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Outstanding female cancer research paper awards of the 2015 Taiwan Association of Obstetrics and Gynecology and Hsu Chien-Tien Cancer Foundation

The Hsu Chien-Tien Cancer Foundation, established in 1975, has supported and encouraged cancer research for a long time. In this issue of the *Taiwanese Journal of Obstetrics & Gynecology*, we are happy to introduce the winners of the 2015 Hsu Chien-Tien Cancer Foundation Outstanding Research Paper Award. The awards were selected from among female cancer research papers published in 2015, and the first author should be a member of the Taiwan Association of Obstetrics and Gynecology (TAOG). The golden award goes to Dr Ying-Cheng Chiang, for his research paper entitled “Overexpression of CHI3L1 is associated with chemoresistance and poor outcome of epithelial ovarian carcinoma” [1]. Dr Wen-Fang Cheng, the corresponding author of this paper, is a professor at the National Taiwan University Hospital. The silver award winner is Dr Chia-Yen Huang, for his research paper entitled “Urokinase-type plasminogen activator resulting from endometrial carcinogenesis enhances tumor invasion and correlates with poor outcome of endometrial carcinoma patients” [2]. The corresponding author of this paper is also Dr Wen-Fang Cheng. Dr Cheng is the biggest winner at the Annual Meeting of the Taiwan Association of Obstetrics and Gynecology, because his two students obtained the first and second awards of the 2015 Hsu Chien-Tien Cancer Foundation Outstanding Research Paper Award in this year. The copper award winner is Dr Keng-Fu Hsu, for his research paper entitled “Overexpression of the RNA-binding proteins Lin28B and IGF2BP3 (IMP3) is associated with chemoresistance and poor disease outcome in ovarian cancer” [3]. All winners received their awards at the Annual Meeting of the Taiwan Association of Obstetrics and Gynecology on March 5 and 6, 2016, held in Taipei, Taiwan.

Of these three papers, two articles focused on chemoresistance and worse outcomes in ovarian cancers, and the other focused on tumor invasion and worse outcome in endometrial cancer (EC). Epithelial ovarian cancer (EOC) and EC have become two of the most important gynecological cancers in Taiwan [4,5]. The characteristic of tumor behavior, including chemoresistance, is a key factor for failure during cancer treatment. Therefore, there are thousands of papers available on this topic. Dr Chiang found that CHI3L1 (chitinase 3-like 1, and its product, YKL-40) could be a prognostic biomarker for EOC, because the overexpression of CHI3L1 was associated with high-grade cell type, such as serous histological type, advanced stage, and chemoresistance. In addition, patients with high CHI3L1 expression had a high risk of recurrence and death, contributing to a shorter progression-free survival (PFS) and overall survival (OS) [1]. The possible mechanism of CHI3L1 for chemoresistance might be mediated through upregulating Mcl-1 (myeloid cell leukemia-1) [1]. Dr Hsu found that EOC patients with elevated expression of the human high-affinity copper transporter 1 (hCTR1) and low expression of insulin-like growth factor (IGF) 2 messenger ribonucleic acid (mRNA)-binding protein 3 (IMP3) and lin28B had better PFS [3]. In the same year, Dr Cheng published an interesting article entitled “Insulin-like growth factors inhibit dendritic cell-mediated antitumor immunity through regulating extracellular signal-regulated kinase (ERK)1/2 phosphorylation and p38 dephosphorylation” and found that patients with advanced-stage EOC had higher IGF-1 and IGF-2 concentrations in their ascites compared with patients with early-stage EOC, and these increased IGFs would suppress dendritic cell’s maturation, and the underlying mechanism might be mediated through the dephosphorylation of ERK1/2, protein kinase B (Akt), and p38 mitogen-activated protein kinase (p38MAPK) molecules [6]. Dr Huang reported that urokinase-type plasminogen activator (uPA) was the only independent poor prognostic factor for disease-free survival in patients with endometrial endometrioid carcinoma, and the underlying mechanism of uPA enhancing tumor migration, invasive capabilities of endometrial tumor cells, might be mediated through the phosphorylation of ERK1/2, Akt, and p38MAPK molecules [3].

Besides the above-mentioned papers [1–3], last year there were also many excellent works for female cancer research. For example, Dr Yi-Hui Wu, supervised by Professor Cheng-Yang Chou, published an excellent article entitled “COL11A1 confers chemoresistance on ovarian cancer cells through the activation of Akt/c/EBPβ pathway and PDK1 stabilization,” and the authors found that collagen type XI alpha 1 (COL11A1) is a chemotherapy response-associated gene, and EOC patients with high COL11A1 mRNA levels are significantly associated with poor chemoresponse and worse outcome [7]. In fact, Dr Chou is currently involved in even more research projects in gynecological cancers [3,7,8].

Other research works in Taiwan are also impressive. For example, Professor Eing-Mei Tsai (Kaohsiung Medical University Hospital) found that breast cancer patients with lower serum levels of microRNA-125a-5p had higher tumor grade, more lymph node metastases, and larger tumor size, and finally a shorter survival compared with long-term survivors [9]. Dr Chi-Mu Chuang (Taipei Veterans General Hospital) modified the drug-transport system to...
show the promising results that peptide-conjugated nanoparticles demonstrated better tumor endocytosis and time-dependent gradual increase of intracellular drug uptake than nontargeting liposomal nanoparticles [10]. Professor Angel Chao (Chang Gung Memorial Hospital) found that brain-specific angiogenesis inhibitor 1 (BAI1)-associated protein 2-like 1 (BAIAP2L1), also known as in-sulin receptor tyrosine kinase substrate (IRKTS), contributed to the intraperitoneal metastases of EOC patients, because BAIAP2L1 protein expression in metastatic lesions was higher than the corresponding primary tumors [11]. Professor Po-Hui Wang (Chang Shan Medical University) found that patients with cervical cancer with positive voltage-dependent anion channel 1 (VDAC1) immunoreactivity exhibited deep stromal invasion (>10 mm in depth) and large tumor size (>4 cm in diameter), contributing to higher recurrence and poorer OS than those with negative VDAC1 [12]. Professor Hung-Cheng Lai (Taipei Medical University and National Defense Medical Center) modified the original niclosamide (poor water solubility) to nano-niclosamide (nano-NI), which showed rapid absorption (reaching the maximum plasma concentration within 5 minutes) and improved the bioavailability (the estimated bioavailability for oral nano-NI was 25%) [13]. Dr Chih-Long Chang (Mackay Memorial Hospital) used pegylated silica-core gold nanoshells in vivo with external near-infrared laser irradiation to provide a tool for future intraperitoneal hyperthermia therapy [14]. Professor Tang-Yuan Chu (Tzu Chi University and Buddhist Tzu Chi General Hospital) tried to explore the possible mechanism of malignant transformation of the fallopian tube fimbriae, and their study revealed that reactive oxygen species and mitogens in mature ovarian follicles could initiate the transformation of fimbria epithelium in the context of p53 loss, and melatonin is a potent preventive agent [15]. Dr Sheng-Mou Hsiao (Far Eastern Memorial Hospital) studied the relationship between histone H3 lysine 9 (H3K9) methylation and myometrial invasion of EC and found that C9α (H3K9 methyltransferase) might involve the myometrial invasion of EC, and the underlying mechanism might be mediated by repression of E-cadherin [16]. As editors, we also provide a platform (Taiwanese Journal of Obstetrics and Gynecology) to publish excellent research works for female cancers [17–20]. Finally, we regret that many outstanding research studies might be mediated by repression of E-cadherin [16]. As editors, we also provide a platform (Taiwanese Journal of Obstetrics and Gynecology) to publish excellent research works for female cancers [17–20]. Finally, we regret that many outstanding research studies could not be mentioned in this brief report; still, the efforts of these researchers to improve the global health of women, especially female cancers, should be applauded.

Lastly, we are pleased to congratulate all three highly accomplished doctors for having won the 2015 Hsu Chien-Tien Cancer Foundation Outstanding Research Paper Award, and we offer our great respect and admiration for our colleagues in Taiwan and thank them for their great contribution in promoting women’s health, especially in the field of female cancer research.

Conflicts of interest

The authors have no conflicts of interest relevant to this article.

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References
