Curriculum Vitae

Name: 莊佩錦 (Chuang, Pei-Chin)
Office Address: No.123, Dapi Rd., Niaosong Dist., Kaohsiung City 83301, Taiwan
E-mail: pcjchuang@gmail.com

Doctorate:

2002/09-2006/12 **PhD**, The Institute of Basic Medical Sciences, Medical College, National Cheng Kung University, Tainan, Taiwan

Post-doctorate

2007/01-2009/01 **Postdoctoral Fellow**, Department of Physiology, National Cheng Kung University, Tainan, Taiwan

Academic Appointment:

2009/02-2012/07 **Assistant Research Fellow**, Department of Medical Research, Kaohsiung Chang Gung Memorial Hospital, Taiwan

2012/08-2021/07 **Associate Research Fellow**, Department of Medical Research, Kaohsiung Chang Gung Memorial Hospital, Taiwan

2021/08-present **Research Fellow**, Department of Medical Research, Kaohsiung Chang Gung Memorial Hospital, Taiwan

Specialties

1. Reproductive Physiology
2. Radiation Medicine Research
3. Molecular Endocrinology
4. Signaling Transduction

Memberships

1. The Society for the Study of Reproduction (SSR) 美國生殖醫學年會會員
2. The Chinese Endocrinology Society (CES) 中國內分泌學會終身會員
3. The Chinese Physiological Society (CPS) 中國生理學會終身會員
4. Taiwan Precision Medicine Society (TPMS) 台灣精準醫學學會會員
5. Taiwan Endometriosis Society (TES) 台灣子宮內膜異位症學會會員
6. Asian Conference on Endometriosis (ACE) 國際亞太子宮內膜異位症學會終身會員

Research Interests in recent five years

1. Mechanistic study of controlling the development and propagation of endometriosis.

2. Elucidating associated molecular mechanisms of radioresistance-associated organ specific metastatic potential among gynecological cancers (Focused on human cervical, endometrial and ovarian cancers).

Academic and Administrative Services

- ***2012-Present*** 科技部/國科會計畫初審委員
- ***2016-2019*** 科技部計畫複審委員
- ***2018-2021*** 科技部年輕學者養成計畫(哥倫布/愛因斯坦培植計畫/千里馬計畫)審查委員
- ***2012-2021*** Chang Gung Medical Research Fund, Kaohsiung, Taiwan
  長庚院內計畫審查委員(初審/主審委員)
- ***2018-present*** 高雄醫學大學生物科技研究所 合聘副教授
- ***2018-present*** 國立成功大學「基礎醫學研究所博士學位」及
  「跨領域神經科學國際博士學位學程」考試委員會委員
- ***2012-present*** 高雄長庚生物安全委員會委員(生物安全計畫審查委員)

Honor & Scholarships

2007 First place award winner in reward of 15th Symposium on Recent Advances in Cellular and Molecular Biology; Dr. Chieh-Tein Hsu's Award Presentation, Taiwan

2006 Second place award winner in International Symposium on Cell Signaling and Gene Regulation, Taiwan 2006

2006 Award of Excellence in Ph.D. Dissertation, The institute of Basic Medical Sciences, Medical College, National Cheng Kung University, Taiwan

2005 Award of founding support of PhD students attending to international conference meeting. National Science Council, Taiwan, 2005 (Exp Biol 10th Annual Meeting, San Francisco, CA.)

2004 Award of funding support of PhD students attend to international conference meeting. Ministry of Education, Taiwan, (*37th Annual Meeting Society for Study of Reproduction. Vancouver, British Columbia, Canada*)

2002 Award of funding support of PhD students attend to international conference meeting. National Science Council, Taiwan, (*35th Annual Meeting Society for Study of Reproduction, Baltimore, Maryland*)

2001 Award of funding support of graduated students attend to international conference meeting. National Science Council, Taiwan, (*34th Annual Meeting, Society for Study of Reproduction, Wisconsin-Madison, Madison, WI)*

BIBLIOGRAPHY (Selected Publications in K-CGMH)

1. **Chuang PC**, Chen PT, Wang CC, Su WH, Chen YH, Huang EY. *MicroRNA-29a* Manifests Multifaceted Features to Intensify Radiosensitivity, Escalate Apoptosis, and Revoke Cell Migration for Palliating Radioresistance-Enhanced Cervical Cancer Progression. *Int J Mol Sci.* **2022** May 15;23(10):5524. (SCI Impact Factor: **6.208**; Biochem & Mol Biol 74/297=24.92%)
2. **Chuang PC**, Lu CW, Tsai CC, Tseng SH, Su WH. MicroRNA-128 Confers Anti-Endothelial Adhesion and Anti-Migration Properties to Counteract Highly Metastatic Cervical Cancer Cells' Migration in a Parallel-Plate Flow Chamber. *Int J Mol Sci.* **2021** Jan 28;22(1):E215. (SCI Impact Factor: **6.208**; Biochem & Mol Biol 74/297=24.92%)
3. Chan YL, Lai WC, **Chuang PC**, Chen JS, Tseng JT, Jou J, Lee CT, Sun HS.TIAM2S Mediates Serotonin Homeostasis and Provokes a Pro-Inflammatory Immune Microenvironment Permissive for Colorectal Tumorigenesis. *Cancers (Basel).* **2020** Jul 8;12(7):1844. (SCI Impact factor: **6.639**; Oncology= 37/244=15%) **(10%-15% ranked Journal)**

4. Chu CH, **Chuang PC**, Chen JS, Su CH, Chan YL, Yang YJ, Chiang YT, Su YY, Gean PW, Sun HS. TIAM2S as a novel regulator for serotonin level enhances brain plasticity and locomotion behavior. *FASEB J.* **2020** Feb;34(2):3267-3288. (SCI Impact Factor: **6.103**, Biology 9/93=9.7%) **(<10% ranked Journal)**
5. Su WH, Wang CJ, Hung YY, Lu CW, Ou CY, Tseng SH, Tsai CC, Kao YT, **Chuang PC**. MicroRNA-29a Exhibited Pro-Angiogenic and Anti-Fibrotic Features to Intensify Human Umbilical Cord Mesenchymal Stem Cells-Renovated Perfusion Recovery and Preventing against Fibrosis from Skeletal Muscle Ischemic Injury. *Int J Mol Sci.* **2019** Nov 22;20 (23). pii: E5859. (SCI Impact Factor: **6.208**; Biochem & Mol Biol 74/297=24.92%)
6. Su WH, Wang CJ, Fu HC, Sheng CM, Tsai CC, Cheng JH, **Chuang PC**. Human Umbilical Cord Mesenchymal Stem Cells Extricate Bupivacaine-Impaired Skeletal Muscle Function via Mitigating Neutrophil-Mediated Acute Inflammation and Protecting against Fibrosis. *Int J Mol Sci.* **2019** Sep 3;20(17). pii: E4312. (SCI Impact Factor: **6.208**; Biochem & Mol Biol 74/297=24.92%)
7. Fu HC, Chuang IC, **Chuang PC**, Yang YC, Lin H, Ou YC, Chang Chien CC, Huang HS, Kang HY. Low $P16^{INK4A}$Expression Associated with High Expression of Cancer Stem Cell Markers Predicts Poor Prognosis in Cervical Cancer after Radiotherapy. *Int J Mol Sci.* **2018** Aug 27;19(9). pii: E2541. (SCI Impact Factor: **6.208**; Biochem & Mol Biol 74/297=24.92%)
7. Tsai CL, Ke MC, Chen YH, Kuo HK, Yu HJ, Chen CT, Tseng YC, **Chuang PC**, Wu PC. Mineral trioxide aggregate affects cell viability and induces apoptosis of stem cells from human exfoliated deciduous teeth. *BMC Pharmacol Toxicol*. **2018** May 15;19(1):21. (SCI Impact Factor: **2.483**, Toxicology 68/94=72.3%)
8. Wang FS, Lian WS, Lee MS, Weng WT, Huang YH, Chen YS, Sun YC, Wu SL, **Chuang PC**#, Ko JY#. Histone demethylase UTX counteracts glucocorticoid deregulation of osteogenesis by modulating histone-dependent and -independent pathways. *J Mol Med (Berl).* **2017** May;95(5):499-512. (SCI Impact Factor: **6.029**, Medicine, Research & Experimental 18/128=14.0%) **(10%-15% ranked Journal) # equal correspondent author**
9. Chuang JI, Huang JY, **Chuang PC**, Tsai SJ, Sun HS, Yang SH, Huang BM, Ching CH. FGF9-induced changes in cellular redox status and HO-1 upregulation are FGFR-dependent and proceed through both ERK and AKT to induce CREB and Nrf2 activation. *Free Radic Biol Med*. **2015** Sep 28;89:274-286. (SCI: impact factor: **8.101**, Endocrino & Meta 16/143=11.1%) **(10%-15% ranked Journal)**
10. Tsai CL, **Chuang PC**, Kuo HK, Chen YH, Su WH, Wu PC. Differentiation of Stem Cells From Human Exfoliated Deciduous Teeth Toward a Phenotype of Corneal Epithelium In Vitro. *Cornea*. **2015** Nov;34(11):1471-7. (SCI: impact factor: **2.215**, Ophthalo 22/57=38.5%)
11. Ko JY, **Chuang PC**, Ke HJ, Chen YS, Sun YC, Wang FS. MicroRNA-29a mitigates glucocorticoid induction of bone loss and fatty marrow by rescuing Runx2 acetylation. *Bone*. **2015** Jul 2;81:80-88. (SCI: impact factor: **4.417**, Endocrinology& Metabolism 36/143=25.1%, citation=40)
12. Lin CL, Lee PH, Hsu YC, Ko JY, **Chuang PC**, Huang YT, Wang SY, Wu SL, Chen YS, Chiang WC, Reiser J, Wang FS. MicroRNA-29a promotion of nephrin acetylation ameliorates hyperglycemia-induced podocyte dysfunction. *J Am Soc Nephrol*. **2014** Aug;25(8):1698-709. (SCI: impact factor: **14.978**, Urology& Nephrology 2/77=2.6%) **(< 5 % ranked Journal)**
13. Yang JL, Lin YT, **Chuang PC**, Bohr VA, Mattson MP. BDNF and exercise enhance neuronal DNA repair by stimulating CREB-mediated production of apurinic/apyrimidinic endonuclease 1. *Neuromolecular Med*. **2014** Mar;16(1):161-74. (SCI: impact factor: **4.03**, Neurosciences, 77/252=30.6%)
14. Wang FS*, **Chuang PC***, Lin CL, Chen MW, Ke HC, Chang YH, Chen YS, Wu SL, Ko JY MicroRNA miR-29a Protects from Glucocorticoid-induced Bone Loss and Fragility by Orchestrating Bone Acquisition and Resorption. *Arthritis & Rheumatism* **2013** Jun;65(6):1530-40. (SCI: impact factor:

10.995, Rheumatology, 3/32=9.3 %) **(<10% ranked Journal)** * **Equal contribution of first -author**

15. Ko JY*, **Chuang PC***, Chen MW, Ke HC, Wu SL, Chang YH, Chen YS, Wang FS. MicroRNA-29a ameliorates glucocorticoid-induced suppression of osteoblast differentiation by regulating β-catenin acetylation. *Bone*. **2013** Dec;57(2):468-75. (SCI: impact factor: **4.147**, Endocrinology& Metabolism 36/143=25%) * **Equal contribution of first -author**
16. Wu MH*, **Chuang PC***, Lin YJ, Tsai SJ. Suppression of annexin A2 by prostaglandin E2 impairs phagocytic ability of peritoneal macrophages in women with endometriosis. *Hum Reprod*. **2013** Apr;28(4):1045-53. (SCI: impact factor: **6.918**, Obstetric & Gynecology 4/82=4.8%) **(<5 % ranked Journal)** * **Equal contribution of first -author**
17. Wu KL, Huang EY, Jhu EW, Huang YH, **Chuang PC**, Su WH, Yang KD. Overexpression of galectin-3 enhances migration migration of colon cancer cells related to activation of the K-Ras-Raf-Erk1/2 pathway. *J Gastroenterol*. **2013** Mar;48(3):350-9. (SCI: impact factor: **6.772**, Gastroenterology &Hepatology 14/74=18.9%) **(10%-20% ranked Journal)**
18. Huang EY, Chen YF, Chen YM, Lin IH, Wang CC, Su WH, **Chuang PC**, Yang KD. A novel radioresistant mechanism of galectin-1 mediated by H-Ras-dependent pathways in cervical cancer cells. *Cell Death Dis.* **2013** Jan 12;3(1):e251. (SCI: impact factor:**9.685**; Biochem & Mol Biol 44/297=14.9%) **(10%-15% ranked Journal)**
19. **Chuang PC**, Su WH, Huang EY, Yang KD. Radiation-induced increase in cell migration and metastatic potential of cervical cancer cells operates via the K-Ras pathway. *Am J Pathol*. **2012** Feb;180 (2):862-71. (SCI; impact factor: **5.770**, Pathology 7/77=9.09%) **(<10 % ranked Journal)**
20. Wu MH , Lu CW, **Chuang PC**, Tsai S. J. Prostaglandin E2: the master of endometriosis? Experimental Biology and Medicine (mini review). *Experimental Biology and Medicine*. **2010** Jun;235: 668–677. (SCI; impact factor: **2.635**, Medicine, Research and Experimental 34/93=36.5%)
21. **Chuang PC**, Lin YJ, Wu MH, Wing LC, Shoji Y, Tsai S. J; Inhibition of CD36-dependent phagocytosis by prostaglandin E2 contributes to the development of endometriosis. *Am J Pathol*. **2010** Feb;176(2):850-60. (SCI; impact factor: **5.770**, Pathology 7/77=9.09%) **(<10 % ranked Journal)**
22. **Chuang PC**, Wu MH, Shoji Y, Tsai SJ. Downregulation of CD36 results in reduced phagocytic ability of peritoneal macrophages of women with endometriosis. *J Pathol*. **2009** Oct;219(2):232-41. (SCI; impact factor: **9.883**, Pathology, 3/75=4%) **(<5 % ranked Journal)**
23. **Chuang PC**, Sun HS, Chen TM, Tsai SJ. Prostaglandin E2 induces fibroblast growth factor 9 via EP3-dependent protein kinase C delta and Elk-1 signaling. *Mol Cell Biol*. **2009** Nov;26(22):8281-92. (SCI; impact factor: **6.342**; Biochem & Mol Biol 50/290=17.2%) **(10-20 % ranked Journal)**

SELECTED PRESENTATIONS (INVITED SPEAKER/MODERATOR)

Chuang PC. **2021** T-cell lymphoma invasion and metastasis 2S expedited endometriosis Progression. The Ninth Asian Conference on Endometriosis (ACE IV), Colombo, Sri Lanka. **(Invited Speaker; Video conference)**

Chuang PC. **2020** TIAM2S involving in local-to central inflammation to ameliorate endometriosis progression. The 14th World Congress on Endometriosis, Shanghai, China **(Invited Speaker; Video conference)**

Chuang PC. **2019** 11th Translational circulatory and stem cell research. KCGMH, *Kaohsiung,*

Taiwan. **(Invited Moderator)**

Chuang PC. **2018** Frontiers in Translational Medicine, *Kaohsiung, Taiwan* **(Invited Moderator)**.

Chuang PC. **2018** Mutifaced roles of TIAM2S on accelerating endometriosis progression. The Seventh Asian Conference on Endometriosis (ACE VII), *Taipei, Taiwan*. **(Invited Speaker & Moderator)**

Chuang PC. **2018** 成大生理所邀請演講. 科學轉個彎: 思路·決定你的出路**(受邀傑出校友返校口頭專題演講)**

Chuang PC. **2016** Mechanistic Study of Endometriosis (Growth and Immune dysfunction) KMU, *Kaohsiung, Taiwan*. **(Invited Speaker)**

Chuang PC. 2016 Employing Selective Fibroblast Growth Factor Receptor Tyrosine Kinase Inhibitor Ameliorates Endometriosis. *The Fifth Asian Conference on Endometriosis (ACE IV), Osaka, Japan* **(Invited Speaker & Oral Presentation Section Chairman)**

Chuang PC et al. 2015 Extracorporeal shock wave combined umbilical cord mesenchymal stem cell therapy attenuated skeletal muscle injury via microRNA-29a/MGC93704. Asia Pacific Summit in Shockwave Medicine, Kaohsiung, Taiwan. **(Invited Speaker)**

Chuang PC. 2015 Targeting fibroblast growth factor 9-augmentated angiogenesis mitigates endometriosis. *Taiwan Association for Minimally Invasive Gynecology, Tainan, Taiwan* **(Invited Keynote Speaker)**

Chuang PC. 2015 Radiation-augmented Cervical Cancer Metastasis through Galectin/K-Ras/c-Raf/p38 Pathway. *63 rd Association of University Radiologists (AUR) Annual Meeting*. *New Orleans, Louisana, USA*. **(Invited Oral Presentation)**

Chuang PC. 2014 From Endometriosis Study to Cancer Stem Cell Study. *Chia-Yi Chang-Gung Memorial Hospital, Taiwan* **(Invited Speaker)**

Chuang PC. 2014 Targeting prostaglandin E2/fibroblast growth factor 9-augmentated angiogenesis mitigates endometriosis. *The Second Asian Conference on Endometriosis (ACE III), Seoul, Korea* **(Invited Keynote Speaker)**

Chuang PC, 2014 Mechanistic Studies of miRNAs in Endometrial and Cervical Cancer Stem Cells. Frontiers in Translational Medicine, Kaohsiung, Taiwan **(Invited Speaker)**

Chuang PC, 2013 Mechanistic Studies of miRNAs contribute to ovarian and cervical Cancer stem cells**.** The Society for the Study of Reproduction. Montréal, Québec, Canada **(Invited Oral Presentation)**

Chuang PC. 2013 Pleiotropic Effects of Prostaglandin E2 Contribute to The Development of Endometriosis. Frontiers in Translational Medicine, Kaohsiung, Taiwan **(Invited Speaker)**

Chuang PC. 2013 The role of peritoneal macrophages in pathogenesis of endometriosis. The Second Asian Conference on Endometriosis (ACE II), Tainan, Taiwan**. (Invited Speaker)**

Chuang PC 2013 Regulation of fibroblast growth factor-9 and Annexin-2 by aberrant production of prostaglandin in human endometrial cancers. 2013 Symposium on Recent Advances in Stem Cells. **(Invited Oral Presentation)**

Chuang PC. 2012 Radiation-induced increase in cell migration and metastatic potential of cervical cancer cells operates via the K-Ras pathway. Taiwan-Hong Kong Physiology Symposium. Hong Kong. **(Invited Young Scientists Speaker)**

Chuang PC. 2011 Inhibition of CD36-dependent phagocytosis by prostaglandin E_2 contributes to the development of endometriosis. 7th FAOPS Congress. Taipei, Taiwan. **(Invited Oral Presentation in section OR3-02-03)**

Chuang PC. 2011 Immunosuppressive roles of prostaglandin E_2 contributes to the development of endometriosis. Taiwan-Hong Kong Physiology Symposium, Chia-Yi, Taiwan. **(Invited distinguished young scientists Oral Presentation)**

Chuang PC. 2010 Prostaglandin E_2 inhibits phagocytosis of macrophages via downregulation of CD36 in endometriosis. The First Asian Conference on Endometriosis (ACE I), Shanghai, China. **(Invited Oral Presentation)**