

CURRICULUM VITAE

Nabil Dib, MD, MSc, FACC

Professor of Medicine, University of Arizona College of Medicine - Phoenix
Director, Cardiovascular Research, Dignity Health
Director, Clinical Cardiovascular Cell Therapy, University of California, San Diego
Founder and President, International Society for Cardiovascular Translational Research (ISCTR)
Founding Editor-in-Chief, Journal of Cardiovascular Translational Research (JCTR)
Founder, Translational Research Institute

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CLINICAL RESEARCH SITE AFFILIATION

Director, Cardiovascular Research, Dignity Health	
Chandler Regional Medical Center	Mercy Gilbert Medical Center
1955 West Frye Road	3555 South Val Vista Drive
Chandler, AZ 85224	Gilbert, AZ 85297

Medical Staff Member
Dignity Health, St. Joseph's Hospital and Medical Center
350 West Thomas Road
Phoenix, AZ 85013

INVENTIONS, PATENTS, REGULATORY APPROVAL

ND[®] Infusion Catheter - 510(k) number: K130569 issued 11/15/13

ND[®] Infusion Catheter CE Mark number: 0050, Registration Number: 252.921 issued 2/12/14

ND[®] Infusion Catheter, Biologics Infusion System, (United States) Patent issue date: 2/11/2014, patent number: US 08647311

ND[®] Infusion Catheter Tip for Biologics, Patent issue date 7/29/14, patent number: US 8,790,298 B2

ND[®] Infusion Catheter, (Canada) patent issue date 10/28/14, Canadian Patent number: CA 2,774,572

ND[®] Infusion Catheter, Biologics Infusion System, (Singapore) patent issue date 10/17/14, Singapore Patent number: 179590

ND[®] Prolate Spheroid-Shaped Balloon, patent application date: 3/7/2014, number US 14/201,495

ND[®] Ultrasound Catheter (System and Method for Visualizing Catheter Placement in Vasculature), Patent issue date: 8/5/2014, Patent number: US 8,798,721

MEDICAL TRAINING

POSTGRADUATE	Investigational Interventional Cardiology Fellowship	
FELLOWSHIP	Harvard Medical School, Beth Israel-Deaconess Medical Center, Boston, MA	1998-1999
	Master of Science in Epidemiology and Research Harvard School of Public Health.	1998-1999
	Interventional Cardiology, Harvard Medical School, Beth Israel-Deaconess Medical Center, Boston, MA.	1997-1998
	General Cardiology, University of Wisconsin, Milwaukee Clinical Campus at Sinai Samaritan Medical Center, Milwaukee, WI	1994-1997
RESIDENCY	Internal Medicine, Tufts University School of Medicine, St. Elizabeth's Hospital, Boston, MA	1992-1994
INTERNSHIP	Internal Medicine, Boston University School of Medicine, Carney Hospital, Boston, MA	1991-1992
	Pediatrics, Albert Einstein School of Medicine, Flushing Medical Center, New York, NY	1990-1991

EDUCATION

MEDICAL	Medical Degree: Damascus University School of Medicine, Damascus, Syria,	1986
Continuing Education:		
CoreValve implantation training,		December 02, 2009
St George's Hospital - University of London, London UK.		
FDA Clinical Investigator Training Course – Maryland		November 13 ~ 15, 2012

LICENSES & CERTIFICATIONS

State of Arizona permanent physician's license: 27731 - *August 1999 - present*
State of California permanent physician's license: C52510 – *September 20, 2006 - Present*
State of Georgia permanent physician's license: 65233 – *October 8, 2010- Present*
State of Wisconsin permanent physician's license: 35741 – *July 1994*
State of Massachusetts permanent physician's license: 78649 – *October 1993*
TOEFL - *1989*
Educational Commission for Foreign Medical Graduate - *1990*
FLEX Exam - *1993*
The American Board of Internal Medicine – *August 24, 1994-December 31, 2004*
The American Board of Internal Medicine -Cardiovascular Disease – *2008-2018*
The American Board of Internal Medicine -Interventional Cardiology– *2009-2019*
California Depart of Health Services Fluoroscopy Operator Permit #165380 *Feb 2007- Present*

PROFESSIONAL EXPERIENCE

ND[®] Infusion Catheter product development through translational research infrastructure

Proctor, NOGA Mapping & Stem Cell Delivery, Biologics Delivery Systems/Cordis Corporation a Johnson & Johnson Company.

Helped training for Interventional Cardiologists from the following institutions:
Baylor University, Duke University, Mayo Clinic Rochester, University of Alabama at Birmingham, Newark Beth Israel Medical Center (Barnabus), University of Iowa Department of Cardiology, Mercy Gilbert Medical Center, St. Joseph's Ventura County, Northwestern Memorial Hospital, Aurora Health Care (St. Luke's), Ochsner Clinic, Temple University Hospital, Bethesda Memorial Hospital, University of Washington, Mayo Clinic Phoenix, St. John's Ventura County, Cardiology Research Associates Florida, Michigan Cardiovascular Institute, University of California San Diego, Board of Regents/University of Wisconsin System, Rush University, New York Presbyterian Hospital, Arizona Heart Institute. *2008 - Present*

Professor of Medicine

Founder and President, International Society for Cardiovascular Translational Research
2007 - Present

Founding Editor-in-Chief, Journal of Cardiovascular Translational Research
2008 - Present

Director, Clinical Cardiovascular Cell Therapy,
Associate Professor of Medicine, University of California, San Diego
February 1, 2007-Present

Director, Cardiovascular Research and New Devices, Dignity Health (formerly Catholic HealthCare West) - Chandler Regional Medical Center, Chandler, Arizona and Mercy Gilbert

Medical Center, Gilbert, Arizona

February 9, 2007-Present

Director, Cardiovascular and Stem Cell Consultants, P.C.

September 2006- February 2010

President, Heart Sciences Center

February 2010 - Present

Adjunct Faculty Member, Arizona State University Bioengineering Department, Phoenix, Arizona

2006 - Present

Director of Interventional Cardiology Research, Arizona Heart Institute, Phoenix, Arizona,

September 1, 1999-August, 2006

Director of Interventional Fellowship Program, Arizona Heart Institute, Phoenix, Arizona,

September 1, 2000-August 2006

President of the International Society of Genomics, Proteomics and Cellular Therapy

February 10, 2006

PROFESSIONAL AFFILIATIONS

International Society for Cardiovascular Translational Research

American College of Cardiology

Massachusetts Medical Society

American College of Physicians

American Heart Association

International Society of Endovascular Intervention

ADVISORY BOARDS

Johnson & Johnson/Cordis

Schering/Berlex

Translational Research Institute

Guilford Pharmaceuticals, Inc.

AngioMax Medicine Group

International Society for Cardiovascular Research

Cardiovascular System Inc. (CSI)

Frontiers on Advising CV Technologies (FACT)

MAJOR RESEARCH INTERESTS

Translational Research and Product Development

Stem Cell Therapy

Method of Delivery of Stem Cells
Interventional Cardiology Devices
Biosense NOGA Mapping and Injection System

INTERVENTIONAL CARDIOLOGY PROFICIENCY

Stent deployment, Doppler FloWire, Pressure wire, Intravascular Ultrasound, Valvuloplasty, Watchman Device Implantation, Rotational Atherectomy, Directional Atherectomy, Beta-Radiation, Novoste, Possis Angiojet, PercuSurge GuardWire System, Angioseal, Perclose, Vasoseal

AWARDS

Golden Thread Award – Catholic Healthcare West (CHW)	2010
Marreel Excellence in Service Award – Catholic Healthcare West Foundation	2010
America’s Top Doctors, Interventional Cardiology	2003
Annual Medical Staff Scientific Award “Detection of Cardiac Thrombi Using Magnetic Resonance Imaging: Clinicopathological Correlation” Tufts University School of Medicine	1994
Medical Scholarship, Damascus University School of Medicine, Damascus, Syria	1985

LANGUAGES

English
Spanish
Arabic

GMP FACILITY ESTABLISHMENT

2009 ~ Current	Developed the model for the concept, construction and implementation of the Celebration Stem Cell Centre umbilical cord blood bank, Gilbert, AZ. Established protocols for cord blood stem cell processing and cryo-preservation according to cGMP standards. Oversee validation process for facility. Oversee all standard operating procedures. Ongoing oversight of FDA biological licensure application.
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RESEARCH EXPERIENCE - CLINICAL

CELL THERAPY*2012-Current*

STEM-103M-STEMI: A Phase IIa, Double-Blinded, Multi-Center, Randomized Study to Assess the Safety, Tolerability, and Preliminary Efficacy of a Single Intravenous Dose of Allogeneic Mesenchymal Bone Marrow Cells to Subjects with ST Segment Elevation Myocardial Infarction (STEMI)

Sponsor: Stemedica Cell Technologies, Inc.

Role: Principal Investigator

2012-Current

iXCELL-DCM (ismyelocel-T cellular therapy) - A Multicenter, Randomized, Double-Blind, Placebo-Controlled, Parallel Group Study to Evaluate the Efficacy, Safety and Tolerability of Transendocardial Injection of Ixmyelocel-T in Subjects with Heart Failure Due to Ischemic Dilated Cardiomyopathy (IDCM); Protocol #: 55-1201-1

Sponsor: Aastrom Biosciences

Role: Principal Investigator

2012-Current

PreSERVE-AMI: A Prospective Randomized Double Blinded Placebo Controlled Phase II Trial of Intra-coronary Infusion of AMR-001, a Bone Marrow Derived Autologous CD34+ Selected Cell Product, in Patients with Acute Myocardial Infarction.

Sponsor: Amorcyte, LLC

Role: Principal Investigator

2012-Current

RENEW - BAXTER-CD-34 A Prospective, Randomized, Double-Blinded, Active-Control and Unblinded Standard of Care (SOC) Controlled Study to Determine the Efficacy and Safety of Targeted Intramyocardial Delivery of Autologous CD34+ Cells (AutoCD34+ Cells) for Increasing Exercise Capacity During Standardized Exercise Testing in Subjects with Refractory Angina Pectoris and Chronic Myocardial Ischemis (CMI)

Sponsor: Baxter Healthcare Corporation

Role: Principal Investigator

2011-Current

STEM-101M: A Phase I/II, Multi-Center, Open-Label Study to Assess the Safety, Tolerability, and Preliminary Efficacy of a Single Intravenous Dose of Allogeneic Mesenchymal Bone Marrow Cells to Subjects with Ischemic Stroke

Sponsor: Stemedica Cell Technologies, Inc.

Role: Principal Investigator

2009

A Phase II, multi-center, randomized, double-blind, placebo-controlled study to evaluate the safety and efficacy of PROCHYMAL® (exvivo cultured adult human mesenchymal stem cells) intravenous infusion following acute myocardial infarction.

Sponsor: Osiris Therapeutics

Role: Principal Investigator

2008-2009

A Phase 1b/2a Dose-escalation Study to Assess the Safety and Feasibility of Transendocardial Delivery of 3 Different Doses of Allogeneic Mesenchymal

Precursor Cells (MPCs) in Subjects with Recent Acute Myocardial Infarction

Sponsor: Angioblast Systems Inc.

Role: Principal Investigator

2006-2007 Single site study to evaluate the safety of Human Adult Bone Marrow derived somatic cells administered by endocardial injection after acute myocardial infarction.

Sponsor: Neuronix

Role: Single Site Principal Investigator

2005-2007 A Phase I, Multicenter, Randomized, Double-Blind, Placebo-Controlled, Dose-Escalation Study to Determine the Safety of Intravenous Ex-vivo Cultured Adult Human Mesenchymal Stem Cells (Provacel™) Following Acute Myocardial Infarction.

Sponsor: Osiris Therapeutics

Role: Principal Investigator

2004-2007 Evaluation of the Safety and Feasibility of Myoblast Transplantation Using the Biosense Mapping and Injection System in Patients With Ischemic Cardiomyopathy.

Sponsor: Mytogen, Inc.

Role: Single site Principal Investigator

2001-2005 Multicenter Clinical Trial to Evaluate the Safety and Feasibility of Myoblast Transplantation During Coronary Bypass Surgery in Patients with Ischemic Cardiomyopathy.

Sponsor: Mytogen, Inc.

Role: National Principal Investigator

GENE THERAPY

2008 Protocol Number: CVBT-CHD07-01 Human Recombinant Fibroblast Growth Factor-1 (FGF-1₁₄₁), for the Treatment of Subjects with Severe Coronary Heart Disease, A Double-blind, Placebo-controlled, Dose-varying Study

Sponsor: Kendle –CardioVascular BioTherapeutics, Inc.

Role: National Principal Investigator

2004 – 2007 Multicenter, Randomized, Double-Blind Study Evaluating pVGI.1 (VEGF2) Delivered Via the Boston Scientific Stiletto Endocardial Direct Injection Catheter in Patients With Stable Class III-IV Angina.

Sponsor: GenVec, Inc.

Role: Principal Investigator

2001 – 2003 A Phase 2, Multicenter Study to Assess the Efficacy and Safety of Ad_{CV}VEGF121.10 Delivered Through Minimally Invasive Surgery in Patients with Sever Angina and No Option for Revascularization.

Sponsor: GenVec, Inc.
Role: Principal Investigator

2002-2003 A Multicenter, Randomized, Double-Blind Study to Assess the Safety and Efficacy of Ad_{GV}VEGF121.10 in Peripheral Arterial Disease Patients with Severe, Disabling Intermittent Claudication.
Sponsor: GenVec, Inc.
Role: Principal Investigator

2001-2003 A Multicenter, Randomized, Double-Blind Pilot Study of the Tolerability and Feasibility of Administering Ad_{GV}VEGF121.10 via the Biosense NOGA Mapping and Injection System in Patients With Advanced Coronary Artery Disease.
Sponsor: GenVec, Inc.
Role: Principal Investigator

2001- Current A Multi-center, Randomized, Double-Blind Study to Evaluate the Efficacy and Safety of Ad5FGF-4 in Patients with Stable Angina.
Sponsor: Schering/Berlex
Role: Principal Investigator

EMBOLIC PROTECTION

2005-Current Assessment of the Medtronic AVE Inceptor Saphenous Vein Graft Filter System (AMETHYST).
Sponsor: Medtronic
Role: Principal Investigator

2004-Current FilterWire EZ™ System Used in Treatment of an Acute Myocardial Infarction for Embolic Protection (FLAME).
Sponsor: Boston Scientific
Role: Principal Investigator

2003 - 2004 Embolic Protection Transluminally with the FilterWire EX Small Device in Saphenous Vein Grafts (BLAZE).
Sponsor: Boston Scientific
Role: Principal Investigator

2001-2002 FilterWire During Transluminal Intervention of Saphenous Vein Grafts (FIRE).
Sponsor: Boston Scientific
Role: Principal Investigator

CORONARY PHYSIOLOGY

- 2013-Current* ADVISE II: Adenosine Vasodilator Independent Stenosis Evaluation:
Protocol PFC-001
Sponsor: Volcano Corporation
Role: Sub-Investigator
- 2011-Current* COLOR Chemometric Observations of Lipid Core Containing Plaques of
Interest in Native Coronary Arteries Registry
Sponsor: InfraRedX, Inc.
Role: Principal Investigator
- 2003-2004* Phase I and Phase II Studies Using SPECT Imaging and Coronary
Flow Reserve to Compare BMS068045 and Adenosine.
Sponsor: Bristol-Myers Squibb
Role: Principal Investigator
- 2002-2004* Assessment of Coronary Flow to Compare Adenosine and
Adenosine Derivatives.
Sponsor: Medco
Role: Principal Investigator
- 2001-2003* Interventional Physiology Assessment of Renal Artery Stenosis. Sponsor:
Department of Interventional Research, Arizona Heart Institute.
Role: Single Site Principal Investigator
- 2000-2002* Invasive Assessment of Renal Artery Stenosis.
Sponsor: RADI
Role: Principal Investigator
- 2000-2002* Multicenter Trial to Predict Graft Occlusion using the Pressure Wire.
Sponsor: Based in the Netherlands
Role: Principal Investigator
- 2000-2001* Invasive Assessment of Ischemia and Coronary Blood Flow Before and
After Transmyocardial Laser Revascularization Using the Biosense NOGA
Mapping System and Doppler FloWire.
Sponsor: Department of Interventional Research, Arizona Heart
Institute.
Role: Single Site Principal Investigator
- 2000-2001* Multicenter Study to Compare Fractional Flow Reserve to Intravascular
Ultrasound Guidance for Optimal Stent Deployment (FUSION).
Role: Principal Investigator

1998-1999 FFR or RFVR Evaluation of Coronary Artery Stenosis vs Thallium (FORCAST)
Sponsor: Harvard Medical School, Beth Israel Deaconess Medical Center
Role: Interventional Cardiology Research Fellow under David Cohen, M.D. and Donald Baim, M.D.

1997-1998 Assessment of Coronary Artery Disease by Intravascular Ultrasound and Intracoronary Doppler FloWire.
Sponsor: Harvard Medical School, Beth Israel Deaconess Medical Center
Role: Interventional Cardiology Research Fellow and first author under David Cohen, M.D. and Donald Baim, M.D.

HEART FAILURE

2008-2010 Double-Blind, Placebo-Controlled Multicenter Acute Study of Clinical Effectiveness of Nesiritide in Subjects With Decompensated Heart Failure – ASCEND-HF, Protocol # A 093 JNJ-27410084 (nesiritide)
Sponsor: Scios, Inc. /Johnson & Johnson Pharmaceutical Research and Development, LLC
Role: Sub-Investigator

INTERVENTION

2013-Current ABSORB III: A Clinical Evaluation of Absorb™ BVS, the Everolimus Eluting Bioresorbable Vascular Scaffold in the Treatment of Subjects with *de novo* Native Coronary Artery Lesions
Sponsor: Abbott Vascular
Role: Principal Investigator

2013-Current COMPLETE: A Randomized, Comparative Effectiveness Study of Complete Versus Culprit-only Revascularization Strategies to Treat Multi-vessel Disease After Primary PCI for STEMI
Sponsor: Population Health Research Institute, Canada
Role: Principal Investigator

2013-Current CAP2: Continued Access to PREVAIL
Sponsor: Atritech, Inc, A Subsidiary of Boston Scientific
Role: Principal Investigator

2012-Current EXCEL: Evaluation of XIENCE PRIME or XIENCE V versus Coronary Artery Bypass Surgery for Effectiveness of Left Main Revascularization.
Sponsor: Abbott Vascular
Role: Principal Investigator

2011-Current PREVAIL: Prospective Randomized Evaluation of the WATCHMAN LAA Closure Device in Patients with Atrial Fibrillation Versus Long Term Warfarin Therapy - Protocol Number: CT1004
Sponsor: Atritech, Inc, A Subsidiary of Boston Scientific
Role: Principal Investigator

- 2010-Current* MOBILITY: A Prospective, Non-Randomized, Two-Arm, Multi-Center, Clinical Trial to Evaluate the Safety and Efficacy of the Absolute Pro peripheral Self-Expanding Stent System and the Omnilink Elite Peripheral Balloon-Expandable Stent System in Subjects with Atherosclerotic De Novo or Restenotic Lesions in the Native Common Iliac Artery and/or Native External Iliac Artery
Sponsor: Abbott Vascular, Inc.
Role: Sub-investigator
- 2010-Current* The DAPT Study: A prospective, multi-center, randomized, double-blind trial to assess the effectiveness and safety of 12 versus 30 months of dual antiplatelet therapy (DAPT) in subjects undergoing percutaneous coronary intervention (PCI) with either drug-eluting stent (DES) or bare metal stent (BMS) placement for the treatment of coronary artery lesions.
Sponsor: Harvard Clinical Research Institute
Role: Principal Investigator
- 2008-2011* PROTECT II: A prospective, multi-center, randomized controlled trial of the IMPELLA RECOVER LP 2.5 System vs Intra Aortic Balloon Pump (IABP) in Patients Undergoing Non-Emergent High Risk PCI
IDE Number: G050017
Sponsor: ABIOMED
Role: Principal Investigator
- 2008-Current* CORAL: Cardiovascular Outcomes in Renal Atherosclerotic Lesions Randomized and Multi-Center Two-Group Clinical Trial to Assess the Best Treatment for Patients with High Blood Pressure and Renal Artery Stenosis: Stenting with Anti-Hypertensive Medical Therapy, Compared to Medical Therapy Alone – Cardiovascular Outcomes in Renal Atherosclerotic Lesions.
Role: Sub-Investigator
Sponsor: Cordis Corporation
- 2008-Current* Future Revascularization Evaluation in Patients with Diabetes Mellitus: Optimal Management of Multivessel Disease – FREEDOM Trial
IDE Number: G040164

Sponsor: National Heart, Lung and Blood Institute (NHLBI) · Eli Lilly, Boston Scientific, Cordis Corporation, Bristol-Myers Squibb/Sanofi Aventis
Role: Principal Investigator
- 2004- 2007* Multicenter, Randomized, Double-Blind Trial to Assess TAXUS Paclitaxel-Eluting Coronary Stents, Slow-Release Formulation in the Treatment of High Risk De Novo Coronary Lesions (TAXUS).
Sponsor: Boston Scientific
Role: Sub-investigator

- 2003-2005* Angiojet Rheolytic Thrombectomy in Patients Undergoing Primary Angioplasty for Acute Myocardial Infarction (AIMI)
Sponsor: Possis
Role: Principal Investigator
- 2003-2004* Multicenter Randomized, Double-Blind, Study of the Efficacy and Safety of the ACAT Inhibitor CS-505 for Reducing the Progression of Atherosclerosis in Subjects with Coronary Artery Disease Using the Intravascular Ultrasound (ACTIVATE)
Role: Sub-investigator
- 2002-2006* Randomized Trial Evaluating the Symbiot III Covered Stent System in Saphenous Vein Grafts (SYMBIOT)
Sponsor: Boston Scientific
Role: Sub-Investigator
- 2001* Multi-center Trial to Assess Acolysis During Treatment of Lesions Affecting Saphenous Vein Bypass
Role: Principal Investigator
- 1998-1999* Quantitative Coronary Angiography Core Laboratory
Sponsor: Chiron
Role: Interventional Cardiology Research Fellow under Jeffrey Popma
- 1998-1999* Effect of Peri-procedural Non-Q Wave Myocardial Infarction on Late Mortality: 3-Year Follow-Up From the Balloon Angioplasty vs. Optimal Atherectomy Trial (BOAT)
Sponsor: Guidant DVI
Role: Interventional Cardiology Fellow and first author under Richard Kuntz, M.D., Cardiac Data Analysis Center, Boston, MA

PHARMACOLOGY

- 2013-2014* REGULATE-PCI:
Sponsor: Regado Biosciences
Role: Principal Investigator
- 2011-2014* TRANSLATE-ACS: Treatment with ADP receptor inhibitorS: Longitudinal Assessment of Treatment Patterns and Events after Acute Coronary Syndrome Registry
Sponsor: Eli Lilly and Company
Role: Sub-Investigator
- 2008-2011* TRACER: A Multi-center, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Safety and Efficacy of SCH530348 in Addition to Standard of Care in Subjects With Acute Coronary Syndrome: Thrombin Receptor Antagonist for Clinical Event Reduction in Acute Coronary

Syndrome
Sponsor: Schering-Plough Research Institute, A Division of Schering Corporation
Role: Principal Investigator

VIRTUAL HISTOLOGY

2004-2005 Intravascular Ultrasound Based Technology for Diagnosing Coronary Artery Vessel Geography and Plaque Morphology
Sponsor: Volcano Therapeutics, Inc.
Role: Principal Investigator

IMAGING

2012- 2014 PROMISE PROspective Multicenter Imaging Study for Evaluation of Chest Pain
Sponsor: National Heart Lung and Blood Institute (NHLBI)
Role: Sub-Investigator

2010-2012 PICTURE Physicians International CCTA Utilization Registry
Sponsor: MDDX
Role: Sub-Investigator

2011-2012 GE-145 A Phase 2, Double-Blind, Randomized, Safety Study of GE-145 320 mg-I/mL Injection Versus Iopamidol 370 mg-I/mL in High Risk Subjects Undergoing Coronary Artery Catheterization Procedure
Sponsor: GE Healthcare Ltd. and its Affiliates
Role: Principal Investigator

RESEARCH EXPERIENCE - PRECLINICAL

2012 A study to determine and validate the ND infusion catheter's functional performance and safety using an *in vivo* swine model
Sponsor: TRI
Role: Principal Investigator

2010- 2011 Safety and efficacy of injectable extracellular matrix hydrogel in treating myocardial infarction.
Sponsor: Ventrix, Inc.
Role: Investigator

2005 Study to Evaluate the Safety of Allogeneic Adult Derived Bone Marrow Somatic Cells (ABMSCs) to Naïve Pigs
Sponsor: Neuronyx

Role: Principal Investigator

- 2004* Feasibility and Safety of Autologous Skeletal Myoblast Transplantation in the Coil-Infarcted Swine Myocardium Using the Biosense NOGA Mapping and Injection System
Sponsor: Cordis Corporation and Mytogen, Inc.
Role: Principal Investigator
- 2003* Biodistribution and Bioretention of Autologous Skeletal Myoblasts in the Coil-Infarcted Swine Myocardium
Sponsor: Cordis Corporation and Mytogen, Inc.
Role: Principal Investigator
- 2002* Biocompatibility testing of Skeletal Myoblasts and the Biosense Myostar Needle Injection Catheter
Sponsor: Cordis Corporation and Mytogen, Inc.
Role: Principal Investigator
- 2000-2001* Endomyocardial Injection of Skeletal Myoblasts in the Porcine Model
Sponsor: Doris Taylor, PhD, Duke University
Role: Principal Investigator
- 1998-1999* Validation of the Biosense Needle Injection System in the Swine Model.
Sponsor: Thomas Precopia, Vice President, Biosense Webster.

LIVE CASES

Telecast Live Cases to the International Congress on Endovascular Intervention, Phoenix, AZ. Coronary and Renal Intervention with Interventional Physiology Assessment Using the Doppler FloWire and Pressure Wire Before and After Intervention. February 14-16, 2000.

Telecast Live Case, TCT Angiojet in Management of Acute Myocardial Infarction, Washington, DC, October 20, 2000.

Telecast Live Case to International Congress on Endovascular Intervention, Muscle Cell Transplantation in Infarct Pig Model Using the Biosense/NOGA Injection Catheter. Phoenix, AZ, February 12, 2001.

Telecast Live Case to International Congress on Endovascular Intervention, Muscle Cell Transplantation in Infarct Pig Model Using the BioHeart Injection Catheter. Phoenix, AZ, February 12, 2001.

Telecast Live Case to International Congress on Endovascular Intervention, Coiling of Branch from the Left Internal Mammary Artery Causing Stenosis Measured by Doppler FloWire and Intravascular Ultrasound. Phoenix, AZ. February 13, 2001.

Telecast Live Case to the International Congress on Endovascular Intervention, Isolation of Left Anterior Descending Artery Aneurysms, Using the Jomed Coronary Stent Graft. Phoenix, AZ, February 14, 2001.

Telecast Live Case to the International Congress on Endovascular Intervention, Percutaneous Transplantation of Allogenic Skeletal Myoblast in Porcine Model of Myocardial Infarction Using The Biosense NOGA™ System, Phoenix, AZ, February 14, 2001.

Telecast Live Case to the International Congress on Endovascular Intervention, Physiological Assessment of Intermediate Renal Artery Stenosis Using the Radi Pressure Wire. Phoenix, AZ. February 14, 2001.

Live Case to the International Congress on Endovascular Intervention, Measurement of Abdominal Aortic Aneurysm Sac Pressure After Endoluminal Graft Placement Using the Wave Wire, Phoenix, AZ, February 14, 2001.

Telecast Live Case to the International Congress on Endovascular Intervention, One-Year Follow Up of Left Anterior Descending Artery Aneurysm Isolation Using PTFE Graft Stent (Angiography and IVUS) Phoenix, AZ, February 15, 2001.

Live Case Presentation. Boston Scientific/EPI Filterwire Randomized Trial Regional Training, Phoenix, AZ, January 26, 2002.

Live Case presentation to the International Congress on Endovascular Intervention, Jomed Jostent® Placement in a Saphenous Vein Graft, Phoenix, AZ, February 11, 2002.

Live Case presentation to the International Congress on Endovascular Intervention, Autologous Myoblast Transplantation for Treatment of Infarcted Myocardium During Coronary Artery Bypass Graft Surgery, Phoenix, AZ, February 13, 2002.

Live case presentation to the International Congress on Endovascular Intervention, Coiling left internal mammary artery-pulmonary vasculature fistula, Phoenix, AZ, February 11, 2003.

Discussant for live cases for TCT Presentation, “Three Year Follow-up of Autologous Skeletal Myoblast” Presentation, “Transplantation for Ischemic Cardiomyopathy: U.S. Experience” ComboMap™ Pressure and Doppler Flow Case presentation,” The Use of Filter Wire in Challenging SVG” Washington, DC, September 26-30, 2004.

First US Case on Catheter Based Delivery Myoblast Transplantation Using 3-Dimensional Guidance (NOGA mapping, Cordis), Phoenix, AZ, November 30, 2004.

Live case presentation to the International Congress on Endovascular Intervention, “Virtual Histology and Fractional Flow Reserve,” Phoenix, AZ, February 16, 2005.

Live case presentation to the International Society of Genomics, Proteomics, and Cellular Therapy, Corautus VEGF2 GENASIS Trial Endocardial Injection pVGL1 (VEGF2) Gene Therapy, February 11, 2006.

Case presentation “Autologous Skeletal Myoblast Transplantation,” Genomics, Proteomics, and Cellular Therapy, February 11, 2006

Case Presentation, Bone Marrow Derived Stem Cell Therapy, Genomics, Proteomics, and Cellular Therapy, February 11, 2006.

INVITED SPEAKER REGIONAL, NATIONAL AND INTERNATIONAL

“Cardiovascular Translational Research: ACC/ISCTR Mission”. Anna and Harry Borun Visiting Professor, UCLA Division of Cardiology. Los Angeles, California. January 2013.

Unsolved Problems in Heart Repair. “What preclinical data should be necessary to obtain prior to the initiation of clinical studies? Should the required preclinical information be the same for cell-based therapies than for cell-free therapies?” “Criteria for patient selection. Does it depend on the cells used and/or the mode of administration?” Barcelona, Spain. November 2012.

“A New Device for Intracoronary Infusion” Strategies for Cardiovascular Repair: Stem Cells and Beyond. Poster Abstract Discussant. TCT 2012 - Miami, Florida. October 2012.

Innovations in Cardiovascular Research “Translational Cardiovascular Research”. 6th Annual Bakken Device Symposium. University of Minnesota. October 2012.

“ACC/ISCTR: Cardiovascular Translational Research; Methods of Delivery: Biologics for Cardiac Regeneration; Update in Cardiovascular Stem Cell Therapy: Current Status and Future Direction”. Aurora Health Care, July 2012.

“New Catheter, Methods of Delivery”. 9th Stem Cell Therapy & CV Innovations. Madrid, Spain. June 6 ~ 11, 2012.

“Stem Cell Therapy and Tissue Engineering: Steps in Cardiovascular Translational Research”. Imperial College London (South Kensington). April 27, 2012.

“Ischemia & Toxicity Tolerant Allogeneic Mesenchymal Stem Cells (itMSCs) in Cardiology”. Stemedica International Meeting, Switzerland. April 24 & 25, 2012.

“Allogenic Cells for Chronic Left Ventricular Dysfunction: The US Experience and Beyond.” San Francisco, TCT November 6 ~ 11, 2011.

“Stem Cell Therapy for Cardiovascular Disease” Cardiomyocyte Regeneration & Protection , La Jolla, CA, June 20 & 21, 2011.

“Cardiovascular Translational Research in Stem Cell Therapy. The Vision of Scientific Organizations.” 8th International Symposium on Stem Cell Therapy & Cardiovascular Innovations, Madrid Spain, June 9 & 10, 2011.

“Update on Stem Cell Therapy for Cardiovascular Disease”, “Cardiovascular Translational Research: From Bench to Bedside”, University of Ottawa Heart Institute, Ottawa, Ontario, Canada, May 2011.

“ISCTR/ACC’s Mission in Cardiovascular Translational Research”, ACC.11, New Orleans, April 2011.

“Frontiers on Advising CV Technologies (FACT)”, Paris, France, October 2010

“Endocardial Delivery of Allogeneic Mesenchymal Cells”, TCT, Washington, DC, September 2010

“The ACC-ISCTR Mission in Translational Research”, European Society of Cardiology, Stockholm, Sweden August 2010

“Delivery, Homing & Survival (What’s New in Stem Cell Therapy & CV Innovation)”; Late Breaking Clinical Trials in Stem Cell Therapy: “First US Study to Assess the Feasibility and Safety of Endocardial Delivery of Allogeneic Mesenchymal Cells in Subjects with Heart Failure” 7th International Symposium on Stem Cell Therapy & Cardiovascular Innovations, Madrid, Spain May 2010

“End Stage Patient with Dilated Ischemic Cardiomyopathy: Cell Based Approaches” ACC.10 Atlanta, Georgia, March 2010

“First US Study to Assess the Feasibility and Safety of Endocardial Delivery of Allogenic Mesenchymal Precursor Cells in Patient with Heart Failure: 3 Month Interim Analysis” AHA Scientific Sessions, November 2009

“Strategies for Cardiovascular Repair: Stem Cell Therapy & Beyond” TCT 2009, September 2009

“Stem Cell Therapy: Pathway of Translational Cardiovascular Disease”, “Stem Cell Therapy in Congestive Heart Failure” East Meets West Cardiology Meeting, Thailand, August 2009

“State of the Art in Cardiac Cell Therapy” 18th Interventional Cardiology Symposium/Montreal Canada, June 2009

“i2 Complex Patients II: End Stage Refractory Ischemia, Cell Therapy, Angiogenesis” ACC ’09 - I2 Summit March 2009

“Developments in Transcatheter Trials”, MPCs for Congestive Heart Failure: Preliminary Observations” 5th Annual International Conference of Cell Therapy, January 2009

“Stem Cell Therapy for Cardiovascular Disease” University of San Diego Grand Rounds, November 2008

“BDS NOGA XP Cardiac Navigation System Electromagnetic Guidance for Catheter Based Transendocardial Injection” Johnson & Johnson, November 2008

“The Grupo Angeles Congress”, “Role Stem Cells & Their Role in Medicine’s Future” Stemedica/Mexico City, October 2008

“Molecular Cardiology Breakthroughs: Cell Therapy & Angiogenesis” Angioblast/Washington, DC, October 2008

“NOGA Maps & Injections. What it takes to make a “good map” or “The do’s and don’ts.” Cordis/Munich, Germany, September 2008

“On Routes of Administration”, “I have a question for you Mr. Expert” 5th Symposium on Stem Cell Therapy and Applied Cardiovascular biology

Madrid, Spain, April 2008

“TV. Live Cases Live Case Transmission Session IX: Monash”, Panelist &
“SEISMIC Trial” Commentator
SCAI-ACCi2 2008 Chicago, IL, March 2008

“Stem Cell Therapy for the Treatment of Cardiovascular Disease”
5th Annual Regenerative Medicine Organization (RMO), Las Vegas, February 2008

“Review of the Randomized Trials Using Skeletal Myoblasts: The Genzyme Experience”
Cardiovascular Revascularization Therapies (CRT 2008), Washington DC, February 2008

“Cardiovascular Translational Research: From Bench to Bedside” & Director for Symposium
1st Annual Symposium, International Society for Cardiovascular Translational Research (ISCTR),
San Diego, CA, February 2008

“The Catheter-based Delivery of Autologous Skeletal Myoblasts in Ischemic Cardiomyopathy
(CAuSMIC) Study : Functional Results”
Fourth Annual International Conference on Cell Therapy for Cardiovascular Disease, New York,
NY, January 2008

Invited Speaker

Third International Summit with the Experts, Puerto Rico, November 2007

“Final One-Year Results of the CAUSMIC Trial” – Interview
ACCEL, Orlando, FL, November 2007

“Safety and Feasibility of Percutaneous Autologous Skeletal Myoblast Transplantation for Ischemic
Cardiomyopathy: One-Year Results of the CAUSMIC Trial” and Panelist for “No Holds Barred”
Transcatheter Cardiovascular Therapeutics (TCT), Washington DC, October, 2007

Invited Speaker: 2007 Joint Conference, Minneapolis, MN, September 2007

“Physiological Assessment of Coronary Artery Disease,” and “Stem Cell Implant in Heart Failure,”
Cardiac Diseases: Challenges of the Future, Riyadh, Saudi Arabia, May 2007

“Cell Therapy for Cardiovascular Disease,”
SCAI’s 30th Annual Scientific Sessions, Orlando, FL, May 2007

“Myoblast in the Clinical Scenario. Is the USA experience different?”
4th International Symposium, Stem Cell Therapy and Applied Cardiovascular Biology, Madrid, Spain,
April 2007

“First United States Randomized Controlled Trial Utilizing 3-Dimensional Guided, Catheter-Based
Delivery of Autologous Skeletal Myoblasts for Ischemic Cardiomyopathy: Feasibility, Safety and
Improvement in Cardiac Performance,”
Late Breaking Clinical Trials, American College of Cardiology 56th Annual Scientific Session i2
Summit 2007: Innovation in Intervention, New Orleans, LA, March 2007

“Stem Cell Therapy- Methods of Delivery,”
AABB Cellular Therapy Conference, San Diego, CA, March, 2007

“Recent Progress in Gene Therapy (Including HGF-Gene Therapy) and Cell Regeneration,”
9th JCC-ACC Joint Symposium, Kagoshima, Japan 2006

“Electromechanical Guiding for Intramyocardial Transplantation of Myoblasts to Treat Left Ventricular Dysfunction,”
Workshop and Preclinical Session Chair for the 3rd International Symposium on Gene & Stem Cell Therapy, Valladolid, Spain 2006

“Clinical Experiences: An Overview of the Results and Status of Cell Therapy Clinical Trials for Myogenesis,”
CRT 2006

“Stem Cells: Application in Clinical Practice,”
Federation of American Societies for Experimental Biology 2006

“Four-Year Follow-Up of the Feasibility and Safety of Autologous Myoblast Transplantation for Ischemic Cardiomyopathy in Patients Undergoing Coronary Artery Bypass Grafting,”
Vascular Biology Working Group US Chapter Meeting 2006

“Interventional Approaches for Angiogenesis and Myogenesis,”
Panelist I2 Summit 2006

“Stems Cells in Acute MI,”
Chair ACC 2006

“Myoblast Transplantation: Lessons Learned From the Clinical Trials,”
Genomics, Proteomics and Cellular Therapy Symposium 2006

“Autologous Skeletal Myoblast Transplantation in CABG: 4-Year Follow-Up,”
2nd International Conference on Cell Therapy for Cardiovascular Diseases 2006

“Stem Cell Therapy for Myocardial Infarction and Heart Failure,”
Symposium on the Advancement of Acute Coronary Syndrome Evaluation and Strategy, Beijing, China 2005

“Stem Cell Therapy for Myocardial Regeneration: Steps in Translational Research,”
Busan Interventional Meeting, Busan, Korea 2006

“Cell Therapy for Chronic Heart Failure: Skeletal Myoblasts,” and “Xenogenic and Allogeneic Adult Bone Marrow-Derived Stem Cell Transplantation in a Porcine Model of Myocardial Infarction Using 3-Dimensional NOGATM Guidance,”
TCT 2005

“Stem Cell Transplantation for the Treatment of Myocardial Infarction and Congestive Heart Failure,”
5th Annual Somatic Cell Therapy Symposium 2005

“Stem Cell Therapy for the Treatment of Myocardial Infarction and Congestive Heart Failure,”
Mayo Clinic, University of San Diego, Blue Cross Blue Shield, Syrian American Medical Society
2005

“Myoblast Transplantation Comes of Age-From Bench to Bedside and into Asia, The Final Results
of the First U.S. Multi-Center Clinical Trial of Myoblast Transplantation,”
Davos, Switzerland 2005

“Stem Cell Therapy for the Treatment of Heart Disease, Myoblast Therapy for Cardiac Repair: Steps
in Translational Research”
Texas Heart Institute, 2nd International Symposium Gene and Stem Cell Therapy for Heart Failure,
Valladolid, Spain 2005

“Three-Year Follow-Up of the Feasibility and Safety of Autologous Myoblast Transplantation for
Ischemic Cardiomyopathy in Patients Undergoing Coronary Artery Bypass Grafting,”
Late Breaking Clinical Trial Sessions ACC 2005

Director of Program,
International Congress of Endovascular Intervention, 2001, 2002, 2003, 2004, 2005

Training Site for Boston Scientific, FilterWire and Stilleto Catheter (angiogenic gene delivery) 2005

“Two-Year Follow-Up of the Feasibility and Safety of Autologous Myoblast Transplantation for
Ischemic Cardiomyopathy in patients Undergoing Coronary Artery Bypass Grafting,”
AHA Scientific Sessions 2004

“The Long Term Feasibility and Safety of Patients with Ischemic Cardiomyopathy Undergoing
Bypass Grafting,”
Late Breaking Clinical Trial Session ACC 2004

“Myoblast Transplantation in Patients Undergoing Coronary Bypass Surgery,”
World Congress on Heart Failure 2003

“First U.S. Experiment with Skeletal Myoblast Transplantation,”
TCT 2003

“Myoblast Cell Transplantation: Surgical and Percutaneous Delivery,”
Japanese Society for Regenerative Medicine 2003

“Safety and Feasibility of Autologous Myoblast Transplantation in Patients with Ischemic
Cardiomyopathy: Interim Results from the U.S. Experience,”
AHA 2002

“Physiologic Lesion Assessment in Complex Patients, Multi-lesion and Multi-vessel Disease, AMI
and More, Induction of Hyperemia and Other Tips and Tricks, Insights and Guidance From IVUS
and Physiologic Lesion Assessment,”
TCT 2002

“Experimental Findings and Initial U.S. Clinical Experience after Intra-Operative and Transendocardial Skeletal Myoblast Transplantation in Ischemic Cardiomyopathy,”
TCT 2002

“Mechanisms and Management of Myoblast Cell Transplantation to Repair Myocardial Infarction, Percutaneous and Surgical Delivery,”
8th World Congress on Heart Failure 2002

“Percutaneous Transplantation of Skeletal Myoblasts in a Porcine Model of Myocardial Infarction Using the Biosense NOGA™ Endoventricular Mapping and Injection System,”
Nice, France, Cardiostem 2002

“Invasive Assessment of Renal Artery Stenosis Using the Pressure Wire,”
Paris, France, EURO PCR 2002

“AD_{GV}VEGF_{121.10} vs. Placebo in Patients with Advanced Coronary Artery Disease, Angiojet in Management of Acute Myocardial Infarction and Post-procedure Doppler FloWire Assessment, FilterWire Distal Protection Device During Transluminal Intervention of Saphenous Vein Grafts, Assessment of Left Main Artery Stenosis Using the Pressure Wire Evaluation of Fractional Flow Reserve and Intravascular Ultrasound,” – Case Presentations
International Society of Endovascular Intervention, 2002

“Intravascular Ultrasound, Doppler FloWire and Pressure Wire Applications Training Course,”
Instructor 2001

“The Effect of Peri-Procedural Non-Q Wave MI on Late Mortality: 3-Year Follow-Up From the Balloon Angioplasty vs. Optimal Atherectomy Trial (BOAT),”
AHA Scientific Sessions 1999

“Amniotic Fluid Embolism and Left Ventricular Dysfunction,”
2nd International Congress on Coronary Artery Disease From Prevention to Intervention, Florence, Italy 1998

“Amniotic Fluid Embolism and Left Ventricular Dysfunction,”
Heart Failure Symposium 1997

“Validation of Doppler FloWire in Measuring Coronary Flow Reserve in Humans; International Cardiology Conference”
Tel Aviv, Israel 1997

EDITORIAL CONSULTANT

Catheterization and Cardiovascular Diagnosis Journal, 1996-Present

Cell Transplant Journal, 2003-Present

The Journal of Endovascular Therapy, 2001-Present

American Heart Hospital Journal, 2005-Present

Journal of Cardiovascular Translational Research, Founding Editor & Chief 2007-
Present

MANUSCRIPT REVIEWER

*JACC*050911-1981 "Tissue Engineering for the Treatment of Cardiovascular Disease",
October 2011

Cytotherapy, Manuscript ID CYTH-2011-0128 entitled "Improving Cell Survival with Cell and
Cardiac Preconditioning", August 2011.

12.11 Summit - Abstract Reviewer, November 2010

Journal of Cardiovascular Translational Research #JCAT-249 "Direct left atrial pressure
monitoring in severe heart failure: long-term sensor performance" by Richard W Troughton,
MBChB; Ph.D; Jay Ritzema, BM, MRCP, PhD; Neal Eigler, MD; Iain Melton, MBChB;
Henry Krum, MBBS, PhD; Philip Adamson, MD; Saibal Kar, MD; Prediman Shah, MD;
James Whiting, PhD; J. Thomas Heywood, MD; Spencer Rosero, MD; Jagmeet Singh, MD;
Leslie Saxon, MD; Ray Matthews, MD; Ian Crozier, MD; William T. Abraham, MD for the
HOMEOSTASIS Investigators. August 2010

Journal of Cardiovascular Translational Research " SDF-1 Enhanced Cardiogenesis Requires
CXCR4 Induction in Pluripotent Stem Cells". Anca Chiriac, M.D.; Andre Terzic, M.D.,
Ph.D.; Sungjo Park, Ph.D.; Yasuhiro Ikeda, D.V.M., Ph.D.; Randolph Faustino, Ph.D.;
Timothy Nelson, MD, PhD. August 2010

JACC #043010-1909D "Intramyocardial injection of autologous cardiospheres or
cardiosphere-derived cells preserves function and minimizes adverse ventricular remodeling
in pigs with heart failure post-myocardial infarction" by Eduardo Marban, Shuo-Tsan Lee,
Anthony White, Satoshi Matsushita, Konstantinos Malliaras, Charles Steenbergen, Yiqiang
Zhang, Tao-Sheng Li, John Terrovitis, Sinan Simsir, and Raj Makkar. May 2010

JACC #110409-5247 "Vendor Independent, MRI and X-ray Fluoroscopic Merge for
Precisely Targeted Transendocardial Cell Therapy" by Amish Raval, Michael Tomkowiak,
Andrew Klein, Karl Vigen, Timothy Hacker, Michael Speidel, and Michael Vanlysel. January
2010

JACC #102709-5095 "Direct Intramyocardial Injection of Autologous Cardiosphere-
Derived Cells is Safe and Improves Ejection Fraction, Regional Function and Contractility in
a Porcine Model of Ischemic Cardiomyopathy" by Eduardo Marbán, Shuo-Tsan Lee,
Anthony White, Satoshi Matsushita, Konstantinos Malliaras, Charles Steenbergen, Zhang
Yiqiang, Tao-Sheng Li, Ioannis Terrovitis, Sinan Simsir, and Raj Makkar. November 2009.

JACC #102208-3535 "Endothelial Progenitor Cells May Inhibit Apoptosis of Pulmonary
Microvascular Endothelial Cells: New Insight into Cells Therapy for Pulmonary Arterial
Hypertension" by Xing-xiang wang, Liang Xia, Jin-xiu Yang, Furong Zhang, Qian-min Tao,
jianhua zhu, JunZhu Chen, and You-yang Zhao

Cell Therapy Journal: Bone Marrow Transplantation for Patients Undergoing Cell Transplantation
Myoblast Transplantation

Catheter Based Cell Transplantation

Circulation: Tissue Cardiomyoplasty for Ischemic Myocardium

Circulation: Autologous Transplantation of CSF-1 Transected Myoblasts into Rat Myocardium Attenuates Ischemia-Induced Heart Failure

Circulation: Different Effects of Atenolol and Nebivolol on Coronary Flow Reserve

Journal of the American College of Cardiology: Intramyocardial Injection of Autologous Bone Marrow-Derived Mononuclear Cells in Patients with Severe Angina Pectoris and Stress-Induced Ischemia

American Heart Hospital Journal: Cell Sources for Cardiac Regeneration Which Cells and Why?

Circulation: A Randomized Controlled Clinical Trial of Autologous Bone-Marrow Transplantation by Direct Intramyocardial Injection for Myocardial Regeneration

REVIEWER

Reviewer: Translational Research-092011-014 - ACCF Research Awards "Vascular response of the segments adjacent to the stent edges following implantation of polymeric or metallic devices as assessed with advanced imaging modalities." November 2011

Reviewer: Cytotherapy - Manuscript ID CYTH-2011-0128 "Improving Cell Survival with Cell and Cardiac Preconditioning." 04-Aug-2011

TCT 2011 Abstract Reviewer

Future Cardiology - Stem Cells in Cardiac Repair: A Review-September 2010

American College of Cardiology Abstract reviewer (22) for 2010

Contributor for reviewing and writing questions for the American Board of Internal Medicine, Cardiovascular Disease Section

International Academy of Cardiology 8th World Congress on Heart Failure – Mechanisms and Management, Washington, DC, July 13-16, 2002

A *Star Biomedical Research Council (BRMC) – Grant

Contributor for reviewing and grading abstracts for the American Heart Association

Scientific Sessions June 2008

Contributor for reviewing and grading abstracts for American College of Cardiology 2009
November 2008

BOOKS AND BOOK CHAPTERS

Dib N, Taylor D, Diethrich E.
Stem Cell Therapy and Tissue Engineering for Cardiovascular
Repair: From Basic Research to Clinical Applications. September 2005

Dinsmore J, **Dib N**.
Myocardial Regeneration Via Myoblast Transplantation. Braunwald's Heart Disease: A Textbook of
Cardiovascular Medicine edition 2006

Crawford M, Sharma S, Kini A, Alfonso C, Cohen S, Collins, S, Cubeddu R, Del Furia F, Del Valle-
Fernandez R, **Dib N**, DeMario C, Dinsmore J, Falcao E, Flores A..
Advanced Applied Interventional Cardiology. February 2010

MANUSCRIPTS PUBLISHED IN PEER-REVIEWED JOURNALS

Seif-Naraghi SB, Singelyn JM, Salvatore MA, Osborn KG, Wang JJ, Sampat U, Kwan OL,
Strachan GM, Wong J, Schup-Magoffin PJ, Braden RL, Bartels K, Dequach JA, Preul M, Kinsey
AM, Demaria AN, **Dib N**, Christman KL. Safety and efficacy of an injectable extracellular
matrix hydrogel for treating myocardial infarction. *Science Translational Medicine*. 2013
February 20;5(173):173ra25.

Farkouh ME, Domanski M, Sleeper LA, Siami FS, Dangas G, Mack M, Yang M, Cohen DJ,
Rosenberg Y, Solomon SD, Desai AS, Gersh BJ, Magnuson EA, Lansky A, Boineau R,
Weinberger J, Ramanathan K, Sousa JE, Rankin J, Bhargava B, Buse J, Hueb W, Smith CR,
Muratov V, Bansilal S, King S 3rd, Bertrand M, Fuster V; FREEDOM Trial Investigators.
Strategies for multivessel revascularization in patients with diabetes. *New England Journal of
Medicine*. 2012 Dec 20;367(25):2375-84. Epub 2012 Nov 4.

Pokushalov E, Romanov A, Corbucci G, Prohorova D, Chernyavsky A, Larionov P, Terekhov I,
Artyomenko S, Kliver E, Shirokova N, Karaskov A, **Dib N**. Cardiac resynchronization therapy
and bone marrow cell transplantation in patients with ischemic heart failure and
electromechanical dyssynchrony: a randomized pilot study. *Journal of Cardiovascular
Translational Research* . 2011 December ;4(6):767-78. Epub 2011 May 6.

Tricoci P, Huang Z, Held C, Moliterno DJ, Armstrong PW, Van de Werf F, White HD, Aylward
PE, Wallentin L, Chen E, Lokhnygina Y, Pei J, Leonardi S, Rorick TL, Kilian AM, Jennings LH,
Ambrosio G, Bode C, Cequier A, Cornel JH, Diaz R, Erkan A, Huber K, Hudson MP, Jiang L,
Jukema JW, Lewis BS, Lincoff AM, Montalescot G, Nicolau JC, Ogawa H, Pfisterer M, Prieto
JC, Ruzyllo W, Sinnaeve PR, Storey RF, Valgimigli M, Whellan DJ, Widimsky P, Strony J,
Harrington RA, Mahaffey KW; TRACER Investigators. Thrombin-receptor antagonist,
Vorapaxar, in acute coronary syndromes *New England Journal of Medicine*.. 2012 January
5;366(1):20-33. Epub 2011 Nov 13.

Singelyn JM, Sundaramurthy P, Johnson T, Schup-Magoffin PJ, Hu DP, Faulk DM, Wang J, Mayle KM, Bartels K, Salvatore M, Kinsey AM, DeMaria AN, **Dib N**, Christman KL. Catheter-deliverable hydrogel derived from decellularized ventricular extracellular matrix increases endogenous cardiomyocytes and preserves cardiac function post-myocardial infarction. *Journal American College of Cardiology* 082411-3530DR ; October 2011

Losordo DW, Henry TD, Davidson C, Sup Lee J, Costa MA, Bass T, Mendelsohn F, Fortuin FD, Pepine CJ, Traverse JH, Amrani D, Ewenstein BM, Riedel N, Story K, Barker K, Povsic TJ, Harrington RA, Schatz RA; ACT34-CMI Investigators. Intramyocardial autologous CD34+ cell therapy for refractory angina. *Circulation Research*. 2011 Aug 5;109(4):428-36. Epub 2011 Jul 7.

Gyöngyösi M, **Dib N**. Diagnostic and prognostic value of 3D NOGA mapping in ischemic heart disease. *Nature Review, Cardiology*. 2011 May 17;8(7):393-404.

Dib N, Khawaja H, Varner S, McCarthy M, Campbell A. Cell therapy for cardiovascular disease: a comparison of methods of delivery. *Journal of Cardiovascular Translational Research*. 2011 Apr;4(2):177-81. Epub 2010 Dec 23.

Disnmore J, **Dib, N**: Stem Cell Therapy for the Treatment of Acute Myocardial Infarction. *Cardiology Clinics* February 2010, Volume 28, Number 1.

Dib, N, Menache P, Bartunek J, Zeiher A, Terzic A, Chronos N, Henry T, Peters N, Francisco F, Yacoub M, Sanborn T, DeMaria A, Schatz R, Taylor D, Fuchs S, Itescu S, Miller L, Dinsmore J, Dangas G, Popma J, Hall J, and Holmes D Jr. - Recommendations and definitions for successful training on methods of delivery of biologics for cardiac regeneration: A report of the International Society for Cardiovascular Translational Research (ISCTR). *Journal American College of Cardiology*. 2010 March Volume 3, Issue 3:265-275

Hare JM, Traverse JH, Henry TD, **Dib N**, Strumpf RK, Schulman SP, Gerstenblith G, DeMaria AN, Denktas AE, Gammon RS, Hermiller JB Jr., Reisman MA, Schaer GL, Sherman W. A Randomized, Double-Blind, Placebo-Controlled, Dose-Escalation Study of Intravenous Adult Human Mesenchymal Stem Cells (Prochymal) After Acute Myocardial Infarction. *Journal American College of Cardiology*. 2009 December 8;54:2277-862

Pokushalov E, Romanov A, Chernyavsky A, Larionov P, Terekhov I, Artyomenko s, Poveshenko O, Kliver E, Shirkova N, Karaskov A, **Dib N**. – Efficiency of Intramyocardial Injections of Autologous Bone Marrow Mononuclear Cells, in Patients with ischemic Heart Failure: A Randomized Study. *Journal of Cardiovascular Translational Research* – March 2010, Volume 2 Number 2.

Dib, N, Philippe Menasche, Jozef J. Bartunek, Andreas M. Zeiher, Andre Terzic, Nicolas A. Chronos, Timothy D. Henry, Nicholas S. Peters, Francisco Fernández-Avilés, Magdi Yacoub, Timothy A. Sanborn, Anthony DeMaria, Richard Schatz, Doris A. Taylor, Shmuel Fuchs, Silviu Itescu, Leslie W. Miller, Jonathan, H. Dinsmore, George D. Dangas, Jeffrey J. Popma, Jennifer

L. Hall, and David R., Holmes, Jr. Recommendations for Successful Training on Methods of Delivery of Biologics for Cardiac Regeneration: A Report of the International Society for Cardiovascular Translational Research. *Journal American College of Cardiology*. 2010;3;265-275

Dib N, Dinsmore J: Stem Cells and Cardiac Repair: A Critical Review, *Journal of Cardiovascular Translational Research*, 2008 January, Volume 1, Number 1.

Dib, N, Dinsmore J, Lababidi Z, White B, Moravec S, Campbell A, Rosenbaum A, Seyedmadani K, Jaber W, Rizenhour C, Diethrich E: One Year follow-up of Feasibility and Safety of the First U.S., Randomized, Controlled Study Using 3-Dimensional Guided Catheter-based Delivery of Autologous Skeletal Myoblasts for Ischemic Cardiomyopathy (CAuSMIC Study). *Journal of the American College of Cardiology*, November 2008.

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Dinsmore J, **Dib N** An Overview of Myoblast Transplantation. *American Heart Hospital Journal*, 2005 Volume 3, Pages 146-152.

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ABSTRACTS

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