (76) Inventors: Arshad Quadri, West Hartford , CT (US); J. Brent Ratz, Winchester, MA (US) Correspondence Address: KNOBBE ...

Over

Volume 64, Issue 11 Supplement, September 2014

DOI: 10.1016/j.jacc.2014.07.886

PDF Article

TCT-811 First-in-Human CardiAQ Transcatheter Mitral Valve Implantation via Transapical Approach

Lars Søndergaard, Matthew Brooks, Nikolaj Ihlemann, Susanne Holme, Anders Jonsson, Luigi Biasco, Mariann Tang, Peter B. Hansen, Peter S. Olsen and Arshad Quadri

**The CardiAQ transcatheter mitral valve implantation system**

Published on 17 September 2015

rview - Abstract - Drawing - Description - Claim

**Transcatheter mitral valve implantation via transapical approach: an early experience**

[Lars Sondergaard](javascript:;) [Matthew Brooks](javascript:;) [Nikolaj Ihlemann](javascript:;) [Anders JonssonSusanne Holme](javascript:;) [Mariann Tang](javascript:;) Kim

*Arshad Quadri European Journal of Cardio-Thoracic Surgery*, Volume 48, Issue 6, 1 December 2015,

**Published:**

03 February 2015

Patents by Inventor Arshad Quadri

Arshad Quadri has filed for patents to protect the following inventions. This listing includes patent applications that are pending as well as patents that have already been granted by the United States Patent and Trademark Office (USPTO).

Prosthesis, delivery device and methods of use

Patent number: 10004599

Abstract: Devices, systems and methods are described herein a prosthesis for implantation within a lumen or body cavity and delivery devices for delivering the prosthesis to a location for implantation. A delivery system can include a plurality of components which are moveable relative to each other. The delivery system can include a nose cone which can cover at least a first end of the prosthesis, an outer elongate member which can cover at least a second end of the prosthesis, and a tether which can at least partially restrain the prosthesis from deployment.

Type: Grant

Filed: February 20, 2015

Date of Patent: June 26, 2018

Assignee: Edwards Lifesciences CardiAQ LLC

Inventors: Glen T. Rabito, J. Brent Ratz, Luca Pesce, Arshad Quadri, Lindsay Lam, Yen Liao, Julio Cesar Sanchez, David Landon, Garrett Dallas Johnson, Alexander H. Cooper

Percutaneous heart valve

Patent number: 9974669

Abstract: A percutaneous heart valve for deployment within a body cavity is described. The percutaneous heart valve includes an expandable frame having a plurality of cells adapted for allowing the frame to expand and collapse. A one-way valve is positioned within the expandable frame. The frame includes a proximal anchoring portion and a distal anchoring portion. The distal anchoring portion includes a plurality of distal anchors, each distal anchor having at least a portion positioned radially outwardly from the frame and extending in a direction that is substantially parallel with a longitudinal axis. The distal anchors preferably bend radially outwardly before bending to extend toward the proximal anchoring portion. Radial expansion of the frame causes the proximal and distal anchoring portions to move closer together for capturing body tissue therebetween, thereby anchoring the percutaneous heart valve to the body tissue.

Type: Grant

Filed: October 10, 2016

Date of Patent: May 22, 2018

Assignee: Edwards Lifesciences CardiAQ LLC

Inventor: Arshad Quadri

Heart valve

Patent number: 9968449

Abstract: A heart valve includes a valve body made of a flexible material such as pericardium. The valve body is made of two layers of material, an outer layer, and an inner layer that defines a plurality of leaflets. The leaflets of the inner layer are attached to the outer layer. In some embodiments the valve body is made by cutting a single piece of flat source tissue, folding the cut tissue and forming it into a tubular pattern having the inner and outer layers. The multi-layer valve body can be mounted on a stent for delivery within a patient's heart.

Type: Grant

Filed: July 25, 2016

Date of Patent: May 15, 2018

Assignee: Edwards Lifesciences CardiAQ LLC

Inventors: Arshad Quadri, J. Brent Ratz

Replacement heart valves, delivery devices and methods

Patent number: 9949827

Abstract: A replacement heart valve and method of treating valve insufficiency includes an expandable frame configured to engage a native valve annulus. A valve body is coupled to the frame. The valve body can include a leaflet portion and possibly a skirt portion. A portion of the frame has a foreshortening portion configured to longitudinally expand when urged to a radially compacted state and longitudinally contract when urged to a radially expanded state. In one embodiment the valve skirt is attached to the frame so that it can adapt to changes in the length of the frame. A delivery device in some embodiments can use one or more coverings, such as sheaths, to controllably release the replacement heart valve at a native heart valve.

Type: Grant

Filed: May 1, 2015

Date of Patent: April 24, 2018

Assignee: Edwards Lifesciences CardiAQ LLC

Inventors: Arshad Quadri, J. Brent Ratz

REPLACEMENT HEART VALVE

Publication number: 20170354496

Abstract: A replacement heart valve can have an expandable frame configured to engage a native valve annulus. A valve body can be mounted onto the expandable frame to provide functionality similar to a natural valve. The valve body has an upstream end and a downstream end, and a diameter at the downstream end is greater than a diameter at the upstream end.

Type: Application

Filed: January 25, 2017

Publication date: December 14, 2017

Applicant: Edwards Lifesciences CardiAQ LLC

Inventors: Arshad Quadri, J. Brent Ratz

REPLACEMENT HEART VALVE

Publication number: 20170354497

Abstract: A replacement heart valve can have an expandable frame configured to engage a native valve annulus. A valve body can be mounted onto the expandable frame to provide functionality similar to a natural valve. The valve body has an upstream end and a downstream end, and a diameter at the downstream end is greater than a diameter at the upstream end.

Type: Application

Filed: February 1, 2017

Publication date: December 14, 2017

Applicant: Edwards Lifesciences CardiAQ LLC

Inventors: Arshad Quadri, J. Brent Ratz

PROSTHESIS FOR ATRAUMATICALLY GRASPING INTRALUMENAL TISSUE AND METHODS OF DELIVERY

Publication number: 20170340440

Abstract: A prosthesis can comprise an expandable frame, a plurality of distal anchors and a plurality of proximal anchors. The anchors can extend outwardly from the frame. The frame can be configured to radially expand and contract for deployment within a body cavity. The frame and anchors can have one of many different shapes and configurations. For example, when the frame is in an expanded configuration, the proximal anchors can extend a significant distance away from the exterior of the frame, such as a length equal to or greater than about one half the diameter of the frame. As another example, the anchors can have looped ends.

Type: Application

Filed: August 11, 2017

Publication date: November 30, 2017

Applicant: Edwards Lifesciences CardiAQ LLC

Inventors: J. Brent Ratz, Arshad Quadri, Luca Pesce

Delivery system for vascular implant

Patent number: 9744039

Abstract: A medical treatment system and method of treatment is described having an implant that can be positioned and deployed, then undeployed to allow repositioning of the implant. The system includes a self-expanding medical implant that longitudinally foreshortens upon radially expanding from a radially compacted state, a distal interface configured to attach the implant to a distal mount of a delivery device, and a proximal interface configured to attach the implant to a proximal mount of the delivery device. Moving the distal mount longitudinally away from the proximal mount applies a longitudinal tension to the implant causing the implant to expand longitudinally and contract radially, and moving the distal mount toward the proximal mount reduces a longitudinal tension in the implant allowing the implant to expand radially toward a fully expanded state.

Type: Grant

Filed: January 22, 2016

Date of Patent: August 29, 2017

Assignee: Edwards Lifesciences CardiAQ LLC

Inventors: Arshad Quadri, J. Brent Ratz

REPLACEMENT HEART VALVE

Publication number: 20170231762

Abstract: A replacement heart valve can have an expandable frame configured to engage a native valve annulus. A valve body can be mounted onto the expandable frame to provide functionality similar to a natural valve. The valve body has an upstream end and a downstream end, and a diameter at the downstream end is greater than a diameter at the upstream end.

Type: Application

Filed: April 28, 2017

Publication date: August 17, 2017

Applicant: Edwards Lifesciences CardiAQ LLC

Inventors: Arshad Quadri, J. Brent Ratz, Yen Liao, Stan Komatsu, Kalathi Thygarajan, Robrecht Michiels, Hung Nguyen, MyKim Nguyen

Replacement valve and method

Patent number: 9730790

Abstract: A replacement valve has an expandable frame configured to engage a native valve and a valve body mounted to the expandable frame. The valve body can have a plurality of valve leaflets configured to open to allow flow in a first direction and engage one another so as to close and prevent flow in a second direction, the second direction being opposite the first direction.

Type: Grant

Filed: February 23, 2012

Date of Patent: August 15, 2017

Assignee: Edwards Lifesciences CardiAQ LLC

Inventors: Arshad Quadri, J. Brent Ratz, Robrecht Michiels

Prosthesis for atraumatically grasping intralumenal tissue and methods of delivery

Patent number: 9730791

Abstract: A prosthesis can comprise an expandable frame, a plurality of distal anchors and a plurality of proximal anchors. The anchors can extend outwardly from the frame. The frame can be configured to radially expand and contract for deployment within a body cavity. The frame and anchors can have one of many different shapes and configurations. For example, when the frame is in an expanded configuration, the proximal anchors can extend a significant distance away from the exterior of the frame, such as a length equal to or greater than about one half the diameter of the frame. As another example, the anchors can have looped ends.

Type: Grant

Filed: March 5, 2014

Date of Patent: August 15, 2017

Assignee: Edwards Lifesciences CardiAQ LLC

Inventors: J. Brent Ratz, Arshad Quadri, Luca Pesce

Systems and methods for sealing openings in an anatomical wall

Patent number: 9724083

Abstract: Devices, systems and methods are described herein for sealing openings in an anatomical wall. A sealing system includes an elongate tubular support for delivery to an anatomical opening to be sealed, a cover of bio-compatible material covering a distal portion of the tubular support, and an anchor assembly, the anchor assembly being designed to secure the cover material to the opening. The anchor assembly can include a plurality of distal anchors and a plurality of proximal anchors, a button, ring or donut, and/or a C-clip. In some embodiments, the system further comprises a closure member for closing off an end of the cover material after removal of the tubular support.

Type: Grant

Filed: July 25, 2014

Date of Patent: August 8, 2017

Assignee: Edwards Lifesciences CardiAQ LLC

Inventors: Arshad Quadri, J. Brent Ratz, Glen T. Rabito, Garrett Dallas Johnson

Prosthesis, delivery device and methods of use

Patent number: 9687345

Abstract: Disclosed herein are embodiments of a prosthesis and delivery device, as well as methods of use. The delivery device can be composed of an inner retention assembly configured to carry an expandable prosthesis to an in situ target location. The inner retention assembly can slide within an outer elongate hollow member which can cover the expandable prosthesis. The outer elongate hollow member can further be longitudinally collapsed into a receiving member located at the distal end of the outer elongate hollow member.

Type: Grant

Filed: May 28, 2015

Date of Patent: June 27, 2017

Assignee: Edwards Lifesciences CardiAQ LLC

Inventors: Glen T. Rabito, Julio Cesar Sanchez, Arshad Quadri, J. Brent Ratz, Luca Pesce, Yen Liao

Prosthesis with outer skirt and anchors

Patent number: 9681951

Abstract: A prosthesis can be configured to grasp intralumenal tissue when deployed within a body cavity and prevent axial flow of fluid around an exterior of the prosthesis. The prosthesis can include an expandable frame configured to radially expand and contract for deployment within the body cavity, and an outer skirt positioned annularly around an exterior of the expandable frame. In some embodiments, the outer skirt can extend outward from the frame and be secured to an outwardly extending anchor on the frame to create an axial barrier to fluid flow exterior to the frame when deployed within the body cavity.

Type: Grant

Filed: March 5, 2014

Date of Patent: June 20, 2017

Assignee: Edwards Lifesciences CardiAQ LLC

Inventors: J. Brent Ratz, Arshad Quadri, Luca Pesce

Delivery system for vascular implant

Patent number: 9597183

Abstract: A medical treatment system and method of treatment is described having an implant that can be positioned and deployed, then undeployed to allow repositioning of the implant. The system includes a self-expanding medical implant that longitudinally foreshortens upon radially expanding from a radially compacted state, a distal interface configured to attach the implant to a distal mount of a delivery device, and a proximal interface configured to attach the implant to a proximal mount of the delivery device. Moving the distal mount longitudinally away from the proximal mount applies a longitudinal tension to the implant causing the implant to expand longitudinally and contract radially, and moving the distal mount toward the proximal mount reduces a longitudinal tension in the implant allowing the implant to expand radially toward a fully expanded state.

Type: Grant

Filed: November 24, 2014

Date of Patent: March 21, 2017

Assignee: Edwards Lifesciences CardiAQ LLC

Inventors: Arshad Quadri, J. Brent Ratz

Vascular implant

Patent number: 9585747

Abstract: A vascular implant for replacing a native heart valve comprises a self expanding stent supporting a valve body having leaflets. The stent preferably comprises an anchoring structure configured to prevent the implant from passing through the valve annulus. For delivery, the implant is compacted within a delivery device and secured at one end. During delivery the implant is partially released from the delivery device, and positioning of the implant can be verified prior to full release. The implant can be at least partially resheathed and repositioned if desired.

Type: Grant

Filed: June 24, 2014

Date of Patent: March 7, 2017

Assignee: Edwards Lifesciences CardiAQ LLC

Inventors: Arshad Quadri, J. Brent Ratz

STEERABLE DELIVERY SYSTEM FOR REPLACEMENT MITRAL VALVE AND METHODS OF USE

Publication number: 20170056171

Abstract: Devices, systems and methods are described herein to provide improved steerability for delivering a prosthesis to a body location, for example, for delivering a replacement mitral valve to a native mitral valve location. A delivery component can have a plurality of slots that provide for desired bending of the delivery component, particularly compound bending of the delivery component that can facilitate steering of the delivery component in three dimensions.

Type: Application

Filed: August 24, 2016

Publication date: March 2, 2017

Applicant: Edwards Lifesciences CardiAQ LLC

Inventors: Alexander H. Cooper, David Robert Landon, Julio Cesar Sanchez, Glen T. Rabito, J. Brent Ratz, Arshad Quadri, Kevin M. Stewart, Patrick Chow

VASCULAR IMPLANT AND DELIVERY SYSTEM

Publication number: 20170035562

Abstract: A vascular implant for replacing a native heart valve comprises a self expanding stent supporting a valve body having leaflets. The stent preferably comprises an anchoring structure configured to prevent the implant from passing through the valve annulus. For delivery, the implant is compacted within a delivery device and secured at one end. During delivery the implant is partially released from the delivery device, and positioning of the implant can be verified prior to full release. The implant can be at least partially resheathed and repositioned if desired.

Type: Application

Filed: October 7, 2016

Publication date: February 9, 2017

Applicant: Edwards Lifesciences CardiAQ LLC

Inventors: Arshad Quadri, J. Brent Ratz

PERCUTANEOUS HEART VALVE

Publication number: 20170020695

Abstract: A percutaneous heart valve for deployment within a body cavity is described. The percutaneous heart valve includes an expandable frame having a plurality of cells adapted for allowing the frame to expand and collapse. A one-way valve is positioned within the expandable frame. The frame includes a proximal anchoring portion and a distal anchoring portion. The distal anchoring portion includes a plurality of distal anchors, each distal anchor having at least a portion positioned radially outwardly from the frame and extending in a direction that is substantially parallel with a longitudinal axis. The distal anchors preferably bend radially outwardly before bending to extend toward the proximal anchoring portion. Radial expansion of the frame causes the proximal and distal anchoring portions to move closer together for capturing body tissue therebetween, thereby anchoring the percutaneous heart valve to the body tissue.

Type: Application

Filed: October 10, 2016

Publication date: January 26, 2017

Applicant: Edwards Lifesciences CardiAQ LLC

Inventor: Arshad Quadri

Vascular implant

Patent number: 9532869

Abstract: A vascular implant for replacing a native heart valve comprises a self expanding stent supporting a valve body having leaflets. The stent preferably comprises an anchoring structure configured to prevent the implant from passing through the valve annulus. For delivery, the implant is compacted within a delivery device and secured at one end. During delivery the implant is partially released from the delivery device, and positioning of the implant can be verified prior to full release. The implant can be at least partially resheathed and repositioned if desired.

Type: Grant

Filed: June 24, 2014

Date of Patent: January 3, 2017

Assignee: Edwards Lifesciences CardiAQ LLC

Inventors: Arshad Quadri, J. Brent Ratz

<https://patents.justia.com/inventor/arshad-quadri> See Link for the complete list of patents