

## CURRICULUM VITAE

Name: Chun-Che Shih

Citizenship: Taiwan

Office Address: Division of Cardiovascular Surgery, Taipei Veterans General Hospital Taipei, Taiwan.

Tel: 886-2-2871-2121ext 2230

E-Mail Address: ccshih@vghtpe.gov.tw

Current Position:

### **Consultant**

Division of Cardiovascular Surgery, Taipei Veterans General Hospital

### **Professor**

Institute of Clinical Medicine National Yang –Ming University

### **Education and Experience:**

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1980~1987	MD degree	School of Medicine, China Medical University, Taichuang, Taiwan.
1989- 1994	Residency	Division of Cardiovascular Surgery, Taipei Veterans General Hospital
1994- 2012	Consultant	Division of Cardiovascular Surgery, Taipei Veterans General Hospital
2012- 2018	Chief	Division of Cardiovascular Surgery, Taipei Veterans General Hospital
1997- 2000	Ph.D degree	Institute of Clinical Medicine, National Yang –Ming University
2001- 2004	Assistant Professor	Institute of Clinical Medicine, National Yang –Ming University
2004- 2007	Associate Professor	Institute of Clinical Medicine, National Yang –Ming University
2007- till now	Professor	Institute of Clinical Medicine, National Yang –Ming University

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### **Service**

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2009	General Secretary	17 th ASCVTS in Taipei
2009-2011	President	Taiwan Society of Vascular Surgery
2011	Chairman	International Endovascular Advance (IEVA 2011)
2011-till now	Honorary Chairman	Taiwan Society of Vascular Surgery
2011-till now	President	Taiwan Aneurysm Care Association
2012-till now	Councilor	Asian Society of Vascular Surgery
2017-till now	Councilor	Taiwan Society of Cardiology
2017-till now	Councilor	Taiwan Association of Thoracic & Cardiovascular Surgery

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### **Clinical Research**

1. Heart Transplantation
2. Surgery of end-stage heart disease
3. Valve repair surgery
4. Structure heart Intervention: Trans-catheter Aortic Valve Implantation
5. Endovascular mini-invasive surgery for aortic dissection and aneurysm, peripheral artery occlusive disease and AVF occlusive disease.

6. Application of Unique Device Identification management system in Inventory system of Operation Room

#### Basic Research

1. Drug eluting stent development and application
2. Nano-oxide surface of biomedical metallic surface
3. Surface toxicity of corrosion product of biomedical metallic surface
4. Aneurysm mechanism and therapy
5. Clinical trial for application of mesenchymal stem cell for critical limb ischemia

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Citations 1,206

#### Book Writing

1. Shih, C.C. 2000. Ph.D. thesis "The Effects on Corrosion Resistance and Bioresponse of Stent Materials by Converting Current Surface Film of Polycrystalline Oxide into Amorphous oxide" National Yang-Ming University Taipei, Taiwan, R.O.C."
2. Aortic Dissection: Patients true stories and the innovations that saved their lives [Hardcover] Germano Melissano and Roberto Chiesa Hardcover – 2016 by Germano Melissano (Author), Roberto Chiesa (Author) (Chapter 30: Distal Stent Graft Induced New Entry)

Reference papers:

## Research about aortic disease

1. Lee PY, Chen PL, Shih CC and Chen IM. Cross-wire technique for difficult contralateral limb cannulation during endovascular abdominal aneurysm repair for tortuous proximal aortic neck. *Interact Cardiovasc Thorac Surg.* 2018.
2. Huang CY, Hsu HL, Chen PL, Chen IM, Hsu CP and Shih CC\*. The Impact of Distal Stent Graft-Induced New Entry on Aortic Remodeling of Chronic Type B Dissection. *Ann Thorac Surg.* 2018;105:785-793.
3. Chen TW, Huang CY, Chen PL, Lee CY, Shih CC and Chen IM. Endovascular and Hybrid Revascularization for Complicated Aorto-Iliac Occlusive Disease: Short-Term Results in Single Institute Experience. *Acta Cardiol Sin.* 2018;34:313-320.
4. Chen IM, Chen PL, Weng SH, Hsu CP, Shih CC, Chang HH and Wei J. Clinical Outcomes of VasoRing Connector in Patients With Acute Type A Aortic Dissection. *Ann Thorac Surg.* 2018;106:764-770.
5. Chen CK, Chou HP, Guo CY, Chang HT, Chang YY, Chen IM, Wu MH and Shih CC\*. Interobserver and intraobserver variability in measuring the tortuosity of the thoracic aorta on computed tomography. *J Vasc Surg.* 2018;68:1183-1192 e1.
6. Lu HY, Huang CY, Shih CM, Lin YW, Tsai CS, Lin FY and Shih CC\*. A potential contribution of dipeptidyl peptidase-4 by the mediation of monocyte differentiation in the development and progression of abdominal aortic aneurysms. *J Vasc Surg.* 2017;66:1217-1226 e1.
7. Lin TC and Shih CC\*. Review of Treatment for Thoracoabdominal Aortic Aneurysm, and the Modern Experience of Multi-Branched Endograft in Taiwan. *Acta Cardiol Sin.* 2017;33:1-9.
8. Huang CY, Hsu HL, Chen PL, Chen IM, Hsu CP and Shih CC\*. The Impact of Distal Stent Graft-Induced New Entry on Aortic Remodeling of Chronic Type B Dissection. *Ann Thorac Surg.* 2017.
9. Hsu HL and Shih CC\*. Re-intervention after thoracic endovascular aortic repair is high, but we should keep optimistic. *J Thorac Dis.* 2017;9:E162-E163.
10. Chiang WC, Ling-Lin Pai E, Chen PL, Shih CC and Chen IM. Endografting under Assistance of Transapical Body Floss Through-and-Through Wiring Technique and Rapid Ventricular Pacing for an Ascending Aortic Tuberculous Pseudoaneurysm. *Ann Vasc Surg.* 2017.
11. Chen PL, Hsu HL, Chen IM, Chen YY, Chou KY, Kuo TT and Shih CC\*. The Impact of Aortic Tortuosity on Delayed Type I or III Endoleak after Endovascular Aortic Repair. *Ann Vasc Surg.* 2017;41:110-117.
12. Chen IM, Chen PL, Huang CY, Weng SH, Chen WY and Shih CC\*. Factors Affecting Optimal Aortic Remodeling After Thoracic Endovascular Aortic Repair of Type B (IIIb) Aortic Dissection. *Cardiovasc Intervent Radiol.* 2017;40:671-681.
13. Huang CY, Chen CW, Chen PL, Chen WY, Chen IM, Hsu CP and Shih CC\*. Association between Aortic Remodeling and Stent Graft-Induced New Entry in Extensive Residual Type A Dissecting Aortic Aneurysm after Hybrid Arch Repair. *Ann Vasc Surg.* 2016;31:60-9. (IF: 1.17 )
14. Chen IM, Huang CY, Weng SH, Lin PY, Chen PL, Chen WY and Shih CC\*. Implantation sequence modification averts distal stent graft-induced new entry after endovascular repair of Stanford type B aortic dissection. *J Vasc Surg.* 2016;64:281-288.(Surgery IF: 3.183 Ranking 30/204)
15. Hsu HL, Shih, CC\*. SUPPLEMENT TO ENDOVASCULAR TODAY EUROPE 2016 (4), NO. 1:7-9
16. Lu HY, Huang CY, Shih CM, Chang WH, Tsai CS, Lin FY, Shih CC\*. Dipeptidyl Peptidase-4 Inhibitor

- Decreases Abdominal Aortic Aneurysm Formation through GLP-1-Dependent Monocytic Activity in Mice. PLoS One. 2015 Apr 14;10(4):e0121077.(MULTIDISCIPLINARY SCIENCES IF 3.53, Ranking 8/55 )
17. Chen CK, Liang IP, Chang HT, Chen YC, Chen IM, Wu MH, Sheu MH, Shih CC\*. Impact on Outcomes by Measuring Tortuosity Using Reporting Standards for Thoracic Endovascular Aortic Repair. J Vasc Surg. 2014 Oct;60(4):937-44. (Surgery IF: 3.183 Ranking 30/204)
  18. Shih CM, Huang CY, Liao LR, Hsu CP, Tsao NW, Wang HS, Chen WY, Su YY, Lin SJ, Shih CC\*, Lin FY. Nickel ions from a corroded cardiovascular stent induce monocytic cell apoptosis: Proposed impact on vascular remodeling and mechanism. J Formos Med Assoc. 2014 May 16. pii: S0929-6646(14)00101-6. (MEDICINE, GENERAL & INTERNAL IF: 1.695 Ranking 57/156)
  19. Hsu HL, Chen CK, Chen PL, Chen IM, Hsu CP, Chen CW, Shih CC\*. The impact of bird-beak configuration on aortic remodeling of distal arch pathology after thoracic endovascular aortic repair with the zenith pro-form tx2 thoracic endograft. J Vasc Surg. 2014;59:80-88.(Surgery IF: 3.183 Ranking 30/204)
  20. Chen CK, Chang HT, Chen YC, Chen TJ, Chen IM, Shih CC\*. Surgeon elective abdominal aortic aneurysm repair volume and outcomes of ruptured abdominal aortic aneurysm repair: A 12-year nationwide study. World journal of surgery. 2013;37:2360-2371(Surgery IF:2.348 Ranking 57/204)
  21. Huang CS, Chen PT, Cheng SH, Chen CK, Hsu PK, Hsieh CC, Shih CC\*, Hsu WH. Relative contraindications for percutaneous tracheostomy: from the surgeons' perspective. Surg Today . 2014;44:107-114(Surgery IF:1.208 Ranking 120/204)
  22. Sung SH, Wu TC, Chen JS, Chen YH, Huang PH, Lin SJ, Shih CC\*, Chen JW\*. Reduced number and impaired function of circulating endothelial progenitor cells in patients with abdominal aortic aneurysm. Int J Cardiol. 2013;168:1070-1077 (CARDIAC & CARDIOVASCULAR SYSTEMS IF: 6.175 Ranking 11/125)
  23. Huang CY, Weng SH, Weng CF, Chen WY, Chen IM, Hsu CP, Shih, CC\*. Factors predictive of distal stent graft-induced new entry after hybrid arch elephant trunk repair with stainless steel-based device in aortic dissection. J Thorac Cardiovasc Surg. 2013;146:623-630(Surgery IF:3.991 Ranking 12/204)

24. Weng SH, Weng CF, Chen WY, Huang CY, Chen IM, Chen CK, Hsu CP, Shih CC\*. Re-intervention for Distal Stent Graft-induced New Entry after Endovascular Repair with a Stainless-steel Based Device in Aortic Dissection. *J Vasc Surg.* 2013;57:64-71. (Surgery IF: 3.183 Ranking 30/204)
25. Ou Yang CP, Hsu CP, Chen WY, Chen IM, Weng CF, Chen CK, Shih CC\*. Aortic remodeling after endovascular repair with stainless steel-based stent graft in acute and chronic type B aortic dissection. *J Vasc Surg.* 2012;55:1600-1610 (Surgery IF: 3.183 Ranking 30/204)
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27. Hsiao CY, Hsu CP, Chen WY, Shih CC\* et al. Early outcome of endovascular repair for contained ruptured abdominal aortic aneurysm. *J Chin Med Assoc* 2011;74:105-9. (MEDICINE, GENERAL & INTERNAL IF: 0.891 Ranking 96/156)
28. Chen IM, Wu FI, Shih CC\*. Banding Technique for Endovascular Repair of Arch Aneurysm with Improper Proximal Landing Zone. *CIRC J* .2008;72:1981-1985.(CARDIAC & CARDIOVASCULAR SYSTEMS IF : 3.685 Ranking36/125)
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32. 施俊哲 New era of mini-invasive treatment of aortic aneurysm 胸、腹主動脈瘤微創治療新趨勢 -Part I: 支架血管治療腹主動脈瘤- *榮總護理雜誌* 2007;24(1) 1-13.
33. 葉聰次 施俊哲\* 腹主動脈瘤血管內套膜支架目前的發展 *臨床醫學雜誌* 2006;58:113-122.
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35. Shih CC, Lai ST, Chang Y. Computer tomography in the determination of surgical emergency for symptomatic abdominal aortic aneurysm. *Zhonghua Yi Xue Za Zhi (Taipei).* 1998;61(4):210-5.

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38. Shih CT, Lai ST, Hwang JH, Yang WY. Pseudoaneurysm of the profundus femoris artery resulting from chronic injury of internal fixation screw. Chung Hua I Hsueh Tsa Chih- Chinese Medical Journal 1992;50:420-3.

#### Research about stent material

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40. Shih CC\*, Su YY, Chen LC, Shih CM, Lin SJ. Degradation of 316L stainless steel sternal wire by steam sterilization. Acta Biomaterialia 2010;6(6):2322-8.(ENGINEERING, BIOMEDICAL IF: 5.076 Ranking 3/72)
41. 施俊哲 血管支架簡介 臨床醫學 2008; 62: 454-70.
42. Shih CC\*, Shih CM, Chou KY, Lin SJ, Su YY. Stability of Passivated 316L Stainless Steel Oxide Films for Cardiovascular Stents J Biomed Mater Res. 2007;80A:861-873.
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49. Shih CC\*, Shih CM, Su YY, Lin SJ. Galvanic Current Induced by Heterogeneous Structures on Stainless Steel Wire Corro Sci 2005;47/9: 2199-2212.
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58. Shih CC, Shih CM, Su YY, Lin SJ. “Antithrombogenic Oxide Film on Stainless Steel for Cardiovascular Applications” Proceedings of Wire Association International, May 12-15, 2003. ;36:114-137.
59. Shih CC, Shih CM, Chen YL, Su YY, Shih JS, Kwok CF, Lin SJ. Growth Inhibition of Cultured Smooth Muscle Cells by Corrosion Products of 316 L Stainless Steel Wire J Biomed Mater Res 2001;57(2):200–207.
60. Shih CC, Chen CC, Chang J, Shih CM, Tseng HS, Ko J, Lai ST. Endovascular Aortic Graft Exclusion of Abdominal Aortic Aneurysm Zhonghua Yi Xue Za Zhi (Taipei). 2001;64(11):661-6.
61. Shih CC, Lin SJ, Chung KH, Chen YL, Su YY. Increased corrosion resistance of stent materials by converting current surface film of polycrystalline oxide into amorphous oxide. J Biomed Mater Res 2000;52:323-332.
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Products of Nitinol Stent Wire on Cultured Smooth Muscle Cells . *J Biomed Mater Res* 2000;52:395-403.

### **Other Cardiovascular and peripheral arterial disease**

1. Tsai TC, Shih CC, Chien HP, Yang AH, Lu JK and Lu JH. Anti-apoptotic effects of IGF-I on mortality and dysmorphogenesis in *tbx5*-deficient zebrafish embryos. *BMC Dev Biol.* 2018;18:5.
2. Wu HY, Chao HS, Shih HC, Shih CC and Chang SC. The impact of open to collaborative care model in cardiovascular surgical unit. *J Chin Med Assoc.* 2018;81:64-69.
3. Meng FC, Chen PL, Lee CY, Shih CC and Chen IM. Real-World Comparison of Drug-Eluting and Bare-Metal Stents in Superficial Femoral Artery Occlusive Disease with Trans-Atlantic Intersociety Consensus B Lesions: A 2-Year, Single-Institute Study. *Acta Cardiol Sin.* 2018;34:130-136.
4. Lin TC, Lu TM, Huang FC, Hsu PF, Shih CC, Lin SJ and Hsu CP. Coronary Artery Bypass Surgery versus Percutaneous Coronary Intervention for Left Main Coronary Artery Disease with Chronic Kidney Disease. *Int Heart J.* 2018;59:279-285.
5. Lin TC, Huang CY, Chen PL, Lee CY, Shih CC and Chen IM. Edge Stenosis After Covered Stenting for Long Superficial Femoral Artery Occlusive Disease: Risk Factor Analysis and Prevention With Drug-Coated Balloon Angioplasty. *J Endovasc Ther.* 2018;25:313-319.
6. Lee CW, Sung SH, Tsai YL, Chang TY, Hsu CP, Lu CC and Shih CC. Initial experience with percutaneous edge-to-edge transcatheter mitral valve repair in a tertiary medical center in Taiwan. *J Chin Med Assoc.* 2018;81:305-310.
7. Kuo TT, Chen PL, Huang CY, Lee CY, Shih CC and Chen IM. Outcome of drug-eluting balloon angioplasty versus endarterectomy in common femoral artery occlusive disease. *J Vasc Surg.* 2018.
8. Kuo MJ, Chen PL, Shih CC and Chen IM. Establishing stable innominate access by inserting a body floss wire from the brachial artery to the femoral artery facilitates right carotid artery stenting in Type III arch anatomy. *Interact Cardiovasc Thorac Surg.* 2018;26:8-10.
9. Chiu YJ, Ma H, Liao WC, Shih YC, Chen MC, Shih CC, Chen TW and Perng CK. Extracorporeal membrane oxygenation support may be a lifesaving modality in patients with burn and severe acute respiratory distress syndrome: Experience of Formosa Water Park dust explosion disaster in Taiwan. *Burns.* 2018;44:118-123.
10. Lin YY, Lu WA, Hsieh YC, Chang HH, Shih CC, Jeng MJ and Kuo CD. Effect of position on the residual heart rate variability in patients after orthotopic heart transplantation. *J Chin Med Assoc.* 2017;80:63-71.
11. Li HR, Hsu CP, Sung SH, Shih CC, Lin SJ, Chan WL, Wu CH and Lu TM. Percutaneous Coronary Intervention versus Coronary Artery Bypass Grafting in Patients with Diabetic Nephropathy and Left Main Coronary Artery Disease. *Acta Cardiol Sin.* 2017;33:119-126.
12. Lee CW, Sung SH, Tsai YL, Chang TY, Hsu CP, Lu CC and Shih CC. Initial experience with percutaneous edge-to-edge transcatheter mitral valve repair in a tertiary medical center in Taiwan. *J Chin Med Assoc.* 2017.
13. Kuo TT, Chen PL, Shih CC and Chen IM. Endovascular stenting for end-stage lung cancer patients with superior vena cava syndrome post first-line treatments - A single-center experience and literature



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15. Tsai CS, Lin YW, Huang CY, Shih CM, Tsai YT, Tsao NW, Lin CS, Shih CC, Jeng H and Lin FY. Thrombomodulin regulates monocyte differentiation via PKCdelta and ERK1/2 pathway in vitro and in atherosclerotic artery. *Sci Rep.* 2016;6:38421.
16. Tai YH, Chang KY, Liao SW, Chung KC, Shih CC, Ho ST, Lu CC and Tsou MY. Intravenous loading of nitroglycerin during rewarming of cardiopulmonary bypass improves metabolic homeostasis in cardiac surgery: a retrospective analysis. *J Anesth.* 2016;30:779-88.
17. Lu WA, Chen GY, Shih CC and Kuo CD. The use of heart rate variability measures as indicators of autonomic nervous modulation must be careful in patients after orthotopic heart transplantation. *J Clin Monit Comput.* 2016;30:687-97.
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19. Huang PH, Chen JY, Chen CY, Chen JW, Lin SJ and Shih CC. Simvastatin pretreatment enhances ischemia-induced neovascularization and blood flow recovery in streptozotocin-treated mice. *J Vasc Surg.* 2016;64:1112-1120 e1.