

BIOGRAPHICAL SKETCH

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NAME Chen, Chu-Huang	POSITION TITLE Associate Professor		
eRA COMMONS USER NAME cchen			
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
Kaohsiung Medical College, Kaohsiung, Taiwan	M.D.	1978	Medicine
Chang-Gung Memorial Hospital, Taipei, Taiwan	Resident	1978-1981	Pathology
Texas Tech University, Lubbock, Texas	Ph.D.	1986	Physiology
Maryland General Hospital & Univ. of Maryland	Resident	1986-1989	Internal Medicine
Baylor College of Medicine, Houston, Texas	Fellow	1989-1992	Cardiology

A. Positions and Honors**Professional Experience**

- 1992-1993 Postdoctoral Associate, Section of Atherosclerosis/Medicine, Baylor College of Medicine
 1993-1994 Instructor of Medicine, Baylor College of Medicine, Houston, Texas
 1994-2004 Assistant Professor of Medicine, Baylor College of Medicine, Houston, Texas
 2004- Associate Professor of Medicine, Baylor College of Medicine, Houston, Texas

Honors and Awards

- 1) Tarbox Fellowship, Texas Tech University, 1983 to 1986
- 2) The Methodist Hospital Foundation Award, 1993 to 1994
- 3) The Virginia and Ernest Cockrell Jr Award, 1994
- 4) Zeneca Pharmaceuticals Research Award, 1993 to 1995
- 5) AHA, Texas Affiliate, Grant-In-Aid, 1995 to 1997
- 6) Texas Medical Center/NASA Cooperative Research Grant, 1995 to 1996
- 7) AHA, National, Scientist Development Award, 1997 to 2000
- 8) The Atorvastatin Research Award, 1999 to 2000
- 9) American Diabetes Association Research Award, 2000 to 2003
- 10) Pfizer Independent Medical Grant, 2002-2003
- 11) American Diabetes Association Research Award, 2004 to 2006
- 12) Pfizer Independent Medical Grant, 2004-2005
- 13) Philip Morris Research Award, 2005-2008
- 14) AHA grant reviewer, Western Review Consortium, 2004-2008.

Honors as a Mentor

1) Postdoctoral Fellow, Jeffrey P. Walterscheid, Ph.D., AHA Fellowship, 2006

Memberships in Professional Societies

- 1) AHA, Atherosclerosis Council
- 2) International Atherosclerosis Society
- 3) American Association for the Advancement of Science
- 4) The Angiogenesis Society

B. Publications (*corresponding author)

Selected peer-review publications (in reversed order)

Chen CH*, Walterscheid JP. Plaque angiogenesis versus compensatory arteriogenesis in atherosclerosis. *Circ Res*. 2006;99 In press (Oct 13).

Yang CH, Chen HH, Huang MT, Raya JL, Yang JH, **Chen CH**, Gaubatz JW, Pownall HJ, Taylor AA, Ballantyne CM, Jenniskens FA, Smith CV. Pro-apoptotic low-density lipoprotein subfractions in type II diabetes atherosclerosis. *Atherosclerosis*. 2006;In press

Chen CH*. Platelet-activating factor acetylhydrolase: is it good or bad for you? *Curr Opin Lipidol*. 2004;15:337-341.

Chen CH*, Poucher SM, Liu J, Henry PD. Fibroblast growth factor 2: From laboratory evidence to clinical application. *Curr Vasc Pharmacol*. 2004;2:33-43 (figure used for cover page).

Chang PY, Lu SC, Su TC, Chou SF, Huang WH, Morrisett JD, **Chen CH**, Liau CS, Lee YT. Lipoprotein-X reduces LDL atherogenicity in primary biliary cirrhosis by preventing LDL oxidation. *J Lipid Res*. 2004;45:2116-2122.

Chen CH*, Jiang T, Yang JH, Jiang W, Lu J, Marathe GK, Pownall HJ, Ballantyne CM, McIntyre TM, Henry PD, Yang CY. Low-density lipoprotein in hypercholesterolemic human plasma induces vascular endothelial cell apoptosis by inhibiting fibroblast growth factor 2 transcription. *Circulation*. 2003;107:2102-2108.

Yang CY, Raya JL, Chen HH, **Chen CH**, Abe Y, Pownall HJ, Taylor AA, Smith CV. Isolation, characterization, and functional assessment of oxidatively modified subfractions of circulating low-density lipoproteins. *Arterioscler Thromb Vasc Biol*. 2003;23:1083-1090.

Chang PY, Luo S, Jiang T, Lee YT, Lu SC, Henry PD, **Chen CH***. Oxidized low-density lipoprotein downregulates endothelial basic fibroblast growth factor through a pertussis toxin-sensitive G-protein pathway: mediator role of platelet-activating factor-like phospholipids. *Circulation*. 2001;104:588-593.

Chen CH*, Jiang W, Via D, Luo S, Li TZ, Lee YT, Henry PD. Oxidized low-density lipoproteins inhibit endothelial cell proliferation by suppressing basic fibroblast growth factor expression. *Circulation*. 2000;101:171-177.

Chen CH*, Volding D. Medicinal foods: cross cultural perspectives. *Drugs and Society*. 1999;15:49-64.

Bucay M, Nguy J, Barrios R, **Chen CH**, Henry PD. Impaired adaptive vascular growth in hypercholesterolemic rabbit. *Atherosclerosis*. 1998;139:243-251.

Chen CH*, Cartwright J Jr, Li Z, Luo S, Nguyen HH, Gotto AM Jr, Henry PD. Inhibitory effects of hypercholesterolemia and oxidized LDL on angiogenesis-like endothelial growth in rabbit aortic explants: essential role of basic fibroblast growth factor. *Arterioscler Thromb Vasc Biol*. 1997;17:1303-1312.

Chen CH*, Henry PD. Atherosclerosis as a microvascular disease: impaired angiogenesis mediated by suppressed basic fibroblast growth factor expression. *Proc Assoc Am Physicians*. 1997;109:351-361.

Chen CH*, Nguyen HH, Weilbaecher D, Luo S, Gotto AM Jr, Henry PD. Basic fibroblast growth factor reverses atherosclerotic impairment of human coronary angiogenesis-like responses *in vitro*. *Atherosclerosis*. 1995;116:261-268.

Henry PD, Cabello OA, **Chen CH**. Hypercholesterolemia and endothelial dysfunction. *Curr Opin Lipidol*. 1995;6:190-195.

Chen CH*, Williams J, Lutherer LO. 1994. Cerebellar lesions alter autonomic responses to transient isovolemic changes in arterial pressure. *Clin Auton Res*. 1994;4:263-272.

Henry PD, **Chen CH**. Inflammatory mechanism of atheroma formation: influence of fluid mechanics and lipid-derived inflammatory mediators. *Am J Hypertens*. 1993;6 (suppl):328-334.

Submitted, Under review

Tang D, Lu J, Walterscheid JP, Chen HH, Yang JH, Engler DA, , Sawamura T, Marcelli M, Yang CY, **Chen CH**.
Electronegative LDL in smoking subjects inhibits endothelial progenitor cell differentiation by impairing Akt phosphorylation via the LOX-1 receptor.

Jiang W, Lu J, Yang JH, Chang PY, Walterscheid JP, Chen HH, Marcelli M, Liao WSL, Yang CY, **Chen CH***.
Hypercholesterolemic and diabetic electronegative LDL subfraction impairs endothelial integrity by disrupting a novel FGF2 autoregulatory mechanism.

Chang PY, Lu SC, Lee CM, Huang WH, Chen YJ, **Chen CH***, Lee YT. Homocysteine inhibits arterial endothelial cell survival by selectively downregulating fibroblast growth factor 2 expression.

Chen CH*, Pace PW, Karakoc ND, Lu J, Chen HH, Henry PD, Pownall HJ, Foreyt JP, Ballantyne CM, Yang CY.
Effective reduction of novel atherogenic LDL subfraction by atorvastatin in patients with hypercholesterolemia.

Lu J, Chen HH, Yang JH, Walterscheid JP, Suzuki S, Safi HJ, Morrisett JD, Yang CY, Sawamura T, **Chen CH***.
Signaling transduction of L5, a highly electronegative LDL species, by lectin-like oxidized LDL receptor-1.

C. Research Support

a. Ongoing Research Support

1. Research Award PI: Chen, Chu-Huang 09/01/05–08/31/08

Philip Morris Inc.

Atherogenic mechanisms and potential treatments of a highly electronegative, mildly oxidized low-density lipoprotein subfraction circulating in smoking subjects

The goal is to analyze atherogenic LDL subfractions in the plasma of smoking subjects and to examine whether the particular LDL subfractions can be eliminated or reduced pharmacologically.

2. Research Award, #1-04-RA-13 PI: Chen, Chu-Huang 01/01/04–12/31/06

American Diabetes Association

Phospholipid-mediated vascular endothelial cell apoptosis in hyperlipidemia (in patients with diabetes)

The major goal is to determine the mechanism of endothelial cell apoptosis induced by diabetic LDL.

3. Independent Medical Research Grant PI: Chen, Chu-Huang 01/01/04–12/31/05

Pfizer Pharmaceuticals

Role of electronegative LDL in left ventricular hypertrophy and acute coronary syndromes: Efficacy of atorvastatin in reducing LV mass and risk of sudden cardiac death

The goal is to determine whether electronegative LDL is associated with increased LV mass and sudden cardiac death.

4. Training Grant T32 HL07812-0181 PI: Morrisett, Joel D. 07/01/1997–06/30/2008

National Institutes of Health

Training Grant in Atherosclerosis and Vascular Biology

The major goals of this project are to equip a cadre of bright, young biomedical scientists with the skills that will enable them to conduct state-of-the-art basic and clinical research in the area of atherosclerosis/vascular biology. The ultimate goal is to train both predoctoral students and postdoctoral fellows to develop new, creative and effective approaches for the prevention and treatment of atherosclerosis.

Role: Co-investigator

5. Independent Medical Research Grant PI: Chen, Chu-Huang 01/01/06–12/31/06

Merck-Schering Plough Pharmaceuticals

Effects of Ezetimibe and Vytorin on Reducing L5 in Patients with Metabolic Syndrome

6. RO-1 U01 DK-57177 PI: Foreyt, John P. 09/01/1999–08/31/2008

National Institutes of Health/NIDDK

Lookahead: Study of Health Outcomes of Weight-Loss

Role: Co-investigator

b. Pending Support

1. RO-1

PI: Chen, Chu-Huang

10/01/2006–09/30/2011

National Institutes of Health

Atherogenic role of LDL in metabolic syndrome

c. Completed Research Support (recent)

1. Research Award, #RA-0012

PI: Chen, Chu-Huang

01/01/00–06/30/03

American Diabetes Association

Apoptotic Effects of Circulating Oxidized LDL on Vascular Endothelial Cells

The major goal was to determine the mechanism of endothelial cell apoptosis induced by copper oxidized LDL and circulating oxidized LDL. Results derived from this project form the basis of the current proposal.

2. Independent Medical Research Grant PI: Chen, Chu-Huang

07/01/02–06/30/03

Pfizer Pharmaceuticals

Protective effect of atorvastatin on potential vascular endothelial cell apoptosis in hypercholesterolemia: A pilot study

The goal was to determine the efficacy of atorvastatin (Lipitor) in reducing the concentration of particular circulating lipoprotein species that possess cytotoxic effects on vascular endothelial cells.

3. Scientist Development Grant, #9630095N PI: Chen, Chu-Huang

01/01/97–12/31/00

American Heart Association, National Center

Modulation of endothelial basic fibroblast growth factor expression: role of phospholipids in oxidized LDL

The major goal was to determine whether copper oxidized LDL suppresses endothelial FGF2 expression.

4. Atorvastatin Research Award PI: Chen, Chu-Huang

07/01/99–6/30/01

Pfizer Pharmaceuticals

Novel Antiatherogenic Effects of Atorvastatin on Endothelial Cells

The goal of the study was to test whether atorvastatin can protect endothelial cells from the cytotoxic effects of oxidized LDL.