DOMENICO M. TAGLIERI, M.D., Ph.D.

EMPLOYMENT HISTORY

Jun 2013 – Present	Clinical Institute "Humanitas", Rozzano, Milan, Italy Department of Anesthesia and Critical Care Medicine Attending Anesthesiologist and Critical Care Medicine Physician Clinical responsibilities in the Operating Rooms (General Surgery, Pediatric surgery, Colorectal surgery, Surgical oncology, Trauma surgery, Endocrine surgery, Breast surgery, Gynecology, Otolaryngology & Oral and maxillofacial surgery, Orthopedic surgery, Neurosurgery, Thoracic surgery, Robotic Surgery, Urology), and in the General Intensive Care Unit.
Jan 2014	HMGBiotech, Milan, Italy Under a three-week temporary contract, assisted HMGBiotech with the investigation of the role of HMGB1 in a model of cardiac ischemia and reperfusion. Traveled to Chicago, IL, USA and conducted echocardiography during an intense, highly time-sensitive study, taking responsibility for the quality of the data. This ongoing international collaboration is between HMGBiotech, Ospedale San Raffaele (Milan, Italy), and the University of Illinois at Chicago.
Feb 2013 – May 2013	The Mediterranean Institute for Transplantation and Advanced Specialized Therapies (ISMETT), University of Pittsburgh Medical Center, Palermo, Italy Department of Anesthesia and Critical Care Medicine Fellow Anesthesiologist and Critical Care Medicine Physician Clinical responsibilities in the General Intensive Care Unit and the Lung Transplant Operating Room. Carried out research duties related to lung transplantation in an experimental animal laboratory.
Dec 2011 – Jan 2013	University of Illinois at Chicago, Chicago, IL, USA Department of Pharmacology Postdoctoral Research Associate Investigated the role of AKAP-Lbc regulated PKD signaling and its modulation of cardiac contractility, myocardial hypertrophy, and ischemia.
Jan 2005 - Oct 2006	Rosalind Franklin University of Medicine and Science, North Chicago, IL, USA Department of Medicine Postgraduate Research Fellow Engaged in cardiovascular research with hands-on experience in large and small animal models of cardiac arrest and closed-chest resuscitation.
Jun 2004 - Jul 2004	Birmingham University Hospital, Birmingham, UK <i>Visiting Physician</i> 500 hr Anesthesiologist/Intensivist in Neuroanesthesiology, Trauma Center, Neuroradiology
Mar 2004 - Apr 2004	San Martino Hospital, Genoa, Italy Department of Anesthesia and Critical Care Medicine Visiting Physician 600 hr Anesthesiologist/Intensivist in Cardiovascular Anesthesiology and Cardiovascular Intensive Care.

Feb 2003 - Sept 2003	Erasmus Medical Center, Rotterdam, the Netherlands	
	Department of Experimental Anesthesia	
	Postgraduate Research Fellow	
	Insight into "Pathophysiology of the Lung". Application of the "Open Lung Concept" to	
	animal research and clinical setting.	

EDUCATION

Aug 2007 – Dec 2011	University of Illinois at Chicago (UIC), Chicago, IL, USA
	Department of Physiology and Biophysics
	PhD thesis work performed in laboratory of Dr. R. John Solaro
	Thesis title: P21-Activated Kinase-1 Signaling in Myocardial Hypertrophy, Ischemic Heart
	Disease and Remodeling

- Jun 2001 Nov 2004 Università degli Studi di Trieste, Trieste, Italy Resident in Anesthesiology and Intensive Care Medicine Four-year program Summa cum laude
- May 2001Università degli Studi di Messina, Messina, Italy
Medical Licensing Examination
Overall mark 108/110
- Feb 1994 Oct 2000Università degli Studi di Messina, Messina, Italy
School of Medicine
Six-year program
Summa cum laude
Thesis title: The use of Dexmedetomidine in Intensive Care Unit.

United States Equivalency Summary - World Education Services, Inc. (Reference # 2063278/an): *First professional degree in medicine (Doctor of Medicine) from, and four years of graduate medical education in anesthesiology at, a regionally accredited institution.* **GPA: 3.94/4.00**

Continuing Medical Education:

Total AMA PRA Category CreditsTM: **223.00 Credits** (The full list of activities is available in Appendix-2)

PREVIOUS RESEARCH SUPPORT

08/2010 - 08/2011	University of Illinois at Chicago Fellowship –\$20,000.00 USD (To DM Taglieri) Chicago, IL, USA
04/2011	Mark R. Lambrecht Award for Research - \$1,000.00 USD (To DM Taglieri) Research award to support lab expenses in basic medical sciences, University of Illinois at Chicago, Chicago, IL, USA
11/2010 - 11/2011	University of Illinois at Chicago Center for Clinical and Translational Science (Award Number UL1RR029879) from the National Center for Research Resources
09/2009	University Scholarship – \pounds 20.000,00 (<i>To DM Taglieri</i>) Region of Calabria, Italy For use to defray costs of research at University of Illinois at Chicago Ranked 3 rd among 1,200 eligible participants

01/2008	University Scholarship – €6.250,00
	(To DM Taglieri) Township of Reggio Calabria, Italy
	For use to defray costs of research at University of Illinois at Chicago
	Ranked 1 st among 60 eligible participants

08/2007 – 08/2008 University of Illinois at Chicago Fellowship – \$20,000.00 USD (*To DM Taglieri*) Chicago, IL, USA

PROFESSIONAL HONORS AND AWARDS

- Jun 2012 Student spotlight Biophysical Society Newsletter.
- Apr 2012Abstract accepted for oral presentation
7th Ascona International Workshop on Cardiomyocyte Biology: Cardiac Pathways of Differentiation
Metabolism and Contraction, Ascona, Switzerland.
- Feb 2012Abstract accepted for oral presentationBiophysical Society Annual Meeting, San Diego, CA, USA
- Aug 2011University of Illinois at Chicago, Center for Cardiovascular Research Day
Poster Award \$100
- May 2011International Society for Heart Research (ISHR) Young Investigator Award Finalist
Travel award to present at ISHR conference \$500
- Feb 2011Graduate Student Council Travel Award \$310University of Illinois at Chicago, Chicago, IL, USA
- **Nov 2010** Student Activities Funding Committee (SAFC) \$7,000 Awarded while serving as Treasurer of the PBGSA to sponsor weekly PBGSA Science Seminars at University of Illinois at Chicago, Chicago, IL, USA
- Nov 2010 Mark R. Lambrecht Award for Scholarship and Commitment \$2,000 Highest award bestowed on a graduate student from the Department of Physiology and Biophysics at the University of Illinois at Chicago, Chicago, IL, USA
- Apr 2010Chancellor's Student Service and Leadership Award
In recognition of outstanding volunteer service to the University of Illinois at Chicago and the
community
- Mar 2010 Student Activities Funding Committee (SAFC) \$3,000 Awarded while serving as Treasurer of the PBGSA to sponsor weekly PBGSA Science Seminars at UIC
- **Nov 2009** Student Activities Funding Committee (SAFC) \$4,950 Awarded while serving as Treasurer of the PBGSA to sponsor weekly PBGSA Science Seminars at UIC
- **Nov 2006** Young Investigator Award American Heart Association, Chicago, IL \$500 Top-scoring abstract "Failure of Propranolol and Epinephrine Combination to Improve Resuscitability and Short-Term Survival in a Rat Model of Ventricular Fibrillation."

ADVISORY COMMITTEES

Peer Reviewer (Journals):	"Journal of Endocrinology" - (Jan 2012 - Present)
	"Anesthesiology" - (Feb 2012 - Present)
	"Frontiers in Physiology" - (Nov 2012 - Present)

<u>PUBLICATIONS</u> (Total Impact Factor 62.81; Average Impact Factor: 5.71, citations = 159; h-index = 7, as of 30 April 2014)

Peer-Reviewed Original Full Papers

DM Taglieri, KR Johnson, BT Burmeister, MM Monasky, MJ Spindler, J DeSantiago, K Banach, BR Conklin, GK Carnegie. The C-terminus of the long AKAP13 isoform (AKAP-Lbc) is critical for development of compensatory cardiac hypertrophy. *J Mol Cell Cardiol.* 66, 27-40, 2013. PMID: 24161911. Impact: 5.148.

M.M. Monasky*, **D.M. Taglieri***, M. Henze*, C.M. Warren, M. Utter, D.G. Soergel, J.D. Violin, R.J. Solaro. The Biased Ligand TRV120023 Inhibits Angiotensin II-Induced Cardiac Hypertrophy While Preserving Enhanced Myofilament Response to Calcium. Am J Physiol Heart Circ Physiol. 305(6):H856-66, 2013. PMID: 23873795. Impact: 3.629 *Joint First Authors.

E-M Jeong, MM Monasky, L Gu, **DM Taglieri**, BG Patel, H Liu, Q Wang, I Greener, SC Dudley, Jr., RJ Solaro. Tetrahydrobiopterin Improves Diastolic Dysfunction by Reversing Changes in Myofilament Properties. *J Mol Cell Cardiol*. 56:44-54, 2012. PMID: 23247392. Impact: 5.166

MM Monasky, **DM Taglieri**, AK Jacobson, KM Haizlip, RJ Solaro, and PML Janssen. Post-Translational Modifications of Myofilament Proteins Involved in Length-Dependent Prolongation of Relaxation in Rabbit Right Ventricular Myocardium. *Arch. Biochem. Biophys.* 535:22-9, 2013. PMID: 23085150. Impact: 2.935

BT Burmeister, **DM Taglieri**, L Wang, GK Carnegie. SH2 domain-containing phosphatase 2 (Shp2) is a component of the AKAP-Lbc complex and is inhibited by protein kinase A (PKA) under pathological hypertrophic conditions in the heart. *J Biol Chem.* 287(48):40535-46, 2012. PMID: 23045525. Impact: 4.773

JD Lovelock, MM Monasky, E-M Jeong, HA Lardin, H Liu, BG Patel, **DM Taglieri**, L Gu, P Kumar, N Pokhrel, D Zeng, L Belardinelli, D Sorescu, RJ Solaro, SC Dudley, Jr. Ranolazine improves cardiac diastolic dysfunction through modulation of myofilament calcium sensitivity. *Circ Res.* 110:841-50, 2012. PMID: 22343711. Impact: 9.489

W Liu, M Zi, R Naumann, S Ulm, J Jin, DM Taglieri, S Prehar, J Gui, H Tsui, R-P Xiao, L Neyses, RJ Solaro, Y Ke, EJ Cartwright, M Lei, X Wang. Pak1 as a Novel Therapeutic Target for Anti-Hypertrophic Treatment in the Heart. Circulation. 124:2702-15, 2011. PMID: 22082674. Impact: 14.739

(Highlighted in: Circulation Topic Review, Circulation Editors' Picks, Most Read Articles in Heart Failure. The Editors. Circulation.2012; 126: e199-e211doi: 10.1161/CIRCULATIONAHA.112.139808)

MM Monasky, **DM Taglieri**, BG Patel, J Chernoff, BM Wolska, Y Ke, RJ Solaro. P21-Activated Kinase Improves Cardiac Contractility during Ischemia-Reperfusion concomitant with changes in Troponin-T and Myosin Light Chain 2 Phosphorylation. *Am J Physiol Heart Circ Physiol*. 302:H224-30, 2012. PMID: 22037191. Impact: 3.708

DM Taglieri, MM Monasky, I Knezevic, KA Sheehan, M Lei, X Wang, J Chernoff, BM Wolska, Y Ke, RJ Solaro. Ablation of p21-Activated Kinase-1 in Mice Promotes Isoproterenol-Induced Cardiac Hypertrophy in Association with Activation of Erk1/2 and Inhibition of Protein Phosphatase 2A. *J Mol Cell Cardiol* 2011; 51:988-96 PMID: 21971074 . Impact: 5.166

(Honored in a JMCC Virtual Special Issue: Cardiac Hypertrophy and Failure, as an outstanding contribution on the topic on March 1, 2012.)

S Wang, J Radhakrishnan, IM Ayoub, JD Kolarova, **DM Taglieri**, RJ Gazmuri. Limiting sarcolemmal Na+ Entry during Resuscitation from Ventricular Fibrillation Prevents Mitochondrial Ca2+ Overload and Attenuates Myocardial Dysfunction. *J Appl Physiol* 2007; 103(1):55-65. PMID: 17431086. Impact: 3.753

Peer Reviewed Review Article:

DM Taglieri, M Ushio-Fukai, MM Monasky. P21-activated kinase in inflammatory and cardiovascular disease. *Cellular Signalling* (2014), doi: 10.1016/j.cellsig.2014.04.020. PMID: 24794532. Impact: 4.304

Commentary:

DM Taglieri, DA Delfín, MM Monasky. Cholesterol Regulation of PIP2: Why Cell Type is So Important. *Front. Physiol.* 3:492, 2012.

Book Chapters:

D Taglieri, RA Lachmann, B Lachmann (2004) Research tools for the study of therapeutic intervention in acute respiratory failure. In: Gullo A (ed) Anaesthesia, Pain, Intensive Care and Emergency Medicine - APICE 18. Springer-Verlag Italia, Milan pp. 37-61.

JJ Haitsma, **D Taglieri**, B Lachmann (2004) Present status of surfactant replacement therapy. In: Gullo A (ed) Anaesthesia, Pain, Intensive Care and Emergency Medicine - APICE 18. Springer-Verlag Italia, Milan pp. 325340.

Abstracts:

MM Monasky*, **DM Taglieri***, M Henze*, CM Warren, M Utter, JD Violin, RJ Solaro. A novel β-arrestin-biased ligand attenuates cardiac hypertrophy and increases myofilament calcium sensitivity. *J Mol Cell Cardiol*, In Press. ***Joint First Authors.**

International Society of Heart Research World Congress, San Diego, CA, USA, June 30 – July 4, 2013.

AN Carley, **DM Taglieri**, J Bi, RJ Solaro, ED Lewandowski. Substitution of Adult Cardiac Troponin I, cTnI, with the Fetal Isoform, ssTnI, in Adult Mice Augments Metabolic Remodeling and Reduces Both Decompensatory Hypertrophy and Contractile Dysfunction During Chronic Pressure Overload. *Circulation*. 2013;128:A15083. American Heart Association Scientific Sessions, Dallas, Texas, USA, Nov. 16-20, 2013.

BT Burmeister, **DM Taglieri**, L Wang, GK. Carnegie. A-kinase anchoring protein (AKAP)-Lbc coordinates protein kinase A (PKA) phosphorylation and inhibition of Src homology 2 domain-containing phosphatase 2 (Shp2). *FASEB J* April 9, 2013 27:1031-2.

Experimental Biology, Boston, MA, USA, April 20-24, 2013.

E Jeong, MM Monasky, L Gu, **DM Taglieri**, BG Patel, H Liu, Q Wang, I Greener, RJ Solaro, SC Dudley, Jr. Tetrahydrobiopterin Improves Diastolic Dysfunction by Reversing Changes in Myofilament Properties. *Circulation*; 2012; 126: A10665.

Oral presentation - American Heart Association Scientific Sessions, Los Angeles, CA, USA, Nov. 3-7, 2012.

E Jeong, MM Monasky, L Gu, **DM Taglieri**, BG Patel, Q Wang, H Lardin, I Greener, RJ Solaro, SC Dudley, Jr. Tetrahydrobiopterin Improves Diastolic Heart Failure by Increasing Myofilament Calcium Sensitivity. *Journal of Cardiac Failure*; 18(8), pp. S7.

Rapid fire oral presentation - Heart Failure Society of America, Seattle, WA, USA, September 9-12, 2012.

MM Monasky, **DM Taglieri**, AK Jacobson, KM Haizlip, RJ Solaro, P Janssen. Post-Translational Modifications of Myofilament Proteins Involved in Length-Dependent Prolongation of Relaxation in Rabbit Right Ventricular Myocardium. *Biophysical Journal;* 102(3) pp. 614a. Biophysical Society Annual Meeting, San Diego, CA, USA, February 25-29, 2012. Y Ke, **DM Taglieri**, MM Monasky, RJ Solaro. Inhibition of Angiotensin II-Induced Ventricular Hypertrophy and Fibrosis by Modulation of Pak1 Activity. *Biophysical Journal*; 102(3) pp. 614a. Biophysical Society Annual Meeting, San Diego, CA, USA, February 25-29, 2012.

MM Monasky, **DM Taglieri**, BG Patel, J Chernoff, BM Wolska, Y Ke, RJ Solaro. P21-Activated Kinase Improves Myocardial Performance through Modulation of Troponin-T and Myosin Light Chain 2 during Global Myocardial Ischemia and Reperfusion Injury. *Circulation* 2011; 124: A8840. American Heart Association Scientific Sessions, Orlando, FL, USA, November 12-16, 2011.

A Labate, E Mazzon, M Mesiti, **DM Taglieri**, G Certo. Angiosarcoma Secondary to Breast Cancer with Contralateral Dorsal Recurrence. *Pathologica* 2011: 103 p. 219. National Annual Congress SIAPEC IAP, Palermo, Italy, October 2011.

A Labate, E Mazzon, T Leardo, S Federico, **DM Taglieri**, G Certo. Incidental Finding of Uterine Cardinosarcoma in a Young Woman: A Case Report. *Pathologica* 2011: 103 p. 253. National Annual Congress SIAPEC IAP, Palermo, Italy, October 2011.

A Labate, E Mazzon, **DM Taglieri**, G Certo, M Mamo, R Mazzitelli. Neuroendocrine Carcinomas of the Colon. *Pathologica* 2011: 103 pp. 236-237. National Annual Congress SIAPEC IAP, Palermo, Italy, October 2011.

MM Monasky, **DM Taglieri**, BG Patel, J Chernoff, B Wolska, Y Ke, RJ Solaro. Ablation of p21-activated kinase reduces left ventricular remodeling, contractile function, and survival rates following myocardial ischemia and reperfusion injury. *J Mol Cell Cardiol* 2011: 51(3) pp. S12-13. International Society of Heart Research Meeting, Philadelphia, PA, USA, May 22-25, 2011.

DM Taglieri, MM Monasky, I Knezevic, M Lei, X Wang, J Chernoff, Y Ke, RJ Solaro. Ablation of p21-Activated Kinase-1 in Mice Promotes Isoproterenol-Induced Cardiac Hypertrophy in Association with Activation of Erk1/2 and Inhibition of Protein Phosphatase 2A. *J Mol Cell Cardiol* 2011: 51(3) pp. S46-47. International Society of Heart Research Meeting, Philadelphia, PA, USA, May 22-25, 2011.

Y Ke, **DM Taglieri**, RJ Solaro. Inhibition of angiotensin II-induced ventricular hypertrophy and fibrosis by modulation of Pak1 activity. *J Mol Cell Cardiol* 2011: 51(3) pp. S8. International Society of Heart Research Meeting, Philadelphia, PA, USA, May 22-25, 2011.

DM Taglieri, II Knezevic, J Chernoff, RJ Solaro, Y Ke. Erk1-Mediated Development of Left Ventricular Cardiac Hypertrophy in a P21 Activated Kinase-1 (Pak1) Knockout Mouse Model. *Biophysical Journal 2011*;100(3) pp. 289a.

Biophysical Society Annual Meeting, Baltimore, Maryland, USA, March 5-9, 2011.

DM Taglieri, IM Ayoub, JD Kolarova, S Wang, J Radhakrishnan, RJ Gazmuri. Early Administration of Epinephrine During Closed-Chest Resuscitation Fails to Improve Return of Spontaneous Circulation or ShortTerm Survival. *Circulation* 2006; 114:18:II-1207.

American Heart Association Scientific Sessions, Chicago, IL, USA, November 12-15, 2006.

DM Taglieri, IM Ayoub, JD Kolarova, J Radhakrishnan, S Wang, RJ Gazmuri. Failure of Propranolol and Epinephrine Combination to Improve Resuscitability and Short-Term Survival in a Rat Model of Ventricular Fibrillation. *Circulation* 2006; 114:18:II-1206. American Heart Association Scientific Sessions, Chicago, IL, USA, November 12-15, 2006.

J Radhakrishnan, IM Ayoub, S Wang, JD Kolarova, **DM Taglieri**, RJ Gazmuri. Myocardial Protection by Glycogen Synthase Kinase-3β Inhibition during Resuscitation from Cardiac Arrest. *Circulation* 2006; 114:18:II606. American Heart Association Scientific Sessions, Chicago, IL, USA, November 12-15, 2006.

J Radhakrishnan, IM Ayoub, S Wang, JD Kolarova, **DM Taglieri**, RJ Gazmuri. Activation of the Mitochondrial Apoptotic Pathway Without Evidence of Apoptotic Cell Death after Resuscitation from Ventricular Fibrillation.

Circulation 2006; 114:18:II-1194. American Heart Association Scientific Sessions, Chicago, IL, USA, November 12-15, 2006.

S Wang, J Radhakrishnan, IM Ayoub, JD Kolarova, **DM Taglieri**, RJ Gazmuri. Post-Resuscitation Mitochondrial Ca2+ Overload is Prevented by Limiting Sarcolemmal Na+ Entry During Resuscitation from Ventricular Fibrillation. *Circulation* 2006; 114:18:II-1202.

American Heart Association Scientific Sessions, Chicago, IL, USA, November 12-15, 2006.

JD Kolarova, IM Ayoub, S Wang, J Radhakrishnan, **DM Taglieri**, RJ Gazmuri. AVE4454 (a New NHE-1 Inhibitor) Administered During Resuscitation from VF Ameliorates Post-Resuscitation Myocardial Dysfunction. *Circulation* 2006; 114:18:II-1197.

American Heart Association Scientific Sessions, Chicago, IL, USA, November 12-15, 2006.

IM Ayoub, S Wang, JD Kolarova, J Radhakrishnan, D Singh, **DM Taglieri**, RJ Gazmuri. Decreased ventilatory requirements during cardiac resuscitation. *Circulation* 2005; 112:17:II-433. American Heart Association Scientific Sessions, Dallas, Texas, USA, November 13-16, 2005.

NATIONAL AND INTERNATIONAL PRESENTATIONS

Platform:

2013 American Heart Association Scientific Session, Dallas, TX. "Substitution Of Adult Cardiac Troponin I, cTnI, With The Fetal Isoform, ssTnI, In Adult Mice Augments Metabolic Remodeling And Reduces Both Decompensatory Hypertrophy And Contractile Dysfunction During Chronic Pressure Overload." AN Carley, **DM Taglieri**, J Bi, RJ Solaro, ED Lewandowski. November 16-20, 2013

7th Ascona International Workshop on Cardiomyocyte Biology "Cardiac Pathways of Differentiation, Metabolism And Contraction". Ascona, Switzerland. "Integration of Cardiac Control Mechanisms with Signaling To Cardiac Sarcomeres." Authors: R.J. Solaro, B. Wolska, Y. Ke, M. M. Monasky, **D.M. Taglieri**, X. Wang, and M. Lei. (RJS was invited speaker.) April 22-26, 2012.

7th Ascona International Workshop on Cardiomyocyte Biology "Cardiac Pathways of Differentiation, Metabolism And Contraction". Ascona, Switzerland. Title: Tetrahydrobiopterin improves diastolic myocardial dysfunction concomitant with a reduction in S-glutathionylation of myosin binding protein-C. Authors: M.M. Monasky, E. Jeong, **D.M. Taglieri**, B.G. Patel, S.C. Dudley, Jr., R.J. Solaro. April 22-26, 2012.

Biophysical Society Annual Meeting. San Diego, CA. "Post-Translational Modifications of Myofilament Proteins Involved in Length-Dependent Prolongation of Relaxation in Rabbit Right Ventricular Myocardium." Authors: M.M. Monasky, **DM Taglieri**, A.K. Jacobson, K.M. Haizlip, R.J. Solaro, P. Janssen. February 2012.

International Society for Heart Research Young Investigator Award Competition, Philadelphia, PA, USA. May 2011.

Seminar Lecturer at University of Padua, Padua, Italy. December 2010.

APICE (Anesthesia, Pain, Intensive Care and Emergency Medicine) Symposium, Trieste, Italy. November 2003.

European Society of Intensive Care Medicine, Barcelona, Spain. Invited speaker to the "Albumin in cardiovascular surgery and intensive care unit" workshop. October 2002.

Poster:

Biophysical Society Annual Meeting. San Diego, CA. "Inhibition of Angiotensin II-Induced Ventricular Hypertrophy and Fibrosis by Modulation of Pak1 Activity." Authors: Y. Ke, **DM Taglieri**, M.M. Monasky, R.J. Solaro. February 2012.

American Heart Association Scientific Sessions, Orlando, FL. (Poster). "P21-Activated Kinase Improves

Myocardial Performance through Modulation of Troponin-T and Myosin Light Chain 2 during Global Myocardial Ischemia and Reperfusion Injury." MM Monasky, **DM Taglieri**, BG Patel, J Chernoff, BM Wolska, Y Ke, RJ Solaro. November 2011.

National Annual Congress SIAPEC IAP, Palermo, Italy. (Poster). "Angiosarcoma Secondary to Breast Cancer with Contralateral Dorsal Recurrence." A Labate, E Mazzon, M Mesiti, **DM Taglieri**, G Certo. October 2011.

National Annual Congress SIAPEC IAP, Palermo, Italy. (Poster). "Incidental Finding of Uterine Cardinosarcoma in a Young Woman: A Case Report." A Labate, E Mazzon, T Leardo, S Federico, **DM Taglieri**, G Certo. October 2011.

National Annual Congress SIAPEC IAP, Palermo, Italy. (Poster). "Neuroendocrine Carcinoma of the Colon." A Labate, E Mazzon, G Certo, RM Mamo, **DM Taglieri**, Mazzitelli. October 2011.

International Society of Heart Research, Philadelphia, PA. (Poster) "Ablation of p21-activated kinase reduces left ventricular remodeling, contractile function, and survival rates following myocardial ischemia and reperfusion injury." Authors: MM Monasky, **DM Taglieri**, BG Patel, J Chernoff, B Wolska, Y Ke, RJ Solaro. May 2011.

International Society of Heart Research, Philadelphia, PA. (Poster) "Ablation of p21-Activated Kinase-1 in Mice Promotes Isoproterenol-Induced Cardiac Hypertrophy in Association with Activation of Erk1/2 and Inhibition of Protein Phosphatase 2A." Authors: **DM Taglieri**, MM Monasky, I Knezevic, M Lei, X Wang, J Chernoff, Y Ke, RJ Solaro. May 2011.

International Society of Heart Research, Philadelphia, PA. (Poster) "Inhibition of angiotensin II-induced ventricular hypertrophy and fibrosis by modulation of Pak1 activity." Authors: Y Ke, **DM Taglieri**, RJ Solaro. May 22-25, 2011.

Biophysical Society -55th Annual meeting, Baltimore, MD, USA. (Poster) "Erk1-Mediated Development of Left Ventricular Cardiac Hypertrophy in a P21 Activated Kinase-1 (Pak1) Knockout Mouse Model." Authors: **DM Taglieri**, II Knezevic, J Chernoff, RJ Solaro, Y Ke. February 2011.

American Heart Association – Scientific Sessions - Chicago, IL, USA. (Poster) Failure of Propranolol and Epinephrine Combination to Improve Resuscitability and Short-Term Survival in a Rat Model of Ventricular Fibrillation. Authors: **DM Taglieri**, IM Ayoub, JD Kolarova, J Radhakrishnan, S Wang, RJ Gazmuri. November 2006.

American Heart Association – Scientific Sessions - Chicago, IL, USA. (Poster) Early Administration of Epinephrine During Closed-Chest Resuscitation Fails to Improve Return of Spontaneous Circulation or ShortTerm Survival. Circulation 2006; 114:18:II-1207. Authors: **DM Taglieri**, IM Ayoub, JD Kolarova, S Wang, J Radhakrishnan, RJ Gazmuri. November 2006.

APICE (Anesthesia, Pain, Intensive Care and Emergency Medicine) Symposium, Trieste, Italy. November 2004.

APICE (Anesthesia, Pain, Intensive Care and Emergency Medicine) Symposium, Trieste, Italy. November 2002.

APICE (Anesthesia, Pain, Intensive Care and Emergency Medicine) Symposium, Trieste, Italy. November 2001.

MEMBERSHIPS

American Association for the Advancement of Science	2007-2012
American Heart Association	2005-2012
Biophysical Society	2007-2012
International Society for Heart Research (North American Section)	2011-2012

TEACHING AND MENTORING EXPERIENCE

06/2001-11/2004 Trained junior anesthesiology residents – Università degli Studi di Trieste, Trieste, Italy. Preoperative interview; Managing general anesthesia during surgery (induction, maintenance, and awakening); Airway management and oral-tracheal intubation; Cannulation of peripheral and central vein access; Cannulation of radial artery; Blood/gas analysis and its interpretation; Advanced cardiac life support; Management of critically ill patients during the post-operative recovery and in intensive care unit.

Name	Year	Supervisory Role	Project	Trainee Position
Dan Karesh	2012	Trained general lab techniques,	Genotyping mouse colony	High school student
		DNA isolation, PCR, genotyping,		
		DNA electrophoresis		
Yadeda	2012	Trained general lab techniques,	Analysis of	Graduate student
Bogachkov		DNA isolation, PCR, genotyping,	AKAPLbc/PKD	
		western immunoblotting, DNA	localization by	
		electrophoresis	Bimolecular fluorescence	
			complementation	
Ilya Mokhedano	2012	Trained general lab techniques,	Genotyping mouse colony	Graduate student
		DNA isolation, PCR, genotyping,		
		DNA electrophoresis		

PAST SCIENCE TRAINEES

APPENDIX-1: MASTERED SCIENCE TECHNIQUES

Protein Methods:

- Immunoblotting/Western blot
- Protein immunoprecipitation
- Spectrophotometry
- $\checkmark \checkmark \checkmark$ Microscopy, Protein Immunostaining
- Enzyme assay
- **Protein Isolation**
- **Chromatography Methods**
- Protein Extraction and Solubilization
- Protein Concentration Determination Methods, (Bradford Protein Assay, RC-DC, BCA)
- **Concentrating Protein Solutions**
- Gel Electrophoresis under denaturing and non-denaturing conditions

Nucleic Acid Methods:

- √ DNA extraction and spectroscopic quantification
- DNA Amplification and absolute abundance in number: (Q)-PCR
- ✓ ✓ ✓ ✓ RNA phenol-chloroform extraction or minicolumn purification
- Gel Electrophoresis under denaturing and non-denaturing conditions
- Expression cloning
- Site-directed mutagenesis

Animal Cell Culture Techniques:

- Isolation of cells from heart (some experience)
- ✓ ✓ ✓ Maintaining cells in culture
- Immunocytochemistry
- √ DNA and RNAi Transfection
- Viral Transduction (some experience)

Microscopy:

- Optical microscopy
- ✓ Fluorescence microscopy
- ✓ Confocal microscopy

Analysis of Ca2+-Force Relationship in Cardiac Cells:

Myofilament response to Ca²⁺ measured in detergent extracted (skinned) fiber bundles (Cardiac Skinned \checkmark Fiber)

Animal Models and Surgical Techniques:

- Lung Lavage in rodents (for induction of Acute Lung Injury) \checkmark
- ✓ Electrically-Induced Ventricular Fibrillation and Closed-Chest Resuscitation in Rats and Swine
- ✓ Ligation of the left anterior descending coronary artery for induction of myocardial infarction
- General surgery in swine and rodents

Cardiac Imaging:

✓ Echocardiographic examination in mice, rats and swine

Mouse Husbandry, Breeding and Development:

 \checkmark Experience with breeding strategies and techniques for maintaining colonies of laboratory mice to ensure that the mouse strains produced are genetically well-defined

Software in use:

- Microsoft Office Package
- $\checkmark \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark$ ImageQuant[™] TL (Image analysis software)
- Image Lab 3.0 (Image analysis software)
- PDQuest 2-D Analysis Software (2D-Image analysis software)
- ImageJ (Image processing software)
- GraphPad Prism 5 (Biostatistics, curve fitting and scientific graphing)
- GPower 3.1 (Biostatistics, curve fitting and power analysis)
- Vevo 770 V3.0.0 (Image analysis software for Vevo770 ultrasound machine)
- Adobe Photoshop (Graphics editing software)

<u>APPENDIX-2</u>: MASTERED TECHNIQUES IN ANESTHESIOLOGY AND CRITICAL CARE MEDICINE

Daily Tasks:

- ✓ Administer anesthetic or sedation during surgical and medical procedures, using local, intravenous, spinal, or epidural methods;
- ✓ Monitor patient before, during, and after anesthesia and counteract adverse reactions or complications.
- ✓ Provide and maintain life support and airway management and help prepare patients for emergency surgery;
- Examine patient, obtain medical history, and use diagnostic tests to determine risk during surgical, obstetrical, and other medical procedures.

Special Skills:

- ✓ Strong airway management technique (I have vast experience with intubation of morbidly obese patients; Moreover, I have mastered the use of fiberoptic intubation devices, e.g. Trueview Laringoscopes, or fiberscope for intubation. For ICU patients, I have mastered the use of Ciaglia Blu Rhino percutaneous tracheostomy;
- ✓ Experience with pediatrics (Osperdale per l'Infazia Burlo-Garofalo (1 year), Trieste; presently at Istituto Clinico Humanitas, Milano);
- ✓ Ability to manage patients with severe co-morbidities;
- ✓ Knowledge of regional anesthesia and peripheral nerve blocks;
- ✓ Cooperative attitude.

Tools & Technology

- ✓ Arterial line catheters Intra-arterial catheters; Swan-Ganz artery catheters;
- ✓ Venous line catheters Intra-venous catheters (peripheral and central catheters, including catheters for dialysis, e.g. Uldall cathethers);
- ✓ Endotracheal or tracheotomy sets Including Ciaglia Blu Rhino Tracheostomy sets;
- Cardiac output CO monitoring units or accessories Invasive hemodynamic pressure monitors (e.g. Vigileo and Vigilance), Transthoracic and transesophageal echocardiography;
- ✓ Gas anesthesia apparatus Anesthesia gas concentration monitors; Anesthesia monitors; Digital anesthesia machines; Gas anesthesia administration machines.

Medical software

- ✓ Sunrise [®] Clinical Manager and Sunrise [®] Record Manager Sunrise[®] is an integrated Electronic Health Record (EHR) and a Computerized Physician Order Entry (CPOE) software for hospitals and health systems;
- ✓ GSED (Gestione Sedute Operatorie) GSED is pre-, peri- and postoperative anesthesia software from admission to discharge;
- ✓ **HELISE** HELISE is an integrated Electronic Health Record (EHR).

Administration and Management

✓ Initial knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.

Credits **Activity Title Core Competencies** Provider Participated Credit Type The AMA PRA Chicago, IL Scientific Sessions American Medical Knowledge 11/12/06 -32.75 Category 1 Heart Credit(s)TM 11/15/06 Association The Chicago, IL AMA PRA American **Resuscitation Science Symposium** Medical Knowledge 11/10/06 -Category 1 13.50 Heart 11/11/06 Credit(s)™ Association The New Jun 2010, AMA PRA England 50 The NEJM Review CME Program Medical Knowledge Program # Category 1 Journal of Credit(s)TM 361 Medicine The New AMA PRA England Dec 2011, The NEJM Review CME Program Medical Knowledge Category 1 50 Journal of Program # Credit(s)TM Medicine The New Jun 2012, AMA PRA England 50 The NEJM Review CME Program Medical Knowledge Program Category 1 Journal of #365 Credit(s)[™] Medicine University AMA PRA Center for Cardiovascular Research of Illinois at 2.00 Medical Knowledge 9/6/2012 Category 1 Credit(s)TM Chicago AMA PRA Double Trouble: Hypertension and NotSo-Medical Knowledge Medscape 09/10/12 Category 1 1.50 Simple Comorbidities Credit(s)TM Patient Care and Procedural Skills, Interpersonal and AMA PRA PainTV: Interventional Treatment Communication Skills, Medscape 09/25/12 Category 1 0.25 Practice-based Learning and Credit(s)TM Improvement, Medical Knowledge Patient Care and AMA PRA Practical Application of the 2012 ESC Procedural Skills, Medical Medscape 0.50 09/26/12 Category 1 Guidelines: Update on Antiarrhythmic Drugs Credit(s)™ Knowledge Northeast Medical Knowledge, Managing Invasive Candidiasis: A Systematic Ohio AMA PRA Practice-based Learning and Medical Approach 09/27/12 Category 1 1.25 Improvement, Patient Credit(s)TM University Care and Procedural Skills (30884)Continuation With Statin Therapy and the AMA PRA Medical Knowledge, Patient Risk of Primary Cancer: A Population-Based Medscape 10/14/12 1.00 Category 1 Care and Procedural Skills Credit(s)TM Study AMA PRA Statins for Preventing Venous Medical Knowledge Medscape 10/23/12 Category 1 0.25 Thromboembolism Credit(s)TM Total 223.00

<u>APPENDIX-3</u>: CONTINUING MEDICAL EDUCATION