

BIOGRAPHICAL SKETCH

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NAME Morteza Naghavi	POSITION TITLE -Founder and President, Society for Heart Attack Prevention and Eradication (SHAPE) -Founder and President, Endothelix Inc.
eRA COMMONS USER NAME	

EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Tehran University of Medical Sciences	M.D.	1995	Medicine
University of Texas Health Science Center in Houston		1998-1999	Public Health-Epidemiology

A. Professional Experience:

- 2005 – Present Founder and President, Endothelix Inc.
 2004 – Present Chairman of the SHAPE Task Force; An international initiative to reform primary prevention of heart attacks based on screening for asymptomatic atherosclerosis.
 2000 – 2003 Director of Vulnerable Plaque Research Department – Texas Heart Institute and Division of Cardiology, University of Texas Health Science Center at Houston.
 2000 – 2003 Assistant Professor of Medicine, Division of Cardiology, University of Texas- Houston
 1998 – 2000 Instructor of Medicine, Division of Cardiology, University of Texas- Houston.
 1993 – 1997 Founder and Director of Cardiovascular Research Center, Tehran University.
 1990 – 1993 Principal Investigator, Tehran Cardiovascular Study, an epidemiological survey of cardiovascular risk factors among 11,000 asymptomatic population.

B. Publications:

- Naghavi, M. Textbook of Asymptomatic Atherosclerosis. Pathophysiology, Detection and Treatment. ISBN: 978-1-60327-178-3. Springer Inc. Editor: Morteza Naghavi, M.D., Co-Editors: Mathew Budoff, M.D., Daniel Berman M.D., Erling Falk, M.D., Ph.D., Zahi Fayad, M.D., Harvey Hecht, M.D., Khurram Nasir, M.D., Prediman K. Shah, M.D.
- Ahmadi, N., Budoff, M., Naghavi, M., et al. Low Fingertip Temperature Rebound Measured By Digital Thermal Monitoring Strongly Correlates with the Presence and Extent of Coronary Artery Disease Diagnosed by 64-Slice Multi-detector Computed Tomography. Journal of Cardiovascular Computed Tomography. In press.
- Ahmadi, N., Budoff, M., Naghavi, M., et al. Vascular Function Measured by Fingertip Thermal Reactivity is Impaired in Patients with Metabolic Syndrome and Diabetes Mellitus. Journal of Cardiometabolic. In press.
- Ahmadi N, Tirunagaram S, Hajsadeghi F, Flores F, Saeed A, Hecht H, Naghavi M, Budoff M. Concomitant insulin resistance and impaired vascular function is associated with increased coronary artery calcification. Int J Cardiol. 2009 Feb 2.
- Ahmadi N, Usman N, Shim J, Nuguri V, Vasinrapee P, Hajsadeghi F, Wang Z, Foster GP, Nasir K, Hecht H, Naghavi M, Budoff M. Vascular dysfunction measured by fingertip thermal monitoring is associated with the extent of myocardial perfusion defect. J Nucl Cardiol. 2009 Jan 6.
- Ahmadi N, Hajsadeghi F, Gul K, Vane J, Usman N, Flores F, Nasir K, Hecht H, Naghavi M, Budoff M. Relations between digital thermal monitoring of vascular function, the Framingham risk score, and coronary artery calcium score. J Cardiovasc Comput Tomogr. 2008 Nov;2(6):382-8.
- O'Malley SM, Granada JF, Carlier S, Naghavi M, Kakadiaris IA. Image-based gating of intravascular ultrasound pullback sequences. IEEE Trans Inf Technol Biomed. 2008 May;12(3):299-306.
- Papaioannou TG, Vavuranakis M, Androulakis A, Lazaros G, Kakadiaris I, Vlaseros I, Naghavi M, Kallikazaros I, Stefanadis C. In-vivo imaging of carotid plaque neoangiogenesis with contrast-enhanced harmonic ultrasound. Int J Cardiol. 2008 May 19.

9. Falk E, Naghavi M, Shah PK. Legislating screening for atherosclerosis. JAMA. 2008 May 14;299(18):2147-8; author reply 2148.
10. Naghavi M, Falk E, Hecht HS, Shah PK; for the SHAPE Task Force. The First SHAPE (Screening for Heart Attack Prevention and Education) Guideline. Crit Pathw Cardiol. 2006 Dec;5(4):187-190.
11. Vavuranakis M, Kakadiaris IA, O'Malley SM, Papaioannou TG, Sanidas EA, Naghavi M, Carlier S, Tousoulis D, Stefanadis C. A new method for assessment of plaque vulnerability based on vasa vasorum imaging, by using contrast-enhanced intravascular ultrasound and differential image analysis. Int J Cardiol. 2007 Dec 7. P
12. O'Malley SM, Naghavi M, Kakadiaris IA. One-class acoustic characterization applied to blood detection in IVUS. Med Image Comput Comput Assist Interv Int Conf Med Image Comput Comput Assist Interv. 2007;10(Pt 1):202-9.
13. Vavuranakis M, Papaioannou TG, Kakadiaris IA, O'Malley SM, Naghavi M, Filis K, Sanidas EA, Papalois A, Stamatopoulos I, Stefanadis C. Detection of perivascular blood flow in vivo by contrast-enhanced intracoronary ultrasonography and image analysis: an animal study. Clin Exp Pharmacol Physiol. 2007 Dec;34(12):1319-23.
14. Bandekar AN, Naghavi M, Kakadiaris IA. Automated pericardial fat quantification in CT data. Conf Proc IEEE Eng Med Biol Soc. 2006;1:932-5.
15. Naghavi M, Hecht HS. Vulnerable patients are between a 'ROC and a hard place': yes, it's time to screen for coronary artery disease. Cleve Clin J Med. 2007 Oct;74(10):757-8.
16. Vavuranakis M, Kakadiaris IA, Papaioannou TG, O'Malley SM, Carlier S, Naghavi M, Stefanadis C. Contrast-enhanced intravascular ultrasound: combining morphology with activity-based assessment of plaque vulnerability. Expert Rev Cardiovasc Ther. 2007 Sep;5(5):917-25.
17. Naghavi M. Preventive Cardiology: the SHAPE of the future. A Synopsis from the Screening for Heart Attack Prevention and Education (SHAPE) Task Force report. Herz. 2007 Aug;32(5):356-61.
18. Jamieson M., Naghavi M. Multi-Constituent Cardiovascular Pills (MCCP) – Challenges and Promises of Population Based Prophylactic Drug Therapy for Prevention of Heart Attack, Current Pharmaceutical Design Journal. In Press
19. Naghavi M, Falk E., Hecht H, Shah PK. The First SHAPE (Screening for Heart Attack Prevention and Education) Guideline. Critical Pathways in Cardiology. 2006 Dec;5(4):187-190
20. Naghavi M, Falk E, Hecht H, Jamieson M, Kaul S, Berman D, Fayad Z, Budoff M, Rumberger J, Naqvi T, Shaw L, Faergeman O, Cohn J, Bahr R, Koenig W, Demirovic J, Arking D, Herrera V, Badimon B, Goldstein J, Rudy Y, Airaksinen J, Schwartz R, Riley W, Mendes R, Douglas P, Shah PK. From vulnerable plaque to vulnerable patient: Part III. Executive Summary of the Screening for Heart Attack Prevention and Education (SHAPE) Task Force. Am. J. of Cardiology, Vol. 98, No 2A, 1-15H
21. Vela D, Buja M, Madjid M, Burke A, Naghavi M, Willerson, JT, Casscells, SW, Litovsky, S. The Role of Periadventitial Fat in Atherosclerosis: An Adipose Subset with Potential Diagnostic and Therapeutic Implications. Archives of Pathology & Laboratory Medicine, In Press.
22. O'Malley SM, Vavuranakis M, Naghavi M, Kakadiaris IA. Intravascular ultrasound-based imaging of vasa vasorum for the detection of vulnerable atherosclerotic plaque. Med Image Comput Assist Interv. 2005;8(Pt 1):343-51.
23. Khan T, Soller B, Naghavi M, Casscells W. Tissue pH determination for the detection of metabolically active, inflamed vulnerable plaques using near-infrared spectroscopy: an in-vitro feasibility study. Cardiology. 2005;103(1):10-6.
24. Vavuranakis M, Kakadiaris IA, O'Malley SM, Stefanadis C, Vaina S, Drakopoulou M, Mitropoulos I, Carlier S, Naghavi M. Images in cardiovascular medicine. Detection of luminal-intimal border and coronary wall enhancement in intravascular ultrasound imaging after injection of microbubbles and simultaneous sonication with transthoracic echocardiography. Circulation. 2005 Jul 5;112(1):e1-2.
25. Carlier S, Kakadiaris IA, Dib N, Vavuranakis M, Stefanadis C, O'Malley SM, Hartley CJ, Metcalfe R, Mehran R, Falk E, Gul K, Naghavi M. Vasa vasorum imaging: a new window to the clinical detection of vulnerable atherosclerotic plaques. Curr Atheroscler Rep. 2005 Mar;7(2):164-9.
26. Brazdeikis A, Chu CW, Cherukuri P, Litovsky S, Naghavi M. Changes in magnetocardiogram patterns of infarcted-reperfused myocardium after injection of superparamagnetic contrast media. Neurol Clin Neurophysiol. 2004 Nov 30;2004:16

27. Naghavi M, Libby P, Falk E, Casscells SW, Litovsky S, Rumberger J, Badimon JJ, Stefanadis C, Moreno P, Pasterkamp G, Fayad Z, Stone PH, Waxman S, Raggi P, Madjid M, Zarrabi A, Burke A, Yuan C, Fitzgerald PJ, Siscovick DS, de Korte CL, Aikawa M, Airaksinen KE, Assmann G, Becker CR, Chesebro JH, Farb A, Galis ZS, Jackson C, Jang IK, Koenig W, Lodder RA, March K, Demirovic J, Navab M, Priori SG, Rekhter MD, Bahr R, Grundy SM, Mehran R, Colombo A, Boerwinkle E, Ballantyne C, Insull W Jr, Schwartz RS, Vogel R, Serruys PW, Hansson GK, Faxon DP, Kaul S, Drexler H, Greenland P, Muller JE, Virmani R, Ridker PM, Zipes DP, Shah PK, Willerson JT. From vulnerable plaque to vulnerable patient: a call for new definitions and risk assessment strategies: Part II. *Circulation*, 2003 Oct 14;108(15):1772-8
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29. Madjid M, Naghavi M, Litovsky S, Casscells SW. Influenza and cardiovascular disease: a new opportunity for prevention and the need for further studies. *Circulation*. 2003 Dec 2;108(22):2730-6. Epub 2003 Nov 10.
30. Naghavi M, Madjid M, Gul K, Siadaty MS, Litovsky S, Willerson JT, Casscells SW. Thermography basket catheter: In vivo measurement of the temperature of atherosclerotic plaques for detection of vulnerable plaques. *Catheter Cardiovasc Interv*. 2003 May;59(1):52-9.
31. Casscells W, Hassan K, Vaseghi MF, Siadaty MS, Naghavi M, Kirkeeide RL, Hassan MR, Madjid M. Plaque blush, branch location, and calcification are angiographic predictors of progression of mild to moderate coronary stenoses. *Am Heart J*. 2003 May;145(5):813-20.
32. Casscells W, Naghavi M, Willerson JT. Vulnerable atherosclerotic plaque: a multifocal disease. *Circulation*. 2003 Apr 29;107(16):2072-5.
33. Litovsky S, Madjid M, Zarrabi A, Casscells SW, Willerson JT, Naghavi M. Superparamagnetic iron oxide-based method for quantifying recruitment of monocytes to mouse atherosclerotic lesions in vivo: enhancement by tissue necrosis factor-alpha, interleukin-1beta, and interferon-gamma. *Circulation*. 2003 Mar 25;107(11):1545-9.
34. Naghavi M, Wyde P, Litovsky S, Madjid M, Akhtar A, Naguib S, Siadaty MS, Sanati S, Casscells W. Influenza infection exerts prominent inflammatory and thrombotic effects on the atherosclerotic plaques of apolipoprotein E-deficient mice. *Circulation*. 2003 Feb 11;107(5):762-8.
35. Zarrabi A, Gul K, Willerson JT, Casscells W, Naghavi M Intravascular thermography: a novel approach for detection of vulnerable plaque. *Curr Opin Cardiol*. 2002 Nov;17(6):656-62.
36. Naghavi M, Madjid M, Khan MR, Mohammadi RM, Willerson JT, Casscells SW. New developments in the detection of vulnerable plaque. *Curr Atheroscler Rep* 2001 Mar;3(2):125-35
37. Naghavi M, John R, Naguib S, Siadaty MS, Grasu R, Kurian KC, van Winkle WB, Soller B, Litovsky S, Madjid M, Willerson JT, Casscells W. pH Heterogeneity of human and rabbit atherosclerotic plaques; a new insight into detection of vulnerable plaque. *Atherosclerosis*. 2002 Sep;164(1):27-35.
38. Naghavi M, Barlas Z, Siadaty S, Naguib S, Madjid M, Casscells W. Association of influenza vaccination and reduced risk of recurrent myocardial infarction. *Circulation* 2000; 102 (25): 3039-3045

C. Published Patents:

NO.	Title
20080281205	Methods and Apparatuses For Medical Imaging
20080255471	Method and Apparatus for Determining Vascular Health Conditions
20080081963	Methods and Apparatus for Profiling Cardiovascular Vulnerability To Mental Stress
20080051660	Methods and Apparatuses for Medical Imaging
20080027330	Risk Assessment Method for Acute Cardiovascular Events
20080004679	Non-Invasive Modulation of the Autonomic Nervous System
20070225614	Method and Apparatus for Determining Vascular Health Conditions
20070225606	Method and Apparatus for Comprehensive Assessment of Vascular Health
20070173727	Method and Apparatus for Isolating the Vascular Component in Digital Temperature Monitoring
20070118045	Iontophoresis Challenge for Monitoring Cardiovascular Status

20060293719 Non-Invasive Modulation of the Autonomic Nervous System
20060165596 Method And Apparatus For Noninvasively Evaluating Endothelial Function
20040133100 Novel Risk Assessment Method Based Upon Coronary Calcification Distribution Pattern Imaged By Computed Tomography
20040111016 Method And Apparatus For Detection Of Vulnerable Atherosclerotic Plaque
20040102732 Dialysis Systems for Treatment Of Vulnerable Patients And Methods Of Use
20040102722 Apparatus and Method for Palpographic Characterization of Vulnerable Plaque And Other Biological Tissue
20040099596 Dialysis Apparatus for Treatment of Vulnerable Patients
20040004477 Intraluminal Mri Probe
20030171691 Method and Apparatus for Detecting Vulnerable Atherosclerotic Plaque
20030050539 Systems and Method for a Personal Computer Medical Device Based Away From a Hospital
20030050538 Systems and Method for Medical Observation System Located Away From a Hospital
20030028114 Method and Apparatus for Detecting Vulnerable Atherosclerotic Plaque
20020193785 Method and Apparatus for Heating Inflamed Tissue
20020184415 Health Hub Systems and Method of Use
20020184055 Systems and Method for Healthcare Specific Operating System

D. Ongoing Research Projects:

- Vasa Vasorum Imaging for Detection of Vulnerable Plaque
- Noninvasive Imaging of the Vulnerable Patient
- Noninvasive Non-imaging Measurement of Endothelial Dysfunction
- Ischemic Conditioning with Innovative Devices